Resurgent equity market volatility: friend or foe?

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- The first quarter of 2018 ushered in a dramatic reversal of the ultra-low volatility levels in equity markets witnessed in 2017. In Parametric's view, higher volatility is very likely to be the norm rather than the exception in future quarters.
- The prospect of a material drawdown impacting an equity portfolio often prompts investors to consider buying protection via long option positions. However, hedging can be a challenging and often futile undertaking.
- Investors have a workable alternative. Instead of owning a fully invested portfolio and hedging it, they could own less risk and be the seller of the hedge.
- Parametric offers a global defensive equity strategy that aims to reduce downside equity market risk while still working toward the same long-term wealth endpoint as the more volatile MSCI All Country World Index (MSCI ACWI).
- This increasingly popular derisking strategy swaps out some of the less persistent equity risk premium in the underlying portfolio for cash equivalents and then generates additional return by selling fully collateralised equity index put and call options.

Introduction

In many ways, 2017 was the ideal market environment for global equity investors – a placid sea, if you will. The MSCI ACWI Net Total Return Index (USD), for example, produced a total return of 24.05%. Yet, as impressive as this was, even more impressive was that the index produced a positive return for every calendar month – and it did so in an environment of lower-than-expected volatility. Whereas the MSCI ACWI typically exhibits volatility in the 15% to 18% range, in 2017, the index's one-month rolling realised volatility ranged between just 3% and 8%.

The suppressed volatility levels may have been a result of accommodative monetary policies in the United States, the United Kingdom, Europe and Japan that provided a significant tailwind in 2017 for equity investors. US tax cuts added more momentum to the market, helping push global stocks to a strong finish at year-end. So where does volatility go from here?

Much like a sailor can look at wind conditions, water depth and coastal topology to predict future sea conditions, we can look at developments in the macroeconomic environment and see that changes in equity volatility are likely. Although we at Parametric Portfolio Associates LLC (Parametric) don't attempt to predict the future, we do believe volatility will return to more "normal" levels in the coming quarters. There's simply too much uncertainty in the world to sustain the placid equity market we witnessed in 2017. The ultra-low volatility we experienced last year is unlikely to return soon.

Volatility's comeback

The first quarter of 2018 was a dramatic reversal of 2017. After hovering below 8% for all of 2017, realised one-month ACWI volatility jumped up closer to 18% in February and finished the quarter near 13%, as seen in Exhibit A.

What is causing this rise in volatility? And will it last? Obviously there are many factors that drive equity markets, including economic growth and inflation expectations. However, this year the most notable factor is the slow reversal of quantitative easing globally and the movement toward the "normalisation" of monetary policy.

Exhibit A **Realised MSCI ACWI volatility.**

Sources: Parametric and Bloomberg as of 31 March 2018.

If quantitative easing provided a tailwind for equity investors, it seems reasonable to argue that its reversal will create a headwind. As a result, we don't believe we'll see a transition back to the low-volatility environment of 2017 anytime soon. A far more likely outcome for investors is that the volatility we experienced in the first quarter of 2018 will be more the norm rather than the exception. In short, investors need to be prepared for rougher seas ahead.

Navigating choppier waters

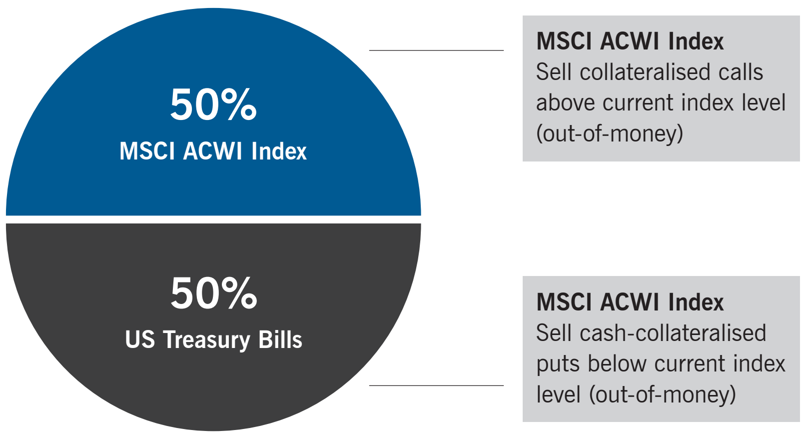
Increased volatility, erratic markets, more uncertainty – what's an investor to do? Frequently, an increase in volatility leads to talk of hedging. Investors hope that by purchasing protection through a long option position, they can reduce the potential for a material drawdown on the portfolio. However, hedging has a cost: over time, it reduces a portfolio's return. What's more, hedging brings with it many complex decisions. For example, when to enter and exit the hedge? How to pay for the hedge – write a cheque or sell another option? The answers to these questions are unique for each investor. They can be a struggle to address, and they may change over time. For these reasons, hedging can be a challenging and often futile undertaking for many investors.

