



Factor investing roundtable

The evolution of factor investing



➤ Our panel of experts reflects on the evolution of factor investing and asks where it is going from here

Chair: Do we believe that trustees and buyers of factor-based strategies understand them better now than they used to?

Elsaesser: From my perspective yes. It's a process that's been under way for a number of years, but in the past two or three years, especially in the UK, there's been a strong increase in knowledge.

We have been talking to lots of different people about factor investing, and I think factor managers in general have been doing a better job of explaining what we do on various levels.

What we usually do is start at intuitive levels because the factor investing philosophy is truly intuitive. Then we add levels of detail, as much

as needed, or as much as the audience demands.

Hymas: I would divide the answer into two parts – what I know personally and what I consider others may or may not know. Personally, I've been aware of factor investing for well over 10 years and see the advantages of it, whether it's regarded as being smart beta or given some other title.

More generally, there probably is more awareness of it because trustees have a much greater awareness of the diversity of the investment universe compared to five/ten years ago. As the role of the trustee has changed, the level of knowledge has increased.

Saying that, the smaller schemes

might have such investments within their portfolio through either fiduciary management arrangements they have in place, or through a diversified growth fund, for example, so while they might have exposure to factor investing strategies, they may not necessarily have a true knowledge and understanding of the strategy.

Vial: The consultants have greatly helped increase awareness of factor investing among trustees, although educational work needs to continue as there are still some misconceptions. Also, there are a number of things that have come up in the past five years that could be assumed to be factor investments. ESG is a good example: it's increasingly

In association with



Factor investing roundtable

CHAIR



► Andy Cheseldine, Client Director, CCTL

Andrew Cheseldine is a client director at CCTL. Before joining Capital Cranfield, Andy acted as an adviser to trustees and employers at Watson Wyatt, Hewitt Bacon & Woodrow and latterly as a partner at LCP. Using his experience of over 30 years in consulting on both DC and DB pension arrangements and liaising with regulators throughout the pension and financial services industry, he is able to use his wide knowledge and understanding for the practical benefit of trustee boards. He has served on the PLSA DC Council since 2013.

PANEL



► Georg Elsaesser, Senior Portfolio Manager, Invesco Quantitative Strategies

Georg Elsaesser joined Invesco in 2016 as a senior portfolio manager from Allianz Global Investors where he was a director of their systematic equity division covering global equities. Previously, he worked as sell-side equity and multi-asset strategist at Wellb. Georg also served as an investment analyst in the asset management division of CologneRe, where he focused on equities and asset allocation. He received a 'Diplom' degree in Business Mathematics from the University of Dortmund, Germany, in 1999.



► Peter Hopkins, COO, Style Analytics

Peter Hopkins is chief operating officer of Style Analytics, with responsibility for research into factor investing and product innovation. He is a regular speaker at international investment conferences. Prior to joining Style Analytics, he spent 14 years with Baring Asset Management, where he was a director of the investment management group, head of quantitative research and a member of the global senior management team. At Barings he specialised in factor based investing for global equities. He holds an M.A. and D.Phil. in Theoretical Physics from Oxford.



► Bob Hymas, Trustee Executive, BESTrustees

Bob Hymas is a trustee executive, with BESTrustees. He has worked with pension schemes for nearly 20 years and is an experienced trustee. He has several scheme appointments with BESTrustees ranging in size from ones with assets of less than £100 million to one with assets of nearly £3 billion. Through these appointments, Bob is the chairman of schemes and committees as well as a co-trustee. Some of the committees he has chaired have been focused on specific de-risking transactions.



► Andrew Peach, Senior Investment Consultant, Aon Hewitt

Andrew Peach is a senior consultant based in the St Albans office. He has worked within investments since 2004 and joined Aon Hewitt in 2012. Andrew works as lead or support on a range of clients ranging from £20 million to £3.5 billion. In addition to his client commitments, Andrew leads Aon's factor investing proposition: the Aon factor service.



► Stéphane Vial, Managing Director and Head of Investor Relations, EMEA, Capital Fund Management (CFM)

Stéphane Vial is managing director, in charge of CFM's EMEA client base. He joined CFM in 2007 and spent his first two years at CFM's headquarters in Paris where he was responsible for European client coverage. He then moved to Tokyo where he was the director of CFM Asia KK, before moving to London in 2013. Stéphane has 20 years of experience in trading capital markets.



