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HEDGE FUND REALITY CHECK

Pension funds have increasingly turned to hedge funds in order to provide superior returns to help fund their liabilities. Have hedge funds delivered? Here, with 15 years of actual hedge fund portfolio returns net of investment costs we show that hedge fund portfolios behaved for the most part like simple equity debt blends. Gross of investment costs hedge funds beat a simple benchmark based on custom equity/debt blends by 0.97 percent on average. Net of investment costs, however, hedge funds have underperformed by -1.88 percent on average.

CEM Benchmarking

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1 Introduction

Pension funds need investment strategies with attractive risk and return characteristics to fund their liabilities. Hedge funds are increasingly popular investments which purport to fill this need, as witnessed by a 25-fold increase in hedge fund use in the CEM global database between 2000 and 2014. But have hedge fund portfolios delivered these benefits? New CEM research indicates that some did but most did not.

The reality is most hedge fund portfolios behaved like simple blends of equity and debt with unattractive returns and no risk-reducing characteristics. The primary objective of the research was to better understand how funds are investing in hedge funds by examining their portfolio structure, benchmarks, performance and costs. Results are based on a one-time survey completed by 27 leading global funds, and 15 years of CEM hedge fund data from more than 300 funds.

2 Rationale for investing in hedge funds

The top reasons given for investing in hedge funds were the potential for improved returns; diversification benefits; knowledge-sharing and learning; and access to asset classes that are otherwise hard to source and manage. Funds not investing in or divesting their hedge fund portfolios cited difficulty in scaling holdings to fund size; an unjustifiable increase in fund complexity; the extreme difficulty of achieving and sustaining alpha; and high costs.

3 Benchmarking hedge funds

CEM believes the following principles should be used in selecting benchmarks for all investment programs:

- The benchmark should be investable. An investable benchmark is “what you could have had”, a real alternative that was possible, and ideally implementable at low cost.
- It should fairly reflect available returns. Benchmarks that are too easy or too hard to beat may give undue credit for investment skill, or not give credit where it is due.
- The benchmark should have similar risks to the investment program.

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- It should be correlated to the assets it is being used to assess. A high degree of correlation indicates that the benchmark is both fair and a useful risk proxy.

3.1 Self-reported hedge fund benchmarks

Two primary types of hedge fund portfolio benchmarks were used by funds in 2014 – cash-based indexes and specialty hedge fund indexes – and both types of benchmarks suffer flaws.

Cash-based indexes were used by 33 per cent of the CEM universe, and a common example is LIBOR + 4 percent. Cash-based benchmarks are seriously flawed: the average correlation with hedge fund returns is 2 percent, the premiums are not investable, and worst of all they are very easy to beat (funds that use cash benchmarks outperform them by an average of 4.8 percent per year). Cash-based benchmarks only serve to generate random noise about performance while serving to perpetuate the myth that hedge fund portfolios are uncorrelated and have no (simple) market beta. Indeed, for funds that used cash-based benchmarks, the average correlation to simple equity/debt blends is actually 87 per cent (the median is 95 per cent; and the beta is one).

Specialty hedge fund indexes were used by 44 per cent of the CEM universe. These are commercial indexes based on either self-reported hedge fund returns that are not investable, or synthetic hedge fund replication which is easily outperformed. While specialty hedge fund indexes had a reasonable correlation of 71 per cent to hedge funds, simple equity/debt blends make superior, easy to understand hedge fund benchmarks.

3.2 CEM constructed benchmarks

In order to improve and standardize performance comparisons, CEM constructed simple, investable benchmarks consisting of customized blends of equity and debt for all CEM participants with 5+ years of hedge fund data. These custom benchmarks are specifically designed to have betas of one, and are highly correlated to hedge fund returns; the average correlation was 84 per cent and the median was 90 per cent. The average equity/debt split was 44 per cent/56 per cent and the average duration of the debt component was 5.6 years. Histograms of the correlations and equity/debt splits for the CEM universe are shown below in Figure 1A and 1B.

Figure 1A. Distribution of correlations between hedge fund net returns and custom equity/debt blend returns

