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<https://hfm.global/hfmweek/opinion/the-erosion-of-the-hedge-fund-edge-and-clustering-of-trades/>

## The erosion of the hedge fund edge and clustering of trades

Evidence shows that the majority of managers have become highly correlated to their benchmarks



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This paper presents new data that show how hedge funds and CTAs find themselves clustered around high correlations to their benchmarks with the unintended effect of making portfolios more beta than alpha.

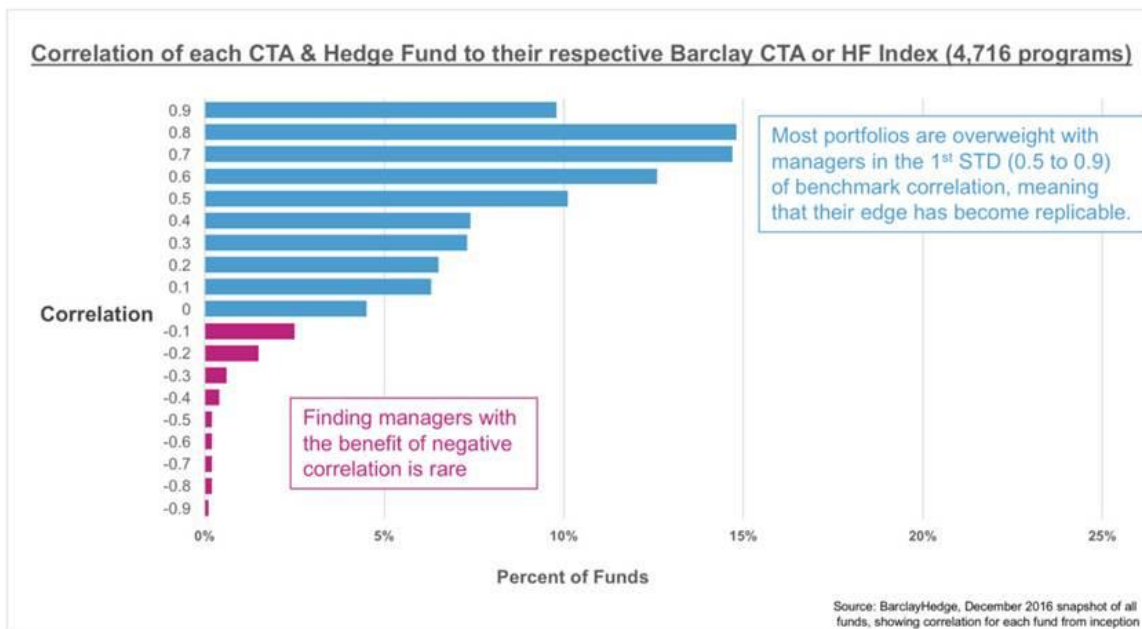
It then demonstrates how traditional allocation models can underperform in this correlated environment and suggests new ways for allocators to make better selections and, in doing so, move the industry from the broken model of "Star Managers" to one driven by "Star Allocators."

*"You have to be odd to be number one."* Dr. Seuss

Whether you are from Whoville or a hedge fund, going with the crowd does not make you stand out. And for further clarification, if you are a hedge fund, going with the crowd means that your strategy's edge is highly correlated to your benchmark. It seems every manager's pitch claims his or her fund is 'uncorrelated'. But the definition of uncorrelated is 'not correlated' and, as is evident below, the majority of managers have in fact become highly correlated to their benchmarks.

### Positive Correlation Extreme

Chart 1. Extreme Skew of Positive Correlation in Industry is Problematic



This chart is a December 2016 snapshot of correlations posted by all current 4,716 hedge funds and CTAs in the BarclayHedge database. It measures each program's correlation to its benchmark Hedge

Fund or CTA Index, since the program's inception. The widest bar has moved from +0.3 (*The Economist, May 27, 2010*) to +0.8. The highly-skewed distribution curve shows that correlations have become extreme and sheds light on why so many hedge funds don't perform as well as they used to.

Most portfolios are now overweight with these high benchmark correlation managers that are doing too much of the same thing as all the others in their sector. In doing so, the market inefficiency that their strategy originally exploited (their 'edge') will be competed away, ultimately diminishing the returns.

Additionally, this erosion of edge is not necessarily solved by finding managers that are uncorrelated to your portfolio, even though this may give the illusory bias that the portfolio is diversified. The truth is that it may be full of too many replicable managers, instead of managers with a genuine edge within their peer group. Historically, allocators measured portfolio diversification by a manager's asset class, sector, geography and timeframe. But those buckets no longer guarantee uncorrelated returns in a world full of .8 managers.