In association with

Factor investing roundtable

popular, it feels like a factor – although there might be some debate about whether it is or isn't – but discussions around ESG and other investment styles have certainly helped embed the culture of factor investing into the mind of the trustee.

Hopkins: You could always argue that factor investing is just old wine in new bottles – it's been going on for decades. Back in the 90s, we were making the case for using factors in European equities. That case has been well and truly won over the past couple of decades and we weren't necessarily early in the game either. Graham and Dodd were effectively using factors many years ago.

So, the factor story is being repackaged once again. Of course, many more factors have surfaced in recent years, and many more products have come to market, as well as different types of vehicles to exploit these factors. The downside there is that it creates confusion in the marketplace. Even as a retail investor, the challenge of picking individual factor portfolios is very hard because of the disparity in approaches and just the whole range of factors and factor construction methodologies that are out there.

Going forward, time should be a great healer here. Time will give rise to more education, more opportunities for people to have a better understanding. But I think you have to counterbalance that with the sheer number of vehicles out there and the confusion that causes.

Peach: We've been talking to clients directly and indirectly about factors via their unconstrained active equity portfolios for some time. Whether or not they consider that as a factor tilt or a factor exposure is another point.

To bring it back to the more systematic approaches that have been brought to market more recently,

certainly I think there is a better awareness and as part of that a growing understanding.

We were talking to clients about factor investing back in 2008, and then again in 2012, and of course each time we approach the topic, the level at which we have to start gets higher and higher.

Active or passive?

Chair: What's a better description of a factor investment fund? Is it a passive fund on a tilt or is it a low-cost active fund?

Hopkins: I think it's both. You see investors moving into factor investing from both ends of the spectrum. Anything that seeks to exploit systematic factors targeting risk or return could be regarded as a factor investing approach. That's a pretty straightforward definition.

I know smart beta, if you had a very narrow description, is all about moving away from cap weighted portfolios, but factor investing is a broader term that encompasses that and the active beta strategies where investors are looking to systematically change the weights of factors as well.

Hymas: I agree – it's presented both

as an active and as a passive strategy.

Vial: I'd agree. I view it as different ways to exploit the same robust persistent strategies that have been evident in the market for many, many years. You can either buy it in the long only format which resembles a passive strategy such as smart beta or, using more active strategies such as alternative beta, you can put it in long/short format next to your long only portfolios, therefore giving you different options to control your exposures and risk according to what you like or don't like.

Elsaesser: In my view all factor investing strategies are, at the end of the day, active even if you can buy them in a passive wrapper. What's smart beta? Smart beta is often considered passive. But why do you use it? Because you say the cap weighted index is not efficient, so you apply different weighting schemes. If the weightings differ from the cap-weighted index, that's an active strategy.

That's an important point I wanted to make because if factor investing's always active it always means you take risk, and that opens the view for discussions around active management, especially active risk management.



In association with



Factor investing roundtable



Hopkins: There's an active decision on the factors, and there's an active decision on the indexes. You can even argue that pure 'passive' is active because there's a choice of a market, cap range and index vendor and so on.

Peach: I think it's certainly an active strategy for the reasons already outlined. What we've seen more recently is the growth in what you might consider passively delivered versions of those which are more rules based.

Advantages of factor investing

Chair: What are the advantages of factor investing and why the increase in interest and popularity? Why the big increase in demand?

Hymas: I think it's because of the general change in the environment in which trustees are operating and a much greater awareness and understanding of risk and return.

Trustees are, certainly in a DB environment, looking at the actuarial valuation in a very different way with integrated risk management. They are looking to understand what risks they are taking and what returns they need to achieve.

Peach: I agree – there is a greater understanding among trustees around risk and return; particularly about

improving risk adjusted performance or efficiency.

Here, we're talking about a product or a style of investing that seeks to gain exposure to individual definable market risks beyond the market risk. We are looking to take those risks for a reason – for outperformance. The benefit is that it can demonstrably be done

with a lower level of volatility so it's a more efficient exposure. That is very attractive to trustees. If that can be done in a way that is systematic and more cost effective, (we can do this in a way that's more like passive plus a bit of cost rather than active minus a bit of cost) then that is very attractive, and I think that further goes to explain the rise in popularity.

Chair: Reasons for growth in the popularity of factor investing? Well, cost is a factor that comes up; disquiet or unhappiness with performance of active has to be mentioned, whether that's justified or otherwise. There's a perception that active managers have not been providing value for money after costs. There's increasing evidence that a lot of active returns can be captured by systematic factors. That's an argument that's been pushed very hard by a number of big players.

