

Where the smart money is

Smart beta is an area of rapid growth and innovation. In this Q&A, sponsored by [Jane Street](#), [WisdomTree Europe](#) and [Societe Generale Corporate & Investment Banking](#), five exchange-traded fund (ETF) specialists weigh up the benefits – and the pitfalls – of a shift away from traditional market capitalisation-weighted indexing. Topics discussed include the pricing and hedging challenges to be faced in fixed-income ETFs, liquidity risk management and increasing trading costs



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Why does smart beta/risk premia investment remain such a hot topic?

Nizam Hamid, WisdomTree Europe: Smart beta represents the evolution of passive investing away from traditional market capitalisation-weighted benchmarks towards new alternative solutions. In an investment environment of low interest rates and lower returns, investors are looking for new solutions that help them manage portfolio returns while focusing on portfolio risk. As investors expand their horizons in terms of strategies, they are looking to include in their portfolios the attractive features of smart beta such as alternative weighting and enhanced risk-adjusted returns. Specific investment styles and themes are likely to become increasingly prominent.

Julien Turc, Societe Generale Corporate & Investment Banking: With global yields at historic lows, the long-only options are limited in the returns they offer going forward. There is significant downside risk from either a recession in the case of commodities, corporate bonds and equities, or an economic recovery in the case of sovereign bonds. Alternative risk premia are a source of excess returns and, properly managed, can do well when traditional assets suffer. The investor’s demand for transparency, liquidity and lower costs is ever increasing. Smart beta and risk premia are a natural response to this demand.

Steven Goldin, Parala Capital: There are two principal reasons for the rapid growth in smart beta strategies. First, the initial phase of exchange-traded fund (ETF) development provided investors access to low-cost, traditional beta exposures across most developed and emerging markets. It has been hugely successful and broadly adopted, with almost complete coverage from a product and investor demand standpoint. This forced ETF providers to seek new areas for innovation based on additional investor needs, and smart beta became the next successful chapter.

The second reason for this rapid growth and popularity is that smart beta provides investors with access to efficient investment exposures that can be achieved passively, reliably and inexpensively compared with actively managed funds. Investors avoid having to pay higher fees for active management in cases where they are interested in efficient access to a specific type of exposure. Smart

beta ETFs are more likely to achieve their investment objective than actively managed products because the latter seek to deliver consistent alpha, which is harder to achieve. However, it still leaves plenty of opportunities for the skilled managers and alpha-seeking investors willing to pay for them.

What are the differences between smart beta and risk premia?

Julien Turc: The main difference from our standpoint is that smart beta usually entails a fair amount of directionality while risk premia strategy aims to isolate the ‘pure’ premium embedded. Thus it is important to be aware that on a long-only equity basis, for example, the dominant factor driving smart beta returns will still be the underlying equity benchmark. As we have stated in our 2013 report¹, smart beta is “better than beta, but not quite alpha”. At Societe Generale (SG), a risk premia strategy is one that fits the following criteria: it demonstrates an attractive positive historical return profile; it has a fundamental value that allows a judgement on future expected returns; and there are diversification benefits when combined into a multi-asset portfolio.

Is it possible to develop risk-weighted, risk rules-based smart beta funds?

Nizam Hamid: There are a number of solutions to developing risk-based strategie. Some can focus purely on volatility as a risk factor and look to minimise this; other strategies may look more at company fundamentals ranging from balance-sheet, quality and dividend strategies that can also yield low risk, and low-volatility strategies. These are based on fundamental published information and can therefore be built into a rules-based strategy. Minimum-volatility strategies have recently been popular for investors looking to maintain equity market exposure but with risk management as a key feature. Interestingly, high-yielding dividend strategies have also recently had similarly low volatility, and this has increased the interest from investors looking at risk-adjusted returns.

Julien Turc: There is certainly plenty of scope for developing rules-based smart beta funds.

What about the risk premia funds?

Julien Turc: SG’s cross-asset quant research team has so far focused on alternative risk premia solutions, with limited exposure to directional market movements. We have identified that the correlations among risk premia strategies are imperceptible and remain stable. Therefore, substantial diversification benefits are present when combining risk premia strategies in a portfolio. Furthermore, a careful statistical analysis can help distinguish between groups of risk premia strategies that share similar characteristics. At SG we

¹ Risk-premia strategies: A way to distance yourself from the crowd, *Societe Generale Cross-Asset Research, September 2013*

distinguish between strategies with aggressive risk profiles such as value, income and volatility premium, and defensive profiles such as quality, momentum and trend. A balanced allocation between the two types is advised for achieving stable returns and maximum diversification.

Where do smart beta strategies fit into an asset allocation portfolio?

