Strategies for Turbulent Times:

Safe havens, illiquid assets and other alternative investments

In this paper, we discuss how investors can improve their portfolios to weather turbulent markets.

We highlight approaches to identify attractive ‘safe haven’ characteristics within fixed income and equity markets. We then consider the measurement problems relevant in holding illiquid assets, such as real estate and private equity. Lastly, we highlight some interesting case studies that are worthy of consideration by investors who rely on alternative investment strategies in search of uncorrelated return profiles.

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Contents

Executive Summary

- Two themes naturally dominate our thinking in times when market uncertainty is high: ‘safe havens’ and alternatives. Whilst the former is something of an ephemeral concept, and the latter is too broad a categorisation, they do serve as useful starting points of investigation for investors in periods of market volatility.
- Sovereign risk has caused a polarisation of the government bond market that is creating concentration and liquidity risks among a shrinking set of overvalued safe havens. There is a clear imperative for investors to consider broader exposure to high-quality assets beyond domestic or traditional government issuers. Similarly, the greater flexibility of strategic portfolios to invest across assets can improve both diversification and the risk/return profile of portfolios by unshackling managers from outmoded benchmarks.
- Investing in ‘quality’ offers investors a relative safe haven strategy within equities. Companies with solid and sustainable returns on equity, good free cash flow generation, and a low level of leverage have proven themselves able to consolidate their market positions, and, in times of crisis, gain market share through survivorship or by making acquisitions at attractive prices.
- Introducing illiquid alternatives, such as physical real estate and private equity, into portfolios presents investors with several challenges, particularly in terms of accurately measuring the volatility of these assets. Consideration must be given to both the underlying nature of the assets and the investment time horizon.
- Alternative investments aim to generate return profiles that are uncorrelated to those of traditional assets and offer opportunities for diversification and risk control. When bringing such return streams into a broader portfolio, the impact they have on all moments of the expected return distribution should be closely considered.
- We highlight the reinsurance sector and trend-following strategies as two case studies which provide interesting opportunities for investors looking for alternative return streams. Both offer potentially attractive risk-adjusted returns, however, careful manager selection is critical.

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Strategies for Turbulent Times

An effective manager selection philosophy is one that remains robust throughout any and all market conditions. Indeed, we would view with suspicion any philosophical approach that attempted to 'rewrite the rules' based on the current economic environment. A strong manager selection process should be able to identify managers that outperform at different points in the economic cycle, and when married with a good portfolio construction discipline, should ensure that the best type of manager is emphasised at the correct phase of the cycle.

In times of market volatility, therefore, the focus should not be on rethinking the approach to selecting managers or chasing the latest fad, but rather leveraging the existing process to overweight managers with the right characteristics for that phase of the cycle. Within an asset class, it means increasing allocation to managers who will dampen volatility and downside risk. Equally, though, it is important to be prepared for the unexpected: market rallies often follow hard on the heels of crises, and just as Armageddon appears inevitable, sudden upward moves in risk assets are possible. Maintaining a relatively balanced portfolio across different types of managers offers the best prospect for an attractive long term risk-adjusted return.

'Safe Havens' in Fixed Income

The name 'safe haven' applies to strategies that ought to appeal in turbulent times. Government bonds have traditionally provided investors with a choice of safe haven options. However, the financial and sovereign crisis has reshaped the risk landscape, forcing a reassessment of which assets can be considered safe.

The AAA asset pool has shrunk by around 70% in the last 12 months after sovereign rating downgrades to the US, France and Austria. The idea that rating agencies provided investments with a stamp of safety has been exposed as fundamentally flawed. Rather than take such ratings on trust, it has become essential that investors take an active, research–driven approach to investing in fixed income.

