

In conversation:

David Stein | Guillaume Lasserre | Melchior Dechelette | John Redwood | Deborah Fuhr | Neil Morgan | Pete Drewienkiewicz | Ian Shea | Chris Sutton | Sebastian Cheek





Taking an active approach to passive investing

With the pendulum vigorously swinging between risk on and risk off in markets, active managers have found adding value to portfolios a tricky task, while their passive counterparts have also struggled to show the indices they use are able to reflect the true return of an asset class. This has given rise to an investment strategy coined 'smart beta', which proponents say effectively fuses the best of active and passive management by offering investors outperformance at a lower cost but without the drawbacks of market cap-weighted indexbased strategies.

In practice this translates into taking an 'active' approach to systematically defining in advance a set of index weights or portfolio construction, which steers clear of market capweighted equity indices and bond indices that attribute the highest weightings to the most indebted companies or countries. Indeed, index providers are reporting an increased demand for alternative or fundamental indices which see stocks weighted by factors such as dividends and sales, minimum variance or book value.

So outperformance at a lower cost seems like a win-win for investors but as with all budding investment strategies there are elements to be wary of. For starters there is uncertainty about what exactly smart beta is, meaning trustees risk getting bogged down by jargon. This latest portfolio platform therefore aims to define exactly what smart beta is before discussing the relative merits and pitfalls compared to pure active and passive management and whether these traditional strategies still have a place in investors' portfolios.

Elsewhere, the discussion addresses the importance, or not, of using market cap-weighted indices as the benchmark for smart beta approaches, how smart beta can be used in the fixed income asset class and whether there is an appetite among investors for this. It also considers the fees attached to smart beta: the strategy that is supposed to be lower cost but is that always the case?

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The fact that you put the same risk on each equity is just common sense, it's not something really new. But when you buy this, you know exactly what you are buying. Guillaume Lasserre

What is smart beta and how does it differ from traditional active/passive investment?

Fuhr: I guess many people would define it as something that's not a market cap-weighted index. So something that's been modified in various fashions to look at equal weighted - it could be fundamental, mean variance, etc.

Morgan: Underlying the indices you've got exposure to systematic risk factors, such as value and small cap that are rewarded over the longer term, relative to a cap-weighted index.

Drewienkiewicz: But it comes from a belief or a realisation over time that indices don't necessarily reflect a true asset class return. So you're effectively saying "I reject the idea that the index reflects the true asset class return and I want to access the true asset class return without the biases and problems that come with index investing."

Stein: In my mind smart beta is a set of weights, or portfolio construction, which is algorithmically specified ahead of time and is then encoded. It tends to take systematic bets rather than idiosyncratic bets. The differences between many of them have to do with what systematic bets they'll take.

Sutton: Our clients find it easier to access it by thinking about what it's not, which is two things. One, which we would call bulk beta, is a cap-weighted index, something that is not capacity constrained. At the other end, it is not something that relies on manager skill in the implementation, or stock picking.

Stein: Don't most of the smart beta proponents claim that they have some smarter beta and have some skill? So what is the difference between typical manager skill and the smart beta skill?

Morgan: I think it's just portfolio construction methodology. There are lots of different ways you can actually put together an index and some of them are more complicated than others. You've got optimisation routines, equal weighting, etc. So I would argue that once you've actually constructed the index, yes it's a

passive strategy but before then there is lots of subjectivity in actually putting together that index.

Redwood: But I think we make this all far too complicated for the normal investor. They won't understand what smart beta is because it is as many different things as there are people claiming to be smart beta exponents. What it's trying to do is to find another way of managing risk and measuring and expressing risk, which is what we do all the time.

Morgan: I think it's more than just focused on risk. Virtually all of these strategies, whether it's diversity weighting, equal weighting, fundamental indices, they all outperform market cap benchmarks over the longer term so you get extra return as well. So in risk-adjusted terms all of these strategies are much more beneficial than market cap-weighting.

What is the difference between what you've said and an active strategy?