There's another potential solution for investors to consider, however. What if you approached hedging from a different angle and changed your view on volatility – what if you saw it as friend rather than foe? Instead of owning a fully invested MSCI ACWI portfolio and hedging it in an attempt to manage risk, we recommend that investors who are concerned about volatility actually own less risk and be the seller, not the buyer, of the hedge. Exhibit B shows how such a portfolio might be structured.

This portfolio – mirroring the dedicated construct at the heart of our customisable global defensive equity strategy – has two key return drivers: a "derisked" equity portfolio (shown in the circular part of the diagram) and an option selling programme (see the right hand side of diagram) intended to generate additional income.

Exhibit B shows how the derisked equity portfolio is created. Fifty percent of the global equity component is replaced with a low-risk cash-equivalent position. This base portfolio has half the risk of a fully invested global equity

Exhibit B **A derisked global equity portfolio harnessing a diversifying, alternative risk premium.**



Source: Parametric as of 31 March 2018. Options are fully collateralised (no leverage), "out-of-the-money" at initiation, approximately one-month term and typically cash settled. OTC options may be used for non-US options. For illustrative purposes only. All investments are subject to loss. It is not possible to invest directly in an index. Information subject to change.

portfolio, but also only half the expected excess return. To recoup the excess return lost by halving the portfolio's equity exposure, we sell short-dated out-of-the-money index options on top of the portfolio. These options are:

- Short-dated in term – typically one month to maturity
- Indexed to volatility – in low-volatility environments options are struck closer to the money and in high-volatility environments they're struck further out-of-the-money
- Fully collateralised by the assets of the portfolio – equity collateralises the short index calls and cash collateralises the short index puts

By systematically selling the index options, we can harvest a unique and diversifying risk premium known as the volatility risk premium, or VRP. The VRP is frequently thought of as an insurance premium that option buyers with a clearly defined range of outcomes pay to option sellers who have a less clearly defined range of outcomes. The existence of the VRP makes it more costly to buy options. In fact, it is the reason hedging, or the systematic purchase of options, has a long-term expected cost.

This approach to portfolio construction can result in similar long-term expected returns as the fully invested MSCI ACWI portfolio, but with significantly less risk. The systematic sale of options allows us to capture the VRP and use it as a replacement for the equity risk premium that was lost through the derisking of the base portfolio.

But how does it behave in different market environments? In aggressive bull markets the portfolio will produce a material positive return, but likely underperform the fully invested MSCI ACWI benchmark. In flat markets the portfolio is likely to outperform the MSCI ACWI benchmark by a modest amount, and in down markets outperformance is likely to be more dramatic. By performing better in flat and down markets, the strategy doesn't need to perform as well in sharply advancing markets to keep pace with the MSCI ACWI benchmark overall.

Conclusion

Unfortunately, the equity market environment of 2017 lulled many investors into complacency. Sharply rising markets coupled with declining volatility created a false sense of security that's simply inconsistent with holding equity shares over the long term. Volatility returned in the first quarter of 2018 and caught many investors by surprise.

The question now for investors is how to respond. For those concerned about volatility and general market drawdowns, hedging, in our view, is not the answer. The strategy outlined here means you can have a portfolio structured to better weather the choppier equity markets that may lie ahead while still working toward the same the long-term wealth endpoint as the more volatile MSCI ACWI benchmark. It means volatility, like rough seas, is no longer something you need to fear – now it is something you can harness.

Sources of all data: Parametric, Eaton Vance and Bloomberg as of 31 March 2018, unless otherwise stated.

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