Given the concentration and liquidity risks of investing among a shrinking set of overvalued safe havens, we believe investors should look to sensibly broaden the investable universe by building high quality, diversified portfolios based on 'best issuers' in the sovereign and investment grade markets. Including sovereigns, where practical, which score highly on solvency, liquidity and currency strength, such as Australia, Canada, and Switzerland, brings about sensible diversification and introduces currencies that reduce overall portfolio risk. Similarly, with the non-financial corporate sector in good balance sheet health, we can add high quality investment grade corporate bonds, issued by strong multinational companies, which have better credit fundamentals than many governments. The approach requires extensive resources in terms of sovereign and credit analysis and intelligent portfolio construction, with needs tailored to investors' specific risk tolerances.

Strategic portfolios can also offer a relatively 'safe' outcome in a dynamic risk environment, in which the returns between bond categories can vary significantly. At present, many traditional market weight bond benchmarks encourage investment in the most heavily indebted areas. European aggregate benchmarks have significant concentration in Mediterranean sovereigns, while corporate bond benchmarks have high weightings in financials. Strategic managers have the flexibility to invest in a combination of assets that aim to deliver more consistent returns over time with reduced sensitivity to corrections in specific markets and bond classes. The improvement in diversification and risk/return profile is made possible by unshackling managers from outmoded issuance-based benchmarks. Critically, such an approach relieves investors of the unenviable burden of shifting allocations among different classes of bonds in an unpredictable 'risk-on/risk-off' environment.

'Safe Havens' in Equities

Whilst on an asset class level, safe havens are often perceived as store-of-value assets such as cash, government bonds and gold, here we will concentrate on safe havens within the largest growth asset class: equities. So, what is a safe haven in equities? Active strategies with a beta less than one might seem a logical answer, but beta by itself is inherently backward-looking and it is

sometimes the case that a manager who is perceived as low beta (perhaps having seemed so in gently upward trending markets) is anything but in a market crisis. Equally, it is easy to argue that 'cheap' stocks (so a 'value' investment style) should be a safe haven as what is already cheap should have less potential for further downside. However, the risk of value traps and the extent to which valuations can become depressed in periods of volatility mean that value investing is not in reality a safe haven. Instead, one way to define an equity safe haven is a group of stocks that are characterised as offering high quality – solid and sustainable returns on equity, good free cash flow generation, and a low level of leverage. Companies such as these have proven themselves able, over successive market cycles, to consolidate their dominant market positions, and, in times of crisis, frequently gain market share through either the demise of their competitors or by making acquisitions at bargain basement prices. Such deals require a high level of cash on the balance sheet (since debt is difficult to obtain in crises) – another sign of a quality business.

There are a large number of managers purporting to offer 'quality' strategies and indeed, according to recent research by Fitch an increased number of managers are seeking quality growth companies over other types. We would argue that managers who are tactically moving towards such strategies are in general not to be favoured – few managers are effective style rotators – and indeed such 'style drift' is often followed by a period of underperformance as managers unfamiliar with a certain approach to investing mistakenly attempt it in order to improve short term performance. However, managers with established processes who are consistently seeking out higher quality stocks at reasonably attractive valuations can offer good performance, on a relative basis, in periods of high market volatility.

There is no one method to finding 'quality' stocks, and whilst broad themes can be applied across all geographies, there are also some more region-specific approaches that can be used. Simplistically (on a sector relative basis), managers seeking stocks with a consistently higher than average return on equity combined with lower debt to equity, and a positive qualitative assessment of factors such as competitive positioning, brand strength, barriers to entry and so on, can provide the basis for an effective quality strategy. Implicit in this approach is a rejection of the assumption that companies suffer from 'fade' to a 'normality' of the industry or sector average. As a consequence, valuation tools, whose basis is an explicit assumption of such 'fade', are unlikely to be used. However, valuation is an important component of any quality-biased strategy as at times in the market cycle excess premia can be applied to these 'quality' stocks, and so a degree of rotation based on relative valuations is important. Traditional metrics, such as price to book, are commonly used to value quality businesses, often with a very long time horizon.