Fuhr: Well doesn't it come down to there is a predefined methodology? So for an index, whether it's smart or traditional market cap-weighted, there is a methodology. So someone is following that methodology in terms of what stocks are included, what weights, when it rebalances, as opposed to someone being an active manager and saying "I'm analysing stocks and therefore I'm going to pick these stocks or bonds because I feel they're going to outperform over the long or short term."

Redwood: You pick them in advance basically, and you make them in a way which makes it inflexible to change them. But you are still taking a bet against the conventional index.

Dechelette: But maybe the true difference is that in this type of management portfolio managers are



When pension funds decide to invest capital in smart beta, it is an allocation decision. It's not a decision made by people selecting funds within the equity market. Melchior Dechelette



not delegating their risk to the benchmark. So maybe it's a sort of hedge fund way of managing investment. But that is not the case for most of the way the industry works; selecting a benchmark and putting on top of that a tracking error management and delegating at the end service to the benchmark. So if you want to get an efficient equity exposure, tracking error versus a traditional benchmark has to be huge. So it's another framework I think. But it doesn't mean that we cannot add some value in terms of fundamental management on top of that.

So in what sense is smart beta an index?

Dechelette: It's rules-based.

Morgan: It's rules-based, it's non-discretionary. Active managers put stocks in their portfolio because they think Tesco is going to do better than Sainsbury's.

Stein: I have trouble with that word index. Because I might have a rules-based strategy which says "I'm going to invest in all companies that start with the letter A and I'm going to equal weight them." It's completely rules-based. But it's not clear that that's a sensible way to construct an index.

Drewienkiewicz: Well the active weightings are only relative to a traditional index which surely this whole discussion should effectively invalidate anyway? Isn't the whole point of this that the reason this is very popular in equities particularly is because people are fumbling around, realising that equity alpha is extremely unstable and extremely difficult to indentify? Therefore we're going back and looking for things that appear to persist through history, and we have no evidence to suggest they will necessarily continue to persist. Because if a lot of money starts chasing

smart beta, then you could see a very different investment environment.

Stein: So what's wrong with the index? I don't care about efficient criteria, I'm caring about beating the cap-weighted index and it's tough to do.

Morgan: Yes, and you can do it through valuable size exposure, it's very simple. But I think the issue is, are these risk factors still going to exist in the future? They may be arbitraged away, if people start investing in these smart beta strategies.

Redwood: If you are right, and there's some evidence on this in some markets over some time periods, that small capitalisation company stocks do better on the whole, and recovery stocks do better on the whole, then by definition the market cap-weighted index won't do as well because it rewards success, which is already reflected in the market by the valuation.

Dechelette: Yes but we are managing risk, so maybe the absolute performance will not be as good as a classical index, but in terms of risk/reward, it will be better for sure and we can have an idea of opportunities within the market. If we have an opportunity to diversify risk, we can analyse that, we can isolate portfolios within the market that are fundamentally good.

Redwood: One of the reasons that the market capitalisation-weighted indices are so difficult to beat for an active manager is they are very Darwinian. So they have a much higher representation in the popular and successful stocks at any given time and as soon as the stock underperforms by enough, it is dropped.

Stein: All these concepts of constructing alternative indexes, or better betas, are relatively simple. Yet if you go to performance of managers, it's hard to find managers who have consistently outperformed the cap-weighted indexes. So I'm saying if it's so easy, where are all these managers?

Fuhr: If people go for equal weighted you do have an unintended bias towards small cap. If you go to fundamental you have an unintended bias typically to value stocks. So I don't think people go out and say "I want value or small cap" because then they would have chosen a different benchmark.

Drewienkiewicz: But who cares what happens to the market cap-weighted index?

Stein: I care what happens.

Drewienkiewicz: Well everybody cares because it's a benchmark, but should it really be the benchmark?

Stein: I will argue yes.

Drewienkiewicz: I'd love to hear why. Because I honestly think people have got to the point where they realise that what happens to the benchmark is completely irrelevant for them. All they care about is their investment returns relative to the demands of their investment strategy.

Stein: If I'm an investor I care about being invested in the equity markets and I'm choosing my asset allocation; that's a choice I'm making at a strategic level. Now when I choose that, the next question is how am I going to invest in those equity markets and evaluate my performance?

