Perspectives

Rebuffed: A Closer Look at Options-Based Strategies

March 21, 2025

I'm not the only one at AQR who gets worked up about silliness in the industry. My partner Dan Villalon takes aim at options-based strategies below—what they claim to be (a free lunch); and what they actually are (a bad deal). Take it away, Dan.

The holy grail for many investors is a strategy that generates market-like returns, but with less risk. Enter options-based strategies, often labeled with words like "Buffered," "Overlay," and "Defined Outcome."[1] These strategies use options to capture the upside or downside of an asset's returns, and managers who employ a mix of options can tailor an asset's risk/return profile to align with an investor's goals. It's no surprise, then, that Morningstar's options trading-related categories[2] have amassed $234 billion.[3]

However, investors should expect disappointment from these types of strategies. This is not only because actual results have been overwhelmingly disappointing, but also because economic theory says these strategies should be overwhelmingly disappointing. This note looks at both perspectives. Let's start with the data.

Have Options-Based Strategies Delivered?

The conventional wisdom—or at least the conventional sales pitch—is these strategies provide an investor with equity market participation, but with less of the downside. That is eminently doable using options. But, of course, the rub is that it doesn't come for free: in exchange for some of this downside protection, these strategies should be expected to trail the broad market.

Let's see how they did.

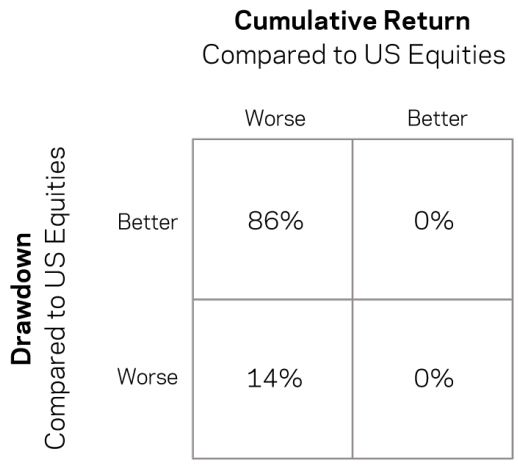
Of the 624 funds in these options-related Morningstar categories, we look at the 99 that have histories going back to January 2020. For these 99 funds we ask two questions:

1. Did their cumulative returns exceed that of passive US equities (proxied by the S&P 500 Index)?[4]
2. Were their worst drawdowns less severe than that of passive US equities?

The answer to Question 1 is no. Exhibit 1 shows that every one of these funds delivered lower returns than the equity market. For Question 2 we have good news: most (86%) of these funds had smaller drawdowns than the market. Batting 1-for-2 may sound like a reasonable deal to investors, as these strategies often (it should be always!) explicitly state that they give up some upside in exchange for protecting investors' downside.

Exhibit 1: Comparison to Passive US Equities

January 1, 2020 – January 31, 2025



Source: AQR, Morningstar. The universe used is all funds in the Morningstar Equity Hedged (Global Category Options Trading), Defined Outcome, or Derivative Income categories with returns available from January 1, 2020, to January 31, 2025. There are 99 funds meeting these criteria as of January 31, 2025. "Better" and "Worse" indicate each fund's performance in the either metric (total cumulative return or worst drawdown over the period) relative to the S&P 500. Chart shows percent of funds in the universe fitting into each possible scenario. We use the manager-defined oldest share class for each fund. All returns are net of fees as reported to Morningstar and denominated in USD. Past performance does not guarantee future results. For illustrative purposes only.