Steven Goldin: Smart beta strategies fit neatly into a traditional asset allocation framework. They do not need to be seen through a new lens. Instead, they may offer a lower risk exposure to traditional markets such as the US and Europe or emerging markets – minimum variance, risk-controlled and low beta all spring to mind. Alternatively, they may offer a factor-based exposure to these markets, which could be low or high quality or momentum-based.

Nizam Hamid: In an asset allocation portfolio, diversification is key, and building non-market capitalisation-weighted strategies can offer significant benefits. In addition, alternatively weighted strategies tend to be less highly correlated than groups of market cap-weighted strategies. Some investors are looking at adopting smart beta strategies as their core risk-managed holdings while using market cap-weighted strategies to add tactical tilts. Another use of smart beta is to focus on specific factors and exposures in order to build specific style attributes that can fit a client’s requirements. Generally, smart beta strategies are being used as more flexible building blocks to complete portfolios.

Vittorio De Luigi, Banca Monte dei Paschi di Siena: A smart beta strategy should allow the perception of a risk premium but include exposure to a market. Therefore, controlling for unwanted exposure to some factors and equalising the beta of the strategy to 1, it could be used to beat the market. Using this approach to neutralising the market exposure of the strategy (taking the beta out of the strategy), it is possible to extract the risk premium to obtain absolute return. Doing so for several smart beta strategies could generate different and perhaps uncorrelated sources of return, which are useful in an era of low rates.

And where do risk strategies fit into an asset allocation portfolio?

Julien Turc: A problem investors have faced historically is that assets often become highly correlated to hitherto dormant or hidden risk factors (balance-sheet risk, illiquidity risk, and so on), particularly during times of crisis. In addition, correlations across major asset classes are inconsistent over time – testament to this is the shifting in the correlation between bonds equities over the past couple of decades.

The attraction of adding alternative risk premia assets to a more traditional multi-asset portfolio is that not only are historical correlations across risk premia lower than for traditional asset classes, but these correlations are more robust in regime shifts. A traditional long-only fund manager could, for example, invest 40% of its holdings in potentially ‘safe haven’ fixed-income assets (such as US Treasuries or Bunds), 40% in equities (such as Standard & Poor’s (S&P) and EuroStoxx) and 20% in credit (such as a total-return main fund). Over the long term, the average correlation between this traditional asset mix is 54%, with correlation moving higher during crisis periods. The risk premia strategies can be correlated to as little as 16% and remain relatively diversified during crisis periods. Moreover, their correlation with traditional assets is only 24%. So, if our traditional long-only asset manager was to invest just 10% of its portfolio’s risk budget in these strategies, this would greatly impact its performance, moving from a Sharpe ratio of 0.6 to a ratio of 0.76.

Where is the evidence for smart beta robustness and longevity as an asset strategy?

Steven Goldin: Time will tell. Usually, large assets under management will be evidence of success. However, many smart beta strategies are firmly rooted in modern portfolio theory and supported by a wide body of academic research – minimum variance, risk premia, and so on.



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Julien Turc: Microeconomic theory justifies the existence of a risk premium in compensation for systemic risk-taking, as long as market participants are risk-averse. In our list of ‘alternative risk premia’, we also include such strategies as quality investing and trend systems, which have a more defensive risk profile. These strategies benefit from panic selling and buying during periods of stress. Prudent investors can anticipate possible panics and strive to protect their portfolios. Many of these strategies have existed in one form or another for several decades and have delivered stable returns – a track record that provides comfort to investors. A natural question arises as to whether the increased investment in risk premia strategies will affect the quality of returns. It should not be forgotten that many of the risk premia exist for structural reasons – investors may temporarily become risk-seeking, instead of risk-averse. But, over the long term, it is difficult to imagine that such risk premia will disappear altogether. And, regarding the defensive factors, the sheer size of the assets under management of the commodity trading advisers, currently estimated at around \$320 billion, did not prevent the trend-following systems from posting strong gains in 2014.

Nizam Hamid: Smart beta robustness has moved from being theoretical to practical, especially with ETF issuers such as WisdomTree, where a number of core strategies have close to a 10-year live track record. This has allowed for the evolution of the index methodology and for the robustness of the strategy to be exhibited over the course of a cycle. This live track record is a vital aspect of proving the benefits of smart beta and alternative indexing, and represents a key part of client acceptance of including these strategies. Factor exposure as an investment style has long been prevalent in the active management industry; smart beta is a systematic way of building these exposures in a more rigorous fashion.

Is risk premia implementation in fixed income the next phase?

Julien Turc: Fixed income is surely the new frontier in the world of alternative risk premia. In our risk premia offering we have long considered that the rates carry risk premia strategy, and we have found that it substantially outperforms a fixed-income benchmark, having almost a 60% higher Sharpe ratio and a drawdown that is around twice as small. But the quest for risk premia strategies in fixed income does not stop there, and the possibilities are wide open. On the aggressive side, we suggest that investors look into value in credit, income in rates and foreign exchange, and volatility premium in rates and credit. On the

defensive side, the quality premium in credit and the trend systems in rates and credit are good candidates.