In the UK, for example, where dividend yield is an important component of total return, we would argue that some (but not all) equity income strategies also offer 'quality'. A simplistic screening for a high current dividend yield will not deliver a portfolio of 'quality' businesses (not least since many higher dividend yield stocks have this high yield because their share price has declined significantly). However, an approach that considers the sustainability of cash flow, which implicitly requires a consideration of a business's competitive position, balance sheet, margins, etc, can deliver 'quality'. Screening for stable and growing dividends over time can also form part of a 'quality' strategy. Although typically we would favour active managers given their ability to qualitatively assess a business's current position rather than relying on purely quantitative and inherently backward-looking metrics, 'smart beta' can also be used to obtain this type of defensive exposure. In the US, whilst traditionally a less fertile ground for dividends, the S&P Dividend Aristocrats index (available to investors through an ETF), has a demonstrable history of providing defensive characteristics in times of increased market volatility. Any manager selection process should consider the cost effectiveness of every investment, and therefore evaluate whether a passive or smart beta approach might offer clients an equal or even superior after-fees return is essential practice.

The Inclusion of Illiquid Assets

The inclusion of less liquid assets in a portfolio raises some interesting intellectual challenges. There are, of course, several different ways to value assets. We can estimate an asset's cashflows over time and discount them using an appropriate cost of capital or by some other modelling

process. For specialist assets such as antiques or jewellery, we might turn to an expert appraiser who will tell us the value. For others, we can look to public markets to see what value is placed on the asset when it is traded. However, when trying to decide whether including a given asset in a portfolio will help us to meet an investment goal, it is not the value alone that we should be interested in; rather it is the way that its value changes over time and the way its value changes relative to other assets in the portfolio.

We need to pay attention to characteristics such as volatility and the potential for capital losses in order to model the distribution of returns of our new asset. If we understand the distribution of the returns of all of the assets in a portfolio and the way that they move together (covariance), we are a long way down the path of being able to estimate the characteristics of our overall portfolio.

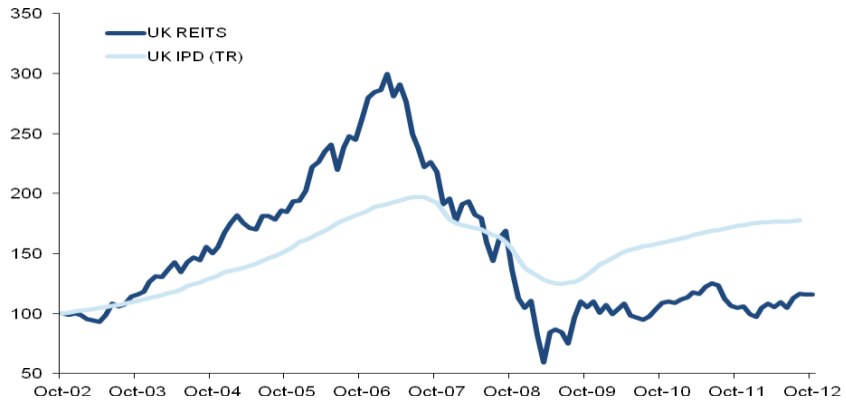
The Two Faces of Real Estate

Real estate provides a good example of the portfolio challenges that we face when investing in less liquid asset classes. Over time, the returns that you experience are a combination of the net rental income together with any change in the capital value of the real estate. The question is: how do investors model the behaviour of this investment within a portfolio context? Does property provide diversification against equities and bonds?

In the case of real estate, investors can achieve an exposure to the asset class in two different ways, which at first glance seem to offer two different answers to these questions. Investors can buy a non-quoted real estate fund. Alternatively, they can buy a quoted Real Estate Investment Trust (REIT). On a look-through basis, both vehicles are the same in terms of their economics: there are underlying buildings, tenants, rents and management fees which provide a regular income and a potential change in capital values over time. The way that the returns are printed for each vehicle is very different, however. For the non-quoted property fund, the buildings will have been valued on site by a surveyor, perhaps once a year. In between times, if a valuation is required, perhaps for a fund valuation (NAV), this is provided from analysis at the desk of the surveyor or valuation expert. For the REIT, the returns are very simply what we observe as the stock is traded tick by tick on the stock exchange. So, while the two investments share the same underlying economic model, they offer two very different methods of price discovery.