Drewienkiewicz: So we can performance evaluate. But why don't we evaluate performance relative to what the investor's requirements are?

Stein: Well that's a separate question. If you want to measure against liabilities, fine.

Redwood: Yes, but we've had a very precious conversation until we had this breath of fresh air about what clients might want. Clients are not out there on the whole talking about beta, smart beta or alpha; that isn't where they come from. They want to be able to pay their future pensions. I think what they're after is a sensible real return.

Dechelette: When pension funds decide to invest capital in what we call smart beta, it is an allocation decision. It's not a decision made by people selecting funds within the equity market.

Sutton: I'm not so sure I agree with that because people have had these smart betas for years, they just never knew it and they overpay for it because active managers have charged as though there was great skill and insight in them. What smart beta can do for people is draw those less skill-based things out. But then you've also got to reshape the active component in the long term.

Morgan: So the answer is in some ways forget active management, you just have exposure to these risk factors on a passive basis, lower fees, you can get ETFs that give you exposure to fundamental indices, value, etc. at a lower price than active management.

Redwood: But now I think you're being too tough on the investment industry. I think there is a role for the manager in advising people that maybe a value strategy will work. You have to review that, and the client



will want to review it. If you had a couple of years bad performance from that strategy, then you have a very difficult decision, do you double or do you quit?

Stein: Yes and how you then measure that bad performance? How do you know you've got bad performance?

Redwood: Well you would measure that against a range of indices which I trust you would have specified in the beginning.

So why do you need the cap-weighted index?

Stein: Long-term, one is surely interested in something other than the performance index. But short-term one wants to look at that manager and have some confidence as to how he's performing. You need some way of evaluating and measuring.

Lasserre: So what is a good way to be neutral? The way you define neutrality is with respect to your peers, not with respect to your investment. The market cap index has a lot of properties but sometimes it could not be the right benchmark. Because it's just a way to compare to peers sometimes you have very



In 2008 a lot of quant managers were chasing value and momentum and they all got absolutely hammered. We could see that happen again. David Stein

personal troubles in terms of investment but the big issue is not to know what your neighbour is doing, but what really you are doing with respect to your portfolio.

Morgan: I think it's inevitable that you'll have market cap-weighted indices as the benchmark for many many years to come until everybody moves into alternative beta indices and benchmarks.

Fuhr: It comes down to the size of the client though. Because clearly if you're a large pension fund and you're going to give a mandate of more than £100m for over a year, you can go to one of the large index houses and give them a fundamental market cap. It's going to be much less expensive than using an ETF. So although I talk about ETFs, they're not always the right product.

Dechelette: But speaking about the success of this what we call well-diversified equity portfolio, the question is why does it work? I think the true answer is that as they are diversified, they are more resistant in a situation where uncertainties are very high. That's why a lot of active managers who are managing their fund with a tracking error are failing. The other point is that even market cap-weighted indices are embedded with anticipation that they're too high. That's why they are beaten by this type of approach.

Could there be issues around capacity with these strategies?

Fuhr: Are you able to run huge portfolios against some of these benchmarks? Well, market cap you can easily run large amounts of money against because it's weighting of smaller stocks from a lower weight. As you move to some of these other strategies, I think you would find that there is a limit in terms of how much money could be efficiently run against them.

Morgan: I think it's a capacity constraint. If you look at equal weighted, there's a small cap bias and that's only got a certain capacity, because you can't endlessly go on as the transaction costs would just kill



Clients are not out there talking about beta, smart beta or alpha; that isn't where they come from. They're after a sensible real return. John Redwood

you. But fundamental indexing, which is more of a value strategy, that can go slightly higher up the cap structure in terms of buying stock.

Stein: But it's also more efficient because of the way the manager is happening to define that fundamental value where he smoothes the measure over time and he rebalances once a year or once every six months, as opposed to continually as equal weighted would do. So I think part of the reduced turnover is coming from the way he's choosing to use the data. I could imagine an equal weighted structure which doesn't perfectly equal weight but does a great deal to reduce the turnover over time.

What drives a smart beta offering and where does it have an edge?