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From a market-maker perspective, how does pricing smart beta ETFs compare with pricing market capitalisation-weighted ETFs?
Emanuele Mastroddi, Jane Street: The basic mechanism of pricing smart beta ETFs is similar to the mechanism that would apply to any market cap-weighted product.

An ETF market-maker like Jane Street calculates the intraday net asset value – sometimes referred to as ‘fair value’ – of an ETF by pricing its basket of underlying holdings. In the case of underlying constituents trading in the same time zone as the ETF, this is an exercise in consuming the composition of the fund and applying live pricing feeds to it. When some or all of the ETF constituents are traded in a time zone different to that of the ETFs, proxy pricing of the underlying instruments is required. Both scenarios would apply equally to market cap-weighted and smart beta ETFs.

The main difference between the two sets of products would be in the ability to hedge the ETF positions accurately. Many market cap-weighted ETFs track indexes with liquid derivatives – for example, futures – attached to them. These are often used by ETF market-makers for hedging purposes. In the case of smart beta ETFs, market-makers must accept a certain amount of tracking error between the market cap-weighted index futures contract and the smart beta strategy – for example, S&P 500 Futures and S&P 500 Minimum Volatility smart beta ETF. Or they must come up with a different hedging strategy, such as managing the overall risk of the trading book they are running. However, it is important to keep in mind that market cap-weighted ETFs tracking indexes without liquid derivatives attached have been around for many years, and pricing and hedging those products are an existing task within the market-makers’ abilities.

Do you see fixed-income smart beta strategies gaining significant traction in coming years?
Steven Goldin: I believe this is a long way off. There is still a fair distance to go in providing traditional fixed-income exposures across major markets and sectors. For example, in the UK market there are relatively few options for investors to access traditional index-linked fixed-income funds. Therefore, smart beta fixed-income funds will remain a niche option even though you are seeing active managers tapping the ETFs market as a distribution channel.
Vittorio De Luigi: In bonds, the risk factors are less than those of equities and

are typically invariable – for example, level, slope and shape of the government curve, maturity structure of creditworthiness and liquidity differences between on-the-run and off-the-run. During the euro crisis, a new risk factor appeared with a tendency to fragmentation: redenomination risk. These risk factors could be represented by appropriate smart beta indexes. Additionally, the more the bond looks like a stock – convertible bonds, subordinated bonds, banks’ bonds – the more equity risk factors emerge in the bond field, which connect to the bond smart beta index.

There is a growing focus on different forms of equity index weighting versus the capitalisation-weighted approach because the latter is considered by many to be inefficient and, in some cases, not sufficiently representative of the market portfolio. This trend is also occurring in the fixed-income field: giving credit to an issuer of a large amount of debt might not be a good way to invest. A weighting approach based on creditworthiness might be more rewarding – there are already some providers that develop these kind of indexes, but it is not known if this approach improves the risk/return trade-off and whether it attracts capital.

Nizam Hamid: Fixed income is an area that can benefit from alternative indexing strategies, and we believe that this is likely to be a key growth area. There are still many challenges to be overcome but, at a basic level, just as market capitalisation weighting can be inefficient with respect to equity indexes, weighting fixed-income indexes based on the (corporate or sovereign) issuers’ total amount of debt may also be an inefficient strategy. The pace of evolution in fixed income is lower due to the fact that the market itself is relatively opaque.

Do you see the cost of trading smart beta ETFs becoming higher than traditional market capitalisation-weighted ETFs?
Emanuele Mastroddi: There are many factors that might impact the response to this question. All else being equal, the additional complexity of hedging smart beta ETF positions could cause the bid/offer spreads to be wider, leading to the cost of trading those products being higher. Similarly, with ETFs following an index designed in a suboptimal manner that leads to a significant overweight in small-cap/less liquid stocks, one would expect elevated trading costs.

However, in both of these cases it is important to keep in mind that the effect of this will depend on the particular strategy of any given ETF. Issuers can mitigate this effect by thorough due diligence when defining and selecting indexes to be tracked by their ETFs. Equally important or sometimes even more important factors are related to the quality of the ETF construction. Smart beta ETFs with transparent underlying holdings, flexible primary market mechanisms and smaller creation/redemption units might sometimes come very close in terms of cost of trading to poorly constructed market cap-weighted equivalents.

Besides these structural reasons, it is also important to remember that any currently observed difference in the cost of trading between smart beta and market cap-weighted ETFs may often be the result of many smart beta ETFs being relatively new, small and often used as buy-and-hold investments. This may lead to lower trading volume in the secondary market and subsequently wider bid/offer spreads. At this point it is worth emphasising that high secondary market turnover of many established, market cap-weighted ETFs allows those products to trade at bid/offer spreads much tighter than the cost of trading of the equivalent basket of underlyings. Such efficiency might not exist yet for many smart beta ETFs; however, simply observing wider spreads than for market cap-weighted products is not enough to draw conclusions about the inefficiency of those products in getting an exposure to a specific strategy.

