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Alternative ways to hedge your equity risk

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Gareth has been with JANA/MLC since 2002 and is currently responsible for leading the JANA Alternatives Strategies team. This includes being the co-PM for the JANA Low Correlation Strategy, which targets returns of cash+3% with minimal correlation to equities. It has consistently delivered against these objectives since its inception in 2008 and is a key component of JANA Implemented Consulting and MLC diversified portfolios.

Previously, Gareth was Head of Asset Consulting for MLC IC. As well as leading the team and contributing to the Alternatives research capability, he advised a diverse range of clients. These included super funds with complex defined benefit arrangements, health insurers, University endowments, insurance firms, and not-for-profit organisations.

Gareth has presented at a number of industry conferences on alternatives and behavioural finance. He has also written numerous articles in industry publications, as well as research papers and MyConsultant articles for MLC and JANA.

Before joining MLC/JANA, Gareth worked in the UK for Skandia Life as a manager research analyst where he covered a range of asset classes between 1998-2002.

He is a member of the CFA Institute and has a BSc (Hons) in Business Administration from Bath University.

As we head into our seventh year of an equity bull market with bond yields globally at record lows, many investors are left scratching their heads. Prospective returns have been brought forward and the traditional low risk, diversifying asset class (bonds) is arguably higher risk and less diversifying than it has ever been. This is a big challenge for any investor intent on generating attractive returns while mitigating the risk of capital loss.

One response is to identify 'alternative' strategies that can generate positive returns and be uncorrelated to equities. Even more enticing, is a sub-group of strategies within this universe that claim to be able to generate positive returns when equities sell off (i.e. be negatively correlated to falling equity markets). It is this sub-group of alternative strategies that is the focus of this article.

Correlation matters a lot

It's worth starting by reflecting on the importance of the correlation of assets. Our first instinct as investors is often to focus on the expected return and downside risk. However, the magic of diversification means that combining strategies with a low (or negative) correlation can make a huge difference to the quality of your portfolio. Chart 1 shows

how adding strategies with a negative or low correlation can disproportionately increase your overall return per unit of risk.

The incremental reward for taking on risk is the key – the higher this is, the better for an investor – and the lower the correlation of a strategy that is added, the more pronounced the portfolio enhancement.

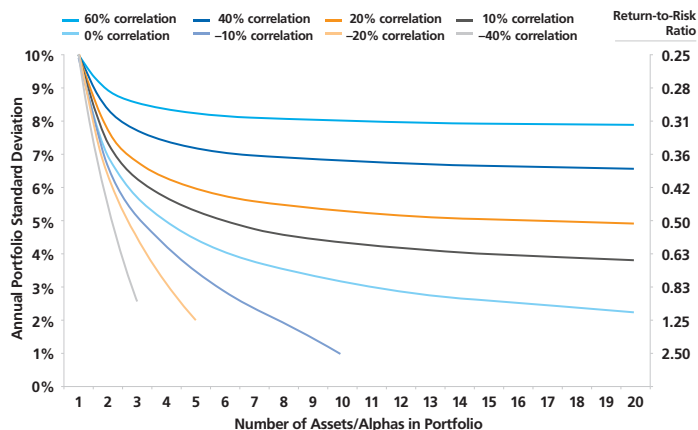
This potency has been at the centre of our thinking with regard to investing in alternative assets and in particular, the JANA Low Correlation Strategy where our focus is on strategies with a positive expected return and a low correlation to both equities and each other.

Where things get particularly interesting in the world of alternatives, are those strategies that claim to be able to generate a positive return when equities are negative. In a world where most portfolios are dominated by equity risk, this is a hugely alluring characteristic. The question is, can it be reliably achieved and at what cost?

The short answer is that there are a range of strategies in this space, with varying levels of reliability and payoff profiles. Before we touch on these, it is worth making a couple of high level observations on markets and volatility which are integral to understanding some of the trade-offs.



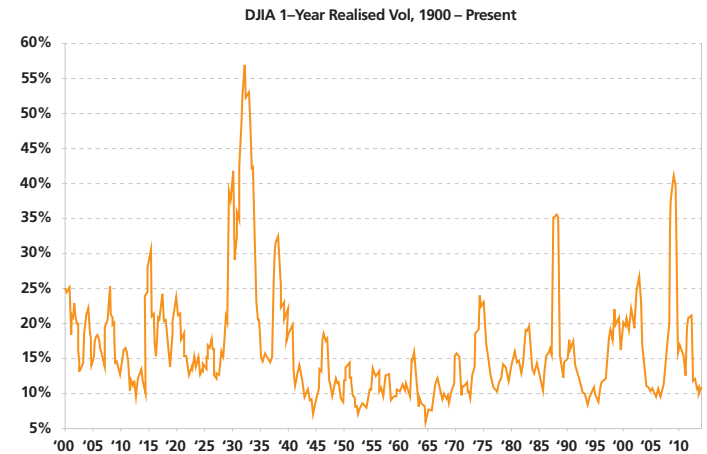
Chart 1: Correlation between asset number and standard deviation



Source: Bridgewater.