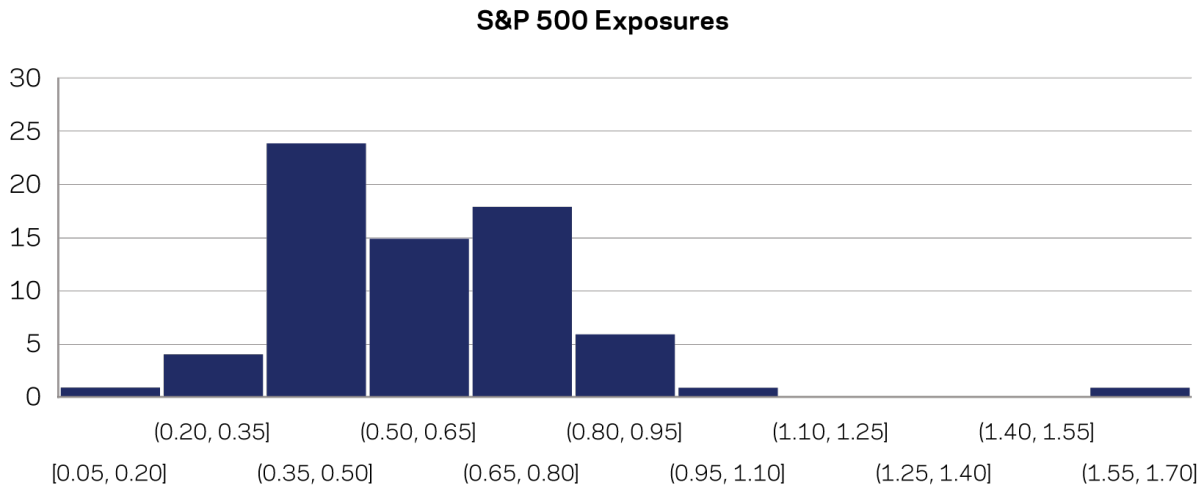
But…

…There are simpler ways to get returns that are lower than equities with less risk. For example, instead of putting $100 in the market, an investor could invest only $70 and put the other $30 in Treasury Bills.[5] Presumably, if this simpler approach were more effective than options-based strategies (either via 1. higher returns, 2. less risk, or 3. higher returns with less risk), an investor would prefer it.

The $234-billion-dollar question is whether funds that are marketed as offering downside protection deliver it better than simply having less exposure to equities. Let's revisit performance through this lens. For each fund, we measure its equity market "beta," or average exposure to the equity market.[6] Exhibit 2 shows the distribution of these betas, showing clearly that one of the ways in which these strategies have delivered less risk is simply by having less exposure to the market.

Exhibit 2: Equity Market Exposures

January 1, 2020 – January 31, 2025



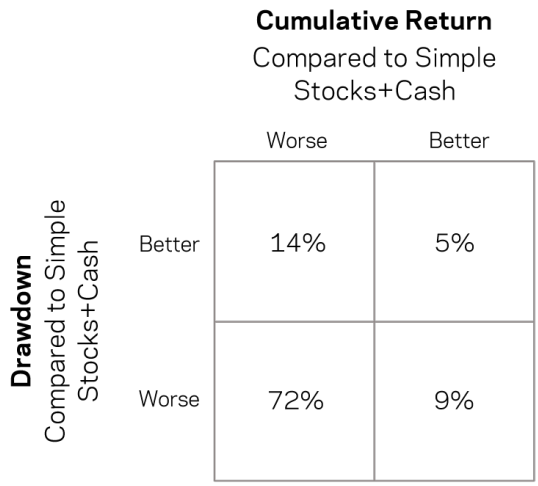
Source: AQR, Morningstar. The universe used is all funds in the Morningstar Equity Hedged (Global Category Options Trading), Defined Outcome, or Derivative Income categories with returns available from January 1, 2020, to January 31, 2025. There are 99 funds meeting these criteria as of January 31, 2025. For each fund, S&P 500 exposure is defined as the beta from a univariate regression on the S&P 500 Total Return Index over this period. Chart shows number of funds with S&P 500 exposure falling into the histogram bucket ranges. We use the manager-defined oldest share class for each fund. All returns are net of fees as reported to Morningstar and denominated in USD. Exposures are subject to change at any time without notice. Past performance does not guarantee future results. For illustrative purposes only.

We now compare each fund's returns to that of a strategy that simply matches its average equity exposure via a passive index and invests the rest in T-bills. The results are presented in Exhibit 3, which reveals a starkly different conclusion than in Exhibit 1. Now instead of the vast majority of funds underperforming equities but with less risk (i.e., batting 1-for-2), more than two thirds of all funds deliver lower returns with more risk than a simple combination of passive equities and T-Bills (i.e., 0-for-2).

What about risk mitigation? In Exhibit 1, 86% of all funds had smaller drawdowns than the market. But, now that we compare to a more appropriate benchmark, the story is flipped — 81% have *worse* drawdowns than the simple "passive equity plus cash" combination (bottom row). And, even comparing to this easier benchmark (as holding T-bills should be, and has been, a drag on long-term returns), only 14% beat this watered -down stock market portfolio.

Exhibit 3: Hypothetical Comparison to Passive Equity + Cash Mix

January 1, 2020 – January 31, 2025



Source: AQR, Morningstar. The universe used is all funds in the Morningstar Equity Hedged (Global Category Options Trading), Defined Outcome, or Derivative Income categories with returns available from January 1, 2020, to January 31, 2025. There are 99 funds meeting these criteria as of January 31, 2025. For each fund, we construct a benchmark strategy that matches the fund's passive equity exposure by investing in the S&P 500 with the fund's realized equity beta (over the period) as the portfolio weight, and the remaining weight (1 – equity beta) into US 3M T-Bills. "Better" and "Worse" indicate each fund's performance in the either metric (total cumulative return or worst drawdown over the period) relative to its beta-matched benchmark strategy. Chart shows percent of funds in the universe fitting into each possible scenario. We use the manager-defined oldest share class for each fund. All returns are net of fees as reported to Morningstar and denominated in USD. No representation is being made that any investment will achieve performance similar to those shown. For illustrative purposes only and not representative of a portfolio AQR currently manages. Past performance does not guarantee future results.