How can investors effectively manage risk when deploying smart beta strategies?
Julien Turc: Risk premia strategies tend to exhibit stable and low correlations to each other. Our research indicates that even rebalancing a portfolio of risk premia on the basis of the ‘inverse-volatility’ principle is sufficient to generate attractive risk/return ratios. Furthermore, the balance between aggressive and defensive strategies is also key to achieving stable performance. For active investors, we would recommend our risk premia rotation approach. This approach rests on three pillars: macroeconomic and financial regimes, technicals and yields, and helping investors gain additional insight into the behaviour of risk premia strategies.



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Steven Goldin: Smart beta products offer exposure to a wide range of risk premia: big, small, growth, value, quality, alternative weightings and even target risk levels across major markets. Virtually all smart beta products are based on liquid markets and include liquidity and investability criteria in their respective methodologies.

One of the risk premia not covered by smart beta is the liquidity risk premium, which is to say that an investment carries a premium return due to the illiquid nature of the underlying assets. Therefore, there are few risks with regard to frontrunning or overcrowding. However, risks that need to be considered include: transparency of the underlying index methodology, independent pricing of the underlying securities, method of replication – swap, physical or hybrid – and the liquidity of the ETF itself. Smart beta ETFs have seen tremendous growth, but this is a relatively new area of innovation and not all of these ETFs are sufficiently liquid for institutional investors, even if the underlying securities are very tradeable.

Nizam Hamid: Smart beta strategies, especially those that have a natural tilt to factors, represent tools that can be used to manage risk within an existing portfolio. Portfolio managers routinely analyse their style bias to a benchmark and smart beta strategies can help create overweight or underweight positions in particular areas or factors. For example, a manager of a growth portfolio may want to neutralise that exposure at a particular point in the macroeconomic cycle, and adding a value tilt strategy can help neutralise that risk. Using ETFs in this instance is also beneficial as there is the ability to efficiently trade in and out of a factor exposure.

How much trading activity do you see in smart beta ETFs, and do you expect secondary market spreads to tighten with the increase of activity?
Emanuele Mastroddi: As with any investment product, we see the adoption of smart beta ETFs to be gradual. At the moment, secondary market volumes are lower compared with the more established market capitalisation-weighted equivalent products. Assuming growing investor appetite, we would expect that those smart beta ETFs with higher interest and increased turnover will be trading at decreasing bid/offer spreads.

From a trading perspective, are there additional difficulties when interacting with smart beta fixed-income ETFs, compared with equity underlyings?
Emanuele Mastroddi: Given the over-the-counter nature of the bond market pricing, fixed-income ETFs require a certain degree of specialisation, as well as the ability to work across asset classes.

General differences aside, once again a lot depends on the construction of the specific ETF. Many smart beta strategies launched in the fixed-income space aim to avoid the market capitalisation-weighted index mechanism of having the highest exposures to the most indebted entities. While such an approach attracts considerable interest from fixed-income investors, one needs to remember that it may lead to liquidity premium being paid when investing in bonds issued in smaller quantities. With the liquidity of an ETF ultimately being driven and defined by the liquidity of the underlying holdings, this will naturally reflect on the cost of trading of those products.



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How can smart beta be used to complement index and active strategies?
Vittorio De Luigi: Smart beta strategies can add to or even be a substitute for standard passive strategies because they make a passive position more efficient by strengthening diversification, reducing overall risk and improving returns. On the active front, smart beta strategies can – via more transparency and consistency – simplify the set of active bets implemented by stock- or fund-picking. Smart beta strategies can even be substituted for fund managers who are not performing.

Nizam Hamid: Increasingly, smart beta strategies are seen as a natural complement to pure passive, market capitalisation-weighted strategies, especially for investors looking to mitigate active manager risk. At their core, many smart beta strategies reflect a quantitative solution with respect to delivering alpha with the systematic approach, meaning they will consistently follow the intended strategy. The growth in smart beta usage is based on two central themes, the first of which is that it can offer better investment solutions than pure market capitalisation strategies, the second is that by taking away active manager risk it represents a low-cost alternative for portfolio managers.

Steven Goldin: Smart beta provides efficient access to investment exposures that can be delivered passively, reliably and inexpensively. Modern portfolio theory has given them a solid foundation and they have been supported by academic research. In this way, they complement traditional beta funds, while embracing the same ethos of low cost and transparency. They also complement active strategies, providing investors with access to fund manager idiosyncratic alpha-generating skills that cannot be replicated by an index.