### Fees Can be a Red Herring

Managers whose edge has become replicable are the problem for the hedge fund industry and its investors. As Steve Cohen said in May 2016 "The industry has gotten crowded with too many managers following similar strategies."

Of course, when managers are as highly correlated as they are now, the only thing they have left to compete with is fees. And as fee cuts cascade across the underperforming and replicable sectors of the industry, a new trend emerges of re-allocating from high-fee to low-fee managers within a sector, which ignores the real issues of high correlation and quality of strategy edge.

### Beware of Sharpe Objects

In the scenario below we consider an Investment Committee seeking to allocate 10 percent of its portfolio to one of two new managers. The portfolio will maintain its target volatility, so if the addition of a manager reduces overall volatility, then the new portfolio will be re-levered back to the target vol.

Table 1. Investment Committee choice: Manager A or B?

<b><u>Existing Portfolio:</u></b>	
Return	9.2%
Target Volatility	9%
Sharpe Ratio	<b>1.0</b>
<b>Allocation of portfolio to new manager (A or B?)</b>	<b>10%</b>
<b><u>Manager A - who has typical positive correlation</u></b>	
Return	12.0%
Volatility	9%
Correlation to Fund	<b>0.7</b>
Sharpe Ratio	<b>1.3</b>
<b><u>Manager B - who has negative correlation</u></b>	
Return	6.0%
Volatility	9%
Correlation to Fund	<b>-0.4</b>
Sharpe Ratio	<b>0.7</b>
<b><u>New Portfolio at target vol with 10%:</u></b>	
Return of Fund with Manager A	9.7%
Return of Fund with <b>Manager B</b>	<b>10.1%</b>
Sharpe of Fund with Manager A	1.08
Sharpe of Fund with <b>Manager B</b>	<b>1.12</b>

Picking the low Sharpe manager seems counterintuitive and goes against human nature, even though the math is clear that Manager B’s negative correlation will have a better chance of improving portfolio results. Manager A has a Sharpe ratio almost twice as high as Manager B (1.3 vs. 0.7). The typical Investment Committee or consultant will select the high Sharpe manager almost every time, even though it may give other reasons for its choice.

Negative Correlation is the real Holy Grail

Table 2. Investment Committee choice: Allocating half a portfolio to a negatively correlated manager who has same annual return can increase total return by over 100%.

Correlation extremes demonstrate portfolio boost				
Portfolio's average annual return	5.8%			
New managers average annual return	5.8%			
1. Correlation to Portfolio of new managers with 5.8% return:	-1	-0.5	0	0.6
2. Portfolio return with 50% blend of new manager, run at target volatility:	17.2%	12.9%	10.4%	6.2%
3. Portfolio returns increase by:	200%	122%	79%	7%

In this second hypothetical scenario, we consider the IC examining the impact of putting half of its portfolio with a new manager. The table above shows four managers who all have the same 5.8% annual return as the overall portfolio, but each provides their return with a different level of correlation to the portfolio, through to the extreme of -1.0.

So what is gained by allocating half of the portfolio to a manager who has the same return? The answer lies solely in the correlation and is a key to portfolio success.

The table shows that allocating to the manager with -0.5 correlation results in the total portfolio return rising to 12.9% from 5.8% with no increase in risk (same target vol). And when half the portfolio is allocated to the -1.0 correlation manager, the overall portfolio return jumps to 17.2%, a 200% increase in profitability, again with no increased risk. Such is the power of negative correlation, which has long been underpriced due to its rarity.

Spotlight on Allocation

Despite the increasing correlations to their benchmarks, managers continue to characterize their returns as “uncorrelated.” Running portfolios that are full of +0.8 benchmark correlation managers, regardless of how they correlate to the portfolio, adds hidden correlation and loss of edge risk.

*“The true idea of alpha is returns that no one else can produce, that are unique to you. If you are doing something that is more known – arbitrage strategies, trend following strategies, carry strategies – that’s worth something, those are good strategies. But they are not the same as alpha that nobody else can produce.” Cliff Asness, May 2016*

Finding managers who are below the 1<sup>st</sup> standard deviation of benchmark correlation is a superior way to ensure that their alpha has an edge over their peers, which strengthens the long term diversity of portfolios. Allocators have the mandate from Investment Committees to build truly diversified portfolios and allocators, not managers, should be the stars of the future.

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