By and large, options-based strategies have not been effective tools to achieve better risk/return outcomes. And this is unlikely some fluke of the past five years. Economic theory would argue investors should have expected this result, and that they should going forward, too.

Show Me the Theory

At the heart of the strategies examined here are put options.[7] The way puts work is straightforward: the investor pays some amount (the option premium) to protect themselves from a specific decline in a specific asset's price over a specific period.[8] There's one wrinkle though: when it comes to buying puts, the price of admission is generally higher than the benefit.[9] This is true regardless of whether markets appear riskier than normal or less-risky than normal (i.e., whether the prices of these options are higher or lower than normal).[10]

Most options-based fund managers know about this headwind all too well. So rather than simply *buying* puts over and over, they might *sell* other options (puts or calls) to generate some income to offset the cost of the puts. There are a bewildering number of put/call combinations managers can create, made even more complicated by the terms used to describe them.[11] Alas, as shown in the first column of Exhibit 3, even these complications don't make for better or – compared to the right level of equity exposure – even safer returns.[12]

But let's say an investor is less concerned with long-term returns, and more concerned with shorter-term drawdowns. Surely options-based strategies should at least help there, since a put option is literally tailor-made for this task.

Nope.

Puts are designed for very specific outcomes – they protect against a specific price level for a specific length of time. If the duration of the drawdown doesn't align with the maturity of the option, the hoped-for protection won't be there.[13] This is why a strategy that buys 5% out-of-the-money puts every month can have a drawdown that's worse than 5% – markets might fall by 4% in one month, and by another 4% the next so the options you paid for never pay you.[14] And this is a reason 81% of the funds in Exhibit 3 weren't able to deliver on the seemingly easy goal of downside protection (again, compared to an applicable mix of equities plus T-bills).

Let's wrap up this theory section with a practical guide for thinking about options-based strategies:

1 Options are designed to reshape an asset's return distribution for a specific period.

2 Over multiple periods, the shape you want is almost certainly not going to be the shape you get.[15]

3 You should expect to pay through the nose for it: the cost of trading options, the option premium, and the manager's fees.[16]

Investors Have Better Options than Options Strategies

This note has focused on a single comparison: if you're concerned with equity risk, are you better off a) using options or b) simply reducing your exposure to equities?[17] Obviously we believe, based on both theory and realized fact, that option b) is likely to be the better choice.[18]

But investors have more choices than just these two. In fact, we think the best choice might be Option C: diversify better. Any strategy that offers positive risk-adjusted returns that are diversifying to equities is a candidate for improved portfolio outcomes. When looking to address equity risk, we think investors should look past the Morningstar categories covered in this note, and toward some of the other alternatives.[19]

To be blunt, these "buffered funds" are a marketing success, a success for the managers selling them, and a failure for investors lured in by the overpromise of magical equity returns without equity risk and then overcharged for the pleasure.

---

[1] And well-described by the WSJ as "Boomer Candy."

[2] Includes all funds in the Equity Hedged (Global Category Options Trading), Derivative Income, and Defined Outcome Morningstar Categories. We use the manager-defined oldest share class for each fund. All returns are net of fees and denominated in USD.

[3] Summed across funds active as of February 24, 2025.

[4] Note: even though US equities tends to be the most common benchmark, our analysis against global equities yields similar conclusions.

[5] It doesn't have to be cash, of course. Investors might instead choose to allocate to bonds or TIPS or diversifying alternatives (ideally ones that are actually uncorrelated to stocks, so that they don't add more equity risk).

[6] For example, if beta is 0.7, then it means the fund, on average, had 70% exposure to equity market risk.

[7] We believe this applies to most of the funds that pass our filters but we cannot be certain it applies to all.

[8] The tedious repetition of "specific" will pay off in a couple paragraphs.

[9] See for example Ilmanen (2012), Ilmanen (2013), and Ilmanen et al (2020). If many investors are especially worried about large steep market drawdowns, this will be priced in the market and can cost even more than simple/linear beta reduction.

[10] As shown in Israelov (2015).

[11] E.g., Straddles, strangles, collars, calendar spreads, diagonal spreads, and butterfly spreads. In credit markets, there's the "Iron Condor"; we have yet to come across the legendary Iron Butterfly.