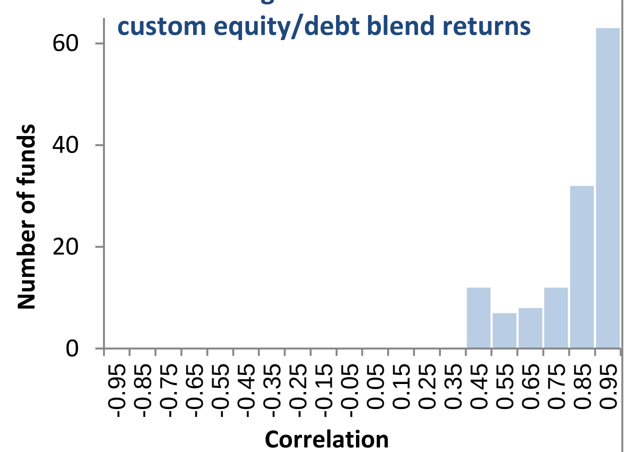
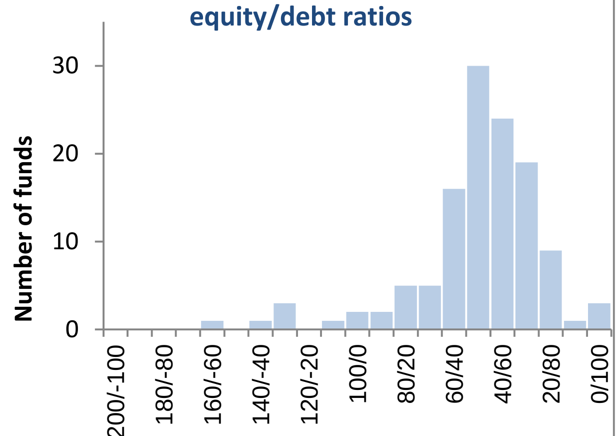


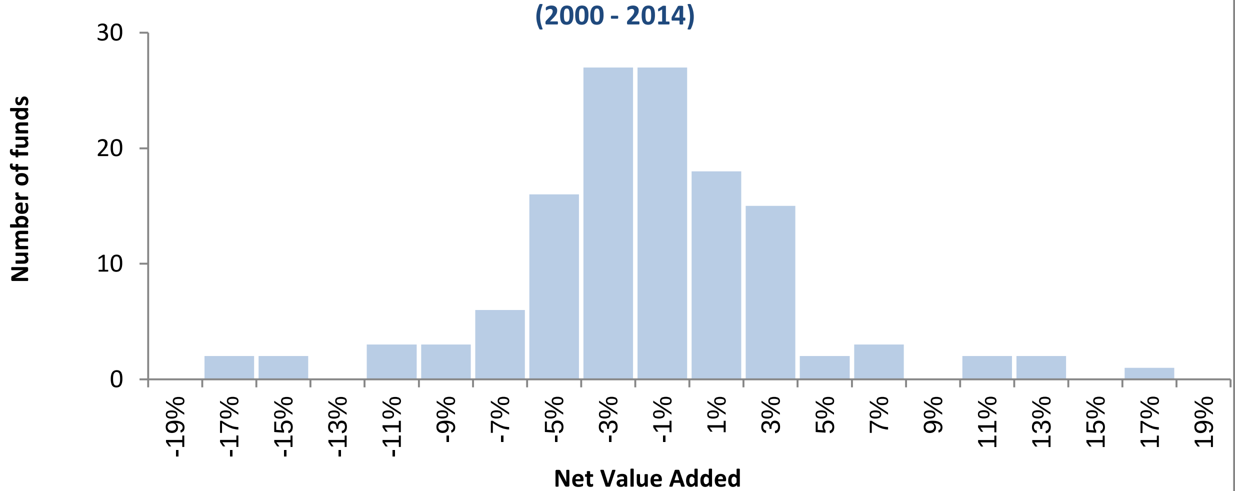
Figure 1B. Distribution of custom equity/debt ratios



3.3 Hedge fund performance

Hedge fund net value added (e.g., the difference between hedge fund net return and the self-reported benchmark return) relative to self-reported benchmarks[2] averaged -0.08 percent over the 15 years ending in 2014. This value added is, however, largely a mix of outperformance and underperformance caused by differences in benchmark choices. Average net value added based on CEM's customised, investable equity/debt blends was -1.88 percent over the same period. The database universe net value added versus the custom benchmarks histogram is shown in Figure 2.

Figure 2. Net value added from hedge funds relative to the CEM custom equity/debt benchmark (2000 - 2014)



While the average result is obviously disappointing, 30 per cent of funds did outperform their CEM custom benchmarks over 15 years.

Three characteristics shared by these outperforming funds included a long history of investing in hedge funds, hedge fund portfolios with lower correlation to CEM custom benchmarks, and implementation via lower cost direct hedge funds rather than higher cost fund of funds.

4 Cost impact

Costs matter, and high costs are the main reason why hedge funds performed poorly.

Before costs, hedge funds had positive value added of 0.97 per cent; after costs, value added was reduced to -1.88 per cent (see Table 1). On average, hedge fund costs in 2014 were 2.85 per cent for all

[2] In order to make an unbiased comparison of net value added using self-reported benchmarks with net value added using CEM custom equity/debt benchmarks, the samples used for both are constrained to those funds with 5+ years of hedge funds net returns.

implementation styles, 2.31 per cent for direct investing in hedge funds, and 3.56 per cent for fund of funds. Fund of funds performed worse than direct hedge fund investing (-2.17 per cent versus -1.66 per cent) because they were higher cost.

