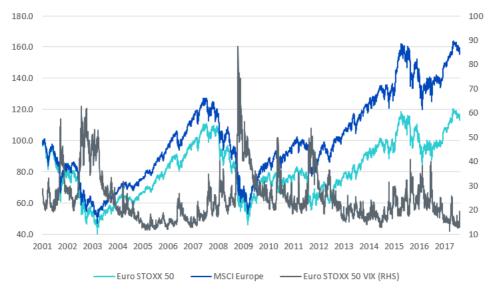
HOW TO USE ETPS TO MANAGE EQUITY RISK

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Equity markets, as represented by MSCI Europe and the Euro STOXX 50, have generally followed positive trends reaching multi-year highs in the middle of May this year. At the same time investors have been faced with a benign environment in terms of volatility. This has been the case for both realised volatility that has remained at low levels, and Euro STOXX 50 Implied Volatility that has only recently drifted higher on the back of rising geopolitical tensions. The European macro-economic backdrop for equit ies has remained positive with a renewed focus on stronger underlying growth, and limited political risk compared to the first part of 2017. However, as recent market events have shown there is every reason for investors to consider efficient tools to help manage overall portfolio risk.

Chart 1: European and Eurozone equities reach all-time highs with limited volatility



Source: Bloomberg, WisdomTree. Please note you cannot invest directly into an index.

Hedging broad European equity portfolios

Every year markets seems to be roiled by events that create unexpected elements of risk. Although long-term returns in equities suggest that this risk is ultimately compensated there comes a point where managing risk adds value. In this context, institutional investors often employ hedging strategies using futures, swaps or options. However, these strategies can be operationally complex to initiate and maintain, and this leads many investors to avoid hedging.



On the other hand, short ETPs may provide investors with a suitable hedging tool that is both operationally efficient and cost-effective. ETPs benefit from being listed and traded on-exchange, meaning that investors may benefit from access to multiple liquidity providers, full transparency of pricing, TER and swap costs. When considering ETPs for portfolio hedging, investors need to be aware of the technical aspects of short and leveraged ETPs such as daily rebalancing, the impact of compounding and the overcollateralised swap structure.

As mentioned, equities tend to provide numerous opportunities to expound on the benefits of hedging. In the example below, we have chosen the period at the start of 2016 when markets had a particularly rough start to the year due to a mixture of factors. Investors were concerned about the plunging oil price, the weakness in the Chinese economy and the knock-on effect on global and emerging market growth prospects.

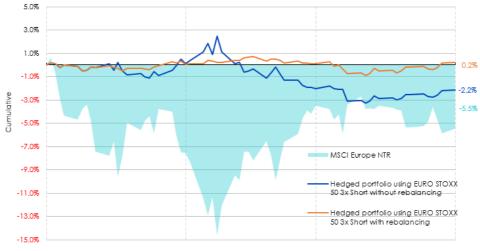
In order to show the benefits of hedging using ETPs we have considered a portfolio consisting of a broad European equity benchmark, MSCI Europe whilst using WisdomTree's Boost Euro STOXX 50 3x Short Daily ETP as the hedge.

A practical example of using ETPs

In terms of managing portfolio risk, using a 3x Short ETP means that an investor only needs to commit 33% of the value of the long position in order to initiate a fully hedged portfolio. This reflects the capital efficiency inherent in the -3x leveraged ETP and compares favourably with other short ETPs that typically offer either -1x or -2x exposure.

At the start of the analysis, the portfolio is 100% hedged and by its very nature this hedge ratio evolves based on the performance of both the underlying equity portfolio and the hedging instrument. This is especially true in the case of equities, which typically have high volatility and therefore present some extra challenges with respect to the rebalance frequency of the portfolio hedge. Maintaining an efficient hedge ensures that the portfolio protection is kept within conservative boundaries and in the context of equities we have chosen +/-20% as the threshold. At any point past these levels it is beneficial to rebalance the hedge ratio back in line to 100%.

Chart 2: The performance of the hedged and unhedged portfolio



Click to enlarge

Period: 2 January 2016 to 30 April 2016

Sources: WisdomTree, Bloomberg. The value of an investment in ETPs may go down as well as up and past performance is not indicative of future returns.



Considering the unhedged MSCI Europe equity portfolio, annualised volatility was over 25%, and this created a need to rebalance four times during the 3-month hedging period of 4 January 2016 to 4 April 2016. By implementing the portfolio rebalancing periodically within the stated thresholds, the overall portfolio volatility was substantially reduced to 3.2%. In addition, the importance of rebalancing the hedge can be demonstrated through the overall returns with the portfolio returning $\pm 0.2\%$ over the period compared to $\pm 0.2\%$ for the hedged portfolio without rebalancing. The underlying MSCI Europe portfolio returned $\pm 0.5\%$ over the same period.

Rebalancing and hedging costs

Investors should note that the overall costs of initiating the hedge, rebalancing and unwinding the position in the short ETP, are relatively low at less than 20bps. As the underlying instrument for WisdomTree's Boost Euro STOXX 50 3x Short Daily ETP consists of the Euro STOXX 50, the spreads and transaction costs reflect those of the underlying. As the Euro STOXX 50 consists of large cap, liquid Eurozone equities costs are typically low.

180% red deviation from target hedge ratio (+/-) nulative hedging cost (RHS)* 160% Sell EURO STOXX 50 3x Short 0.80% Buy EURO STOXX 50.3x Short 140% 0.60% 120% 100% 0.40% 80% 0.20% 60% Jan 2016 Feb 2016 Mar 2016 Apr 2016

Chart 3: The benefit of rebalancing and maintaining the hedge ratio

Click to enlarge

Period: 2 January 2016 to 30 April 2016

Sources: WisdomTree, Bloomberg. The value of an investment in ETPs may go down as well as up and past performance is not indicative of future returns.

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