I think the supply of product is also creating the increased popularity to an extent.

Elsaesser: I think the environment we live in, especially the low yields, is forcing many investors out of their comfort zones. If I could cover all my obligations with, say, German bunds I would be more than happy to do so, but I can't.

If I have to move away from my fixed

income minded or my passive minded comfort zone, for example, the most natural thing to do would be to look for something that's reliable and that gives me some sense of predictability and stability. If we know that the greatest share of active returns and risks can be explained by factors, it makes a lot of sense to look at these factors as opposed to traditional strategies where perceived safety might be somewhat lower than factor-based strategies.

Vial: I would add two points. Firstly, to echo what some others have said around the table, people have realised that two long-only funds are not equal, they may diverge through time, and investors have been trying to understand why one goes this way and why one goes the other way. That's why investors started to analyse long-only managers and realised that there are styles that they converge to.

Once they get that information, which is very valuable, they can then make decisions whether they want to tilt their portfolio one way or another.

The second thing, echoing what Peter [Hopkins] was mentioning, these factor-based investments have been known in academic literature for many years. And indeed, just like the stock market, they are of relatively modest performance or Sharpe ratio. Consequently, academics require a fair amount of time (and past data) to prove each and every factor are genuine, truly different from each other's and from the stock market itself, and can be trusted.

You don't need a year, two years, five years to do this – you need to be analysing 20 or 30 years of past data, and we have that timeframe now. We've gone through enough time and have enough data to say that some of these styles are real. The statisticians would say these aren't random but are statistically



In association with

Factor investing roundtable

significant. Investors can start analysing their portfolios, pinpoint why certain managers differ due to particular styles and this is useful. Then all the discussions can move from there in terms of what you want to do with your style et cetera.

Elsaesser: Factors haven't historically played a big role in fixed income, and why should they have? In a secular bull market, whatever you buy is basically fine, and that's been the case for many years.

Now with interest rates so low and prospects not very bright, investors are starting to look at other drivers that may generate some excess returns. Of course, fixed income factor research is still reasonably early stage. It's been around for a couple of years now, but there's still so much to look at. The body of research we have in equities is certainly much larger.

Hopkins: In fixed income, we're about 30 years behind equities right now with the first papers coming out. I think there are different challenges there. For example, in equities, if you're looking at value you might choose PE or price to book or any of those candidates. You can agree pretty much on what a book value is, what the earnings are et cetera.

When you get to the analogue in fixed income, you've got the same style categories, such as momentum, quality, value, growth, but you have to create your own model with your own proprietary data to come up with the underlying factors.

That might be feasible for an individual asset manager, but it's a big challenge then for others to buy into, to understand and see what the 'secret sauce' is, because the 'secret sauce' is by definition proprietary. Factor investing in fixed income may not ever get to where equities are now because of that challenge.

Hymas: Having reached a certain level of familiarity with what factor investing might be, does the end user now find themselves getting confused because of the research that's available and the choice that's available, which actually creates a bigger challenge to them and makes it harder to make a distinction in their minds about other forms of investing or other strategies?

Communication

Chair: Well, that leads to the question of how we communicate all of this and not confuse trustees.

Peach: We first of all talk about the fact that even being a passive investor is an active decision.

Then it comes back to the intuitive point. We tell the story around each of the factors and explain intuitively why they ought to work. Value is quite a simple one to explain. It's probably been around the longest. You explain quite simply that buying cheap stocks in the long term ought to work. Then you can use similar stories and intuitive reasons why all the factors that you believe in should work.

Then explain to them how there are systematic simple ways of constructing

an index that will tilt towards those factors, and over the long term that ought to work, and with a lower risk. Keep the messages very high level and then only afterwards go into detail. Too much detail upfront is when people start to get lost.

Chair: How important is communication of your strategy on a scale of one to 10?

Elsaesser: It's probably 10. It's crucially important that nobody buys what they can't understand.

In my experience it is relatively easy to explain what we do on various levels of detail and intuitively, as Andrew [Peach] mentioned, at the end of the day we're talking about a couple of factors that reflect very fundamental paradigms of equity investing.

If I pick a stock, what do I look at? Is it cheap? How do earnings develop? How strong is the balance sheet? Is it profitable? Do others also like this stock?