Past performance is not a reliable indicator of future performance.

Chart 2: Equity market volatility since 1900



Source: Macro Risk Advisors

Past performance is not a reliable indicator of future performance.

Key facets of volatility

The use of options is a common way to hedge equity risk and create an asymmetric return profile. Hence they are commonly used in these types of alternative strategies. As well as allowing investors to make directional bets, buying options also means being 'long volatility', as options appreciate in value when volatility increases. This is because the higher the level of volatility, the more likely an option is to be able to be exercised 'in the money'.

Volatility historically increases when equity markets fall, as shown in chart 2, with the spikes in 1929, 1987 and 2008 very apparent.

So, why not use options as a hedge against equity risk? The answer is because options are structurally very expensive. This is precisely because so many investors are exposed to equity risk and want to hedge it. This is evidenced by the fact that implied volatility (which is one of the inputs that dictates the price of an option) is invariably higher than realised volatility (which is a key driver of whether options actually end up 'in the money'). In fact, implied volatility has exceeded realised volatility roughly ~85% of the time in the S&P 500 Index since 1973. The fact that most investors are 'long' equity risk and often eager to hedge some of their equity risk, also explains why put options* are a lot more expensive than equivalent strike call options* (referred to in options parlance as 'skew').

So while buying put options can provide a payoff when equities crash, the odds are that they will detract value over the long-term (unless an investor has the ability to time them – which is something we are pretty sceptical of).

Chart 2 shows that relative to history, recent realised volatility has been low, which suggests buying options to go 'long volatility' may have merit. This chart also shows that there have been long periods (eg. 1945-1970) where realised volatility has stayed relatively compressed.

The continuum of strategies to hedge equity risk

There are a number of ways in which investors can hedge their equity risk.

The first is to simply buy put options against the equity exposure you are most concerned about. There are many nuances in how you can do this (eg. which strikes, tenors, puts vs put spreads etc.), but this is a direct and simple approach as long as you have the capability to execute internally. It allows you to 'sculpt' your expected distribution according to your own specific objectives and without incurring fees to external managers.

The second approach is to appoint an external manager. We have researched a number of strategies in this space along a continuum

of risk-return profiles. At one end of the spectrum are managers who predominantly buy equity put options – with the 'goal' of losing money most of the time and having a very high likelihood of making asymmetric returns when equities tank. At the other end of the spectrum, are managers who aim to generate a positive return each year and make money when equities tank (but clearly with less reliability on both counts).

Volatility related strategies, which aim to make money when equities are down, have a number of nuances (both technical and behavioural) that require careful consideration. For clients who are interested, we are happy to share our analytical framework in more detail.

In an industry that thrives on creating complexity, it is also worth reflecting on the fact that there is one very simple and cheap way to reduce equity risk; cut your equity exposure.

***Put option** gives the owner the right to sell a stock at a pre-defined price within a period of time.

***Call option** gives the owner of the option the right to buy a stock at a pre-defined price within a period of time even if its price rises above this maximum.

Conclusions

There are a lot of strategies touted as offering protection against declines in equities and many of them at first glance appear very alluring, particularly given the current challenges facing investors. However, as always, it is worth being sceptical and having a disciplined framework for evaluating these strategies.

Firstly, perhaps the most important takeaway is that there is generally a cost to accessing negative correlation. This 'cost' could include:

- a) An expected negative 'through the cycle' return to the cost of paying for insurance.
- b) Uncertainty regarding the nature and reliability of the payoff in a negative equity market (either via basis risk¹ or due to a reliance on uncertain skill/timing/factor characteristics).

Secondly, we know in advance that there will be some strategies that do deliver very positive returns during the next big equity drawdown. These are very easy to identify after the event! (This induces hindsight bias - the belief that we would have picked them beforehand.) As we know, they are much harder to pick before the event – particularly given each crash tends to be different.

Thirdly, while we believe investment success is a game won at the margin by doing lots of things as well as possible, it is hard to allocate enough to this type of strategy for it to make a material difference to the overall portfolio (without materially compromising expected long-term returns).

Overall, our ethos is to retain an open (and sceptical) mind on these types of strategies. On balance, we think it makes more sense to focus on strategies that have both a positive expected return and that are uncorrelated (rather than negatively correlated) to equities. This type of exposure can be more reliably generated and can generate consistent positive returns. It is also still a hugely beneficial return profile for investors, particularly in the current environment.

¹This refers to the risk of two related assets not performing as might be expected. For example, a manager may look to hedge equity risk by buying options on the Korean Won (which they might view as artificially cheap due to structured product dynamics in Asia) rather than on equities (where puts tend to be structurally expensive). This is premised on the view that when equity volatility increases, it is likely that the volatility of emerging market currencies will also increase. The 'basis risk', is the risk that they don't i.e. it is an imperfect hedge.

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