Lasserre: What drives the choice of the smart beta first is the client request, and letting us know where he's choosing, what he's choosing. I think that once a client request has been well formulated, you can come with some algorithms.

Morgan: I think it comes down to client objectives to some extent. If they want minimum risk, they go for the minimum variance portfolio. If they're more concerned about extra return they go for a strategy which provides a value tilt or a small cap tilt.

Lasserre: It's transparent and low cost. The big issue here is to be very transparent, so it is not something

which is better than active management, just transparent, as a standard index. The consequence of that is most of the time it is cheap.

So is there still a place for traditional active equity management?

Dechelette: Yes, absolutely. We need that because we are using risk models based on the mean variance, they're not defined by my colleagues. So that means the risk is explained by variance. But is it true? It's not. You can have two assets with the same variance but with very different drawdowns.

Redwood: I think it's very crucial to the efficient functioning of the market that there are big active players out there who will take views, and a few will get them right, quite a lot will get them wrong. But I think for the more normal investor, who's keen to conserve their money, a passive approach is the most sensible.

Morgan: I think skill-based active management is very difficult to find. So is it a waste of time? Maybe. You certainly don't want to pay too much for it.

Sutton: So do we need it? No. If you can find it, is it valuable? Almost certainly. So the hunt for successful active management is a competitive activity, right? If you have got competitive advantage in the hunt for superior active management, then it's an incredibly powerful thing.

Redwood: But the biggest active managers in the market of course are not funds, they are the owners of the companies themselves. So there will always be that element of active management to provide a check on valuations, which is quite useful.

Shea: I think these particular smart betas will be very cyclical versus a market cap index, or can be. The fact is that active managers are perhaps able to benefit from different smart betas at different times, so

Fuhr: I think it's hard but I'm not sure they are using active share. Because if you look at last year, just taking large cap active managers in the US, 81.2% of them did not beat the S&P 500. But I think the challenge is that when you're employed within an organisation and your job is to be doing investments, you want to feel like you're doing something. So the challenge is to do something that causes you to be active, but that doesn't always mean you're doing the right thing.



But are long-term institutional investors concerned by managers' latest shortterm great stock ideas?

Morgan: Trustees like to have their fund managers in to tell them the stories and get the hot tips as well.

Fuhr: I think they want the alpha and they look for it where they can find it. So they've looked through hedge funds, they look through many things. So there is this desire for alpha. But when they realise they can't find it, they go to beta index strategies.

Drewienkiewicz: But you made the point fantastically earlier on, which was that asset allocation and top-down strategy are 90% of the job. But unfortunately again, that's not as appealing or as interesting as asset managers and churn.

Stein: I think one has to be careful of where the alpha from those active managers is coming from. I think the experience, and perhaps this is what's behind some of the smart beta, is that much of that alpha is basically a systematic alpha, which I want to use as the same expression as the smart beta. So you really want to find those guys who've got some non-systematic alpha. But that's even harder to find. The skill is in choosing the right kind of systematic alpha. If you've chosen the right kind, then it's even tougher to find that skill-based manager.

Dechelette: Yes, but what we observe is that if you are sufficient and diversify you will beat the market. So the question is to be diversified enough to face uncertainties in the market. Because on the contrary, active managers with no risk management of the benchmark but doing some low alpha, low active management, are not using this model, they are not understanding what they do.

Lasserre: But what is promoted in the smart beta offering is something which is kind of old. The fact that you put the same risk on each equity is just common sense, it's not something really new. But when you buy this, you exactly know what you are buying. It's transparent and it's cheap and for me that is the end of the story.

We have talked a lot about equity, what about fixed income and smart beta?

Dechelette: We have some client requests on that.

Fuhr: I think the general awareness of indices in the fixed income space is not as great as on the equity side.

Drewienkiewicz: And alpha is a lot easier to identify and a lot more stable.

Redwood: But there are even fewer managers who can beat the bond index than can beat the equity index, from memory, given the cost complications that you incur. Lasserre: Once again, the goal is not necessarily to beat the outstanding debtweighted index, but to offer something different. What we have seen when investing in euro indices is that you have 20% of your weights in Italy but almost 50% of your risk in Italy. So that's the same kind of bias we have in an equity portfolio.