Table 1. Hedge fund value added before and after costs, 2000-2014

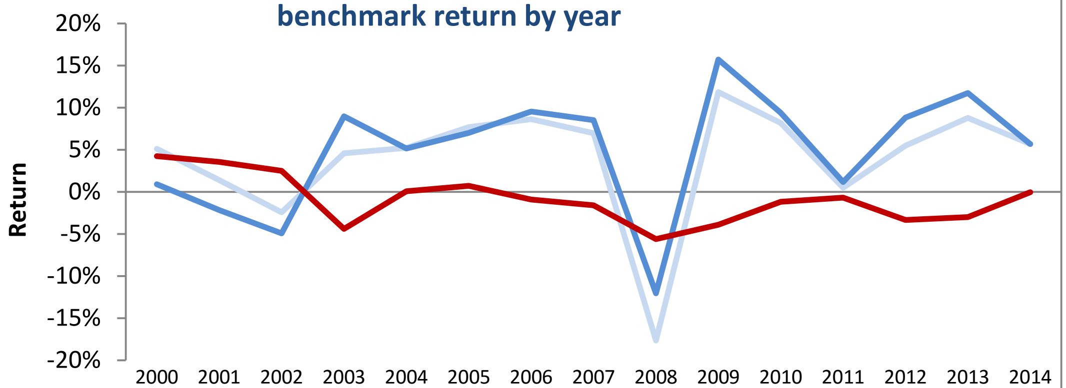
	Implementation Style		
	All hedge funds	**Direct**	**Fund-of-fund**
Gross Value Added (A)	0.97%	0.65%	1.39%
Investment Cost (B)	2.85%	2.31%	3.56%
Net Value Added (A-B)	-1.88%	-1.66%	-2.17%

5 Hedge funds and risk mitigation

Risk mitigation is an important performance attribute implied in the very name “hedge” funds. Unfortunately, hedge fund portfolios did not provide protection when it was needed during extreme market turmoil – the 2008 global financial crisis.

Figure 3 shows annual average hedge fund returns, benchmark returns, and net value added since 2000. Of the 15 years, 2008 shows the worst result over the entire period, with average net value added of -5.6 percent for hedge funds. The average global hedge fund 2008 return was -17.6 per cent, only slightly better than the average global total fund return of -21.3 per cent. (Hedge fund returns were notably better than, say, equity returns. However, as we have established, hedge funds should be compared to equity/debt blends.)

Figure 3. Average† hedge fund return and average CEM hedge fund benchmark return by year



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Hedge funds	5.1%	1.4%	-2.4%	4.6%	5.2%	7.7%	8.6%	7.0%	-17.6%	11.9%	8.2%	0.5%	5.5%	8.8%	5.7%
CEM Benchmark	0.9%	-2.2%	-4.9%	9.0%	5.1%	7.0%	9.5%	8.5%	-12.1%	15.7%	9.4%	1.2%	8.8%	11.8%	5.7%
Net Value Added	4.2%	3.6%	2.5%	-4.4%	0.1%	0.7%	-0.9%	-1.6%	-5.6%	-3.9%	-1.2%	-0.7%	-3.3%	-3.0%	0.0%

† Annual returns and net value added are expressed in local currency.

6 Key implications for pension funds

- Hedge fund portfolio benchmarks used by most funds are flawed.
- Cash-based benchmarks generate noise, not signal.
- Specialty benchmarks are somewhat better, but simple portfolios of equity and debt are superior.
- Most hedge fund portfolios behave like simple pension funds – correlations with customised equity/debt benchmarks averaged 84 per cent.
- The average equity/debt blend was 44 per cent/56 per cent.
- Costs matter: average hedge fund portfolio value added before costs over 15 years was 0.97 per cent.
- Average value added net of costs was -1.88 per cent.
- It is hard to justify typical hedge fund fees if simple equity/debt blends correlate highly and outperform them.
- Hedge fund portfolios do not appear to provide significant risk mitigation benefits, based on their poor performance in the 2008 global financial crisis.
- Only 30 per cent of hedge fund portfolios outperformed simple equity/debt blends.
- These pension funds generally had long histories with hedge funds, portfolios with lower correlation to equity/debt blends, and lower cost direct hedge funds.

Funds may not wish to apply the CEM benchmarks used in this research study; however, we believe this approach would help funds to better understand the actual risk and return characteristics of their hedge fund portfolios.

7 About CEM Benchmarking

CEM Benchmarking is a Toronto based provider of investment cost and performance benchmarking for large institutional investors including pension funds (defined benefit and defined contribution), sovereign wealth funds, buffer funds, and others. For information on benchmarking with CEM or other data inquiries please contact:

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