Unsurprisingly, the two return streams look very different. The non-quoted fund has very low volatility: the Investment Property Database (IPD) index in the UK, for example, has a volatility of about 5%. In fact prior to 2008, the volatility was just 3% and the index had not had a single month of negative return since the early 1990s. There is typically a bid/ask spread on these sorts of funds, around 7% is not uncommon, reflecting the costs of transacting in property markets and protecting long-term investors from dilution by flows. In contrast, the transaction costs for REITs are simply what an investor would incur on any traded equity security, but the volatility is of the order of 20% - broadly in line with stock market volatility.

Listed UK REITs versus IPD Property Index Returns



Source: DataStream, as at 01.10.12.

More significantly, REITs saw peak-to-trough declines of 35% or so between 2000 and 2003, considerably more in 2008, and have had a relatively high correlation to equities. What we observe on stock exchanges, is that the value that market participants ascribe to the underlying assets in the REIT fluctuates in line with sentiment and can trade to a large discount or premium over 'fair value'.

This has implications for investors who are trying to model the behaviour of real estate in their portfolio. What values should be used for volatility and correlation? Is it low volatility/low correlation or high volatility/high correlation? This question applies equally to other assets or disciplines that have been put into closed-ended funds that are then quoted.

This comparison between (physical) real estate and REITs suggests that when investors try to find liquid ways of accessing attractive illiquid returns, they lose some of the advantages that initially drew them to the asset. It is generally a mistake to pretend that the drawbacks to investing in the underlying assets do not exist. However, those investors who can acknowledge and accept these characteristics are better placed to add attractive risk-adjusted returns to their portfolios.

Advantages and Drawbacks of Quoted Vehicles

The practice of taking illiquid assets and putting them into closed-ended funds creates three sorts of opportunities for investors.

- First, it provides a method of accessing assets such as catastrophe bonds or deeply illiquid credit that might be otherwise inaccessible.
- Secondly, recognising that the price can swing away to a discount, it may enable us to buy those assets cheaply.
- Thirdly, the market provides us with liquidity should our investment horizon not match that of the underlying assets: the alternative of trying to provide frequent liquidity directly into portfolios of illiquid assets has been tried (and has often ended in disappointment).

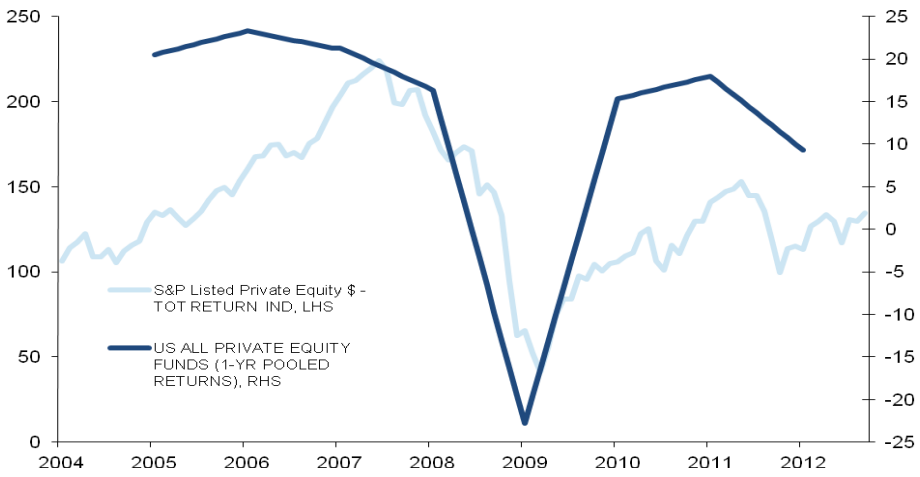
What investors should be aware of, however, is that the increased convenience of a quoted vehicle comes at the cost of higher realised volatility than that indicated by the underlying assets when valued off-market.

Is Private Equity a Measurement Question?

