

Note: Searching for mitigants

Summary

All risk (growth) investments inevitably enter periods when their prices fall. This can be due to idiosyncratic factors or when the market goes 'ex growth'; we concern ourselves here primarily with the latter. At such times, investors typically have three options: 'switch off' (and find distraction elsewhere), sell (waiting hopefully for lower prices to re-enter 'risk') or judge that trades, previously installed into their portfolio, can generate profits that will cushion (or mitigate) the marked-to-market losses incurred (on the growth investments). On the argument that taking the long view, ignoring the ebb and flow of market pricing, has merit, there is no good reason for long term investors to temporarily trade out of investments expected to deliver the required trend rate of return over time. That said, there can merit in considering the third option above - the pursuit of mitigants – if they are appropriately priced. This note examines this approach.

Background

Equity ('risk') markets performed very well in 2017 and much better than people expected one year ago; in many cases, indices attained all-time highs repeatedly throughout the year. The platform for these gains was formed, across the globe, by stronger and much more synchronised economic growth than expected, a related strong improvement in corporate earnings and a benign monetary policy response from Central Banks (shaped by still low inflation and evidenced by the slide in the US projected equilibrium policy rate to just 2.8%). A fourth, important factor was the failure of politics, in Europe most notably, to generate a sustained de-stabilisation; despite unexpected developments in Spain, Austria and the UK, Macron's victory in France proved that stable politics at the core of Europe is all that matters. Investors were also reassured by Trump's repeated failure to turn bluster into policy.

One consequence of this almost perfect platform for risk-taking has been that equity markets have proved very stable e.g. the US equity market never fell in any calendar month in 2017. This low level of volatility has fed through into derivative markets to lower option costs to levels rarely seen before; if markets are becalmed then the need for (cost of) 'insurance' plummets. This has encouraged a growing number of institutional funds to enter into derivative trading strategies which will pay-off should equity markets fall sharply. With equity markets around all-time highs it is easy to believe that the only way is down. While it could be argued that things can only get worse, it is likely that the funds transacting these strategies are motivated by availability of cheap insurance rather than a strong sense of foreboding.

It is (always) possible to shape a bearish outlook; the following are some of the current possible 'banana skins'.

- a) The inability of inflation to emerge in response to strong economic growth given the sharp gains in employment seen in some major economies, invites the conclusion that the world remains firmly in the grip of strong deflationary forces that will surge to the fore as soon as economic activity slows; this would prove to be a very poor platform for corporate profitability.
- b) Energy prices have risen despite high inventory levels and the rise in shale output in the US. If sustained, this could force central banks to abandon their 'softly, softly' approach and tighten monetary conditions faster than is currently discounted (this would begin to restore cash as a viable investment and could catalyse a sharp and destabilising sell-off in bond markets).
- c) Retail activity in tech and emerging markets has shown signs of crowded, herd-like behaviour (the action in cryptocurrencies being an extreme illustration); such phases never end well.

- d) The world economy simply self-exhausts as consumers, still experiencing poor (or negative) real wage growth stop buying while the corporate sector fails to lift its capital spending after many years of sub-par investment.
- e) China's finds itself incapable of sustaining the controlled deflation of its enormous credit bubble.
- f) *Brexit* goes badly for both the UK and Europe.
- g) Trump/ Russia/ North Korea etc manage to generate an exogeneous shock.

In previous market cycles, surging equity prices would, led by higher policy rates and the flow of bond capital into equities, have eventually pushed bond yields higher and eventually to levels that present a viable, competitive alternative to stock-markets. The failure of bond yields to move away from the recent historic lows is what sets this market cycle apart from those which have gone before; the price of traditional defensive assets is generally considered by many to be too high to be attractive.

Concerned investors can consider some or all of the following actions:

- a) selling equities for cash at least down to a neutral weight accepting that cash yields almost nothing;
- b) buying bonds, funded by reducing equities, regardless of how expensive bonds seem recognising that should equities fall then the price of bonds will rise and accepting that, until risk assets fall, the yield accrued on the bonds will make no meaningful contribution to the Fund's overall required return;
- c) ensuring that their risk assets have a defensive tilt e.g. robust-yield themed equities typically outperform strongly when indices slump;
- d) (as a £-based investor) maximise the non-£ exposure in the Fund recognising that in the past when equities have slumped by more than 20% in a quarter, £ has seen an average fall of almost 7%;
- e) strengthen exposure to assets expected to prove uncorrelated with equity markets e.g. infrastructure and
- f) engage, tactically, in buying derivative-based protection strategies.

Activity in recent years within the Fund has seen diversification increase and the asset mix already contains defensive equity strategies (in KBI and, to a lesser extent, Kempen); this could be increased. The Fund has shown itself capable of usefully adjusting its currency hedging strategy and has the powers to reduce its equity weighting – to cash or bonds. The remainder of this note will examine option-based protection strategies akin to those that some LGPS funds have implemented.

Equity options entitle, but do not compel, the owner to transact in an equity (or an equity index) at a pre-determined ('strike') price before or on a pre-determined ('exercise') date; the option owner will pay a price ('premium') for the conditional structure of the contract. Options which allow the owner to buy are called *call* options, those which allow the owner to sell are referred to as *put* options. The owner of calls wants the market to rise above the strike price while the owner of puts wants the market to fall below the strike price; crucially, these movements must occur before the exercise date if the option is not to expire worthless.

