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CLEAR PATH ANALYSIS

FIXED INCOME INVESTMENT STRATEGIES, EUROPE

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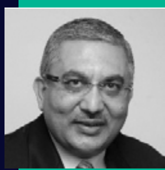

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SECTION 1

THE EVOLVING ROLE OF INVESTING IN FIXED INCOME ASSETS

1.1 ROUNDTABLE DEBATE

With investors concerned by the unknown impact of rising rates, how can they position their fixed income portfolios for unknown times?

1.2 WHITEPAPER

Different approaches to systematic credit factor investing

1.1 ROUNDTABLE DEBATE

With investors concerned by the unknown impact of rising rates, how can they position their fixed income portfolios for unknown times?

Moderator

Ben McNamara, Content Producer, Clear Path Analysis

Panelists

Kate Hollis, Senior Investment Consultant, Willis Towers Watson

Professor Trevor Williams, University of Derby and Economic Consultant

Dinesh Visavadia, Director, Independent Trustee Services

POINTS OF DISCUSSION

- *Investors have to be careful when being creative with asset allocations due to extra risks*
- *There is a large risk that the rate hike will slow the economy even further*
- *The key question is 'how many more rate hikes (and how quickly)?'*
- *Liquidity, hedging, cash management, and returns (from below investment grade), are all aspects that pension fund trustees have to consider*
- *Investors must be more unconventional in thinking about asset stream income received from holding various investment vehicles*

Ben McNamara: The Bank of England has made a big suggestion of a rate rise before the end of the year. Firstly, what is your reaction to this?

Dinesh Visavadia: Initially, I think it is a good idea but to a large extent many of the pension schemes are well hedged, and so the impact on those schemes' funding positions might not be as big as we might think. Also, a lot of the price rises might have already been factored in, so the question really is to what extent it is going to go up (and whether that has any material impact). On the other hand, apart from interest rates, there is the inflationary pressure that most of the schemes are exposed to, and there is a question as to whether this is going to drive up longer-term interest rates or not. It does sound good, but I would like to see more (and at least relieve some uncertainty around when rates are going to go up); it is the start of a journey.

Trevor Williams: I agree with Dinesh that it will relieve uncertainty about the timing of the next rate action, and to some extent it has been well signalled, so markets should be prepared for it. Inflation is going to fall back anyway because it is the product of the fall in the exchange rate and the rise in import prices as a result. So the effects on the funds will be temporary, but the risk of the rate hike slowing the economy even further is quite large. The UK is the slowest growing of the G7 economies, so financial markets could speculate that the next move will not be some time (if at all) in the absence of a faster growing economy. Some argue that the rate hike was necessary, because people are borrowing too much and getting too far into debt. Studies show that 50% of people won't have enough money to live beyond the next paycheck without resorting to borrowing in some form or another.

There are many reasons why you can't keep interest rates at the 0.25% emergency level. The main argument is that the economy is recovering and does not justify rates that low anymore. I would have liked a 0.5% as a first move, because that would then have allowed the Bank of England to use the language that it was done for now and would hold rates until it was clearer where the economy was headed and whether inflation was falling from its peak. As 0.5% would have been such a big move the financial markets would have believed them, which would have allowed the Monetary Policy Committee (MPC) the chance to buy themselves some time and see how the economy develops before the markets speculate on more rate rises. I worry that it may be very bad timing to have moved now and would have preferred a rise earlier in the year, because the economy is slowing and Brexit uncertainty doesn't seem to be going away.

Kate Hollis: The rate hike was going to come at some point and one small hike makes very little difference one way or another. The question is not one small hike but how many more and how quickly. Given the stunning lack of clarity that we have got at the moment anyway, because of Brexit and other matters, if the market decides that this is the start of a range of hikes, then there could be very unfortunate effects not just on the gilt curve but on the credit curve as well.

If the market decides that there are going to be too many hikes, that will spark a recession, then we could see credit getting hit. If it decides that there are going to be too few hikes and inflation is going to take off, then the curve will take the pain, but it is not a simple question. Given that Foreign direct investment (FDI) is collapsing and the outlook is murky, it is going to be difficult for everyone to see what happens next.

> “IF THE MARKET DECIDES THAT THERE ARE GOING TO BE TOO MANY HIKES THAT WILL SPARK A RECESSION, THEN WE COULD SEE CREDIT GETTING HIT”

Ben: How could these rate rises affect the risk tolerance of a Fixed Income portfolio, broadly speaking?

Kate: If there were too many hikes and they were too large and too fast then the credit part of the portfolio would get hit. Risk is multi-dimensional, so that if there were too many hikes and they were too quick, the long end of the gilt market – and I agree with Dinesh that many clients are fairly well hedged anyway – would perhaps not do much one way or another and it would be credit spreads that would take the strain. It does depend on what risk you are talking about.

Dinesh: Typically, with pension funds the Fixed Income side of things is divided into two parts. One is where we are buying and maintaining bonds and gilts and hedging part of the section; and the other is all below investment grade, (which is all about trying to seek some extra returns from that). From a hedging standpoint schemes are well up on their hedging rates, but there is an issue that if the rate hikes are fast and quicker than expected, the cash management could become quite difficult for pension schemes, and that would be quite a challenge. Kate's point is also valid in terms of credit element of the risk and seeing what happens to the spreads there, and whether you are going to achieve your target returns in that area or not. Both equations are going on but in different parts of the portfolio (within the context of Fixed Income).

Trevor: It would be nice if financial markets believed that the rate hike was big enough to mean that the MPC was not going for series of hikes. This would mean that the market wouldn't have to be worried about something that the central banks know about the state of the UK economy that they themselves don't know. A 0.25% may not put the Bank of England 'ahead of the curve'. In the search for yield, risks are being taken. Investors should remember that securities, which are sub-investment grade, are such because they are riskier and more vulnerable to the cycle. As sub investment yields fall, the credit quality of the trade deteriorates, which makes the purchase even riskier. In terms of hedging the risk of such a trade, you can't hedge 100% of the risk of a position, as that gives away all the gains. So, although it is hedged, it may not be hedged enough, and that becomes part of the balance of risk equation as well. I know that market volatility is low, but that worries me too, as I am not sure that it should be (given the uncertainties that there are out there).

Ben: With this uncertainty, how should investors prepare themselves for the prospect of multi rate rises in their various Fixed Income investments?

Dinesh: This is quite topical as I would like pension schemes and trustees to start scenario planning in many ways, as it would be really good to take a number of scenarios and think through what impact it would have on their portfolios. On the liquidity, hedging, cash management, returns that you are getting from below investment grade returns etc., are all aspects that pension fund trustees have to consider, and scenario testing is the right way forward.

Trevor: Scenario planning opens up the possibilities, the 'known unknowns', they should be sketching them out and planning in full as to how these different categories could impact the firm. It needs to consider what it would mean for its fund's given obligations and commitments to those in the schemes that require money to be paid out to them in return for the policies. Given these payments are at set periods, you should be able to map what your obligations are, and so what you should be trying to do to ensure returns from investments do meet those monetary obligations. Clearly on the one hand Fixed Income could be hit and credit quality should deteriorate as rates rise. If it is the case that the MPC tightens too much too soon. You've got to hedge your fixed income risk by looking at other asset classes and not just stay within a narrow range of assets. You have to be more unconventional in thinking about the asset stream of income that you get from holding various investment vehicles.

Kate: I would agree with Dinesh's points on scenario planning, but, in my experience, it takes clients a long time to make a strategic reallocation and, once they have done it, they want to leave it for several years. They are not macro traders and don't want to do tactical asset allocation. If they do want to be allocating tactically, they should be outsourcing to someone else as they just don't have the governance to do it. Sterling is a small part of the investment grade universe globally and a smaller part of the high-yield universe globally. I imagine there are very few clients who have pure sterling credit. If Sterling credit deteriorates it doesn't mean to say that dollar credit will, as it will be far more impacted by what happens in the wider global economy or what may or may not happen due to US corporate tax reform (this is true for Euros as well). Just because they have credit and the UK economy might be sputtering to a halt, doesn't mean to say that their whole credit portfolio will be affected. As well as looking at other asset classes you need to look at other regions and what exposures you have overall. But hedging non-sterling is about to become more difficult and expensive, as you will have to provide collateral for it.

Ben: Which Fixed Income assets should investors now begin to consider?

Kate: If credit is going to get hit because the UK economy has slowed, then equities will probably get hit worse. If you don't want to have sterling credit you should look at global credit on a hedged basis and there are all sorts of other return-seeking Fixed Income asset classes which won't be affected by sterling at all, such as US, global or emerging markets. There are even illiquids too, which won't seem as volatile, as illiquidity will disguise the underlying volatility; you could look at illiquid US Dollar or illiquid Euro private lending.

Trevor: You've got think outside of the UK universe, if the UK is sputtering then you have to hedge the UK and go beyond the UK I don't feel that the whole world is slowing it is just the UK that is, which means that there is relative value in asset classes elsewhere or, to be more accurate, there is a mismatch of higher relative value in non-UK assets as a result of the UK slowing but the rest not slowing. Hedging this position should be less costly because the potential returns are higher. For instance, European equities will offer better returns than UK equities because they are at a 10 year high point in their growth cycle, and yet the European Central Bank (ECB) will not move for a significant period of time. They have said they won't and have talked about what they are going to do in regard to the asset purchase programme. In other words, they won't be doing any reduction of the Quantitative Easing (QE) that they have, and instead what they will do is to continue the asset purchase program for another twelve months or so, which means that you know that EU Fixed Income will continue to offer higher returns because it will be supported by the authorities. Outside the UK there is a whole universe of opportunities to look at, but the question is 'how do you hedge the UK currency risk?', and that, in turn, depends on whether or not the currency fall takes another leg lower as we get close to Brexit. That, in turn, depends on the shape of the deal. With equity classes, one has to look at non-cyclical stocks, the ones that even in a downturn don't get hit that much (like food stocks). On a Fixed Income basis, I feel that clearly there will be issues down the road when QE starts to be unwound, but they are still down the road, so they are still worth hanging onto because, if the economy stutters, the Bank of England won't be able to raise rates any further and, as a result, yields won't rise any further. In fact, yield curves could flatten.

Dinesh: Whilst it is difficult to move strategic allocations (because it just takes a long time for trustees to decide that, once you have decided to, now is the time to think about how you access all of these markets and think about how you access the Fixed Income funds that are in your schemes whether they follow something like an absolute return type strategy or active management), this is an opportune time to think about these strategies and position schemes to capture the changes quickly that might happen unexpectedly as well.

Ben: Do you think the economic climate is right for a change in interest rate, especially outside the UK? Where are the opportunities for investors?

Dinesh: Europe and the US offer opportunities as well as in the emerging market debt area at the moment, but it is a question of making sure that you have a good manager who can source some of the best ideas and put them into good practice. There are some other asset classes which are longer-term infrastructure debt type of arrangements which might work, or bank loans and direct lending which could also be used for some of the areas that might be attractive.

Trevor: To me the world is still greater than it has ever been, and capital should be mobile and the governance around being able to invest in other markets is better than it ever has been. The US does remain a growth story although I would be wary about what to put in the US, given some of the uncertainties that they have out there, it would need careful thought. The economy as a whole should be able to respond quite well to the fact that it is now no longer suffering from the effects of the global financial crisis, with the banks now being in pretty good condition. If one looks at some of their stock, then they appear to be pretty solid and if one looks at the debt that they have issued it is also pretty good value, so the US and Europe remain good, solid bets. Germany, France, Eastern Europe all seem like good gambles, although one needs to be aware of political issues in some countries like Poland and Hungary.

Kate: People have to be a little bit careful in getting creative with their asset allocations, because the more creative you get, the further you are likely to be moving away from your liabilities, which sets up all sorts of extra risks. Where you should be more creative is buying assets that match your liabilities more closely, particularly long-term inflation linked assets (which can generate an illiquidity premium) because there is not enough long-term inflation protection to go around. You should be buying those sorts of assets if you can find them, whether infrastructure, property, ground rents, etc. Otherwise it is just a case of doing the best you can and making sure that what you've got is efficient, whether efficiency means matching your liabilities well or not paying too much to have it managed.

Ben: Do you think there is light at the end of the uncertainty tunnel, or do you really feel that uncertainty continue in perpetuity?

> Europe and the US offer opportunities as well as in the emerging market debt area at the moment, but it is a question of making sure that you have a good manager who can source some of the best ideas and put them into good practice

More broadly, I agree with Dinesh about the emerging markets as they are catching up. Global household incomes are still going up and (despite some of the issues around China and the region) there is still some pretty solid economic growth taking place in Malaysia, South Korea and Taiwan.

In terms of asset classes, I would agree with infrastructure. There is a crying need for funding in infrastructure in many countries. There are a range of good projects across a range of countries around the world, including the UK, which makes them ones that are realisable and sensible investment projects to be looking at.

Kate: If you are going to be investing globally, you should definitely be hedging sterling. You just have to accept that it is going to cost you more and be more complicated because of European market infrastructure regulation (EMIR) and Markets in Financial Instruments Directive (MiFID) II. Otherwise I would agree with what has been mentioned.

Ben: Could the rate rise change the values of long-term bond investments or non-cyclical stocks? How should investors be 'more creative'?

Kate: I have been working in the markets for 36 years and there has always been uncertainty about something. At some point we will know what is going to happen with Brexit but something else will have come along in the meantime for us to be uncertain about.