On discovering how non-quoted property funds are valued, an equity portfolio manager might be tempted to think that if his or her portfolio was only given a full valuation once a year, equity would be an asset class that had very low volatility and seldom declined in value. A cynic might suggest that this is exactly what happens in the world of private equity. At first sight, it is hard to work out how it is possible to buy assets out of the stock market at a premium, increase the indebtedness of these companies and create a vehicle that has lower volatility than conventional equity. We understand the higher return: by leveraging a stock portfolio investors would expect a higher return. But it is much more difficult to see where the reduction in volatility comes from.

Private equity did not avoid the global financial crisis. Along with most leveraged investments there was stress, and if cash needed to be raised, transactions took place at fire sale prices. Of course, the question of whether private equity is a distinct asset class has been debated. A number of quantitative papers in various academic journals have suggested that, in aggregate, the returns to private equity investors can be cheaply replicated using leverage and a handful of sector swaps.

Private Equity Returns: Listed versus Non Listed



Source: DataStream, as at 01.10.12.

Modelling a Mixed Liquidity Portfolio

Returning to the portfolio modelling context, how can we deal with assets such as real estate or private equity that do not have a regular or direct market valuation? In answering this, there are two questions we should ask. One is about the underlying nature of the assets, the other is about timescale. If we look through the wrapper of private equity, investors ultimately hold stakes in companies, so the underlying risk premium they are being exposed to is the equity risk premium. From experience, we know that the price of that risk premium is considerable volatility. It may be that the return can be increased for reasons of stock selection and leverage, but it is hard to argue that you can access the equity risk premium (or the risk premia accruing to other asset classes) in a non-volatile fashion in normal timescales.

This brings us to the point about timescale. If investors have a genuinely long-term horizon and certainty that there will be no cash calls on their portfolio then it may be appropriate to model the characteristics of the wrapper rather than the underlying assets. However, many investors have found to their cost that they did not have that certainty: the time when we need to tap portfolios for liquidity is often when markets are under stress and we are least able to get a ‘fair’ price for the assets we are selling. Portfolios of illiquid assets can also be highly stressed by currency hedges. Many illiquid strategies failed in 2008 not because of external cash calls but because the underlying strategies used USD instruments yet the portfolio was hedged back to GBP or EUR. The strong dollar meant there were cash calls on hedges which could only be met by the fire sale of assets.

Common Sense as a Cross Check

There is a certain purity in the notion that the only true price is the price at which a transaction takes place. Where we have portfolios of illiquid assets and we can see that transactions are taking place at levels below the asset NAV in the portfolio, this should act as a red flag to investors. If investors wish to estimate the potential for losses, the behaviour of related traded assets is often the best guide.

For portfolio risk-return characteristics, common sense is the best defence. The efficient frontier is a somewhat abstract concept and at any point in time we do not know exactly where it is. However, if we see an asset that appears to lie way above our perception of the efficient frontier on the return axis – or way below on the risk side – it is worth asking whether we have collected the right data, or alternatively whether we are accurately measuring the risk.

Other Alternatives

Alternative investments give access to 'skill based' risk premia that are uncorrelated to the risk premia of traditional asset classes. While many of these strategies do invest in traditional asset class instruments, they are typically focussed in nature and are constructed in a way that strips out some or all market beta from their return patterns. Investors include alternatives in their portfolios for a variety of reasons including return enhancement, volatility and risk control, and for basic diversification purposes.

In theory, the use of alternatives is a panacea in volatile markets: low correlations should mean consistent returns irrespective of events in risk assets. The reality, however, is very different. Different alternatives exhibit a greater or lesser correlation to more traditional asset classes, and in times of real crisis, correlations rise as negative sentiment creates a general selling pressure that indiscriminately impacts almost every asset class. However, careful analysis of alternatives and their effective separation by correlation and other statistical metrics enables a portfolio to be constructed that offers relative immunity from events in risk assets, and, as such, does effectively diversify even in times of market volatility.