[12] See for example Israelov (2014).

[13] See Israelov (2017).

[14] This 8% drawdown is ignoring addition costs from actually buying the put options in the first place (options are expensive to trade) and the fees charged by the manager for providing (well, claiming to provide) this magical downside protection.

[15] Both because options are generally expensive and also from the timing of buying them. For example, two managers buying the same put/call combinations, but on different rebalancing schedules can have surprisingly large differences in returns, as shown in Braun et al (2023).

[16] The complexity of these products makes it easy for managers to charge hefty fees for the dubious service of "customizability."

[17] This doesn't have to be by lowering your equity allocation per se; you could also tilt an existing allocation more to "defensive" or higher-quality names, as shown, for example in Asness, Frazzini and Pedersen (2018).

[18] This is even before taking taxes into account—a topic for another day.

[19] This is about as "salesy" as we'll get in this note. Oh, and no, illiquidity is not the kind of "other alternative" we mean here.

This document has been provided to you solely for information purposes and does not constitute an offer or solicitation of an offer or any advice or recommendation to purchase any securities or other financial instruments and may not be construed as such. The factual information set forth herein has been obtained or derived from sources believed by the author and AQR Capital Management, LLC ("AQR") to be reliable but it is not necessarily all-inclusive and is not guaranteed as to its accuracy and is not to be regarded as a representation or warranty, express or implied, as to the information's accuracy or completeness, nor should the attached information serve as the basis of any investment decision. This document is not to be reproduced or redistributed to any other person. The information set forth herein has been provided to you as secondary information and should not be the primary source for any investment or allocation decision. Past performance is not a guarantee of future performance. Diversification does not eliminate the risk of experiencing investment losses.

Hypothetical performance results have many inherent limitations, some of which, but not all, are described herein. No representation is being made that any fund or account will or is likely to achieve profits or losses similar to those shown herein. Hypothetical performance results are presented for illustrative purposes only.

This material is not research and should not be treated as research. This paper does not represent valuation judgments with respect to any financial instrument, issuer, security or sector that may be described or referenced herein and does not represent a formal or official view of AQR. The views expressed reflect the current views as of the date hereof and neither the author nor AQR undertakes to advise you of any changes in the views expressed herein.

The information contained herein is only as current as of the date indicated, and may be superseded by subsequent market events or for other reasons. Charts and graphs provided herein are for illustrative purposes only. The information in this presentation has been developed internally and/or obtained from sources believed to be reliable; however, neither AQR nor the author guarantees the accuracy, adequacy or completeness of such information. Nothing contained herein constitutes investment, legal, tax or other advice nor is it to be relied on in making an investment or other decision. There can be no assurance that an investment strategy will be successful. Historic market trends are not reliable indicators of actual future market behavior or future performance of any particular investment which may differ materially, and should not be relied upon as such. Diversification does not eliminate the risk of experiencing investment losses.

This information may contain projections or other forward-looking statements regarding future events, targets, forecasts or expectations regarding the strategies described herein, and is only current as of the date indicated. There is no assurance that such events or targets will be achieved, and may be significantly different from that shown here. The information in this document, including statements concerning financial market trends, is based on current market conditions, which will fluctuate and may be superseded by subsequent market events or for other reasons.

Broad-based securities indices are unmanaged and are not subject to fees and expenses typically associated with managed accounts or investment funds. Investments cannot be made directly in an index.

The S&P 500 Index is the Standard & Poor's composite index of 500 stocks, a widely recognized, unmanaged index of common stock prices.

The Equity Hedged (Global Category Options Trading) Morningstar Category includes funds that typically provide hedged equity exposure using options and, at times, other derivative instruments. Strategies in this category have open-ended investment horizons, can incorporate a more variable degree of hedging and deliver more variable outcomes.

The Derivative Income Morningstar Category includes funds that primarily use an options overlay to generate income while maintaining significant exposure to equity market risk. Income is typically generated through covered call writing strategies, for example, while traditional equity risk factors dictate a substantial portion of the return. Funds in the category will typically have beta values to relative benchmarks of between 0.6 and 0.9.

The Defined Outcome Morningstar Category includes funds that deliver investors a predefined range of outcomes over a set period. This range is determined by equity market performance and the options contracts that underlie each fund.

© Morningstar 2025. All rights reserved. Use of this content requires expert knowledge. It is to be used by specialist institutions only. The information contained herein: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied, adapted or distributed; and (3) is not warranted to be accurate, complete or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information, except where such damages or losses cannot be limited or excluded by law in your jurisdiction. Past financial performance is no guarantee of future results.