Dinesh: The question is really where will normality rest and that is a very difficult question because there are so many moving parts at the moment. It begs the question how far normality is and whether we will actually get to it or not, all we know is the history and what normal conditions look like. Whether these will persist going forward or this will become the new normality I am not sure in my own mind but to me it looks like it is all quite far away.

Trevor: The right strategy is one that embraces uncertainty. We are seeing periods of unprecedented change, the pace of technology and the speed at which adjustments are made can only get faster with nascent technologies that have yet to be brought into play and will speed up what we are already seeing. At the same time, it is leading to some political and social ramifications of managing that, and yet (at the same time) these changes are leading to a higher global living standard. In other words, there are still assets that funds can invest in and I believe that this is an essential point. It is keeping your eye on the ball as to which are the good ones that use proper, good, credit control mechanisms, and having an appreciation

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that this is the 'new normal'. There will always be uncertainty and challenge and success depends on how you respond to it. One should look at a range of assets, like technology stocks. If unsure, perhaps you bet on an index of stocks. Commodities will always be in demand, so you do stake a long-term view on some of those asset classes because you know that they will continue to give realisable returns.

Dinesh: There will be good investments, but it is a question of finding them and that is where finding the right manager who can source the opportunities is quite critical. Looking at it from a pension scheme standpoint I would quite like to see rates moving up quicker, as at least we could get lower deficits and become more manageable which gives companies more choices and options to run their businesses.

Kate: The question for now, regarding rate rises, is how many, how fast and what else is going on around us?

Trevor: Focus on the fundamentals of what is a good investment vehicle. Does it have durability? Have you done your corporate governance etc? All of these elements are what you cling to in times of uncertainty

Ben: **Thank you all for sharing your views on this topic.**

1.2 WHITEPAPER

Different approaches to systematic credit factor investing

Andrea Dacquin,
Head of Fixed Income,
Quoniam Asset Management

SUMMARY

- *Systematic investing offers a number of advantages, not only in equity but also in corporate bond markets*
- *Two approaches to systematic credit investing are important to review: a mix of single factors and a multi-factor fair value approach*
- *Empirical analysis shows that a 'mix of single factors' portfolio can generate outperformance and a low correlation to the market cap-weighted index*
- *The best outcome in terms of capital appreciation and risk-adjusted returns is being delivered by the multi-factor fair value strategy*

When it comes to disciplined investing and controlling risk, the use of systematic approaches in active asset management offers a number of advantages. Firstly, it removes the element of subjectivity inherent in human analysis and thus immunises investment decisions from cognitive biases. Secondly, it allows to deal with investment universes of several thousand securities in an efficient, timely and uniform manner, which is particularly important for the vast and increasing bond universes. Global investment grade and global high-yield universes have more than doubled in the last two decades, counting for more than 11,500 securities today. Thirdly, security selection, using a systematic factor approach, is fully explainable and traceable back to the criterion used at any time in the past, and provides a high degree of transparency.

Factors and the fixed income universe

Fixed Income investors naturally position themselves around duration, term structure, credit spread and liquidity, which makes Fixed Income a natural place to apply systematic, factor-based investing. Corporate bond pricing is not independent from equity pricing, but it is important to keep in mind that there are critical differences between equity and corporate bond markets.

Firstly, unique market dynamics related to changes in Fixed Income curves and carry for return generation, as well as liquidity properties of bond portfolios, need to be taken into account. Transaction costs are higher, liquidity is poorer, and it is very hard to take short positions in most corporate bonds. Secondly, the factors need to be tailored to the corporate bond market. For example, while book-to-price as a measure of 'value' in equity, Factor Investing exhibits a well-known positive relation with future equity returns – it is less significant for value assessment in Fixed Income. Thirdly, credit as an asset class is very fragmented, with substantially different risk-return profiles – high-grade credit and high-yield bonds, financials and non-financials, seniors and subordinates, there is no 'one size fits all' factor composition for all those different segments.

The academic evidence for Factor Investing in Fixed Income is long and varied. Starting with the original Fama/French papers, there is academic evidence of systematic sources – other than rates, spread and inflation curves – that can explain variation in Fixed Income returns. Bearing in mind the importance of steady income generation and limited risk budgets imposed by the current challenging regulatory environment, there are two different approaches to systematic credit investing in Euro corporate high-grade that are important to review: a mix of single factors and a multi-factor fair value approach.

Mix of single factors

To illustrate the two approaches, based on our empirical analysis, we start with the construction of the 'mix of single factors' portfolio by focusing on the selection of credit factors delivering the best risk-reward profile for the euro high-grade corporate bond universe. Out of our universe of more than 20 composite factors that we follow regularly, we have identified three that are providing the most suitable results for above stated investment universe – quality, bond momentum and sentiment.

The quality factor[1] reflects the quality of company growth and is the factor characteristic of securities that are good stores of value during periods of market sell-offs. The quality factor outperformed other single factors during the financial crisis in 2008, as well as amid the European sovereign debt turmoil. The flipside of the coin is the underperformance of quality during periods of strong market rallies. The 'quality factor' tilts portfolio construction towards issuers with high quality of growth, and consequently demonstrates excess return associated with holding high quality, low-Beta bonds. The quality factor portfolio generated lowest outperformance, which is not surprising given its low-Beta characteristics in the market environment where credit spreads have tightened on average. Notwithstanding its low return contribution, the factor is a very good diversifier for traditional benchmark management.

> "We believe that credit value needs to incorporate some definition of relative value and this is not directly feasible in the factor framework – for this reason a multi-factor fair value approach is essential"

The bond momentum factor portfolio allocates to bonds that have outperformed over the last twelve months with a one-month implementation lag, and tilts portfolio construction towards past winners. We scale the factor loading by volatility for the sake of exposure reduction to high-Beta bonds during periods of market sell-offs. Even if volatility scaling has mitigated downside to a certain extent, it is not surprising that out of the three factors – quality, bond momentum and sentiment – that are providing the most suitable results (Sharpe Ratios well above the benchmark[2]), bond momentum has only generated the second strongest Sharpe Ratio. It shows how important it is for Fixed Income investors to understand the role of fat tails and asymmetry in bond return distributions. The price appreciation in bonds is limited, as prices remain relatively close to par, but the downside risk is substantial. We focus on downside risk mitigation, which is reflected in our use of a risk-adjusted momentum factor.

[1] *Quality is a composite factor consisting of financial ratios like change in ROA, change in asset turnover, R&D costs to Total Assets, and other balance sheet items relevant for assessment of growth quality.*

[2] *Market cap-weighted benchmark BofAML Euro Corporate Bond*

The sentiment factor is a sophisticated composite equity momentum factor reflecting risk-adjusted aggregation of single stock, industry, geographic region, and customer supply momentums. The sentiment factor portfolio allocates to bonds whose equity counterparts were the winners, across the categories described above, over the past 12 months factors – quality, bond momentum and sentiment – that with a one-month implementation lag. The 'sentiment factor' portfolio outperformed the 'bond momentum factor' portfolio, both in terms of capital appreciation and risk-adjusted outperformance relative to the market cap-weighted index.

The security selection follows a so-called best-in-class methodology, which consists of ranking bonds with respect to factor exposure and select best. In the factor portfolio construction process we allocate to all issuers that are at least one standard deviation away from the studentised mean of the factor. Once the three factor portfolios are built, the 'mix of single factors' portfolio allocates equally to each factor portfolio. The rebalancing occurs monthly, and the framework controls for duration and curve exposure. We have not included a single value factor in this 'mix of single factors' portfolio – we believe that credit value needs to incorporate some definition of relative value and this is not directly feasible in the factor framework. For this reason, a multi-factor fair value approach is essential.

Multi-factor fair value model

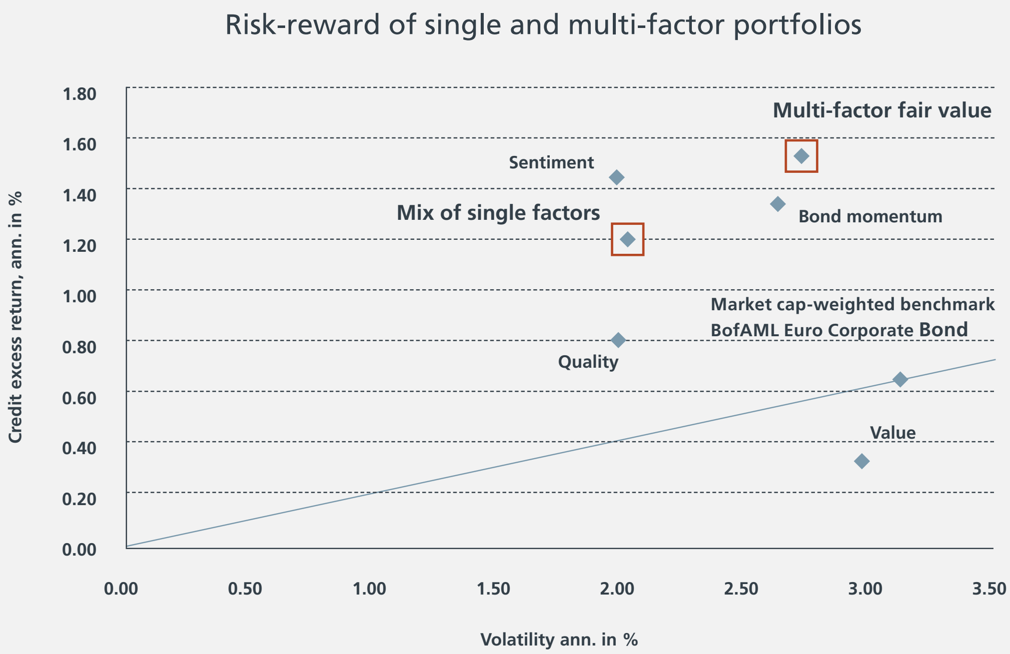
To construct a multi-factor fair value portfolio, we first run a cross-sectional regression of issuer market spread on multiple factors like equity implied volatility,[3] profitability, leverage, solvency, size, changes in earnings, changes in analyst recommendations and other factors. All factors are fundamentally meaningful, statistically robust and stable over time, in explaining issuer credit spread. The sum of the factors calibrated with their respective slope coefficients, estimated in cross-sectional regression, represents the fair value spread. The premium in the equation below makes the issuer spread quoted in the market equal the fair value spread:

$$\textbf{Market Spread}_i = \underbrace{\alpha + \sum \beta_i * \textbf{Factor}_{i,j}}_{\textbf{Fair Value Spread}_i} + \textbf{Premium}$$

The premium itself represents market mispricing, which allows cheap and rich bonds to be identified. The ranking of bonds is then established with respect to the premium, and the top 10% in terms of highest positive premiums are selected each month. Rebalancing and return calculation follows the methodology outlined before.

But instead of using a rather simplistic equal allocation to factors within the multi-factor fair value framework – as in the case of the 'mix of single factors' portfolio – the allocation to factors reflects the long-term systematic relationship between the factor and the market spread – and the allocation to factors over time considers changes in factor relevance for explanation of returns. The chart shows the risk-reward of single and multi-factor portfolios since December 1998.

[3] *We exploit findings of the Merton Model (1974) in the factor composition of our fair value approach.*



Source: Quoniam, period Dec. 1998 – Jun. 2017

Multi-factor fair value approach shows best capital appreciation

All factor portfolios – with the exception of value – outperformed the market cap-weighted benchmark and earned significantly higher Sharpe Ratios. The 'mix of single factors' portfolio shows an outperformance of 0.54% points above the market index credit excess return of 0.66% points, and a low correlation to the market cap-weighted index. But the best outcome in terms of capital appreciation and risk-adjusted returns is being delivered by the multi-factor fair value strategy, showing an outperformance of 0.89% points. Due to high turnover associated with sentiment and momentum single factor strategies, the multi-factor fair value strategy shows by far the most attractive Information Ratio after transaction costs.

Looking at the risk-reward superiority of credit factor strategies – and especially sophisticated factor composition – it is very likely that Factor Investing will change the landscape of Fixed Income investing, which is still very much dominated by investment based upon fundamentals. As more players engage in credit Factor Investing, we believe that factor definitions and their risks and rewards must be continuously reviewed to assure that they are appropriately used.

SECTION 2

CHALLENGING THE APPROACH TO FIXED INCOME

2.1 ROUNDTABLE DEBATE

Factor-based Fixed Income strategies. The re-invention of an old concept, or a new way to achieve granular portfolio diversification?

Moderator

Andrea Dacquin,
Head of Fixed Income, Quoniam Asset Management

Panelists

Andrew McDougall,
Head of Fixed Income Portfolio Management, Mercer

David Weeks,
Co-Chair, Association of Member Nominated Trustees

POINTS OF DISCUSSION

- *Investors should appreciate that Factor Investing and Smart Beta are significantly different in the way in which they approach benchmarks*
- *Trustees need to understand more about how the Factor Investing 'engine' works*
- *Academic research behind various factors should speak across more than one asset class*
- *Liquidity in fixed income is a challenge and needs to be managed effectively*
- *The industry must be more articulate by communicating in an effective way*
- *Fixed income factor investing will continue to gain popularity given investor focus on alpha generation and value*

Andrea Dacquin: Credit factor investing has appeared on radar screens of bond investors relatively late, compared to equity factor strategies, but has succeeded in attracting considerable interest in the recent past. Factor strategies in general (in equities, fixed income and multi-asset) represent a very heterogeneous group of strategies. Before addressing the features of credit Factor Investing, it makes sense to establish a clear definition of a factor and a factor strategy. What is a factor and what is a credit factor strategy?

