

Performance.

The Fund returned +0.51% net in August, bringing the year-to-date net return to +7.52%¹. Global Equity (ACWI) markets were broadly flat with a marginal gain of +0.1%, Developed ex-US Equity (EAFE) was down approximately -0.6% and US Equity (S&P) ended the month flat. US Investment Grade Bonds gained +0.8%, High Yield Debt was down a -0.1% and Gold rose +3.9%.

**How can we protect against unforeseen drawdowns?
The case, or lack of it, for derivatives.**

Summer is often a nervous time for investors with the thin trading of the vacation months resulting in large swings in asset prices and portfolio values (mostly in the wrong direction!).

This begs the question of how we can protect against such drawdowns, or is it something we just have to live with? There was a time not so long ago when so-called 'absolute return' funds promised outright wealth protection, though the last financial crisis helped unmask this as mostly wishful thinking. Let us be clear: the *only* guarantee of non-negative (nominal) returns is investing in the risk-free rate, i.e. short-term government bonds. All other strategies involve some risk and, hopefully, some potential for reward – but also the possibility of loss.

The Global Financial Crisis was sobering for many market participants who suffered heavy losses, but we feel that one key lesson has still not been fully embraced by investors: however well you may have studied the theory of diversification, you are still vulnerable to systemic shocks, which typically lead to

highly correlated negative returns across asset classes. Witness the large US university endowments, much lauded for their investing skills and historical returns pre-2007, losing nearly 30% in one year in 2009. Is there any way to avoid this possibility?

Last month we suggested that the willingness to switch into *Cash* to protect wealth in bear markets is possibly the most important single element in wealth accumulation and protection. And, the reluctance to do so can turn out very expensive for clients and managers alike. Yet, holding 'tactical cash' in large amounts is often seen as an unsatisfactory state.

What options do investors have at their disposal to avoid large drawdowns if we accept that fund managers' forecasting and hence market-timing ability is really rather, shall we say, limited (i.e. pretty non-existent); and they refuse to acknowledge that at times cash *simply is the best*?

An obvious choice is the use of *derivatives* to provide portfolio insurance. Unfortunately, surprise surprise, markets work rather well and those who provide insurance tend to benefit more on average relative to those who seek it.

Recent research by AQR's Roni Israelov² shows very clearly for US equities that a strategy which rolls over put options on the S&P 500 is less successful at protecting against drawdowns than simply reducing exposure to equities, i.e. raising the portfolio Cash weighting. Israelov emphasises, "Unfortunately, in the typical use case, put options are quite ineffective at reducing drawdowns versus the simple alternative of statically reducing exposure to the underlying asset."

¹ Performance is for the USD Institutional share class.

² Israelov, R., (2017). The Elusive Benefits of Protective Puts, AQR Capital Management Working Paper

In general, the quality of protection by derivatives improves when the option maturity is most closely aligned with the length of the peak-to-trough drawdown cycle. Quite simply, 1-month options do a less bad job at protecting against drawdowns that last about a month than against those that last about a year. But, of course, who can tell how long any drawdown will last?

Thus, unless the purchase of options and their maturities are timed precisely correct around equity drawdowns (of uncertain length), then they may result in little downside protection, and even make things worse by increasing rather than decreasing drawdowns and volatility per unit of expected return.

Israelov's analysis finds that investing 40% in Equity and 60% in Cash has historically given similar returns to a strategy using protective puts but with less than half the volatility and a much-improved peak-to-trough drawdown experience.

He reasons: "For those who are concerned about their equity's downside risk, reducing their equity position is significantly more effective than buying protection. Sized to achieve the same average return, divesting has lower drawdowns, lower volatility, lower equity beta, and a higher Sharpe ratio than does buying put options."

This approach also echoes the views of Ilmanen³. He refers to index put buying as protection for equity portfolios as "*roughly a minus one Sharpe strategy*". Of course, very fast bear markets and crashes can be protected against by using puts, but this is very expensive relative to the slow crash alternative (moving into cash), which is more successful in the long run: "Trend-following has a clear positive Sharpe ratio, and it has done well in most of the historical bear markets over the past hundred years".

Asvanunt et al⁴ provide further evidence on the 'direct versus indirect hedging' debate by considering a 60% Equity / 40% Bond portfolio and comparing the

'direct' approach of using a variety of option strategies for the equity portion with three 'indirect' approaches: (1) reducing equity risk within the equity allocation; (2) altering the stock/bond allocation, and (3) incorporating a trend-based rebalancing strategy. They find that several indirect strategies not only deliver superior long-term average returns but also outperform direct hedges in prolonged market drawdowns. Direct hedging is costly and only delivers value when combined with the (rare) ability to predict short-term market crashes and unwind the positions quickly after a crash.

How about more sophisticated timing mechanisms for buying protection? Strub⁵ introduces an algorithm for tail risk hedging and compares it to using Extreme Value Theory (EVT) to estimate Conditional Value at Risk (CVaR). He applies it to the S&P 500 and MSCI Emerging Markets equity indices between 2000 and 2012 and compares returns to cash- and options-based tail hedging strategies. The cash-based methods are shown to significantly increase risk-adjusted returns and reduce drawdowns, while the options-based strategy suffers a decrease in performance from 2003 onwards due to the increase in the relative cost of puts over calls.

It would seem then, that divesting equities (albeit temporarily) offers a much better solution to reducing drawdowns (i.e. managing tail risk) than either systematically buying puts or trying to time their purchases using conditioning information (as in Strub). Unless one knows when a 'fast crash' is about to occur and can time the option purchase cycle to good effect, then switching to cash via a momentum or trend following rule appears to be the best solution.

MONOGRAM's approach to controlling drawdown.

The dual momentum approach to investing, which we embrace at MONOGRAM, is most firmly in the divesting camp – it protects against large losses by

³ Ilmanen, A. (2016). Smart Investing in an Environment of Low Expected Returns, *Journal of Investment Consulting*, 17(2), 4-12.

⁴ Asvanunt A., Nielsen K., and Villalon D., (2015). Working your Tail Off: Active Strategies Versus Direct Hedging, *Journal of Investing*, Summer, Volume 24, Number 2.

⁵ Strub, I. (2013). Tail Hedging Strategies https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2261831

switching into cash when 'downtrends' are identified. We feel that this is as good a protection as investors can reasonably expect.

We are seeing more and more academic support for the intuitive fact that, in many situations, *cash really is King*.

Position and outlook.

For the month of September our indicators favour Developed ex-US Equity, Emerging Market Equity, US High Yield, and USD Short and Ultrashort Investment Grade Bonds.

About MONOGRAM

MONOGRAM Capital Management is an investment boutique founded in 2014 and headquartered in London. We take an innovative empirical, evidence-based approach to investing and believe there are fundamental, identifiable, persistent, and exploitable sources of return; risk is the permanent impairment of capital (peak-to-trough drawdown) and not volatility in its various forms.

There are two options for investors to access MONOGRAM's investment strategy. Investors can invest in the Luxembourg Domiciled MONOGRAM Fund or in MONOGRAM's bespoke segregated managed account, provided the investors meet the minimum subscription requirements. Further details are available on request.

For further information on MONOGRAM or to invest, please contact Milena Ivanova on milena.ivanova@monograminvest.com or **+44 (0)7931 776206**

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