These are lots of very intuitive things and factor strategies group stocks together according to these criteria.

So, it's easy for investors to buy into this because it's just so straightforward. You would literally do it the same way if you were to buy an individual stock – it's just that a factor investor does it in a



In association with



Factor investing roundtable



structured way. We wouldn't expect every value stock to outperform but a whole group of value stocks, yes to outperform. Then you can level it further down, and the devil is certainly in the detail. How do I bring it in? What's the best measure? How do I implement it? What about transaction costs? And so on.

There are factor strategies that have 10,000 stocks in the global portfolio, others have 80, and this is all factor investing. So, it's worthwhile looking at the details and at what really reflects your needs best. There are lots of different ways you can implement factor strategies.

Vial: Style investing is important to explain and can be relatively simple because it's about the behavioural biases that are part of human nature, we all have them. For example, in its simplest form, if you ask someone: what do you think about that stock? If that person has never heard of the stock, what will they do? Go to Bloomberg, pull up a chart and look at the price history of the stock, and suddenly they have a view. We say: "Look, it's gone up, it must be doing well" or "it's gone down, it must be in trouble" and we go along with the crowd." It's entirely human. It's not logical, but this is the way we are wired.

We're all human. Even if markets are computerised, computers are still programmed by humans. Certain behavioural biases stay identical from

one generation to the next. We kind of never learn from our mistakes.

Hopkins: Often when people ask me to describe what we, at Style Analytics do, in a nutshell, I say we are part of a triangle. At each corner we've got the pension fund asset owners, fund managers and investment consultants and we provide the crucial means of

communication, along the sides between the different areas. We do that by keeping things as simple as possible and we aim to provide the tools to enable transparent communication that builds trust.

We keep things graphic and make telling and interpreting an investment story easy. There are two stages. First over an appropriate historic period, and then on an ongoing basis there's testing of the efficacy of factors – always being sceptical of whether they will continue to perform in the future, because a lot of them have tailed off in recent years.

Secondly, once you find a credible list of factors that may be candidates for the future, you examine what your existing portfolio looks like in terms of factor tilts. Or, for example, what a prospective manager's portfolios look like, so that you can blend an existing portfolio with a prospective portfolio, creating something that meets your investment beliefs.

Hymas: So, is this anything new? Or is this a new name for something that should have been done in the first place, but with an additional cost now attached to it? Is that a view that a trustee could present?

Vial: There is an additional cost if you go down the factor investment route but in comparison, if you were buying the long-only fund, you would be exposed to some of these styles, but that exposure would be uncontrolled; you wouldn't

know how much of each you have. And they may be drifting in one way or the other.

If you want more control of the exposures, the particular styles, in addition to the global market exposure that you are getting, then there will be some cost attached because the providers will be giving you particular exposure to precise styles, but you will know exactly what sort of styles you are getting exposure to, and how much. In some way this is a passive constant exposure to actively managed strategies.

Elsaesser: If I'm been asked this question, I will always demonstrate the way we are active. How and in whichever risk-controlled way do we deviate from the benchmark? How are these deviations from the benchmark structured? How reliable is what we do? And, if a factor investor can credibly argue that they are charging a fraction of the added value they're delivering, then they are probably quite a bit ahead of others.

Peach: For whatever reason, passive investing the market cap has been the predominant way to invest for decades, if not longer. This is different. At the heart of it is seeking to be more efficient and actually get access to individual factors. This is a way of doing something active in a passive-like way.

Performance

Chair: Is factor investing actually delivering on its promise to date? Is it performing consistently? What timescale does it need to be consistently successful?

Vial: Yes, it's delivering what it's meant to deliver. How long does one need to invest in such strategies? I think five years seems to be a good starting length of time to get exposure, make a decision and see how it's going. There have been managers with track records in the space for five and even ten years.



In association with

Factor investing roundtable

Hopkins: Factors can go in and out of fashion. They're all cyclical. Some may not ever come back.

What we have done is study some individual peer groups, for example, looking at multi-factor funds. By and large I would say these managers are doing what they say they are doing – they're getting value exposures, or they have quality biases, and so on. Generally, I find that the labels are relatively accurate. But not always. There are other factors, like momentum, which are much more challenging to control.

In terms of the exposures though we are seeing that there is usually strong alignment between what managers say they do and what they're actually doing. But nonetheless the independent testing of factor tilts is a very important ongoing step to verify this.

