

Risk Management through Bespoke Fund Overlays

January 2021

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The markets begin 2021 cautiously optimistic with most equity indices continuing the rally in prices since the lows of end October, but with some market dips materialising over the past few days. Volatility of price movements for most indices – a key measure of prevailing market risk – has continued to fall. However, implied volatility – i.e. the price of buying protection on the equity markets – actually increased and remains elevated in comparison to pre-pandemic levels, implying that investors are still concerned about near-term risk in the future.

Despite the welcome optimism in the markets, we are still in the midst of the pandemic crisis, and so to many, asset valuations do currently feel at least a little detached from economic reality. Even for those with only short memories, the market volatility from last year is likely to be one of a number of risks and concerns that are still fresh in people's minds.

From the perspective of pension scheme members, such concerns could play out in terms of decisions that could lead to a lower quality of life. For those approaching retirement, there are concerns over renewed market volatility and whether that could mean pension pots fall short of being able to provide a reasonable enough income, and as a result could lead to them consider delaying retirement. For those at or in the early stages of retirement, concerns over renewed market volatility could lead to them withdrawing less income than they would like. Therefore foregoing enjoyment during their more active years of retirement.

Having a specific protection mechanism in place can provide additional reassurance. Furthermore, it can demonstrate that the pension scheme is taking concrete action to address such risk and the resulting concerns. The concept of a bespoke fund overlay is one such example mechanism, and we now talk through what this entails.

What is a “bespoke fund overlay”?

Defined Contribution (“DC”) pension funds in the UK often implement an investment strategy through a range of funds to allow for a diversified mix of asset classes. Pension scheme administrators – using either their own investment platform, or a specialist external one – will manage a member's allocation to each of these asset classes in line with the scheme's agreed asset allocation model (sometimes a “life-styling” strategy), with these funds then being housed for the member on the relevant investment platform.

The more advanced DC investment platforms have the ability to create “bespoke wrap-around funds” – i.e. a bespoke fund investing in a combination of the original underlying fund and cash. The cash can be used to back a derivatives contract, such as a future on the same benchmark index as the underlying fund. In this simple example, we assume this future “overlays” the original fund exposure on to the cash. Therefore from an investment perspective, the member experiences the same fund return before – less the operational expense of the overlay, and any difference in returns between future and index fund (i.e. “basis risk”).

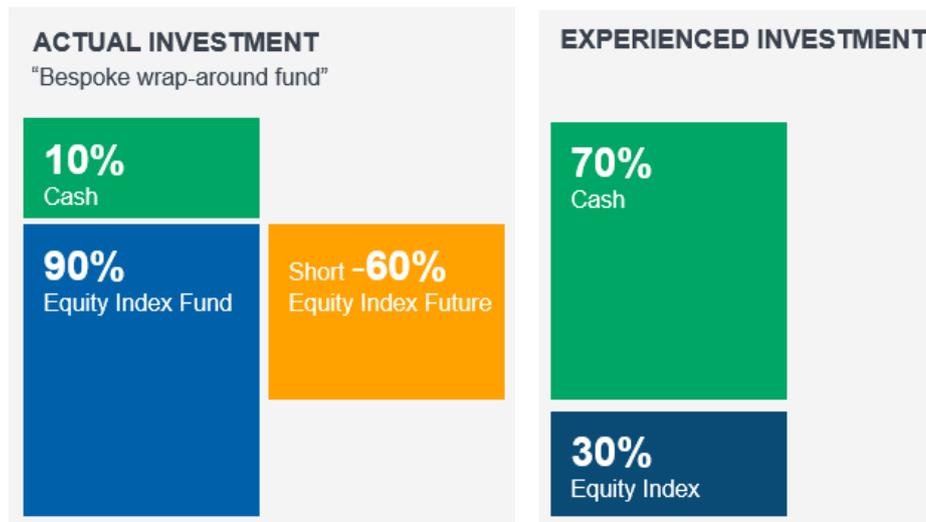


To fit this bespoke fund overlay approach within an existing life-styling strategy, the pension scheme administrator simply has to point towards the new “bespoke wrap-around fund” instead of the existing underlying fund. This could be for all members, or potentially a defined cohort, where more appropriate.