Andrew McDougall: It has to be something that is identifiable, that you can describe and analyse; it cannot be purely qualitative. It also needs to be repeatable and not something that is just a one-off, as well as being logical and something that, when you have identified it, you are able to explain it in a rational way.

Within credit investing, there are a number of factors which poured across the equity side as well. We think of credit investing as the concept of value as a driving factor, as well as momentum and size. There are also factors related to low-risk and minimum volatility. There are many factors that we feel persist in this space and that are relevant for fixed income credit investing from a factor perspective.

Andrea: Additionally, the factor should explain the returns over the long run, if not the whole return then a component of the return, would you agree?

Andrew: Yes, that is what I mean by repeatable and whether it is possible to systemise the factor.

David Weeks: I represent the member nominated trustees, so our starting point is that we wouldn't claim to be experts in evolving the factors. We see ourselves as the evaluators of what the experts, like Andrew, come forward with.

The other starting point is that we are aware the technique of factor investing has been around for some time. So, by and large, we feel that we are looking at a contemporary take on something that has been there before, rather than something new. The number of factors that we are talking about in the past have been very large, but we are coming down to the list of four, which Andrew has described.

In terms of criteria: describe, analyse, repeatable and logical would be of significance. The other ones I would add to these four would be measurable and scorable, which may be a combination of analyse and logical. Value, momentum, size and quality are the four that most of our members would recognise. We would worry at the point you start to score them (if you weight them in different factors it is reasonably possible to come up with whatever answer you want). So we are nervous of that (even though the practitioners need to be skilful to exercise it). Perhaps this is a fifth criterion: skilful operators need to be around to implement it.

Andrea: So factor can be defined as any variable that is identifiable, repeatable, logical, measurable, and that explains over a long time-horizon some component of the returns. A typical benchmark-type of management where the objective of the asset manager is to beat the benchmark is well known. In comparison, what does the factor strategy mean?

Andrew: When I hear the term [Factor Investing] I normally assume that it is very much a quantitative process that installs the discipline around the qualitative or observed pattern. When I hear 'factor' I think that it is about a quantitative approach to capture the risk premium that is being discussed. I think about it in an active sense rather than a passive sense. I normally think that you are trying to utilise factors to better capture a premium and, therefore, beat a benchmark. I think about it quite differently from what some people would term Smart Beta. They are quite significantly different areas in that regard, as Smart Beta isn't necessarily about beating the benchmark, but is about doing something different. However, factor investing is using your quantitative ability to try and beat the benchmark in a disciplined way.

David: The strands that trustees would be looking for is 'what would it do to increase returns, reduce risk and expand opportunities for diversification?'

Andrea: I agree. Smart Beta is definitely not about beating the benchmark, it is about constructing a better diversified universe. This is really important in the fixed income space, because traditional fixed income benchmarks are constructed with respect to outstanding debt, and the implications here are not trivial. Cap-weighted bond benchmarks have a higher exposure to the most indebted issuers, and this is perhaps not so much an issue in investment grade, but it is definitely an issue in high yield. Smart beta in this sense is quite an effective and efficient solution to construct a beta universe where your allocations won't follow a market cap but will follow some rules that you have identified and deem more appropriate. My second question is on the typical factors that we already know well from the equity side (value, momentum, size, quality, low risk, etc.) To what extent are these factors transferable to the fixed income world? Fixed income investors are positioned around interest rate, credit spread and inflation curves. How does Factor Investing fit into the traditional credit-investing framework?

“WHEN I HEAR THE TERM [FACTOR INVESTING] I NORMALLY ASSUME THAT IT IS VERY MUCH A QUANTITATIVE PROCESS THAT INSTALLS THE DISCIPLINE AROUND THE QUALITATIVE OR OBSERVED PATTERN”

David: I suppose rather than a definitive answer, trustees would question whether this is as an approach that can be applied to any market you want to i.e. if we are looking at fixed income, rather than equities as the asset, could certainty be applied to that. Opinions vary on how this would be applied but we, as lay trustees, wouldn't really see ourselves as being in the front line of developing the theory. We see ourselves more as evaluating the ideas that the experts put forth. What we would notice is that, in terms of the take-up of the approach, is that the figures I have seen show that the Asian market is more inclined to look at it than Europe. Europe in turn is a bit higher than the Americas.

Andrew: I can't comment on the regional preferences. Although, generally, Europe seems more open, or faster, to respond to changes in the market and the availability of strategies in this space.

Generally, the transferability of all of these factors prevalent across multiple asset classes in particular within fixed income is there. A lot of the academic research and logic behind these factors, and why they exist, should speak across more than one asset class, as a lot of them are either potentially behavioural biases or things around this which impact and create these biases structurally over time. There is a factor, which stands out as more significant and easier to capture in the fixed income and equity space by virtue of the type of lending, and this is the value factor. I am not saying that all portfolios should only consist of the value factor, but value within fixed income as a concept and as a factor seems to be very prevalent, and intuitively makes more sense plus is easier to capture. Cheaper bonds should have higher returns and higher risk adjusted returns over time. The good news is that, in the fixed income space, bonds pay back at par or go bust. Particularly in the investment-grade space, you've got a very high probability of paying back at par with low default-rates, and so value as a factor seems to work particularly well within fixed income. In the many years that I have been advising and implementing on behalf of clients, I would say that the best strategies tend to have a value bias embedded somewhere in the process. It isn't the only factor, but has a very strong discipline within their investment philosophy.

Andrea: There are factor approaches where you model a fair value. It isn't a mix of factors or integrated factor mix (as is the case in equity), but often you just have the fair value framework where different factor groups or factors are integrated, and you model where the spread should be and then compare this with the current market spread. From this mispricing you can then derive a value opportunity and this is quite different to the equity space. I would also argue that, although factors are transferable to credit spreads, obviously this is just a credit excess return, so there is another portion of interest rate return that comes on the top of it. I would also mention liquidity - it is important to take into account liquidity when speaking about fixed income factor investing. For the factor like e.g. momentum liquidity is particularly important as the factor turnover is high. How do you see the challenge of liquidity in credit factor investing?

Andrew: On the liquidity side we tend to want to make sure that as an end investor representing clients, you are being rewarded for the risks that you think you are being rewarded for. For example, if you think within the sub investment-grade credit space, what are you actually being rewarded for? Are you being rewarded for Alpha and selection skills, or is the manager just harvesting illiquidity premium? The smaller companies do tend to have wider spreads, and, if you have a company bias strategy, one of the risks you are being rewarded for is illiquidity risk as opposed to other things. At the same time, liquidity is being talked about as something that is difficult to access, and, with the amount of balance sheet that the banks are committing to, this, as a function of the size of the market, has definitely declined. The one counter argument that I would have (although I would agree that liquidity is a problem), is the trace values published in the U.S. point to the fact that volumes are pretty healthy, but it goes back to my previous point about where the liquidity really is. You do tend to find that liquidity is tail ended – i.e. all liquidity is within a small number of larger issuers, with the tail of small issuers being quite illiquid, and, therefore, being aware that there is that bifurcation of liquidity in the market means that we have to be very cognisant of what we are being exposed to, either from Factor Investing or investing in general.

David: I would look at different categories: economic rationale, value creation, diversification and effective implementation. You could group these into different categories. At the top you would have you would have macro factors, economic growth, credit significance. And the second group would be the style factors, value, momentum, quality and low volatility. With, finally, the Alpha factors of security, selection, and categorisation by country and by industry sector selection. You could categorise them in a number of different ways.

Andrea: There is the question of where the reward comes from; is it really the Alpha that the asset manager is generating, or is it just a reward coming from the illiquidity premium? Does it make sense to include the liquidity factor into the framework? If we take the fair value framework, you can work here with different factors: market, macro, balance sheet ratios, and also liquidity factor. Or is it more a liquidity screening when you construct the portfolio that is important? Which liquidity dimension is more important - the liquidity screening or inclusion of liquidity into the factor framework?

Andrew: Both make sense. Given the research we have done here we don't tend to think of a liquidity factor, we think of it as a size factor, and this is what some of the academic research seems to point to. For sure, as an investor you want to make sure that, if your portfolio has a big illiquidity bias, that you are aware of it, otherwise you don't want to have a mismatch in the liquidity that you are offering investors and the liquidity of the underlying portfolio. Provided you have the right tolerance, or the ability to take the illiquidity factor within your portfolio (to do it in the right size), then it shouldn't jeopardise on any other constraints or objectives.

Andrea: In fixed income investing, Factor Investing has considerably evolved in recent years. Could you elaborate on what flows do you see in this specific style as opposed to traditional benchmark-driven fixed income investing?

> THE GENERAL VIEW IS THAT WE DO NEED TO KNOW A BIT ABOUT HOW THE ENGINE WORKS, BUT WE DON'T' NEED TO KNOW ALL OF THE DETAILS. WE RELY ON THE REPUTATION, STANDING AND OVERALL APPROACH OF THE PERSON WHO IS IN CHARGE OF PRODUCING THIS

Andrew: What we focused on was more outcome orientated strategies. In terms of the flows and general trends that we are seeing from a fixed income perspective, there is a focus on outcome orientated investing, so clients are moving away from investing like a benchmark, and focusing more on what outcome they want as well as what risk profile and return they can expect as a result. Also, for clients who want a blend of both of those strategies, they are making sure that the portfolio is best exposed to capture the latest thinking.

One of the things we have encouraged clients to think about is whether they have sufficient diversification in their benchmark-relative strategies (be that across traditional active management strategies, buy and maintain strategies or Factor Investing strategies) as a way of capturing some outperformance versus a benchmark. On the former point (around outcome driven investing), the big demand has been in the area of absolute return investing, which always means different things to different people. But for us it means achieving a low-to-moderate performance over cash with less dependence on the market Beta returns itself – utilising long and short investing across liquid markets to try and generate a return above cash, but not significant or very punchy returns. The secondary area is on the multi-asset credits, due to more unconstrained ways of accessing sub investment-grade strategies. They have been around for three to five years, and continue to see demand.

Andrea, you mentioned earlier the concentration of certain market indices, and the fallacies around that. We do find that in high-yield the problems of concentration and liquidity mean that multi-asset credit is potentially a better way to access that market.

Another area is unconstrained fixed income, to separate what this means differently from absolute returns. For us, unconstrained fixed income is a Beta-driven asset class, or opportunity set. It is a broad spectrum of investment grade and sub investment-grade term and credit premiums that you are trying to capture from a global perspective. With, potentially, central banks at turning points (certainly in the U.S. and perhaps in Europe) on balance sheets and balance sheet reduction (as well as increases in interest rates), we are seeing people wanting to shorten their duration profile potentially. High quality, investment-grade only conservative mandates are something which we are seeing quite a bit of demand for as well. For clients, things are getting more complicated, and the old world and the old market Beta aren't going to deliver what they used to. You have to do something different to solve your evolving challenges and return problems. As a result, you probably have to have a greater reliance on skill of these strategies; be it quantitative disciplines, like factor-based investing or otherwise, and less emphasis on pure market Beta.

David: The point that the old order will not return, and we are looking at a new set of circumstances, is true. I mentioned at the start that the skilful operators and trustees need to take account of this. If you look at how most pension schemes operate in the UK (from all the surveys that are put forward), the standard way of operating is the quarterly board meeting. The question is how you can deploy your time in that quarterly board meeting to your advantage.

A fair number of schemes are adept at concentrating on the key essentials, of which investment would be one (although it isn't the only one, as there would be issues of governance and administration), which would also need to be looked at. When covering these issues, we have it in our minds 'how do we rate the skilful operators?' It would be interesting to have some of the time devoted to analysis on technique, which is what we have been currently looking at. We also have been looking at what we know about the people who are coming up with the recommendations: what is their reputation in terms of being a skilful operator? And what is their overall approach? You can put it on a spectrum where from one end you have the mathematical model and the other extreme is the barrow boy; where on the spectrum do they stand?

The trustees wouldn't see themselves as having a great need to understand all of the detail of how the technique is working out in practice. One of the themes that crops up frequently when trustees meet with the consultants is the analogy of the car. Where do you want to go in a car? As for how much you need to know about what's under the bonnet to get you there is up for debate. The general view is that we do need to know a bit about how the engine works, but we don't need to know all of the details. We rely on the reputation, standing and overall approach of the person who is in charge of producing this (the expert consultant). We are there as judgement and decision makers and not as analytical experts in these areas.

Andrea: Could you imagine a kind of partnership, educational partnership, between asset managers and trustees, in order to improve understanding about factor techniques? Factor Investing is a quite sophisticated quant technique, so do you feel that this could be something that would make sense for trustees?

David: Yes there could be more dialogue. What our members do find helpful is the dialogue that you have just outlined, which takes place outside of the immediate pressures of having to make a decision in a particular set of circumstances. There could be some value in developing that.

Andrea: I agree with Andrew that the old Beta returns will not come back. Of course, if you want to get some decent returns, then you need to get it from skills, and you need to have more insight into how these skills are deployed.

Andrew: I would say that one of the issues the asset management industry can be guilty of is taking complicated things and making them even more complicated. The onus is on the industry as a whole to try and articulate complex ideas in ways which are much easier to understand. If I can't explain something to the end client or someone on the street, then, as a rule of thumb, I should not be doing it. The onus is to raise the bar in how to articulate things in an effective way that can be understood (not just by investment professionals, but the average person on the street), is an important concept.