Vial: There are many, many factors out there. We don't believe all of them work, far from it. A large number are either flukes, or are different names of the same things. I'm a firm believer in a handful of factors – the ones that have been researched by Fama and French for instance, as they have shown persistency over time.

Peach: Whether or not they're delivering on their promises depends on what promises have been made at the outset. We've only ever talked to clients about these being long-term strategies, especially if you're talking about multi-factor investing. Some of the factors deliberately shun short-term gains, so we're always talking about buying long-term gain, which comes to your question about how long is long term.

We did some research in 2012 whereby we looked at periods of under-performance, outperformance and drawdowns. During the 90s, none of these things beat market cap.

Over the long term though we can

“Is this just a new name for something that should have been done in the first place, just with added cost?”

expect them to work and whenever we simulate these types of strategies, the longer you can extend it to, the more likely that these things outperform.

We then come back to the question of: how long is long enough? We generally talk to clients about it being five years or so before you can make a decision on these, probably more like 10. We also generally favour multiple factor exposures rather than putting all your eggs in one basket.

Elsaesser: I also think factors deliver in the sense that they explain widest parts of risk and return in equity markets. The bigger question for me is: how can you make use of them? In a market environment like back in February when we had a market correction, quality outperformed very nicely, but value or momentum didn't do well. That's what you'd expect from the cyclical characteristics of these factors.

With hindsight it's easy to see why, but would you have timed it correctly yourself? Unlikely.

Andrew [Peach] mentioned multi-factor strategies. That's exactly where we think you should be going. Single factors are not at all low risk. They can be extremely high risk. They depend on the position in the cycle and they depend on the risk aversion in the markets.

But if you combine your factors diligently, move away from the temptation to time them, and then you give yourself three years, five years,

say a cycle, then you can indeed generate risk and return profiles that are very reliable.

For instance, we've seen a return of demand for enhanced index strategies of late, whereas a couple of years back, there was hardly any interest. But the idea of having something that's consistently better than passive, that credibly delivers and charges just a fraction of the added value seems to resonate in a lower return environment.

Hopkins: The challenge then presumably is the transparency of the multi-factor strategies because you're making lots of decisions about how you put these factors together. How can you then get that through to trustees?

Elsaesser: I wouldn't actually call transparency a challenge. It's about giving investors every detail they wish to have. Intuitively it's rather simple anyway – if markets are risk friendly, the highest risk factors will do best. If markets go down, quality will do well. In a more normal(ish) market, momentum will do well.

It's also intuitive to argue that if you want to go safely through the cycle, then you should have a bit in each of them because all of them outperform in the long run. If you have a weighted average of them, you should still outperform but



In association with



Factor investing roundtable



you should balance the volatility of the individual factor returns.

Then transparency requires to explain how, as a factor investor, you actually find your factors; how you combine them in detail; what's the process behind it. Is there an optimisation? How dynamic is the quantitative research process? And so on. My experience is that investors understand very well if you explain well.

Chair: Bob [Hymas], as the end user, have the panellists convinced you, or would you remain sceptical on factor investing?

Hymas: What I have seen in practice is that factor investing to date has provided what it said it would provide. In terms of the risk and return, it has achieved what has been asked of it. The question I have today around all investment strategies and approaches is: what of the future? What are the challenges that are on the horizon and how will factor investing react to those challenges? How will it protect against downside? How will it perform in the context of an overall portfolio in what I believe are going to be challenging times over the coming months?

Most trustees are getting quite

defensive now so would factor investing help in a defensive portfolio when we're expecting goodness knows what to happen with trade wars, Brexit of some sort, slow-down in the US, whatever else that might happen in the Eurozone? How would factor investing help in all of that?

Regulation and economics

Chair: That leads nicely to the next question – how does factor investing fit in the economic and regulatory environment? The regulatory side is quite interesting. We've just had the DB code consultation published where for the first time DB trustees are specifically being asked to report on value for money. DC has obviously had to report on value for members for some time. Where do you see factor investing sitting, from a regulatory point of view?

Hymas: The regulatory environment is changing. It is putting more pressure on trustees to explain what they're doing and why they're doing it; whether it's from a funding point of view, investment point of view or covenant assessment point of view. It's almost becoming an 'explain' environment. That is the direction of travel.

As a result, there is going to be an increasing amount of consideration of factor investing by trustee boards, as of other forms of investment. All trustees will need to consider it, whatever size of scheme, even if they don't implement it because they need to be able to justify why they are using a particular strategy, what the risk/return profile is, how it links in with the sponsor covenant, and what their funding objectives are.

