While the concept of smart beta reaches back decades, its relatively recent rise and accelerated adoption is rooted in the aftermath of the financial crisis six years ago. In a prolonged near zero interest rate environment, investors are still in a predicament. Bond yields are tepid, and yield-seekers are moving steadily toward riskier credits. The robust equities market has ramped up disproportionately to economic growth. Pension funds, endowments, insurance companies and other institutions are seeking new ways to drive returns, but, still smarting, they want them on a risk-adjusted basis. “We’re in a world of scarcity of returns, and it’s difficult to beat the benchmark by sector and country allocations alone,” says Francois Millet, ETF and

To capture yield and mitigate risk, investors have embraced smart beta strategies. Rules-based and transparent, they reweight traditional cap-weighted indexes by a variety of specific factor exposures. A number of smart beta providers describe the growing awareness, adoption and implementation with a look forward to sophisticated applications that are changing how risk is measured and returns are achieved.

BY HOWARD MOORE
indexing product line manager at Lyxor Asset Management. “Smart beta strategies are based on rewarded risk factors and provide higher and more stable returns.” Smart beta has stepped into the spotlight.

Traditionally, institutions have engaged active managers to achieve alpha, the selection of assets, strategies, and tactics that will outperform a market benchmark. Beta is the return achieved from the overall market itself. The returns of a broad index fund, such as an exchange-traded fund (ETF) based on the S&P 500, is a good example, and investors often use such passive investments as a core element to maintain market exposure. The key here is that the components of a traditional index are selected in proportion to their market value, or market capitalization, which puts more emphasis on the largest companies. Investors have found that this does not drive returns and can introduce unwanted risks.

Smart beta is something of a hybrid. Based on academic theory and rigorous analysis, the idea is to gain greater exposure to specific investment factors in a transparent, rules-based approach. It keeps the passive, simple strategy of index investing, but it endeavors to enhance returns by deviating from the traditional weighting of assets by market cap. Instead, securities are weighted by relative price/earnings value, relative volatility, momentum, quality, and other risk-based or market segment criteria. This can achieve risk reduction in a portfolio and enhance overall returns.

“In 2008, many institutional investors were disappointed with their active managers’ response to the financial crisis, and losses were often greater than common benchmarks,” says Lynn Blake, CIO, global equity beta solutions at State Street Global Advisors (SSgA). Many ultimately decided that active managers had made negligible contributions to investment performance and increased their allocations to passive strategies. Cost was another factor. Between 2009 and 2013, the portion of assets under active management by UK pension funds fell to 53.6 percent from 66.8 percent, according to the Investment Management Association.

Implementation

“Increasing allocations to passive strategies, however, is only one part of the solution,” says Blake. Cap-weighting automatically gives the most influence to the largest stocks—which may be overvalued. Concentration risk is a concern as well: those largest stocks may be concentrated in a particular sector or comprised of a small number of very large companies. In fixed income indices, market-weighting can give greater exposure to the most indebted companies or countries.

Smart beta is similar to factor investing, a concept that has been around for some time. But they are two different things. “With a traditional factor-based approach, there is greater exposure to stock-specific risk; you haven’t necessarily diversified away other risks inherent in the traditional factor approach,” says Eric Shirbini, global product specialist at ERI Scientific Beta. The ERI Scientific Beta approach to smart beta, or as they call it ‘smart factor’, will identify all the stocks to include in a particular factor-based index, but use a diversification-based weighting scheme. “That’s what had been missing in the market,” he says. Existing smart beta strategies can achieve specific investment objectives, such as limiting volatility or generating income, by utilizing a fundamental, or factor-driven, weighting methodology but such an approach neglects diversification. “As the basis of an investment approach, there are big gaps in traditional cap-weighted indices,” says Dan Draper, managing director of global ETFs at Invesco PowerShares Capital Management.

“As the concept of alternative beta and systematic exposure to factors develops and broadens, the number of ways to implement it in a portfolio is growing. “It is a spectrum,” says Ronen Israel, principal, AQR Capital Management. At one end, there is long only in a single asset class, usually equities, employing a single style. On the other end, there is long/short, employed in multi-asset class and multi-style portfolios. "You are still in a world of capturing systematic levels of risk."
In January 2014, Russell Indexes conducted a survey of equity investment decision makers from almost 200 asset owners across North America, Europe and the Middle East to better understand perceptions of smart beta. In the survey we found that the greatest unmet need from asset owners was for the ability to use smart beta indexes to control their exposures.