How much of an appetite is there for smart beta among investors?

Drewienkiewicz: For a lot of customers it's an easier conversation to have than going to passive market cap-weighting for example. So when you have a conversation about going to a futures strategy, or tracker, people have a lot of reservations about that.

Morgan: Pensions schemes like the idea but I think everybody's still so much wedded to the market cap benchmark and schemes don't like to be the first mover in putting new ideas into place.

Sutton: For the clients I talk to, the biggest prize is in reducing cost so you draw these betas out of your existing active allocation. The place where you can gain the most with that is actually in your hedge fund portfolio and a lot of hedge funds are just a collection of smart betas at two-and-20. If you can withdraw the smart beta out of a hedge fund portfolio you save an awful lot of money.

Stein: One type of smart beta that not so many people talk about is that of selling options and benefiting from an option premium. It isn't a linear beta but it's a smart beta, if you like, just writing options against a long portfolio.

Drewienkiewicz: But I think there is still wariness about signing up to a system or a process rather than signing up to a manager or a human strategy, as it were.

Fuhr: I guess if you look at the embracing of some of these strategies, I think you find that typically when people use certain types of products, especially ETFs, they tend to feel comfortable using an ETF if they're already using that as their benchmark.

How do the fees for smart beta compare versus active and passive management?

Drewienkiewicz: There are still some of the earliest smart beta guys charging what look an awful lot like active fees, and seem to be doing pretty well at accumulating assets. But to have a really serious conversation about the market really growing and for these products to become really widely accepted, you've got to see them come a lot closer to pure passive fees. We see them anywhere from 25 basis points to 1.25%, but the 40-50 basis point mark is probably where there's a lot of clustering at the moment; 25 basis points is a sensible level for something like this. Ultimately if you can get active fixed income management for 25 basis points, you can get quasi-passive equity management for 25 bps.

Fuhr: But you even find that the index providers charge more for their indices. So I'm not sure that it takes more skill or work to create a fundamental benchmark than it does something else. But you do find that their fees tend to be higher.

Lasserre: As an example we have an ETF on euro stock activity, we have a risk parity version of that for the same price. Our view is that they are not ready to pay a lot for this.

Middle ground usually means compromise. Are there any other potential pitfalls?

Drewienkiewicz: Although it's nice to have the index there for measurement purposes, you also need to identify how you actually expect the product that you're selecting to perform relative to the market cap benchmark in various different periods and market environments. Because otherwise in a dramatic bull market you'll be sitting there saying "The market cap-weighted index is up 40% and this thing's only up 27%, what's going on?"

Stein: I have a concern in that if enough people pursue any particular strategy, whether it is the small cap or the value or the low volatility, they bid up those prices. We saw in 2008 where a lot of quant managers were chasing value and momentum and they all tried to get out of stocks at the same time when there was no liquidity in the marketplace, and they all got absolutely hammered. I think we could see that kind of thing happen again.



Lasserre: The big issue is if all the investors make the choice on one smart beta, it becomes a market cap index.

Sutton: There is probably some early-mover advantage. I suspect some of that is left but not all of it. But you also need a sell discipline, which brings us back to is there a role for active management. The market is learning how to buy smart betas and needs to learn before too long how to sell them as well.

Dechelette: I think the idea is to limit the capacity, we have done that. When we say that for this type of strategy, we have a capacity of let's say \$4/5bn, and for sure the fund or aggregate funds will be closed at this stage. The other way is when we speak about smart beta we are speaking in a way of low beta, or low beta portfolio exposure versus market cap-weighted indices. So even with a risk parity strategy you have a short exposure to the most cyclical part of the market.

Morgan: Another pitfall can come around how you access smart beta. If you choose an ETF, for example, there are all sorts of the ETF issues like consolidation in the marketplace and physical versus synthetic. So you have to look at who the ETF provider is and how they're doing it.