Peach: We mentioned earlier the regulatory focus on value for money and focus on fees. We've put a white paper out looking at fees and what you should do to make sure you are getting value for money. The one that really hits home here is around getting beta cheaper. So, if beta's all you're after, you simply get that as cheaply as you possibly can.

Something like factor investing is what we would call a sub beta. We should be able to get that beta cheaply as well.

Vial: On the fees, I'd agree that factor investing comes under the 'new betas' if you like, and it's usually competitive. Prices have come down to some equilibrium through offer and demand.

From an economic environment perspective, is today's environment the right one for factor investing? My view is that factor investing is as good as it was yesterday, and as good as it will be tomorrow. We mentioned the Fama and French factors – this research covers decades if not centuries of data, and with a very long back test, what you effectively do is integrate all kinds of different economic environments into your data. And the output shows fairly stable and persistent results throughout those multiple environments. This is essentially saying any environment is decently appropriate for a well-defined blend of factors i.e. do not time.

Added to this, factor investing strategies exhibit robustness, and by



In association with

Factor investing roundtable

robust I mean that the implementation of those strategies have very few parameters, and the results are fairly insensitive to the actual value of each parameters. This gives further evidence of robustness and favours getting constant exposures (no timing) to a diversified set of factors.

Elsaesser: I agree, factor investing fits in the current economic environment as it fits into any other economic environment. Factor premiums are persistent in nature and their cyclical behaviour is well researched. You can combine them in a most stable way to get your desired risk/return profile.

In the future we will probably also be able to meaningfully improve or even re-establish diversification on an asset allocation level with the help of factors, for example by applying something like a value, quality, momentum, carry, duration perspective across the asset allocation. In my view, it's going that way, but there's lots of research to be done yet.

Hopkins: From a regulatory perspective, factor investing seems to offer transparency at lower cost so it ticks those boxes. In terms of the economic environment, if you're clear enough about the likely shortfalls that you will get from time to time, then it will meet people's expectations and the environment ultimately doesn't really matter that much.

Specific factors

Chair: We've talked about different factors and the different economics. In today's environment, if you had to say which of the factors were most important, what would you say?

Elsaesser: I would always hesitate to recommend a single factor because the associated risk is just very high, and factor rotations are so quick. Look at May for example, where we had a nice value rally at the beginning and then it turned

“Economically, factor investing is as good as it was yesterday and as good as it will be tomorrow”

back again. You'd never have timed that perfectly.

If you're holding a multi-factor portfolio, however, you're holding a broad set of factors with different cyclical characteristics, you're diversifying. This diversification comes at a price of course, you will never shoot out the lights, but you'll have the chance to achieve your desired goals in terms of risk and return in a reliable way.

Chair: So, which ones would you go for in your multi-factor?

Elsaesser: I would go for value, quality and momentum – this should help to capture the different stages of the cycle, and you may consider adding size and/or volatility within them.

Hopkins: But putting value and momentum together, we all know they're anti-correlated. You have to be careful not to just get a wash of the market, right?

Elsaesser: Yes, absolutely. You need to make sure that you are not just a costly replication of the market. That brings us back to a point I made earlier on – that you have to demonstrate you are truly active. It's not necessarily only about tracking errors, also about active share measures. You need to credibly demonstrate where you deviate from the index, otherwise you might just be a closet index manager charging active fees for passive delivery.

Vial: I agree with what's

been said. In picking individual factors you are ignoring all the research that has been done – back-testing shows there is no point trying to time these things; they're impossible to time. So, you want exposure to several to get the benefit of diversification.

At the moment quality, value and momentum seem to be a good bet. Having said that, value has been down more than the others this year and last year too, albeit within its expectations. We do like keeping constant exposures to factors and if possible equal amount of risk over several factors. The recent performance was by no means a reason to deviate from our beliefs.

Hymas: From a trustee perspective, this all comes back to that communication point – you need to be able to explain to the whole board of trustees, including the lay trustee who has the least investment knowledge, as to the what and the why of all this; how it works in different scenarios.

I agree with the point about the benefits of a multi-factor approach – you do need to have that diversification and I totally accept that. How that diversification works, and whether it's right or not, is for individual trustee boards to assess based on what they see the future to be and how it all fits with their employer covenant.

