SAFE HAVEN INVESTING

WHY DO PEOPLE STILL INVEST IN HEDGE FUNDS?

January 2020

MARK SPITZNAGEL
President & Chief Investment Officer
Universa Investments L.P.

Hedge funds have had a rough run lately, so much so that hedge funds as a group are growing increasingly out-of-favor among investors.

Given how far the supposedly mighty have fallen, it raises the questions: Did their glory days ever exist in the first place, and, if so, are they really over? To be more pointed about it, are hedge funds deserving of their now-tarnished image of fee-gatherers with little benefit to the fee-payers? To answer these questions, let's do an objective and rather straightforward deep dive into what hedge funds have really done for their end users and how they've done it, in hopes of gleaning some insight into what, if anything, we should expect from them in the future.

I find it extremely helpful to start by establishing certain first principles, or ground rules, before discussing such thorny matters as portfolio construction and risk mitigation. First, the point of investing is to maximize one's wealth over time, or, equivalently, to maximize the rate at which one compounds wealth over time (one's "geometric mean return", or "compound annual growth rate" [CAGR]). This has been variously referred to over the years as

a “geometric mean maximizing strategy” or the “Kelly criterion”. Second, the point of risk mitigation is, by extension, the very same.

Surprisingly, these two principles can be a little controversial, as they run contrary to the teachings of Modern Portfolio Theory, which tries to have us all believe that investing and risk mitigation are actually about lowering (or optimizing) a portfolio’s volatility relative to its mean return (the Sharpe ratio). Doing so, such as by adding a hedge fund as an “uncorrelated source of return” to a portfolio, can often also lower that portfolio’s CAGR. But fear not—investors can always, with extreme irony, employ portfolio leverage to boost their CAGRs and snatch victory from the jaws of defeat by miraculously preventing their risk mitigation strategy from making them poorer. Regrettably, the math just isn’t that simple in practice: CAGRs don’t rise ergodically with leverage, thanks to the “volatility tax”.

The only other possible justification for lowering a portfolio’s volatility at the expense of its returns is when doing so would protect against some frightful existential threat, e.g., a “black swan event” that, should it ever materialize, would lower those returns even more. But what if that “event” never materialized? Would the pain of lower returns anyway have been worth it? Nevertheless, I am quite certain that the typical hedge fund allocator is not using a “black swan” justification; what’s more, I do not think they ever could, given the hedge fund industry’s generally scary performance back in 2008.

Lastly, we can all agree that the purpose of hedge funds is to provide risk mitigation value to a portfolio with presumed otherwise undiversifiable systematic risk. (But if our very premise of risk mitigation has been wrong, how can we expect to have ever gotten hedge fund investing right?)

Putting that all together, the way to gauge hedge funds’ success is through the risk mitigation value they add to a portfolio. We need to gauge their “portfolio effect”; that is, **whether or not they have raised the geometric mean returns of their end users’ entire portfolios by mitigating their systematic risk.** As I have often said and written, this is all that really matters in risk mitigation. It is where the rubber meets the road. All risk mitigation strategies should aim to do it, but, as we shall see, it happens to be a really hard thing to do.

To explore this point, let’s start with a portfolio of basically pure systematic risk (the S&P 500, or more specifically the SPX index), and move 25% of that portfolio into a range of hedge funds (as well as, alternatively for comparison purposes, into bonds) and see what we get. (Note that 25% is a fairly arbitrary allocation size here, chosen to be realistic, and isn’t deterministic to our results.)

As proxies, we’ll use the data from ten generally accepted hedge fund indices since 1990, giving us thirty years of data[1]. I will refer to hedge funds as a group by the range of these indices. They are: HFR Fund of Funds Composite, HFR Equity Hedge Total, HFR Fund Weighted Composite, HFR Macro Total, HFR Event-Driven Distressed/Restructuring, HFR Equity Hedge Equity Market Neutral, HFR Fund Of Funds Diversified, HFR Event-Driven Total, HFR Fund Of Funds Conservative, and BarclayHedge CTA Index. Keep in mind that these indices suffer from survivorship and selection bias, and thus their returns are systematically biased high, but we needn’t concern ourselves too much with the extent of these issues here.

In addition, I will refer to “bonds” by the constant maturity 30-year US Treasury Bond.

EVALUATING THE EFFECTIVENESS OF HEDGE FUNDS

		Start of Period			
	CAGR through 2019	**1990**	**1990 (ex 2000-02)**	**2008**	**2010**
	SPX	10.0%	13.1%	9.1%	13.6%
Outperformance vs SPX	**HEDGE FUNDS**	-5.4% to +1.0%	-8.8% to -1.0%	-7.9% to -5.2%	-12.8% to -8.6%
	75 SPX / 25 HEDGE FUNDS	-1.0% to +0.4%	-1.9% to -0.2%	-1.9% to -1.2%	-3.1% to -2.1%
	75 SPX / 25 BONDS	+0.1%	-1.1%	+0.3%	-1.5%

Since 1990, our hedge fund group performance versus the SPX ranged from -5.4% to 1.0% annualized. Performance of a 75% SPX + 25% hedge fund portfolio (henceforth the "hedge fund protected portfolio") compared to the SPX alone ranged from -1.0% to 0.4% (5 out of the 10 actually added value). By comparison, a 75% SPX + 25% bond portfolio (henceforth the "bond protected portfolio") outperformed the SPX by 0.1%. A very mixed result, to be sure, but perhaps it's fine since most allocators will claim great skill in selecting the best hedge funds and hedge fund strategies (the "Lake Wobegon" effect among hedge fund allocators). Let's give them the benefit of the doubt in that.