David: Concerning knowledge for professional trustees, as well as lay trustees (with the low returns we are discussing), even if one becomes the 'world's greatest expert' in investment techniques it is not actually going to make all that much difference to the sort of levels of returns. Given this, when one talks to chairs at trustee conferences, quite a common response is that they sub-contract that to experts and don't expect themselves to become experts. This comes back to Andrew's point on the value of establishing the links outside a circumstance when immediate issues are cropping up.

Andrea: Andrew, you've mentioned shorter duration when speaking about flows, don't you see an interference with a money market product? Due to the fact that money market yields, currently, are negative, many investors are investing in short duration credit, instead of money markets. If there is an investment client base within this product, isn't it changing?

Andrew: Yes (in terms of the flows and investor base that has come in the challenge for negative Euro rates on cash) it is to try and do something significantly better with that, but we are keen to caution those clients (who are looking to explore other options) that they are very cognisant that, whilst it is a high-quality portfolio, it is definitely not cash.

If you look back at the global financial crisis, towards the end of the cycle, people were putting in money market funds that shouldn't have been in there. I don't think we will see this, but it is important that the investor understands that what they are investing in is not cash and that it can have volatility and drawdowns (albeit with a high-quality investment-grade average). We want to encourage clients to understand that whilst it is low-risk, it is definitely not cash.

Andrea: Is Factor Investing really a reinvention of something that has been there for some time, or is it a new way of investing and achieving and constructing a better investment universe?

David: We see it as a reincarnation of something previously, and it is coming back to an old concept. If you tot-up the total list of factors that have been suggested, at one time or another it runs into the hundreds (and it gradually boils down to the ones that we were looking at earlier). The concept is old, and the importance that is given to particular factors will change as the markets change around it. The other thing that will change is that the scoring ratings we give to each of the factors.

Andrew: It has elements of both, as you spoke about some of the fallacies of the traditional market-cap testing. Can Factor Investing help address some of those by being better diversified (not being a forced seller of downgrading security, as this is one of the most detrimental factors to a credit investor)? It is good if we can have a more flexible approach to this. Factor Investing brings the benefit of a lot of discipline to something that has gone on in the past. If it helps solve some of the challenges with market-cap benching (in terms of the diversification) and being able to deliver returns over and above your

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chosen benchmark, then it potentially has some good diversification properties both from a Beta and Alpha perspective.

David: I would come back to this point that the type of analysis and the view of the trustees (who have to make the judgement) is one strand in the discussion, but it is not the only strand. The experts will be more concerned with how this works out than will the trustees, who are looking at the results, putting that into the context of their overall requirement for judgement, and then delivering the cash flows for the pensions their members are entitled to.

Andrew: Some people in the industry are of the opinion that Factor Investing is much closer to low-cost passive. We aren't in this camp, but if you are able to capture these premiums you may have lower research or ongoing costs, and so you may be able to compete.

In a world where people are increasingly focused on value and lower fees, Factor Investing should stand out quite well on this front, if it is offering potentially lower fees than traditional active management (this isn't always true, but is true for the values that we have seen). As clients move to getting more attractively funded than they have been, then they are able to consider more conservative strategies, which predominantly means selling their risky assets and moving into more investment grade and credit-heavy fixed income investing. The evolution within Factor Investing could be to consider segmenting across target date funds to make sure that they are keeping up with the market place, in order to deliver customised credit solutions that deliver Alpha over and above benchmarks, but to do it in a way that meets specific clients' cash flow obligations (we are seeing a lot of demand in this).

Andrea: Thank you both for sharing your views on this topic.

2.2 INTERVIEW

Understanding the nature of European emerging markets for a Fixed Income strategy

Interviewer

Ben McNamara,
Content Producer,
Clear Path Analysis

Interviewee

Eugene Nivorozhkin,
Associate Professor
in Finance, University
College London

SUMMARY

- *The synchronised growth amongst many countries in Central and Eastern Europe has resulted in the opening of many attractive opportunities for Fixed Income investors*
- *Populist uprisings (focused excessively on extending national interests) is an issue that will hurt the long-term economic prospects of several countries*
- *Investors are preferring to overweigh duration positions in countries where both interest rates are high (and are expected to decline), or where monetary policy is exceptionally tight*
- *Central and Eastern Europe (CEE) should form an essential part of an investor's portfolio given its recent dynamics*

Ben McNamara: What are your observations of European emerging markets from the previous 18 months, and what are your projections for how the sector will perform during the next 18 months?

Eugene Nivorozhkin: Fixed Income securities markets in western Europe, as well as emerging markets in the East, have evolved a lot over the past 18 months.

The changes have been driven by the improvement in the economic fundamentals of the countries in question. Towards the end of the 18-month period, the economies of Central and Eastern Europe (CEE) have benefitted from strong, broad-based economic growth, which exceeded market expectations. This was primarily driven by robust levels of private consumption and investments.

The synchronised growth amongst many countries in the region came as a relative surprise to investors and resulted in the opening of many attractive opportunities for Fixed Income investors.

Lately, after a period of high-volatility and a high degree of uncertainty, the recent rally has resulted in a 6.7% return for the debt of emerging European regions, which was the best performance amongst emerging markets as a whole. This has in turn shifted the attention to the CEE's emerging markets.

An important driver of the recent developments was the narrowing of spreads between the core EU members, particularly Germany, and CEE's emerging markets.

The expectations of decline of monetary stimulus in the Euro-area resulted in the expectation of interest rate increase, which, in turn, resulted in the pick-up of spreads on German bonds. Meanwhile in most CEE countries, the expectations are that interest rates are not going to increase despite the economic boom. This is because there are no excessive inflationary pressures, despite the high current and projected economic growth.

Ben: Given the rise of populism and political uncertainty on the continent, how should investors adjust their Fixed Income portfolios?

Eugene: These two factors remain crucial considerations, given the political changes that we have observed in the European region. From what I can see, and from talking to various investors, the existing risks have limited short-term implications.

Amongst CEE countries, Poland, Hungary and (to a lesser extent) Romania, face a populist uprising, which, unfortunately, has focused excessively on extending national interests. This is an issue which can hurt the long-term economic prospects of these countries.

In Poland, the policies of the party in power now (the Law and Justice Party) has raised the issue of judiciary reform. There are democratic issues also in Hungary with the prime minister, Victor Orban, undertaking steps to move the country towards an 'illiberal democracy'. The implication of this will be that, although in the short-term there are no mechanisms in place for penalising countries that violate EU principles of democracy, such situations can have some repercussions in the longer run, because it can result in the E.U. imposing some limits on the disbursement of EU structural funds.

This can only happen at the start of the next budgetary cycle, which is in 2020. With structural funds, a lot of it goes directly into the infrastructure investments of CEE countries. Therefore, the impact on growth in these countries can be very significant, if there were to be any changes to the amount of structural funds allocated to these countries. Any reduction in the amount of funds these countries receive will likely to lead to a downgrade of the country's debt, therefore having a knock-off effect on Fixed Income returns.

Ben: In terms of opportunities for investors in emerging market Fixed Income, how should they strategically place their assets? If they have short-term investments, how should they re-allocate?

Eugene: Like in equity markets, the elevated level of short-term returns seen in emerging European Fixed Income markets indicate that investors who missed this momentum are going to face a slightly different situation going forwards. They don't have the benefit of having generated high returns by having been in the market from the very beginning. They must be more careful, looking at the different political and economic situations in each country to decide which are the best to allocate to.

Additionally, volatility (which has traditionally been substantial) is expected to decline, resulting in greater currency stability as well as high yields in the local currency segment of the market. Some investors are playing yields, others are focusing more on betting on currencies, so the changes in the exchange rate also create a lot of attractive opportunities in the currency market. Many investors favour long positions in the Czech Kroner against the Euro, even though the Kroner has been depreciating this year. I have also seen investors placing long bets on the Serbian Dinar. The current state of play is a relative valuation, so as the spreads against German yields have declined, investors have exploited currency valuations. It is a relative bet on these countries, given the development of the core economies of the E.U.

The state of CEE banks will also play a key role in the type of bets investors make on different markets with a variation across different geographies. In general, the fact that there are divergent inflation dynamics and varying monetary policy approaches offers attractive relative value opportunities.

As it stands currently, investors are betting on longer duration, longer maturity instruments of countries such as Russia and Turkey, where the inflation is coming down, and where the rates are expected to decline. This is the opposite of what we expect in the core EU economies. Basically, investors would overweigh duration positions in countries where interest rates are high (and are expected to decline), or in the countries where monetary policy is exceptionally tight, and central banks have the flexibility to maintain an easier monetary stance (i.e. where interest rates are not expected to rise in the short-term). This will be managed by underweight or short positions in the countries where the yields are low and central banks are expected to pursue tighter monetary policies to increase interest rates.

Ben: We've talked about the last 18 months, but which countries will be the biggest movers and shakers in the next 18 months? Emerging market debt is a key issue for investors here in the UK, and long-term debt issuance is also being considered. Can you expand on what you feel will be be important for the future?

Eugene: Eastern Europe and the former Soviet Union account for a relatively small proportion of the overall emerging market debt securities on offer to investors. The numbers that I have shown that emerging Europe accounts for just 7% of overall allocations to emerging markets globally, so in this respect, investors who are focused on emerging markets as a whole have shifted their attention to Eastern Europe and the former Soviet Union, because there are relative value opportunities to gain from.

Otherwise, the comparison with a 7% share of Eastern Europe and former Soviet Union can be compared to 19% of Latin America and the Caribbean or a 70% share of Asia and the Pacific region. In this respect the importance of emerging Europe is limited because it is not that huge.

In addition, this trend has been in place for much longer. In the period from 2012 to 2016, the issuance of bonds in emerging Europe has declined substantially, compared to the period between 2007 and 2011. This is not unexpected as a lot of those bonds were used to finance fiscal deficits incurred by these countries.

In the long run, CEE should form an essential part of an investor's portfolio and, given the recent dynamics, its diversification benefits are also rising. It can be an essential part of a diversified portfolio of Fixed Income securities.

Ben: Thank you for sharing your thoughts on this topic.

2.3 WHITEPAPER

Being ahead of the curve: uncertainty of the run-down of the QE assets and the effects on the balance sheet

Con Keating,
Head of Research,
Brighton Rock

SUMMARY

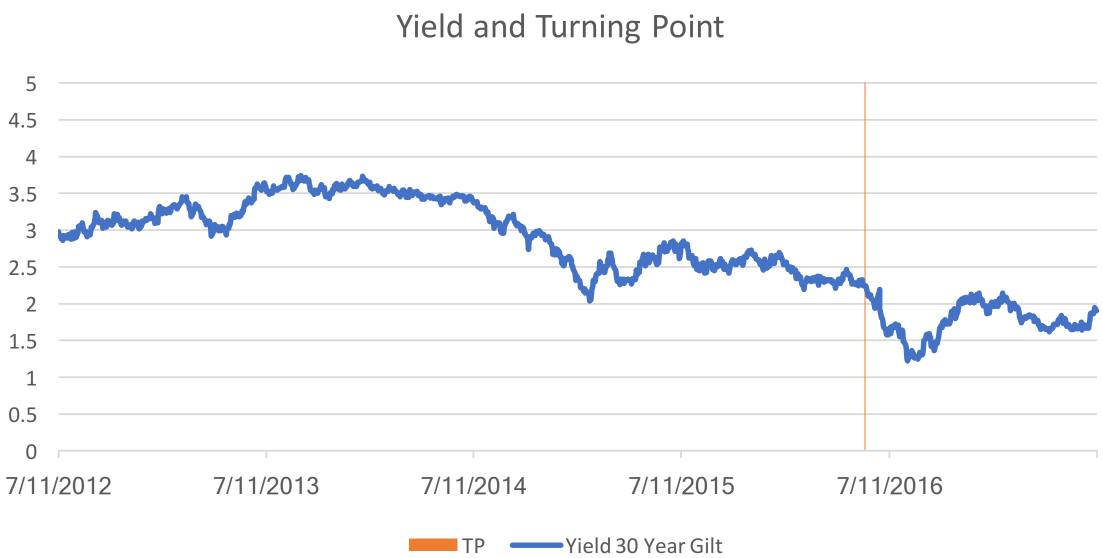
- *These times are different — market sentiment is now leading official interventions in these markets*
- *Investors are reporting that investment grade and high-yield bonds are overvalued, which has led to very substantial flows out of high yield funds*
- *Rate increases have been fully anticipated by the markets and the formal announcements have proved non-events*
- *Risk has increased and even small movements in the likelihood of such large events are material in portfolio management terms*
- *We are living in a new economic and political normal. It is clear that the great unwind will take many years to complete*

This time will be different: I've a feeling we're not in Kansas anymore.

In early September last year, my turning point identification software was indicating that May 27 had been a turning point in the long-term yield trajectory of 30-year gilts. This is not a prediction or forecasting algorithm, it is purely retrospective – just a part of establishing the status quo, the initial conditions prevailing upon which forecasts and predictions may be made.

Now May 27th was an unremarkable Friday — in fact the gilt market was unchanged on the day — and remember this was long before the referendum vote, and the Bank of England's quarter point rate cut in response to that. May 27th was not even close to the lowest yield observed on this long gilt that occurred on August 15th, and was lower by over 100 basis points. Inspection of the development of the time series of yield, does not deliver anything obvious. Figure 1 shows the evolution of the gilt yield, and marks May 27th.