This may seem like a rather complex way to deliver the same (or similar) equity exposure. However, the key advantage to using cash and futures in this manner, is that it also gives you the ability to modify the exposure of the entire fund. We now talk through how this could be applied beneficially to manage risk for scheme members.

Using a bespoke fund overlay to apply risk management

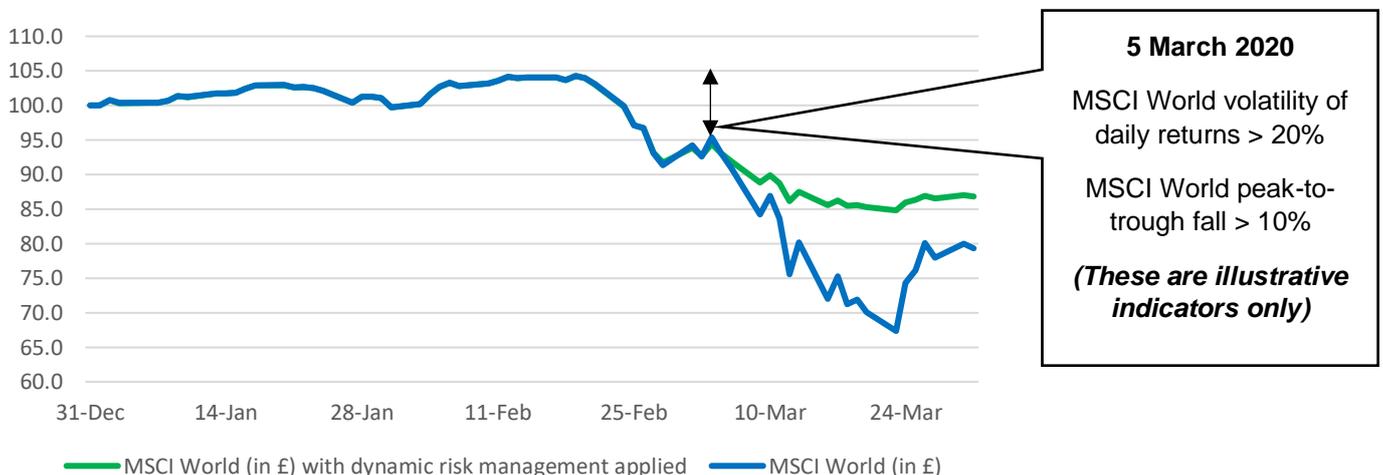
This approach is already used in the wider market (outside of the DC pension market) to apply dynamic risk management to an investment fund. As an example, a dynamically risk managed fund will have an indicator of prevailing market risk. This may indicate that increased risk (i.e. market volatility) is on the horizon, and so it is preferable to reduce exposure to equities in the underlying fund. This can be executed through a short futures position on the underlying equity fund's benchmark index (or one that represents the underlying equity fund exposure). The futures position requires cash to support margin requirements, and this is made available from the overlay – illustrated as follows.



Please note that the % numbers shown are simply an illustrative example only

Thinking back to the market volatility of Q1 last year, we see that on 5 March 2020 measures of risk, such as short-term volatility and recent market falls, were already indicating increased risk was on the horizon. If a short futures position had been put in place on this date (and actively managed thereafter), then it could have helped reduce the exposure to the subsequent market falls over the rest of the quarter – i.e. following the green line instead of the blue line in the graph below. This could have helped to stabilise a members' pension pot during this extremely volatile period.