Just how did hedge funds achieve those 30-year results? It turns out that if you remove the period from 2000 to 2002 (when our hedge fund group cumulatively made from 4.4% to 23.4%, while the SPX lost 37.6%), since 1990 our hedge funds would have underperformed the SPX by from 1.0% to 8.8% annualized. Hedge funds were a drag of from 0.2% to 1.9% within a hedge fund protected portfolio, compared to the SPX (0 out of the 10 added any value). The bond protected portfolio underperformed the SPX by 1.1%.

What this means is that, **since 1990, our hedge funds' range of value-added came from the risk mitigation that they provided in 2000-2002**. Whether we call this "crash-alpha" or "crash-beta," outside of what they did from 2000-2002, none of our hedge-fund indices moved the needle through any observable edge. Okay, we'll give them that—because this is actually how risk mitigation is supposed to work. In that, hedge funds represented a risk mitigation cost to portfolios when the markets weren't plunging—sort of like paying an insurance premium.

As long as that premium cost was less than the benefit of the insurance to a portfolio during a plunge, then the risk mitigation added to the wealth of the portfolio over time. Otherwise, what was the point?

And, by the way, there were cheaper ways to spend that insurance premium (like on bonds, for instance).

To make matters worse, since 2008, our hedge funds have underperformed the SPX by from 5.2% to 7.9% annualized and were a drag of from 1.2% to 1.9% within a hedge fund protected portfolio, compared to the SPX (0 out of the 10 added any value). Meanwhile, the bond

protected portfolio outperformed the SPX by 0.3% (bravo!). And, over the last 10 years (since 2010), hedge funds have underperformed the SPX by from 8.6% to 12.8% annualized, and were a drag of from 2.1% to 3.1% within a hedge fund protected portfolio, compared to the SPX (once again, 0 out of the 10 added any value). The bond protected portfolio underperformed the SPX by 1.5%—despite an historic QE-induced run-up in bonds over the period. (It was indeed a tough run, even for Lake Wobegon allocators.)

Therein lies the real rub: Even when hedge funds did well during periods of steep systemic losses, it wasn't enough to make much of an overall difference unless they made up a very large percentage allocation in a portfolio. But such a large allocation would mean their underperformance the rest of the time really hurt.

Hedge funds either needed to make more during crashes (a bigger "crash-bang-for-the-buck") or do better the rest of the time. That's the fundamental yin-yang tradeoff of effective risk mitigation: the bigger the former, the less capital allocation is needed for a given amount of protection, and thus the less the latter even matters. The smaller the former, the more capital allocation is needed for a given amount of protection—and thus the more the latter really, really matters to the point of being a drag that undermines the whole thing.

But since 2008, hedge funds have made even less in crashes (hedge funds' performance ranged from -26.7% to 14.1%, compared to the SPX's -37% in 2008, while a hedge fund protected portfolio lost from 24.2% to 34.4%) and underperformed even more in non-crashes. Hedge funds are, to paraphrase Peter Lynch, "diworsifiers".

Hedge funds would appear to have lost whatever ability they may have once had to provide risk mitigation value (which, let's face it, wasn't very much). Hedge funds just don't effectively hedge anything; worse yet, perhaps they have even lost sight of that very objective in the first place. They are without a purpose.

Whatever the case may be, the numbers don't seem to add up anymore. The risk mitigation tradeoff is not there. This begs the question: What sort of value can we expect hedge funds to add?

Moreover, why do people still invest in hedge funds? Call me a hedge fund manager apostate, as, given the evidence, I do not know.

[1] The data is preliminary, as of Jan 9, 2020. No realistic data point for December can meaningfully change the results or message of this paper.

IMPORTANT DISCLOSURES

This document is not intended to be investment advice, and does not offer to provide investment advice or sell or solicit any offer to buy securities. Universa does not give any advice or make any representations through this document as to whether any security or investment is suitable to you or will be profitable. The discussion contained herein reflects Universa's opinion only. Universa believes that the information on which this document is based is reliable, but Universa does not guarantee its accuracy. Universa is under no obligation to correct or update this document.

Neither Universa nor any of its partners, officers, employees or agents will be liable or responsible for any loss or damage that you may incur from any cause relating to your use of these materials, whether or not the circumstances giving rise to such cause may have been within Universa's or any other such person's control. In no event will Universa or any other person be liable to you for any direct, special, indirect, consequential, incidental damages or any other damages of any kind even if such person understands that these damages might occur.

The information shown in the figure on page 3 is purely illustrative and meant to demonstrate at a conceptual level the differences among different types of risk mitigation investment strategies. None of the information shown portrays actual or hypothetical returns of any portfolio that Universa manages.