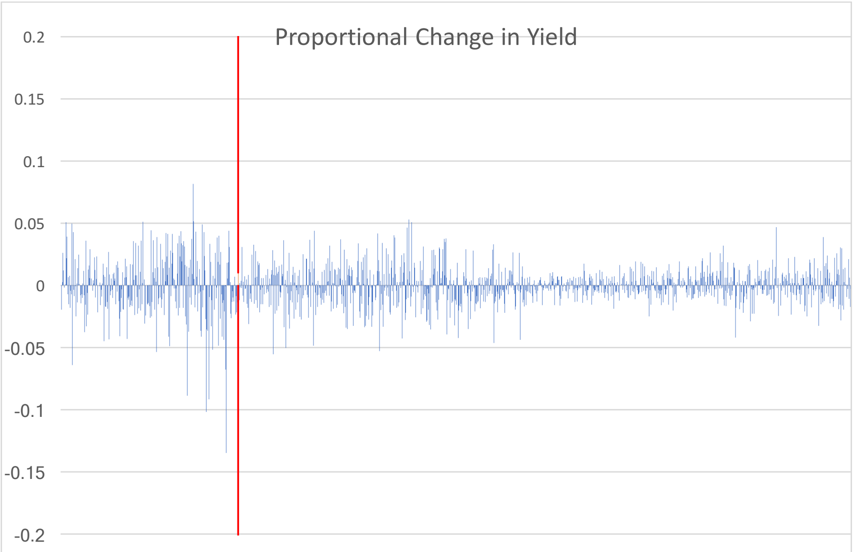
Figure 1: Gilt yield evolution



The reaction of the audience at an insurance investment conference at that time to my statement of this indication was one of near-total incredulity. The landscape has been littered with incorrect calls for rising rates for many years.

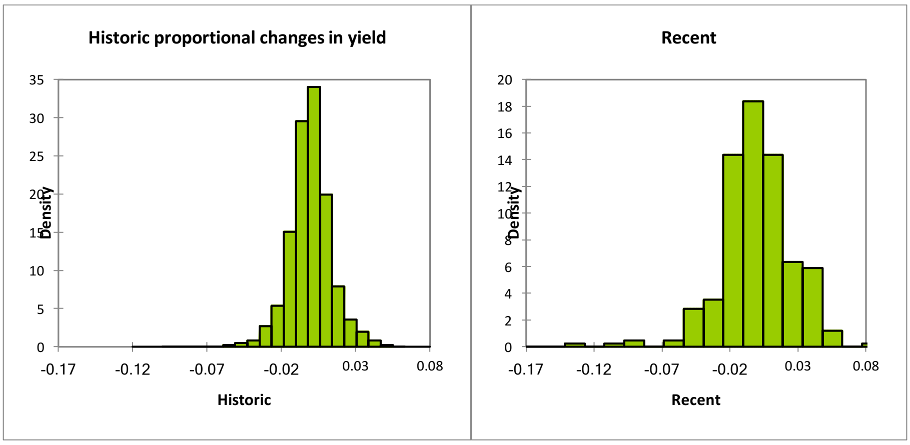
However, if we look instead to the proportional changes in yield, we can observe a pronounced increase in the magnitudes of changes beginning in June. This is illustrated in figure 2. Volatility had increased markedly.

Figure 2: Proportional change in yield



Along with the increased volatility, the shape of the distribution of these proportional changes also changed. Now we see a pronounced downside not evident in the longer historic series. The distribution of the historic proportional changes is broadly symmetric, while the past year has seen a significant left skewness and downside develop. Figure 3 shows these two distributions as histograms.

Figure 3: Distributions of proportional changes in yield



Statistical analysis places a vanishingly small probability on the hypothesis that the recent data are sampled from the same [1] distribution as the historic. Moreover, this dissimilarity is maximal when the recent data starts with May 27th 2016.

[1] *Or rescaled similar.*

Sentiment

It appears that these times really are different, and that market sentiment is now leading official interventions in these markets. The broader picture has also changed; after three years in which the overall net supply of sovereign debt worldwide was negative, the total borrowing requirement for 2018 looks to be around $800 billion, and for 2019 some $1.1 trillion.

It seems fair to reckon that the market has concluded that the bull market in gilt yields that started in in 1982 has now ended. Clearly, the gilt market is now a much riskier place. The old adage 'up by the stairs and down by the lift-shaft' has reasserted itself. The written options markets refer to these asymmetric risk strategies as 'picking up nickels in front of an oncoming train', and these strategies have proved the ruination of many a fund manager's reputation, a train-wreck.

The numbers of investors reporting that they consider investment grade and high-yield bonds overvalued is close to all-time highs, and some very substantial flows out of high-yield funds have been reported recently.

Market sentiment now looks different. Looming over all is the spectre of the unwinding of the Quantitative Easing (QE) portfolio. Confusion is the order of the day here. Every commentator has a different remedy, from holding the portfolio unchanged to 'cancelling' the securities. Box 1 discusses some of the consequences of different proposed approaches.

Central banks lack any previous experience which might serve as a guide; there is no reference manual to call upon. it is not possible for the UK to simply follow the U.S. example. The The Federal Reserve (FED) combines both debt management and monetary policy roles, while these are managed by separate institutions in the UK. In addition, the Bank of England has indemnities over losses from HM Treasury.

It is easy to consider the UK's QE position as a mere sideshow to the U.S., given their relative sizes: the U.S. portfolio is approximately $4.5 trillion and the UK £435 billion. But against that, the UK Debt Management Office's most recent remit calls for it to raise just £114.2 billion this year (down from £150 billion in the immediate post-crash environment).

Nonetheless, we need to begin with the U.S. as that not only led the way in, but is now leading the way out. It is followed somewhat remotely by the UK, with the European Central Bank (ECB) and Bank of Japan further behind.

A Beginning

The Federal Reserve has already started on a policy of normalisation; first raising rates and only then addressing balance sheet normalisation. In four steps, from its low of 0.0%–0.25%, the target fed funds rate has been lifted to 1.0%–1.25% now. A third rise this year is indicated. Many of the details of their proposed method of approaching their portfolio unwind have been published; we lack only the timetable.

These rate increases have been fully anticipated by the markets; this is hardly surprising given the extent to which they were signposted, and the formal announcements have proved non-events. It is worth remembering that signposting in this manner, and forward guidance, were not introduced in response to the crisis, they pre-date it.[2] It does seem to have proved a particularly effective technique for the times. Market stress indicators, such as the St. Louis Fed published index are at or close to all-time lows.

It appears that the 'taper tantrum' is seared into the FED's collective memory and the result is an extremely cautious approach, taking place over several years. The method chosen, the run-off without reinvestment of current holdings is the form least likely to influence market prices. The speed with which they are planning to proceed is positively glacial, and a pre-global-warming glacier at that. The run-off of US treasuries will start at $6 billion per month rising to $30 billion. Mortgages and other securities will start at $4 billion and rise to $20 billion. By 2021, the FED's balance sheet will have shrunk from today's

[2] *Until relatively recently, one of the tenets of central bank monetary policy management was that to be maximally effective, interventions needed to surprise the market. If signposting and its UK equivalent 'forward guidance' do not prove effective in delivering the central bank's desired outcomes in the future, it should not surprise us to see this surprise technique return. It is notable that there is a body of academic work which indicates that QE was at its most effective when it came as a surprise to the markets. Quite apart from the obvious issue of the effect of broken promises on the trust of market participants, there are other sources of instability associated with this guidance approach, notably arising when market participants are merely mirroring each other.*

$4.5 trillion, but only to around $2.5 trillion. The timetable for starting on this is expected from the September 19/20 FOMC meeting.

The markets are pricing the likelihood of the much publicised third rate-hike occurring later this year at just 30%. The entrails of inflation and employment statistics have never been so closely pored over.

Investment professionals are extremely relaxed, almost complacent, about these developments. Recent polling showed 45% believing that these developments would be a non-event, with only 30% believing that they would lead to higher rates. Remarkably, a small minority believe that these actions will prove counter-productive and lead to lower rates.

This complacency really is rather surprising as the FED's estimate of the 'new normal' based on new estimators for non-inflationary natural rates of unemployment would have normal yields between 4.5% and 5%; the downside is enormous. Already we are seeing employment opportunity driven labour movement rising sharply – recently twice as many US manufacturing workers have quit for pastures newer and greener than have been fired. This is an early harbinger of wage inflation pressures.

With so much downside, the tide has a long way to go out. It will expose as having been grossly inadequate many of the small premiums received for instrument illiquidity. Risk has increased; even small movements in the likelihood of such large events are material in portfolio management terms.

As other central banks follow the FED's lead, complacency may prove to have been an extremely risky course of inaction. At the very least, the great unwinding will generate a significant shift in the private sector's global asset allocation, and with that new winners and losers from the new spreads and yield-curve structures.

All of that said, one fear may well prove unfounded – that of greatly restricted market liquidity. We have seen market liquidity decline throughout the post crisis period; banks have become far less willing to commit capital and liquidity to securities markets.

This was to be expected: if central banks lower the price of liquidity, as they did on an unprecedently large scale, we really should not have expected the private sector to continue to offer liquidity on the scale previously seen. This is a simple price/quantity relationship. As rates rise, the private sector should increase its liquidity creation and we will then see more clearly the extent to which post crisis regulation restricts this, if at all.

The increase of bank holdings of short to medium term gilts in response to the introduction of the liquidity coverage ratio has been widely noted. The leverage ratio (minimum required capital to total assets) is also relevant.

The trap that the FED needs to avoid is that of excessively reducing the money supply through its debt retirement programme. With Janet Yellen's term due to end in February 2018, and no continuation or replacement nominated, we do have an additional degree of uncertainty surrounding the manner in which the Federal Open Market Committee (FOCM) will operate.

The UK

In the UK, the greatest compounding uncertainty is, of course, Brexit, against which Mark Carney's departure at the end of June 2019 palls into almost-total insignificance – though he is likely to prove increasingly conservative in defence of his 'legacy' as time passes. On Brexit, I have no unique insights to offer; it just seems to me to be a very slow motion economic and political train-wreck.

Make no mistake, and notwithstanding the occasional reference in monetary policy speeches to quantitative easing being with us forever, an unwinding of QE is seen as desirable; QE is perceived to have significant negative long-term consequences. The inflation in house prices is one.

However, important questions surround the effects to be expected from normalisation; there really is no reason to believe that the response will be symmetric, neatly opposite and equal to the effects of portfolio formation. There is certainly one major difference between the creation and the unwind; unlike then, there is no need for haste now. A unique property of the UK situation is that the Treasury could effectively force the hand of the Bank of England by scaling back its indemnities.

One of the issues which is likely to gain visibility is the question of the Bank of England's independence. In the course of the crisis the Bank has taken on far broader roles than originally envisaged when Gordon Brown granted it independence. With rates close to the lower bound, the question of whether the Bank has the ability to manage inflationary tendencies, or further crises is salient.

This has led to calls for the Debt Management Office (DMO) to manage the great quantitative easing unwind. In this context, the Treasury's loss indemnity guarantee of the portfolio to the Bank of England is often offered as a supporting argument. While clearly co-ordination with the DMO is desirable, particularly in times when deficits are likely to be large and continuing, this is only one of the roles assumed by the Bank – is there anybody qualified which would want to take on their financial stability responsibilities?

It should also be recognised that this encroachment upon the 'territory' of others has not been a one-way street. Many of the DMO's actions with respect to market liquidity have clear monetary policy implications. Most obvious are the various finance facilities available to gilt edged market-makers; less so, the sale of gilts by syndication.

There is one further compounding factor for the UK bond market. The Bank of England has announced that the Term Lending Facility will end in February 2018. This was introduced alongside the post-Brexit rate cut. It is a successor to the Funding for Lending Scheme. The advances under it are for four years. It has been heavily drawn upon by banks — £78 billion already and estimated to be around £110 billion by the end of the facility.

This has had a profound effect on bank issuance of debt securities. Banks have replaced maturing issues with drawings on this facility. As these borrowings and those from the prior scheme mature, they can be expected to be replaced with new issuance in the capital markets. Unlike the Bank of England, these commercial banks will be time-pressured. This can only add to the difficulties of unwinding the QE portfolio.

The Debt Management Office may take comfort that if gilts really cannot be sold using the current range of techniques, they might always revert to the methods of yesteryear, where the government underwrote fixed price issues, with subsequent tap issuance.

By contrast, there is one nightmarish scenario associated with Brexit — that of a sterling crisis. With overseas gilt holdings now £520 billion (27% of total) and larger than the Bank of England's total balance sheet holdings of $481 billion, unwinding the QE portfolio would become not merely infeasible, but well, unthinkable.

Far from all of the declines in yields are attributable to the effects of quantitative easing, or even the crisis. It is also becoming evident that we are living in a new economic and political normal — another reason for the effects of the unwind to differ from those of portfolio formation. While it appears that a climate of lower for longer will apply, this new equilibrium appears to lie ultimately in the 4%–5% nominal range. As this process of re-adjustment takes place, some of the excesses of the gilt market which have arisen over the past decade should reverse.

Prominent among these should be a reversal of the procyclical effects of regulation and accounting in life insurance and pensions — notably in the index linked market. As the Bank of England's Procyclicality paper [3] pointed out, these effects have been substantial. In the period studied, for the index linked market, there were 75 basis points of decline attributable to insurance companies and 165 basis points to pension funds, and they appear to have increased since. Indeed, with index-linked securities now offering yields of RPI less 190 basis points, these securities are better described as prepaid liabilities than as investment assets.