Global Equity Performance in 2020 Q1



FUND IS HEDGED TO GBP STERLING. THE “DYNAMIC RISK MANAGEMENT APPLIED STRATEGY” RESULTS ARE BASED ON SIMULATED OR HYPOTHETICAL PERFORMANCE RESULTS HAVE CERTAIN INHERENT LIMITATIONS. UNLIKE THE RESULTS SHOWN IN AN ACTUAL PERFORMANCE RECORD, THESE RESULTS DO NOT REPRESENT ACTUAL TRADING. ALSO, BECAUSE THESE TRADES HAVE NOT ACTUALLY BEEN EXECUTED, THESE RESULTS MAY HAVE UNDER-OR OVER-COMPENSATED FOR THE IMPACT, IF ANY, OF CERTAIN MARKET FACTORS, SUCH AS LACK OF LIQUIDITY. SIMULATED OR HYPOTHETICAL TRADING PROGRAMS IN GENERAL ARE ALSO SUBJECT TO THE FACT THAT THEY ARE DESIGNED WITH THE BENEFIT OF HINDSIGHT. NO REPRESENTATION IS BEING MADE THAT ANY ACCOUNT WILL OR IS LIKELY TO ACHIEVE PROFITS OR LOSSES SIMILAR TO THESE BEING SHOWN. MILLIMAN DOES NOT MANAGED THE UNDERLYING FUND. Other results shown are historical, for informational purposes only, not reflective of any investment, and do not guarantee future results. Any reference to a market index is included for illustrative purposes only, as it is not possible to directly invest in an index. Indices are unmanaged, hypothetical vehicles that serve as market indicators and do not account for the deduction of management fees or transaction costs generally associated with investable products, which otherwise have the effect of reducing the results of an actual investment portfolio.

As market risk subsides the short equity index future position is gradually reduced. Once calm fully returns to the market, the dynamic risk managed fund could then revert to a position similar to the first diagram, with 100% exposure to the underlying index.

Practical implementation

One common question asked is whether there are additional risks to consider with the use of derivatives. The first main distinction to make is between over-the-counter (“OTC”) and exchange-traded derivatives. OTC derivatives involve a bilateral agreement with another counterparty. There is the risk that the counterparty fails to pay you in times of market stress. This can be mitigated through exchanging collateral. However, it is generally preferred not to be exposed significantly to a single bank in times of extreme market stress.

Exchange-traded derivatives instead expose you to the exchange (i.e. the clearing members that make up the entire market) and so greatly reduce counterparty risk. They are instruments that are in effect cash-settled at the end of each day. Exchange-traded is often a cheaper way to trade derivatives. For futures markets on the key benchmark indices, trading volumes often increase during times of market volatility. Institutional investors such as insurance companies have been able to trade large volumes of futures during the market crisis events of recent history, indicating that the market liquidity for these instruments remains robust when needed most.

The other key aspect to consider is the added cost of managing a derivatives position, for which there are several operational components. These include a specialist trading infrastructure that enables round-the-clock monitoring of market risk, supported by derivatives traders that are able to respond rapidly to rebalance risk positions if market risk does materialise, ensuring that risk management is applied at the time when it is most beneficial. There is also the infrastructure that supports the specifics of electronic trading of derivatives, as well as all the operational framework needed to manage the collateralisation of these derivatives. A large-scale specialist derivatives manager that already has such infrastructure in place, can leverage economies of scale to keep such operational costs to a minimum.

Finally, if both funds with and without the overlay are available on the same investment platform, it may be straightforward for the pension scheme administrator to offer members the choice to switch out of the overlay. While members of retirement age are likely to value the additional peace of mind that comes from having such a risk management mechanism in place, they may also value the flexibility to opt-out if they so choose.

Summary

Bespoke fund overlays can allow the flexibility to be able to provide beneficial risk management to its members. When markets are calm, a bespoke fund overlay can provide similar performance to a fund without an overlay. When market risk starts to surface, a bespoke fund overlay allows you to quickly apply risk management, to help reduce exposure to the worst of a market downturn.

Having such an explicit risk management mechanism in place, could be particularly reassuring to pension scheme members who are taking income in retirement, as well as those in the lead up to retirement too. They are likely to value the additional “safety net” this mechanism could bring. Therefore giving additional reassurance to allay potential concerns about their investments, and so help to avoid taking decisions that may be detrimental to their enjoyment and wellbeing in retirement.

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