Profiting from the Volatility Risk Premium

Mayank Markanday, Implementation Portfolio Manager, Multi-Asset Solutions EMEA

Multi-asset investors are always on the look-out for value-adding strategies that can diversify their portfolio exposures. Volatility may not be an obvious choice, but a systematically-managed volatility strategy can in fact provide worthwhile returns, with only modest correlation to conventional asset classes.

Volatility is defined as a measure or the variation in the price of an asset over time. Individuals are risk averse; they prefer a certain gain to a potentially larger uncertain gain where there is also a risk of loss. Higher risk or volatility has a greater potential for larger losses. It is this desire to avoid loses that leads individuals to pay for insurance. Identifying this behaviour – where losses and gains are evaluated in an asymmetric fashion – is what behavioural economics calls ‘prospect theory’. The world famous behavioural economists Kahneman and Tversky received a Nobel Prize for this.

This precise human behaviour is what financial and insurance companies try to exploit by providing products and services that protect ‘tail events’ (or events which, if they occur, can lead to a high cost). Examples are damage to your car (car insurance), fire damage to your property (property insurance), and risk of damage to property from earthquake (catastrophe insurance). Individuals are so keen to avoid risk that they often overpay for insurance. It is this behaviour that we are seeking to ‘profit’ from. It is possible to capture a return premium from selling insurance to those wishing to protect themselves against market uncertainty. This is what is known as the ‘volatility risk premium’.

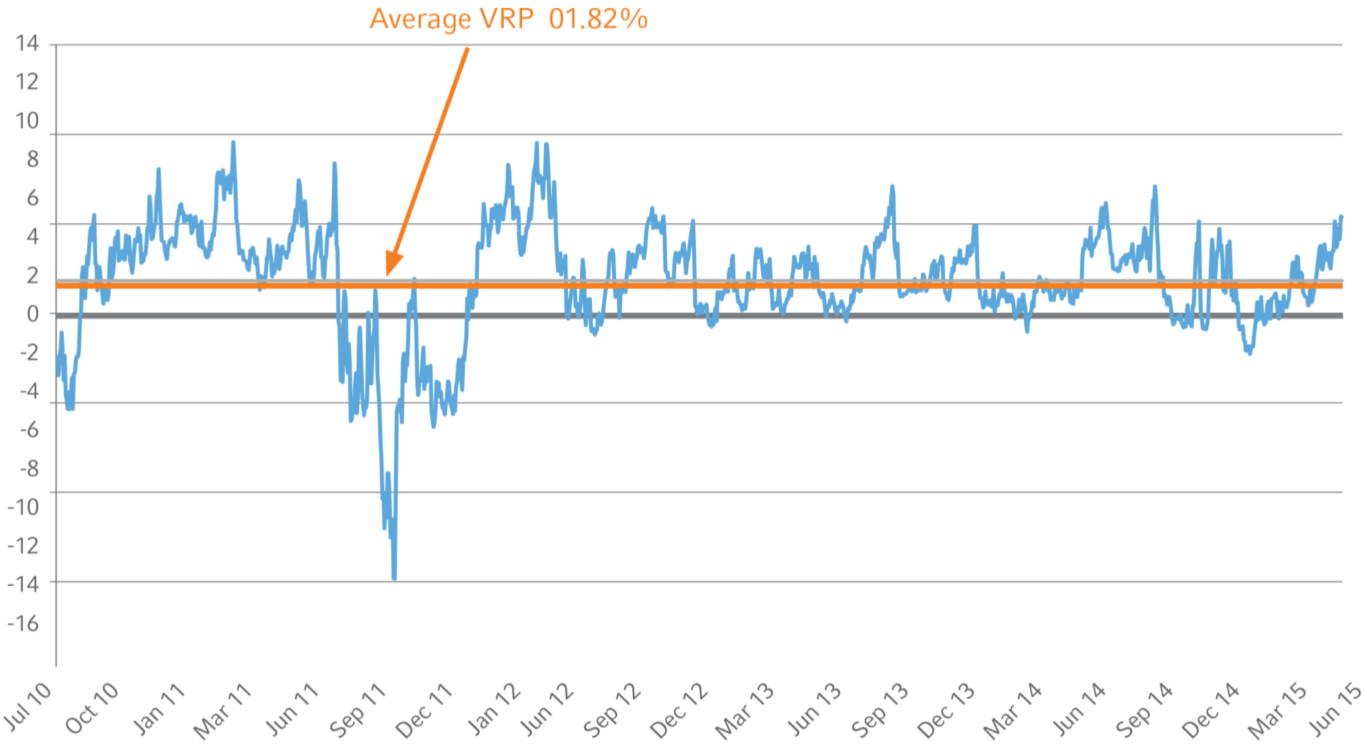
Financial markets have similarly created securitised investment products that can price these risks in the markets using forward looking estimates of volatility (aka implied volatility). An imbalance of demand for hedging (or insurance) over supply pushes up the price of implied volatility over and above what is considered ‘fair value’. This systematic overpricing of implied versus actual (or realised) volatility can be captured by sellers of insurance and can be considered to be a form of insurance premium – or more formally the Volatility Risk Premium (VRP).

So let’s return to the question, why is volatility not necessarily a bad thing for investors? If volatility is treated like any asset that has a long term expected return and a risk profile, it can be considered as a viable part of an investment portfolio. The expected return that investors can aim to capture is the VRP i.e. the difference between implied and realised volatility. History has shown that this difference or spread on average is positive 4 out of every 5 years (see Exhibit 1 which shows how implied volatility has been generally higher than realised volatility).

Simplistically this can be thought of as selling hedging or insurance in the derivative markets, and systematically continuing with this strategy to profit from the asymmetry of returns over time. However as in insurance markets, sellers of insurance products should always be wary of the risk of large losses and hedge their exposures accordingly.

In this case, as we are selling volatility or are short volatility, any spike in volatility should result in a negative outcome for this systematic strategy. For investors that own other risky assets such as equities, a spike in volatility is also associated with a drawdown in equities. The two risks are not equivalent, as the drawdown in a short volatility strategy is typically smaller and the recovery is quicker versus equities. Nonetheless the co-movement between the two assets cannot be ignored.

Exhibit 1: Volatility risk premium on a rolling basis



Source: Russell, Bloomberg as at 30 June 2015. SPX 50 Delta options (monthly): Implied volatility – realised volatility

At Russell we believe that the VRP generates a worthwhile return source that provides diversification to traditional asset classes. The VRP has proven to be persistent over the long-term, as investors in options markets are inefficient at pricing risk and thus provide the opportunity to extract this premium on a sustained basis. By employing a systematic investment approach and diversifying across a number of underlying volatility strategies, investors are able to add value to their portfolios.

Within the context of total portfolio management, a multi-asset portfolio, should aim to combine a number of different risk premia in the appropriate way to achieve the desired risk/return outcome for the investor's particular investment objectives.

Furthermore strategies that can outright benefit from markets sell-offs may be employed. These include for instance options-based downside protection strategies. When combined with VRP the result is a 'better' risk-adjusted portfolio return. The whole portfolio must be managed dynamically, including the interactions between components and between the portfolio and the goals that it is aiming to achieve.