The time to actively pick beta has arrived

By Thierry Roncalli, head of quantitative research, Lyxor Asset Management



What would happen if after dedicating so much time and money to selecting alpha, investors decided to focus their efforts on beta? To date, the search for outperformance remains one of investors' primary concerns, yet, alpha generally only accounts for a small part of the overall performance. Beta, on the other hand, represents up to 90% of an actively-managed portfolio's returns, which should encourage investors to consider new market indexing methods.

The cost of capitalisation weighting

Both in the United States and in Europe, the ETF and index fund growth witnessed over the past decade was fuelled by investors disappointed with traditional benchmarked active management. However, there is more to the case brought against this type of management than just the investors' stock picking being called into account. The charge also relates to the systematic usage of capweighted benchmarks, which are responsible for most of a fund's returns. These benchmarks, which are ubiquitous in the investment world, are used for both passive and active management.

Presented by Modern Portfolio Theory as the market portfolio, market-cap indexing has traditionally represented equity market beta. However, by concentrating risk on a limited number of components, cap-weighted indexing has contributed to the volatility that has pounded investor's portfolios during the last decade's financial crises, without any long-term return in exchange. Given the recent past, the search for new methods designed to placate investor concerns about the failure of traditional indexing method to capture the market risk premium makes complete sense.

New indexing methods

These new forms of indexing or beta, which are referred to as intelligent, smart, advanced and even alternative, are subdivided into two large groups: one based on fundamentals and one based on risk.

Fundamental indexing is certainly the most radical. Designers of such indices entirely do away with market cap weighting, which they believe to be inefficient, using instead a brand new set of accounting and market measures (PER, Dividend Yield, etc.) for weighting purposes. In the process, they aim to generate outperformance relative to a cap-weighted index, regardless of any specific risk or bias created by this methodology.

Risk-based indexing rather seeks to significantly reduce some risk measures through diverse means. This eventually comes down to finding ways to improve the diversification of market cap weight indices, which have failed to adequately capture the market risk premium.

Relatively simple equal-weighted indices, which minimised a portfolio's weight concentration but did not take into account each component's respective level of risk, initially paved the way for a new generation of indices. Nowadays, investors are faced with a far larger choice of risk-based indices or strategies.

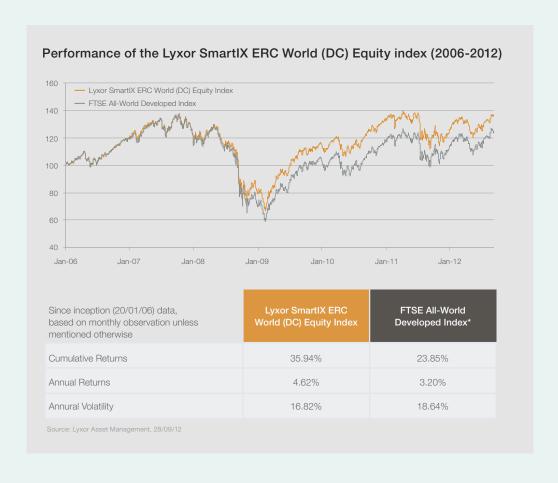
A first set of such indices seek to either maximize or minimize given ratios or risk indicators. This is the case of Minimum Variance indices, which aim to limit a portfolio's ex-ante volatility by striking the adequate combination of index components. It is also the case of maximum Diversification Portfolio (MDP) or Maximum Sharpe Ratio (MSR) indexing solutions that seek to maximise the benefits of portfolio diversification by solely focusing on the most uncorrelated equities in a portfolio.

However, in practice, it is not possible to use such portfolios without imposing stringent restrictions, such as the introduction of weighting limits to increase the number of their components. As well, these approaches generally result in unstable and highly concentrated portfolios, which intuitively runs against the concept of diversification. It is even questionable whether these approaches should be considered as "indexing solution" to the extent they often come with substantial tracking error relatively to their underlying index.

On the other hand, the Equal Risk Contribution (ERC) approach allows a portfolio with the lowest risk concentration to be obtained by attributing the same risk budget to all components of the index. The weighting of the least volatile equities is therefore higher in order to allow the risk budget to be used in full, and vice versa. This method, which produces a highly diversified index based on risk and minimises volatility, can be implemented without imposing additional restrictions. Consequently, there is no need to define parameters that will distort the end result of the methodology. Furthermore, this is a stable allocation method creating portfolios with contained turnovers, and therefore moderate trading costs.