[3] *Procyclicality and structural trends in investment allocation by insurance companies and pension funds, Bank of England Discussion Paper, 2014.*

While it is rational for a risk-averse manager to adopt liability matching strategies that are insensitive to the level of yields when risk is symmetrically distributed, it is no longer so when those risks are asymmetrically biased against them. Particularly so, when this is coupled with a disadvantageous secular trend. It is growing increasing clear that the great unwind not only could but probably should take many years to complete.

Conclusion

With all of these uncertainties, it seems extremely unlikely that any institutional reorganisation will take place or that "innovative" techniques will be used for the great unwind, particularly when the amounts of money involved are so large. For bond investors, no matter how the unwind is handled, it will mean higher borrowing from public markets, and that will put pressure on yields and spreads, with the open questions being: how much and when?

This article has perhaps dwelt excessively on the risks and uncertainties faced in bond markets. Another quotation from the Wizard of Oz seems apposite: 'A place where there isn't any trouble. Do you suppose there is such a place?'

Methods of Unwinding

All of the methods carry consequences.

Even **maintaining a large portfolio** does. The problem here is that this is linked to the floor method of monetary policy implementation, which involves the payment of interest on excess commercial bank reserves held at the Bank of England. As rates rise, this is likely to grow increasingly difficult to maintain politically – it would only too easily be characterised as a subsidy to the commercial banks.

Outright sale would involve the commercial banks running down their reserve balances, and high-powered money would contract, with deflationary effects being introduced to the system. It would need careful management by the Bank of England, sometimes confounding their message on economic activity.

The **run-off** of the portfolio by the Bank of England as securities mature is the least disruptive; it can be managed as a standard gilt refinancing operation. It does add though to the government's total borrowing requirement.

Transfer to the Debt Management Office **or cancellation** by HM Treasury would practically involve the issuance of bills to replace these assets in the Bank of England's balance sheet and that would have rather marked consequences for the term structure of the government's debt. This would greatly increase the sensitivity of the gilt portfolio to changes in short interest rates, and with that introduce fiscally significant costs.

The effects of the path taken on the level and term structure of gilt yields differ with the method chosen, and with that the spread relations to other fixed income securities.

2.4 INTERVIEW

Understanding what your investment strategy is trying to achieve with Fixed Income

Interviewer

Ben McNamara,
Content Producer,
Clear Path Analysis

Interviewee

Roger Mattingly,
Director, PAN Trustees
Limited

SUMMARY

- *There is a major misunderstanding about the expectation of Fixed Income*
- *Having appropriate access to cash in other assets could become a challenge if interest rates were to rise materially*
- *Consumers have become heavily reliant on the low cost of borrowing, and now the unsecured debt in the UK is higher than it was before the financial crisis*
- *Constant reminding of the fundamentals of Fixed Income and the relationship between Fixed Income and the liabilities is needed*

Ben McNamara: For a range of funds and schemes, Fixed Income has not quite helped them to move beyond liability matching. Is this a misunderstanding of what Fixed Income can achieve for an investment strategy?

Roger Mattingly: It depends on what the objective is. If it is liability matching, then it doesn't need to move beyond that, as it is doing what it says on the tin. This requires the customisation in terms of the duration of the liabilities of that portfolio, and with liability driven investment there is usually some leverage to try and maximise growth potential within the investment strategy as well.

If a particular part of the strategy is aimed at liability matching, then it doesn't need to go beyond that, because it is actually achieving what you want it to do. If the Fixed Income component of the investment strategy is not about liability matching or hedging against interest rates or inflation, then it is diversifying, protecting, and emulating the change in liability, as individuals reach retirement and move from the accumulation to the decumulation stage of the life cycle of the pension scheme. It is very difficult to talk about Fixed Income in isolation, because it is ordinarily part of an investment strategy, and the investment strategy is part of what is now integrated risk management (IRM). It is part of the overall strategy primarily including covenant, risk to covenant, and the funding strategy. The Fixed Income component is actually a component of quite a larger part of machinery, and it is all aimed at making sure that individuals get what they are entitled to and are expecting, and what is in the scheme's definitive rules. It is all about expectation, and if the expectation is that the Fixed Income is there as a diversifier, or to produce some reasonable performance, then it is not there by definition to match-off liabilities in a customised way; and so, there are different expectations.

In these liability driven investments (LDIs) they still have longevity as an open risk, so you can match-off the cashflows, but you don't know how long the individual is actually going to live and (unless you secure these liabilities through an annuity buy-in or via a longevity swap) you still have the longevity risk.The misunderstanding is really about what the expectation of the Fixed Income was at outset. If the expectation and what is put in place are both aligned, then it should broadly achieve what is expected of it.

There are varying degrees of risk in terms of Fixed Income, and even the most secure US treasury bonds (which have never defaulted) can be potentially vulnerable; the debt in the US is over 20 trillion now, and it keeps on having to increase its budgetary head room, so it is not impossible that it will default (although it is almost inconceivable).

Ben: How do you think the relationship has changed, over the last 6-18 months, between risk and reward, as well as cashflow and liquidity demands?

Roger: If you are talking about the political aspects in terms of the liquidity of gilts and just pure supply and demand, then rates will stay relatively low. Of course, immediately after the EU referendum they did fall quite sharply.

As Defined Benefit (DB) schemes are maturing or are mature already. In some cases, there are no active members or deferred members who are still working for the companies. The DB scheme is then pure financial baggage, as far as the company is concerned, and the desire to match-off liabilities, to match cash flows and not to be forced sellers in the run off of these schemes, is actually now a fairly crucial part of the investment strategy process and due diligence.

The modeling that now goes into those cash flows is fairly sophisticated, compared to what was available even 18 months ago. Cashflow modeling helps mitigate being forced sellers of assets at the wrong time. Managing cashflow is a significant challenge, and an increasing challenge, as these schemes mature. In terms of liquidity, where you have got counter-parties involved in derivatives in terms of effectively synthesised Fixed Income (as part of the leverage) and swaps (in terms of the hedging) and liability driven investments, then (as interest rates rise) there will be increasing calls to meet liquidity demands of the counter party. But as these yields rise the value placed on these liabilities falls.

One would hope (if they had been set up properly) that the liquidity is a small price to pay for the fact that the liabilities are matched off, and when it goes the other way (and yields fall) then the liabilities rise. As a result, it is comforting to note that, if there is a reasonable degree of hedging, then the liabilities and assets are rising and falling together. Having appropriate access to cash in other assets, rather than those specifically dedicated to meet liquidity calls, could become a challenge if interest rates were to rise materially.

Ben: The Bank of England has suggested a rate rise before the end of the year, but there could be several. What effect could these changes have on key asset classes that would be a concern?

Roger: If yields go up it means that the value of those assets has fallen but as the Fixed Income asset prices fall it may become more attractive to buy back into them. If we are talking about gilts, whilst DB liabilities continue to be geared around gilt yields, then from a supply and demand point of view the pent-up demand to buy gilts and match-off liabilities is still very strong. There is a huge swathe of pension fund investment that is probably 'queuing up' to buy gilts at a lower price, and the impact of this is that yields will come back down again.

Of course, short-term interest rates have other connotations in terms of inflation, consumer debt (and other economic issues) etc., but in

> “IT IS VERY DIFFICULT TO TALK ABOUT FIXED INCOME IN ISOLATION, BECAUSE IT IS ORDINARILY PART OF AN INVESTMENT STRATEGY, AND THE INVESTMENT STRATEGY IS PART OF WHAT IS NOW INTEGRATED RISK MANAGEMENT (IRM)”

terms of the relationship between assets and liabilities of DB pension funds it is as much about supply and demand.

Whilst liabilities are measured in relation to gilt yields the attraction of buying gilts remains very strong. Approximately 30% of the gilt market is owned by the Bank of England, and I think it is unlikely this will go back on the market in terms of what was bought through QE.

Approximately 40% of the gilt market is overseas owned and that is unlikely to materially go back onto the market, even if there was a material downward perception of the UK in terms of economic strength, as a significant proportion of this 40% is owned in funds where it acts as a diversifier, and so it has more traction to it than if it was solely UK fixed interest funds owned by institutional investors.

Ben: What key events have affected Fixed Income, from which funds need to learn, to protect from similar (or unfamiliar, but potential) future events?

Roger: You've got two forces to push yields down. One is this desire to liability match as these schemes mature and meet the cash flows; and also, the flight to safety. So that if there was a war or, as with the EU referendum where 20-year gilts fell from 2.2% to 1.2% in a matter of weeks, in liability terms that difference was very significant.

Those funds which were significantly hedged were in a reasonably comfortable position, but those only modestly hedged had serious concerns, because the change in liabilities over a few months was in some cases 'eye-watering.' Such yield reductions have also impacted on the individual transfers that are being paid out.

Inflation itself is now at 3% Consumer Price Index (CPI) so interest rates will almost certainly start to rise, but of course there is massive consumer debt in the UK, and so it is a three-dimensional simultaneous equation where, if interest rates do rise from where they are now (I am talking about bank base rates rather than gilt yields), they are rising from a very low starting point, so that if a 0.25% becomes 0.5% you are talking a 100% rise.

There is no doubt that consumers have become heavily reliant on the low cost of borrowing and, as a result, the unsecured debt in the UK is higher than it was before the financial crisis.

Mortgages and unsecured debt, together, are close to the gross domestic product (GDP) of the UK. I believe mortgages are 1 trillion and unsecured debt is between about 300-400 million. these are huge amounts that have to be paid for, and if interest rates rise to extreme numbers then consumers are going to have to stop spending, because the majority of their financial resources are going to be devoted to servicing debt. If consumers stop spending then the economy is going to have a serious challenge, as will the investment markets.

Ben: How do you challenge advisors in order to get the best strategy?

Roger: My starting point is 'why are we where we are?' I know it is stating the obvious, but when you are appointed as a trustee you 'inherit' what is in place at that time. You inherit the advisors, the investments, the investment strategies, the funding strategy and the sponsoring employer etc.

My starting point is to ask for a summary of why the investments are the way that they are – you are treading on eggshells (in that you are challenging previous decisions taken).

The investment strategy should be able to be justified fairly quickly, if a lot of thought and design has gone into the strategy. This should be a straightforward question. If it has happened by default and hasn't been an appropriate degree of science behind it, then this question becomes a very real challenge for advisors because they are trying to justify something that can be difficult to justify.

Once you know where you are (and why), you then have to decide, as a chair of trustees, whether it makes sense. Does it make sense in connection with the risk appetites of the trustees and the company? I have inherited schemes which, in some cases, have significant hedge fund investment, where the trustees have told me they are very uncomfortable with hedge fund investment. You have to take into account the risk appetites of both the trustees and the sponsoring employer, as well as the risk capacity of the employer in particular, as to how much risk the company can actually absorb in terms of the volatility of the funding and possible calls for cash.

There are two extremes of funding. There is the buy-out figure (almost all schemes are in deficit on a buy-out basis), and then there is what is known as the neutral, best estimate funding position. The gap

“Approximately 30% of the gilt market is owned by the Bank of England, and I think it is unlikely this will go back on the market in terms of what was bought through QE”

> IF ANYONE LOOKS AT THE INVESTMENT STRATEGY IN ISOLATION, THEY WILL BE MISSING THE POINT. YOU HAVE TO LOOK AT IT IN THE INTEGRATED MANNER OF INVESTMENT STRATEGY, THE EMPLOYER COVENANT, THE RISK OF THIS EMPLOYER COVENANT AND SUSTAINABILITY OF IT

between these funding levels can be extreme, and the strength of the employer covenant is having an increasing influence of the level of prudence adopted.

The strength of the covenant plays an increasingly significant part in investment strategy and the level of Fixed Income. If the strength of the employer is weak, then trustees are almost forced to take a more prudent approach to investment strategy. By definition this means a higher Fixed Income and protection assets exposure than would otherwise be the case. This can be uncomfortable, as what you are effectively doing is crystallising a position so that it doesn't get any worse, which isn't a comfortable position to be in when facing what is sometimes a material deficit.

If anyone looks at the investment strategy in isolation, they will be missing the point. You have to look at it in the integrated manner of investment strategy, the employer covenant, the risk of this employer covenant and sustainability of it. Sometimes there are parent company guarantees provided by overseas parents, where you also have to look at the strength of that company (if there are any guarantees or underpinning of contributions by the parent company).

In the 'old days' it used to not just be the affordability of the contributions, but also the willingness of the company to pay money into the scheme. Sometimes you get schemes which are very strong commercially (and the balance sheet is very strong), but they are hugely reluctant to make contributions into the pension fund. This can be quite a challenge for both the trustees and the Pensions Regulator.

Ben: Do you have any other comments on how trustees should understand the investment strategy regarding Fixed Income?

Roger: There is no doubt that elements like trustee training on liability driven investment (and the sensitivities to interest rate movements, inflation and leverage, and what is a palatable level of leverage in terms of LDI) is something that you can train the trustees on, and it will sink in over two to three hours, and four months later at the next meeting it is almost as if that training had not happened in some cases.

Constant reminding of the fundamentals of Fixed Income and the relationship between Fixed Income and the liabilities is needed. Trying to take trustee boards along as a collegiate group is not that difficult, but taking them along in a fully informed manner is tricky. When it comes to decision making there is quite a lot of potential for 'group think' in terms of investment strategies, deciding, what the investments should be, and what the strategy should look like.

The key is trying to get the balance between risk and reward, and the level of hedging that is there to protect but at the same time doesn't wholly hamper the potential for growth.

Ben: Thank you for sharing your views on this topic.