The role of alternatives for an investor will depend on the characteristics of an institution's total portfolio. For instance, a portfolio dominated by equities may be served better by an allocation to alternatives that reduces volatility, places less emphasis on returns and is uncorrelated to equities; whereas an investor with a fixed income-based portfolio may wish to maximise the equity beta exposure certain alternative strategies can offer. In a multi-asset context, alternatives can provide return enhancement and offer diversification and risk reduction. Therefore, it is important to clearly define the objectives for alternatives within the portfolio, and to think of the overall allocation and the individual strategies in the right context.

Achieving the Right Blend of Alternatives within a Portfolio

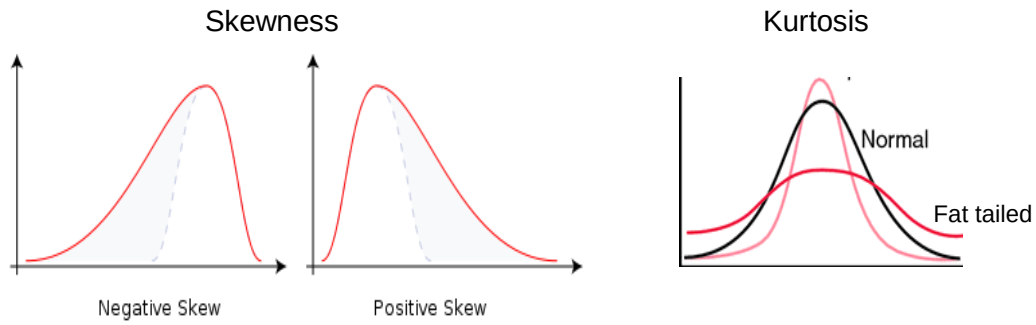
Identifying and selecting uncorrelated alternatives must be accompanied by prudent portfolio construction and risk management – i.e. diversity within the alternative strategies selected as well as at the overall portfolio level. However, achieving diversification is not always straightforward. A portfolio of alternatives that are lowly correlated will have a lower total volatility than a concentrated portfolio, but it does not diversify the skewness and kurtosis of returns. Therefore, naïve combinations of alternative strategies may not reduce the downside risk or offer diversification in a portfolio when it is most needed. This is illustrated in the table below where portfolios of hedge funds broadly have the effect of increasing negative skew (with the exception of global macro strategies).

Individual Hedge Fund and Hedge Fund Portfolio Risks

	Individual Hedge Funds			Portfolio of Hedge Funds		
	Standard Deviation	Skewness	Corr S&P 500	Standard Deviation	Skewness	Corr S&P 500
Merger Arbitrage	1.75	-0.50	0.47	1.04	-2.19	0.56
Distressed Securities	2.37	-0.77	0.37	1.54	-2.60	0.47
Equity Mkt. Neutral	2.70	-0.40	0.07	1.14	-0.41	0.19
Convertible Arbitrage	3.01	-1.12	0.19	1.64	-1.35	0.38
Global Macro	5.23	1.04	0.14	2.43	0.87	0.37
Long/Short Equity	5.83	0.00	0.35	2.95	-0.29	0.63
Emerging Markets	8.33	-0.36	0.44	6.15	-0.65	0.67

Source: Harry M. Kat, '10 Things That Investors Should Know about Hedge Funds', The Journal of Wealth Management, Spring 2003, pp.72-81.

Skewness and Kurtosis



Therefore, when combining portfolios of alternative investments, one should look beyond traditional measures of diversification such as volatility and correlation. Considering the third (skewness) and fourth moments (kurtosis) of the overall portfolio's distribution of returns (as depicted above) provides important additional insight.

Case Study 1 - Reinsurance

There are areas where investment managers develop institutional knowledge over time that can be accessed within alternatives. By investing in the equity and debt of reinsurance firms, for example, fundamental managers develop a deep understanding of the business models and the uncorrelated relationship to traditional asset classes (bonds and equities). Over the long-run, reinsurance offers attractive risk-adjusted returns and this makes it a strong contender for portfolios, and indeed, many institutional and alternative investment strategies are increasing their allocations to reinsurance. In 2010 we began a lengthy process to identify potential reinsurance investment vehicles, with the timing of the investment driven by the state of the reinsurance market.