The price of options – calls or puts – varies continuously with the market's evolving perception of the likelihood that the option owner will have the opportunity to exercise the option at a profit. The more volatile the equity or market, the more likely it will be that the equity or market will move to levels that are attractive to the option owner and hence the more expensive will be the option. The earlier discussion highlights that markets have, in recent quarters, been unprecedentedly well-behaved; the corollary of this being that option prices have fallen to extremely low levels where some investors have concluded that the downside protection ('insurance') from owning some puts is too cheap not to own.

The simplest way of constructing option-based protection would be to buy a put option with the strike price set at the current market level; the owner is then protected from any fall in the market. Using the current market level¹ as an example, the premium (cost) for an option expiring this time next year is 5.5% (two years ago, the cost would have been nearly 8%). This is still quite a lot in, what is still generally perceived to be, a low-return world.

Common ways of lowering the cost are

- i. to set the strike price below the current market price such that protection only starts after, and from, an initial fall (10% below the current level is commonly set as the point where the 'insurance' starts to pay off) and
- ii. place a cap on the level of insurance by setting a level where the option ceases to pay-out (30% below the current level is common).

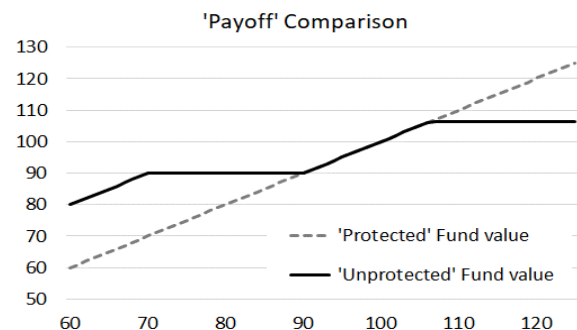
Compared to the current 'at the money' cost of 5.5%, the premium for 'out of the money' protection, that starts after a 10% fall and tops out after the market has fallen by 30%, is 2% (roughly the dividend yield on the US market). For clarity, the owner of such a pair of options receives nothing if the market falls 5%, is paid back 5% should the market fall 15% and is limited to a 20% pay-out if the market falls 30% or more.

A further way of lowering the cost is by receiving a premium or payment from

- iii. committing to selling equities at a higher level by selling call options.

This has some logic as the investor is already concerned about the level of markets and the idea of being paid to sell at higher levels can be attractive. Investors typically set the higher strike price (from which they lose ownership of their equity exposure) at the level needed to raise the capital needed to pay from the downside protection. In the example above, the (10%, 30%) downside protection for one-year would be funded by selling a one-year call option struck 6.4% above the current market level. Some investors see this as 'free insurance'.

A common way of illustrating the impact of such a 'zero cost' insurance structure is the pay-off diagram shown opposite.



The diagram hopefully highlights some of the issues associated protection structures. These include:

1. the Fund is only protected up to the expiry date - your car insurance is no use if you crash after your policy has expired;
2. protection only starts after a 10% fall – akin to having a 10% 'excess';
3. the 'cover' ceases after 30% - if the market falls 50% the payback is only 20%;
4. if the equity market keeps on rising, the Fund becomes a forced seller after a 6.4% gain – last year US equities rose approximately 20% and, if repeated, the cost of the 'free' insurance would be nearly 14%;
5. to get full value of the protection, i.e. 20%, the fall of 30% must happen close to expiry i.e. in one year's time.

Clear from these comments is the importance of timing both in terms of installing the protection structure and in 'knowing' when the market might slump.

¹ All prices etc used in the illustrations are based on the US equity market

Summary

Markets have fallen heavily in the past, they will do so again in the future; the trick is knowing when! Beyond the natural defence of diversification – across asset classes and currencies – the concept of portfolio insurance has merit when there is some visibility as to the rough timing of any fall, even if the apparent costs are very low. Otherwise, as with all insurance, the protection writer generally wins (that's how insurance companies make their money). [It is worth noting that some of the asset structures into which the Fund invests rely on profiting from selling insurance.]

There are always some that 'get lucky'. If the market falls soon then those Funds that currently own option protection will garner much publicity for their astute actions. If the next market slump occurs after their 'cover' expires, then it is unlikely that this will be given any prominence. Few expected equities to perform well in 2017; they did and that could happen again – especially if the global economy continues to grow at the current healthy levels.

The Fund entered into tactical protection around the UK Referendum when the market was judged to be mis-pricing the risks; that this proved advantageous was in no small part because we knew the date of the event risk. It is very hard currently to anticipate when equity markets might fall and, importantly, for what reason. Such clarity might emerge and the ISC exists to consider such issues (analogous to the activity around the currency hedge in 2016). The objective of this note is to highlight the wisdom in continuing to pursue diversified attractive risk-adjusted returns and to encourage the ISC to assess all opportunities to improve the robustness of the asset base where the risk/reward balance is clearly tilted in the Fund's favour.

Beyond this, the best way in which a truly long-term investor like the LCCPF can gain from market dislocations is to retain the composure, while others are panicking, needed to buy attractive growth assets at knockdown prices.