Optimal risk/return profile

Observations made since 2006 on ERC indexing have confirmed that greater diversification not only optimises risk measures such as volatility and drawdown, but also performance in relation to an equivalent cap-weighted universe. Since January 2006 and as at the end of September 2012, the Lyxor SmartlX ERC World (DC) Equity index has generated a cumulative performance of almost 36%, while its underlying cap-weighted universe, the FTSE All-World Developed Index, posted a return of just 24% and displayed slightly greater volatility.



This improved risk/return ratio can be explained by two phenomena. The first, somewhat counterintuitive, involves the risk premium attributed to low-volatility equities. Many academic publications have already highlighted above-average risk/returns for low volatility equities, a phenomenon that is often qualified as an 'anomaly', since risk should theoretically be remunerated. The second is the principle of diversification return identified by the researchers Eugene F. Fama and David Booth, according to whom regular portfolio rebalancing generates surplus return. Owing to the way in which it is constructed, an ERC portfolio is rebalanced more frequently than a cap-weighted index.

Over the course of a full market cycle, ERC allows greater performance to be obtained for a smaller level of risk than that offered by cap-weighting. The improved risk management put into practice by ERC indexing generates excellent performance within a context of bear markets characterised by periods of stress. Among other benefits, diversification alleviates the effects of speculative bubbles which can impact cap-weighted indices. On the other hand, giving preference to low-volatility equities leads to a defensive positioning in terms of sector allocation. Outside of stress periods, ERC indexing generates performances that largely fall in line with cap-weighted equivalents. Overall, thanks to its tendency to outperform in bear market, ERC indexing will generally beat its market cap equivalent over a full business cycle.

Enhance rather than replace?

In light of the inherent qualities of this approach, is it intended to replace cap-weighted indexing, which is still predominant on the market? With certain exceptions, the main stock market indices were created according to the cap-weighting method, long before its validity was called into question. Therefore, it is the single common representation of the market shared by all investors. To change it would be the equivalent of the Copernican Revolution; a revolution which, for the time being, has won over very few investment professionals, who have been trained in the highly seductive Modern Portfolio Theory.

Moreover, the way in which cap-weighted indices are constructed has a number of practical advantages. For example, they require very little rebalancing since the weighting of their components adjusts automatically. Turnover is therefore very limited, generating few trading costs. The weighting of components depends on their size, which allows for investment mainly in the most liquid stocks, thus avoiding excessive fees.

Despite all its attributes, the aim of intelligent indexing is not to entirely replace cap-weighted indexing, but rather to enhance it. Investment consultancy bfinance's latest international pension funds survey tended to confirm that view. A third of the surveyed investors said that they would allocate over 10% of their assets to smart form of indexing over the next three years. New forms of indexing allow investors, including institutional investors, to select the beta which best suits them, and indeed to vary betas when they would prefer to maintain exposure to traditional cap-weighted indices.



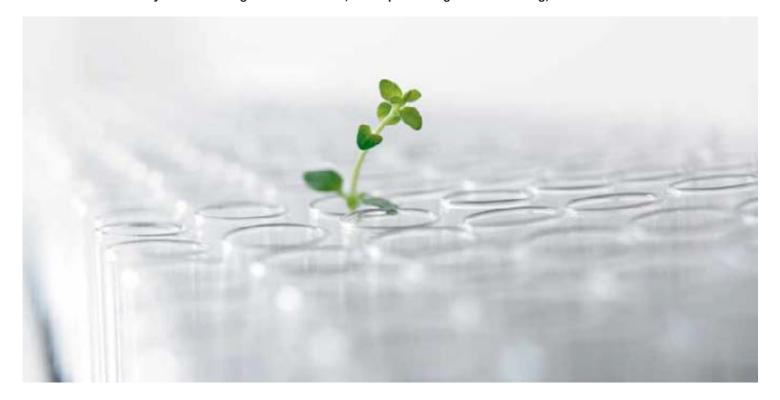
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