SECTION 3

LIQUIDITY IN THE FIXED INCOME AREA

3.1 WHITEPAPER

Government responsibilities: QE and the price of offloading Fixed Income assets

Professor Trevor Williams, University of Derby and Economic Consultant

SUMMARY

- *Devolving power to the central bank is done with good intent: to provide a sound financial system that ensures that the overall economy runs smoothly*
- *The response to the financial crisis was to loosen monetary policy even further*
- *The U.S. is the only major central bank that has said it will start to reverse its Quantitative Easing policy this year and sell government bonds back into the market in a controlled way*
- *The International Monetary Fund (IMF) has forecast that this year and next will be the best the world economy has performed since the recession of 2009*
- *Only the sale of central bank holdings can lead to the return of a free market in government securities*

For a period in which belief in competition and free markets remains strong, it may perhaps seem odd that so much power is given to central banks. They have a monopoly, given admittedly by their freely elected government in many cases though not all, to control all other banks, set interest rates and more broadly, responsibility for the 'financial system' in their jurisdiction.

Governments invest power in them, via regulation and a range of other tools, to direct the monetary side of the economy. Devolving power to the central bank is done with good intent: to provide a sound financial system that ensures that the overall economy runs smoothly as firms and households have the money available to spend, save, invest, and so increase living standards.

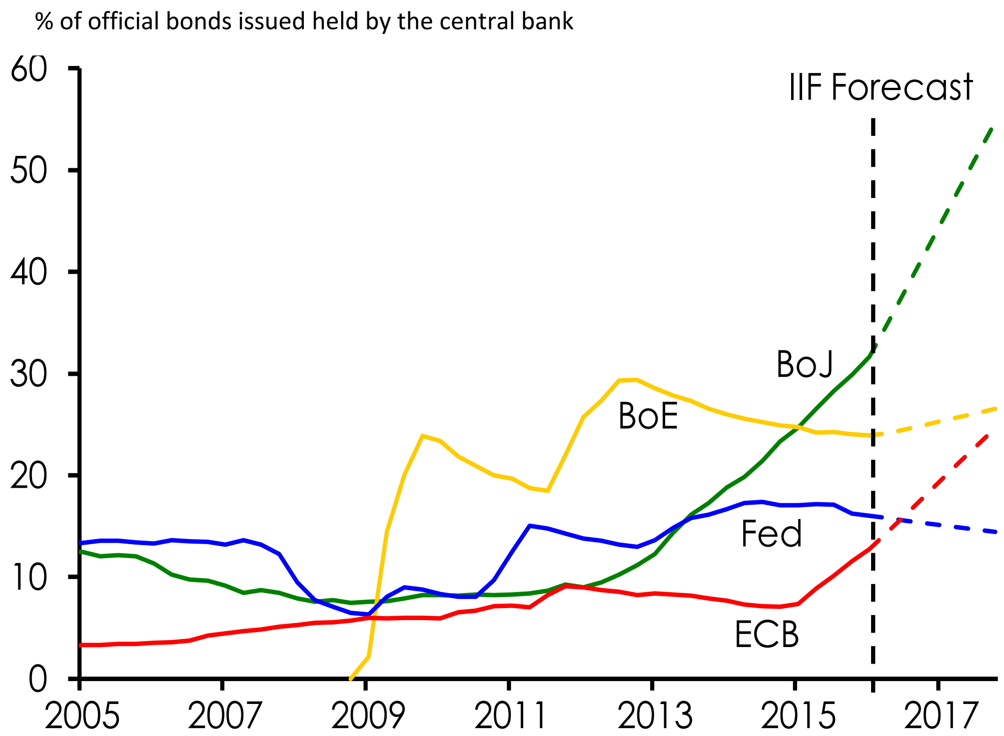
Experience shows of course that it does not always work out this way. Central banks can make mistakes, and have done. Some argue that the Great Depression of the 1930s was made worse by the actions of the then central bank, which tightened credit and monetary policy just as they should (perhaps with insight) - have been loosening them.

It does not stop there: many think that the Global Financial Crisis of 2007/2008 was because of a too loose monetary policy stance, notably from the US central bank (known as the Federal Reserve). Also, its actions in years leading up to the crisis had created a 'moral hazard situation' by repeatedly loosening monetary conditions when assets prices fell back, preventing participants from realising losses that were the outcome of taking excessive sized bets on markets movements.

There was even a phrase for it in the financial markets: 'the Greenspan put'. Whether this was true or not, the perception of it was enough to potentially drive some to act as if it was, thus boosting the search for yield.

The response to the financial crisis, which was caused not by a tight monetary policy stance but by loose one and consequently excessive levels of private sector debt, was to loosen that policy even further. Interest rates were cut to record lows, but that was not enough to stabilise the crisis, so central banks in the advanced economies resorted to 'quantitative easing (QE)', the large-scale purchase of mainly government debt from the financial sector, see chart 1.

Chart 1: QE saw a surge in central bank holdings of government bonds



So the question is: are record low government bond yields the result of weak inflation and slow growth, or the actions of the central bank acting to keep them down? The answer has to be yes to some extent, since equity prices are at record highs, signaling an economic recovery. It appears that quantitative easing is acting as a backstop to government bond yields.

The US is the only major central that has said it will start to reverse its QE policy this year and sell government bonds (it holds $4.5 trillion worth) back into the market in a controlled way. The European Central Bank (ECB) has announced it is watering down its bond purchase program but will continue to buy well into 2018. It is currently purchasing a proportionately higher share of Italian and French bonds in its monthly auctions.

But so dovish was the announcement from the ECB about QE that yields fell. Markets seem to have gone so out of synch that instead of tighter policy (a rise in yields), a reduction in purchases led to an increase in prices. Japan is continuing its purchases of some $60 billion a month.

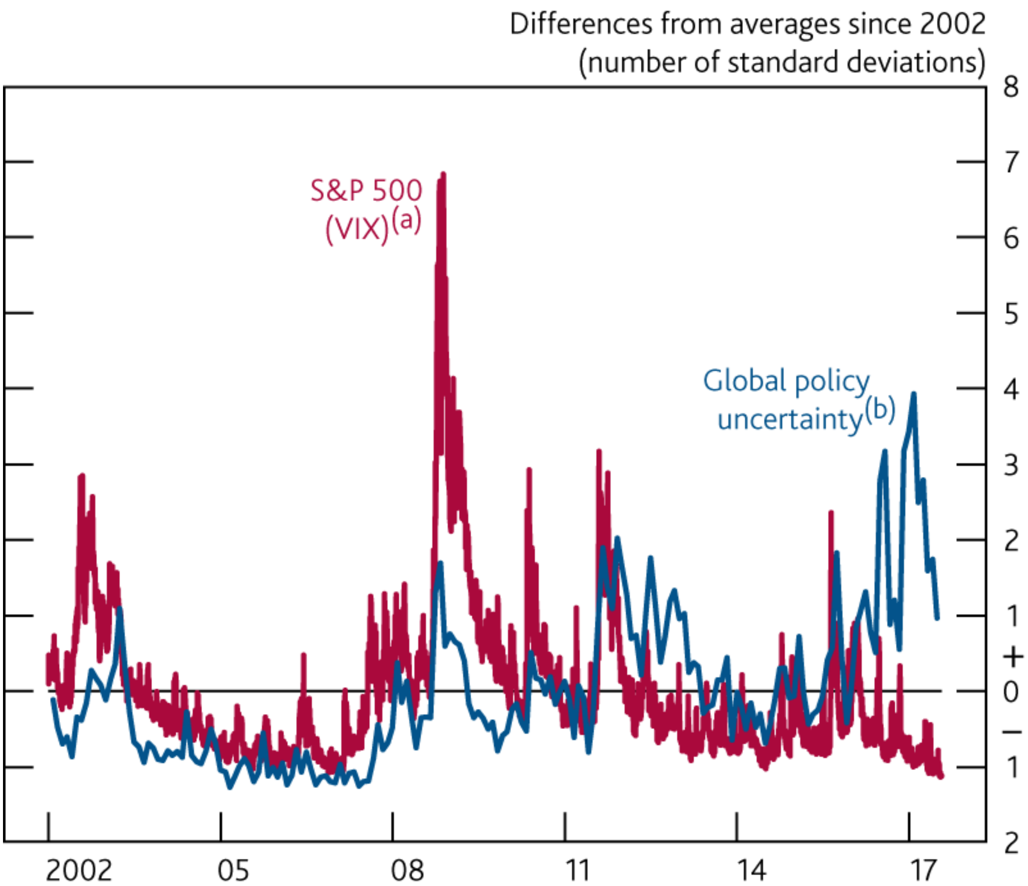
Last year, the UK central bank bought an additional £60 billion of government securities after the EU referendum, taking the stock outstanding to £435 billion plus £10 billion of corporate debt. Although the Bank of England announced a rise in rates at its November monetary policy meeting, reversing last year's 0.25% cut, it has not said when it will start to unwind QE.

In the US, the Treasury Yield curve is flat, not upward sloping, as it should be, given the rhetoric of the Federal Reserve (FED), and its talk of higher short interest rates. That is to say; the shape of the yield curve suggests that investors believe that the economy will slow and inflation will fall back. The economic data on which equity prices have risen seem robust enough to justify a bounce. Hence, the question is not the level of equity prices so much as the low yield of government bonds and what will happen to the pricing of these securities when central banks start to significantly reverse their purchases.

The International Monetary Fund (IMF) has forecast that this year and next will be the best the world economy has performed since the recession of 2009. Inflation is weak, but off its lows, even in the Euro-area and Japan. Faster economic growth should support a rise in Fixed Income yields and a fall in prices, of a more significant magnitude than seen so far.

Moreover, political uncertainty is high. There are four wars in the Middle East, the potential for conflict in Asia and rising populism in the advanced economies. Yet, as chart 2 shows, market volatility is near the lows reached in the last financial crisis.

Chart 2: Volatility is remarkably low given policy uncertainty, and as low as in last crisis

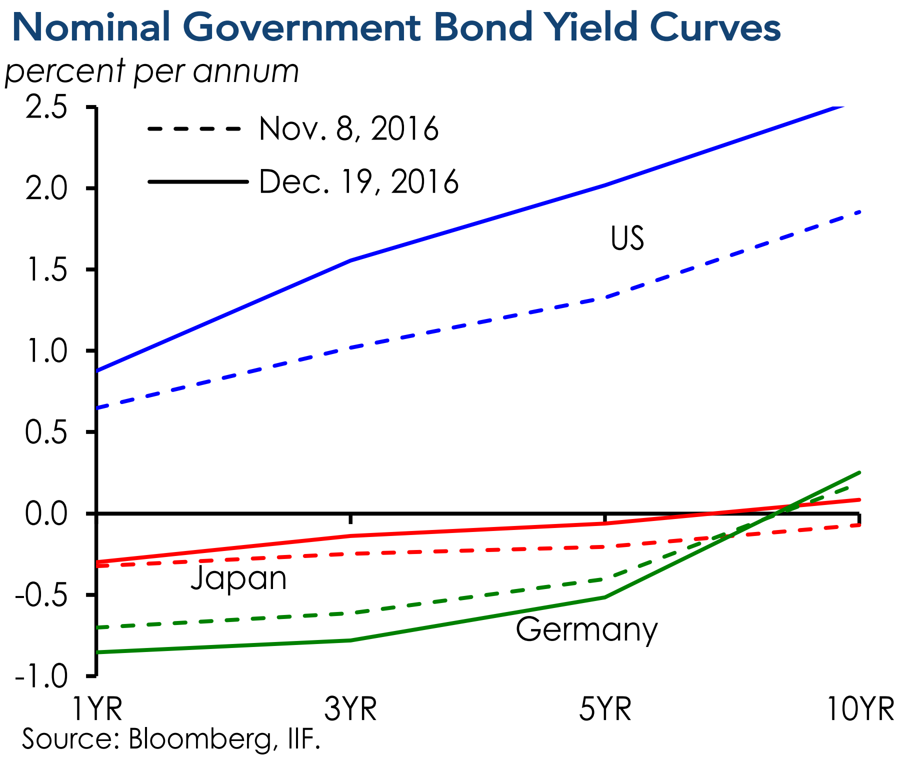


Sources: Bloomberg, policyuncertainty.com and Bank calculations.

(a) VIX measure of 30-day implied volatility of the S&P 500 equity index.
(b) Global policy uncertainty is a PPP-weighted measure of media citations of terms related to policy uncertainty, based on Baker, S R, Bloom, N and Davis, S J (2016), 'Measuring economic policy uncertainty', *NBER Working Paper No. 21633.*

It seems to me that QE has to take some responsibility for that. The unwinding of QE is necessary, but its consequences may lead to a new crisis, such are the sums involved, and the distortions created by widening wealth inequality and encouraging debt. Bloomberg data suggest that there are around £16.5 trillion of government securities globally held by the advanced economies. Some 30% of these securities are in maturities that are yielding negative returns, see chart 3. Asset prices in financial markets need to be driven by the actions of the private sector rather than those of the public sector, which is currently the case.

Chart 3: there are a lot of negative yielding bonds out there



The risk is that markets have become so used to being underpinned by the central bank's purchases of government debt that all of the agents involved could take fright at their exposure if prices fell sharply.

Could it be that the conditions for the next crisis are being laid now, by too much loosening of monetary policy to rescue the global economy from the 2008 crisis and to avoid the mistakes of the 1930s when the policy was too tight? Scrutiny of financial markets valuations of assets is in order, as it is not clear what the market-clearing price of them are in the presence of large-scale government purchases of its debt. Only the sale of central bank holdings can lead to the return of a free market in government securities. But that will test the resilience of the market in Fixed Income in a way that we have not seen before.