There are a wide variety of funds that invest in insurance-linked securities, where reinsurance companies sell portions of their risk through marketable debt issues (catastrophe bonds) or private (bilateral) contracts. Such strategies can provide reinsurance to reinsurers, effectively a tail-hedge for reinsurance portfolios, diversified across a large number of natural disaster risks, ranging from US tornadoes to floods in Europe. As such, these strategies are uncorrelated to the volatility of other asset classes as the return is driven by natural disaster cycles. Timing of investment is important and should take into account when new contracts are signed.

Clearly a deep understanding of the asset class, including the investment and non-investment risks, is as important as traditional due diligence of the people, process and philosophy for such investments. They provide an uncorrelated return stream to traditional market risks in a portfolio (the Swiss Re Catastrophe Bond Index has close to zero correlation with global equities over the last 10 years). The nature of selling insurance is the negative skew of the returns, when natural disasters occur. By their nature these events are uncorrelated to the risks in other parts of a diversified portfolio. We believe a closed-ended vehicle is appropriate because of the liquidity of the underlying instruments, and a listed vehicle provides a quoted instrument that trades regularly on an exchange. These private securities are typically collateralised, virtually eliminating counterparty risk. The most attractive strategies in this space use parsimonious portfolio construction and target risk over return to protect portfolios from taking on unrewarded risk to achieve returns when insurance premia are low.

Case Study 2 - Trend-Following Strategies

The trend-following strategy has one of the longest track records in alternatives, dating back to the 1980s. The premise for trending markets relies on the herding behaviour of investors and is well documented in academic research. It is our belief that this is a persistent anomaly. With more

assets dedicated to this strategy, the alpha opportunity is diluted and maintaining a competitive advantage rests more on marginal improvements to trading signals or trade execution. The challenge is to find a manager that can deliver superior risk-adjusted returns going forward in this highly competitive strategy. Whilst trend-following strategies are not uncorrelated to equity volatility, they offer a powerful skill premium which makes them attractive investments in turbulent markets.

Our research into systematic trend-following has identified several characteristics of successful managers - attractive historical and rolling periodic Sharpe ratios, low correlation to other asset classes, and research and development ingrained in the firm's culture. Given the intellectual property that is invested in developing the models and the track record, the transparency to investors is very limited, but an in depth manager research process coupled with clear selection criteria helps to give comfort when looking at such strategies. We invested in such a fund some time ago. The track record dates back 15 years and has one of the highest Sharpe ratios among funds that have the characteristics we look for. The strategy is active in over 100 futures markets, with a focus on medium-term trends, but allocates 20% to counter-trend strategies to reduce downside risk in periods of sharp reversals. It trades relatively less frequently than some of its competitors (although turnover is much higher when compared to traditional investment strategies) and in the long-term it has near zero correlation to global equities. As part of the manager's emphasis on research, they collect huge amounts of data on a daily basis, and have a large team dedicated to data gathering, integrity and processing – this is vital to them as they believe that the more data they have, the more likely they are to find profitable trading opportunities in the future. This research, combined with constant efforts to improve and adjust their models is vital to their continued success.

Final Thoughts

Investors cannot completely immunise a portfolio from market volatility and indeed, as depressed valuations create potentially good entry points into assets, avoidance of all volatility is not in itself a sensible investment objective. However, careful selection of the underlying components in a portfolio – beginning with the use of talented managers with experience of navigating previous storms – and tilting towards both asset classes (e.g. alternatives) and within risk assets (e.g. towards quality) can mitigate the extent of losses in negative markets. Careful manager selection and a deep understanding of the expected return and correlation patterns of your investments are essential in achieving this. In times of market volatility, a consistent and repeatable process around selecting managers and strategies can be levered to identify, and overweight, those disciplines with the characteristics that help to insulate a portfolio in uncertain market conditions and so provide better prospects for attractive risk adjusted returns.

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