3.2 INTERVIEW

Matching cash-flow requirements in a volatile market

Interviewer

Ben McNamara, Content Producer, Clear Path Analysis

Interviewee

Diego Martinez-Burzaco, Chief Investment Strategist, MB Inversiones

SUMMARY

- *If one country's economy is growing faster than previously expected, the capacity of governments to repay all the debts in a tightening the monetary policy environment will be better than others*
- *If investors face any type of market correction in the future they will have to keep durational basis as strong as possible to get good returns*
- *Investors have to take care of their behaviour and emotions when markets become irrational, so they can take advantage of market corrections*
- *We are now standing on one of the biggest bull markets in both equities and Fixed Income history, which will create good investment opportunities when the markets turn around.*
- *Investors have to be respectful of the market, cautious, and always apply a diversification strategy*

Ben McNamara: How are you defining 'Factor Investing' and to what extent is a factor strategy applicable to global economies?

Diego Martinez-Burzaco: When I look at the whole world I find a very unique characteristic, no matter which country we are talking about, and that is the lack of financial education in order to protect investors savings. In the beginning I thought this was a main characteristic of developing markets or countries but, as time has gone on, I found this characteristic true for developed markets as well.

When you are talking about Factor Investing, you need to think about not only the period of time that you are investing but also taking care of your profile risk. This is why financial education is a central factor to succeed and invest your savings in the best way you can.

When we look at what is happening in global economies during the last decade, traditional investments were not the better options for your portfolio (traditional and real estate investments didn't do well when you compared against financial markets like equity and Fixed Income).

If you didn't have financial education, you couldn't achieve success for your savings and so that is why it is key, and people should care about this not only for the present but for the future.

It is very important to manage your savings in the best way that you can to achieve the goals that you intend in the beginning. We should see Factor Investing as a financial education issue.

Ben: To what extent are factors (like value, size, or momentum) transferable to Fixed Income in a Global context?

Diego: Nowadays, every investor in the world can access all the financial markets, this was due to technological improvement and is good for creating diversification within savings.

When you are talking about diversification the value, size, and momentum of every financial asset is very important. For instance, when you try to make a Fixed Income portfolio, you should take care of the risk/ return relation in each financial asset, as well as the history of the issuer of that Fixed Income asset.

Track records can give us a key rate history about the profile of the debtor, but we also have to take care of the future perspectives as past returns don't guarantee future returns.

We have to have a forward-looking view as an investor and should know the risks. One important issue for Fixed Income is the risk mark that they receive from the creditors. The investor should care about those risks in order to not miss investments in riskier assets that they want to have.

The liquidity, risk/ return relationship, and the track record, are the three main characteristics that every investor should look at when they are trying to configure or consider Fixed Income portfolio strategies.

Ben: On this point you mention about riskier assets and liquidity, this is potentially where investors are looking to match their cash-flow requirements. In terms of global economies and various opportunities, where do you see that opportunity for investors to match their cash-flow requirements?

Diego: When you look at Fixed Income investments, cash flow is very important and should match your cash-flow requirements. There is an important relationship between the cash-flow, the duration, and the interest rate.

If you started investing between 5 and 7 years ago you are accustomed to a very low interest rate environment. Those conditions are changing and the behaviour that you might have had in the past may not be the same as what you need in the future, because of the hike in interest rates.

If you need short term cash-flow you are more likely to invest in short-term bonds knowing that the interest rates there are very low. If you want more return you should take more risk and consider that the central banks all over the world are now rising their interest rates.

The cash flow you are taking care of should be combined with the good relations between that, the interest rate and the duration of any Fixed Income asset.

Ben: On the subject of rate rises, investors are concerned about multiple rate rises and their frequency. How much should investors change their strategies based the rate rises that are occurring in market-leading economies?

Diego: This scenario is a new challenge for investors if they were accustomed to investing in a low rate environment, as they now have to switch their minds to a different scenario.

I do not feel that the hike in interest rates will be as fast as it may have been in the past. This is because inflation remains low all around the world, but imagine that if this starts to become an issue then it could accelerate the hike in interest rates although this isn't my best-case scenario.

We will likely see maybe one interest rate hike by year's end from the Federal Reserve. In Europe I expect 2 or 3 hikes in movement during 2018, and investors should pay attention to this in order to be better positioned in the right assets.

Taking these prospects into consideration, local currency emerging market debt could face several challenges, so I recommend to investors to move to a currency debt (not in domestic currency debt because devaluation for emerging currencies could be a big constraint for the Fixed Income strategy building).

Countries that have a higher growth-rate could deliver higher returns for investors, so this is the other thing you should take care of. If one country is growing faster than previously expected, the capacity of governments to have the ability to repay all the debts in an environment (which will be characterised by the tightening of the monetary policy) will be better than other countries.

Ben: For those who are trying to navigate market uncertainties, what lessons can we learn from previous market corrections and cycles that are applicable to a Fixed Income strategy?

Diego: Being over confident could damage your savings, as investing in a low interest rate environment could be easier than the environment that we will be facing in the future, so being over confident is not a good tool to use in your Fixed Income portfolio.

Don't minimize risk; be cautious and use a diversification strategy, as (not only within countries but currencies) central banks have different speeds of monetary policy tightening, so this should have an impact in currency-values, so you must take care of this.

If we face any type of market correction in the future you have to keep durational basis as strong as you can, in order to get the good investments. When markets become irrational the best opportunities can arise, so you have to take care of your behaviour and emotions to try and be the most rational as you can in these events, in order to take advantage of market corrections.

It is not about bull markets, we are now standing on one of the biggest bull markets (not only in equities but in Fixed Income history), and you can have good investment opportunities when the markets turn around. You have to be respectful about the market, cautious, and always apply a diversification strategy.

Ben: Thank you for sharing your thoughts on this topic.

SECTION 4

FIXED INCOME: A FOCUS ON ASSET CLASS

4.1 INTERVIEW

Going private: does an out of sight position mean loss of governance quality?

4.1 INTERVIEW

Going private: does an out of sight position mean loss of governance quality?

Interviewer

Ben McNamara,
Content Producer,
Clear Path Analysis

Interviewee

Alan Pickering,
Chair, Bestrustees

SUMMARY

- *Regulation is needed but it must be balanced with transparency in the business-to-business (B2B) market*
- *The lack of regulation in itself shouldn't lure investors into the private market, on the basis that a better return can be made because the market is less regulated than public markets*
- *The danger in any form of investment is to take advice at the beginning of a particular strategy and then assume that nothing is going to change until that initial strategy is complete*
- *Having removed the fear of these markets, trustees should continue to take advantage of them, when they think it is appropriate to meet the needs of their beneficiaries*

Ben McNamara: As investors look to move beyond liability matching, private markets are becoming a source of value-added returns. How long should the terms be for private Fixed Income assets to maximise the benefits?

Alan Pickering: As a pensions trustee, I am a buyer of investment products rather than a designer. There will be some very large schemes where they will go to market participants and tell them what their requirements are, and seeing if those market participants are willing to match them.

I am responding to whatever market opportunities there are, and there is a fluctuating relationship between the different ways in which users of capital want to tap capital markets. Although recent figures have shown that there has been a fairly good year on Initial Public Offerings (IPO's), on both the main and alternative markets in London, there is other evidence that suggests that the users of capital are increasingly going private when raising money.

As a trustee I am increasingly taking into account my income needs in deploying my assets. Most of my schemes are in negative cashflow, nothing to be frightened of there as it is anticipated that Defined Benefit (DB) schemes will ultimately go through negative cashflow until the last member is no longer a liability.

I am fairly agnostic as to whether my income needs are met by coupons or by return of capital, when it comes to the duration or the lock-in period of my investment in the private markets, therefore, so long as I get the anticipated flow of income from coupon or capital returned, I don't have a particular hang-up as to how long it is safe to be invested in a private market. When it comes to the term of the investment I am fairly open minded in seeking out those investments that have a trajectory that matches my own requirements.

Ben: Illiquidity is a concern for investors that need to ensure their cashflow needs are met, how should a Fixed Income strategy adapt to ensure that there is enough dry powder available? Can the private markets satisfy this need at low enough risk?

Alan: Illiquidity is an issue, but I don't feel that it is a 'show stopper', particularly if I am being rewarded for that lack of liquidity. One would hope that those who are helping me construct my portfolio will try and get a balance of sources of return with varying degrees of liquidity.

So long as all my eggs are not in one basket, I am normally happy to lose some liquidity, if that increases my returns. Obviously, I need to make sure that there is sufficient diversity, since if an anticipated liquidity in a private investment proves not to be as liquid as I originally expected and I have to wait for some time for the return of my principle.

Ben: There is a lack of regulation currently in the private markets, should this be a concern for funds, especially as environmental, social, and governance (ESG) principles are being applied to an increasingly broad range of asset classes and investor expectations?

Alan: I am doing this through a business-to-business (B2B) relationship, so the level of regulation needs to be appropriate for a B2B relationship. I don't need the same level of regulation that might be appropriate if retail investors are being led to these markets. There is a need for regulation and it is for those who advise me as a trustee to make sure that I am comfortable with the balance between regulation and/or transparency, but I am not a great believer in over regulation particularly in the B2B market.

The lack of regulation in itself shouldn't lure me into the market, on the basis that I can squeeze a better return because the market is less regulated than public markets. I shouldn't go in there 'to take a punt', but the lack of regulation shouldn't lead me to regard it as a no go area. Its characteristics do need to be compared to characteristics of the more public and increasingly regulated markets, and my advisors have to undertake a cost benefit analysis to produce a package that is as diversified as the amount of money that I am deploying allows me to have.

Ben: Where do you see the beneficial trade-off between the return and the lack of transparency that private market Fixed Income can afford?

Alan: The beneficial trade off will vary according to general market conditions. An increasing number of market participants are wanting to tap the private market as opposed to use public markets. This applies to both bond investments and equity type investments and (bearing in mind that I am professionally advised as a trustee) I need to make sure that I am being regularly updated to market condition change and, as the relative cost benefit analysis between public and private markets ebbs and flows, the danger in any form of investment is to take advice of the beginning of a particular strategy and then assume that nothing is going to change until that initial strategy is completed. One does need to take stock and regularly rebalance the sources that one taps for the return that one needs.

Ben: Regarding fiduciary responsibility, therefore, how much due diligence is required, in order to satisfy that this is a responsible/ justifiable Fixed Income investment strategy?

Alan: Given that I am a trustee trying to secure other people's financial security in the long-term, everything that I do requires due diligence, but I come at this from an intellectual standpoint rather than a box-ticking standpoint. It would be my aim to secure appropriately qualified advice from those who understand my needs and fiduciary responsibilities, and will advise me accordingly; not by using a tick box but by providing clear, concise, precise investment advice in context.

> "THERE IS A NEED FOR REGULATION AND IT IS FOR THOSE WHO ADVISE ME AS A TRUSTEE TO MAKE SURE THAT I AM COMFORTABLE WITH THE BALANCE BETWEEN REGULATION AND/OR TRANSPARENCY"

Ben: In what way should the relationship between Limited Partners and General Partners evolve to ensure good investment governance?

Alan: I have been doing this work for a long time, and over the last 10 to 20 years I have got sufficient self confidence to push back at an advisor to make sure that they understand the market in which they are operating and the context in which I want to tap those markets. With longevity in this market comes a degree of self-confidence, which means that I can push my consultant and advisor to make sure that I understand the benefit and risks. The only way that they can make me understand them is to convince me that they understand them. I have had situations in the past where there may well not have been any flaws in what was being recommended, but the ability of those who were making those recommendations to explain them to me have been rather limited. This didn't give me the self-confidence that I needed to put my trust in them; I didn't go down the route that they were recommending.

Ben: Do you see that there is a positive trend that you could recommend to other trustees to ensure that there is that good relationship?

Alan: There is a trend towards scale and that is not to say that big is always beautiful. If we are dealing in scale – whether it is in the Direct Benefit (DB) or Direct Contribution (DC) markets – the direction of travel is to build scale, and within scale there is an increased chance of having quality people on both sides of the dialogue. Hopefully these quality people will have sufficient experience and/or self-confidence to keep debating the issues and ensure both parties are on the same page and comfortable in investing in an investment strategy, in the knowledge of the anticipated benefits but also aware of what could go wrong.

Hopefully, they will have also identified some early warning signals that suggest that things are going wrong, and have some remedial steps to take to try and mitigate the impact of adverse outcomes.

Ben: The Bank of England has suggested a rate rise before the end of the year, but there could be several. What effect could these changes have on key asset classes, of which funds should be aware?

Alan: There have been some very clever people who have been anticipating multiple rate rises for quite a while, so one has to be careful not to base their strategy on what might happen. As interest rates return to what might be regarded as more normal levels, then this might lead to a realignment in the merit of particular asset classes to meet particular needs. I don't feel that a return to higher interest rates should necessarily lead to a mass return to traditional asset classes and a withdrawal from those asset classes that we have been exploring in an environment of lower for longer. Some of these new asset classes may still have a role to play, even if we are not lower for quite as long as people might have thought.

There will be a realignment and changing levels of attraction, but that shouldn't close our minds to the merits of using strategies and asset classes that have been designed to meet the lower for longer environment. If we are going into private markets, we have to make sure that we aren't just following fashion or adopting a fad. Having removed the fear of these markets, we should continue to take advantage of them, when we think it is appropriate to meet the needs of our ultimate beneficiaries.

Ben: Thank you for sharing your views on this topic.

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