Smart beta happens to be a narrow term that is often used to define a broad range of strategies. At Russell, we generally break them down into two types. The first type is “strategy-based” and the second is “factor-based”. Strategy-based smart beta exposures have seen a lot of popularity over the past few years and are typically non-cap weighted, with an emphasis on the strategy’s potential ability to outperform a traditional cap-weighted benchmark. Factor-based smart betas on the other hand are designed to provide exposure to a segment of the market that displays similar factor characteristics (i.e. value, momentum), and asset owners that are looking to manage exposures typically look to factor-based solutions.

The factors we are focused on at Russell, which are also the primary drivers of active equity returns, include: value, momentum, quality and low volatility. We believe that smart beta exposures, whether they are strategy or factor-based, can serve as a strong complement to an active portfolio with the potential to enhance returns, help reduce portfolio risk and add diversification. The three key parts of our process where smart beta exposures are employed are:

**Strategic**
- From a strategic point of view, we utilize smart beta strategies to position our portfolios in line with our long-term investment beliefs. For example, Russell believes there is a value premium in the market and when we construct our portfolios we want them to be biased towards value. We also believe that medium term momentum works well and that our portfolios should also have that same exposure.

**Dynamic**
- The next approach is considering smart beta strategies from a more dynamic or tactical basis. Within our own portfolio construct we are increasingly more adaptive in how we position the portfolio through different market cycles. Although we have longer term beliefs regarding the expected pay-off to different factor exposures, we recognize that over shorter term horizons the interplay of the market cycle, valuations and sentiment can present opportunities to take advantage of market dislocations. We believe having smart beta exposures that allow us to adjust the portfolio to the changing market conditions, enables us to get the right exposure at the right time.

**Risk Management**
- A third approach is to integrate active and passive allocations within the portfolio structure. For example, we believe the portfolio could incorporate an exposure to smart beta strategies designed to complement the stance taken by the active managers as a whole. Russell research has shown that in general, active managers are overexposed to more volatile stocks, and what may appear to be a well diversified portfolio is actually overexposed to the volatility factor. Shifting a portion of the equity allocation to a defensive strategy can continue to provide the active management opportunities while potentially mitigating the unwanted exposure to volatility that may be introduced by active managers.

The ability to effectively combine factors within a portfolio has historically been limited to quantitative based asset management firms. In response to the desire and need to control portfolio exposures we launched the Russell High Efficiency™ Factor Index (HEFI) series. The series brings many quantitative techniques and insights to investors in a modular framework that is designed to be easy to implement and manage. The consistent methodology utilized across the HEFI series also offers a unique advantage to investors who are looking to control and manage exposures and effectively combine their smart beta allocations with traditional active strategies.

For more information about Russell Indexes, visit www.smartbetaindexes.com

By Scott Bennett, Director, Equity Strategy & Research, Russell Investments
return,” he says, “and the more you move along the spectrum, the more bang for your buck you’re getting in terms of style exposure.”

**Active or passive?**

There is a lot of discussion about smart beta being an active or a passive strategy, and the truth lies in between. “Smart beta sits between the two,” says ERI Scientific Beta’s Shiribini. It is neither 100 percent active nor 100 passive. “It’s rules-driven, so it’s a passive style, but it does not passively just follow the market but also gives exposure to certain factors,” he adds. An important question arises: As smart beta grows, are investors replacing cap-weighted investments, or are they replacing active management? Investors recognize that cap-weighted investments are too concentrated, and there is concern about being overweight in large-cap growth stocks but even more importantly they are also beginning to realize that smart beta does what active managers do: value tilts, market segment tilts, momentum tilts,” he adds.

Sarah Shores, managing director and head of strategic beta at BlackRock, says she had expected new allocations to smart beta strategies to come predominantly from market cap-weighted indexed investments, but that wasn’t necessarily the only case. “It’s also a potential replacement for active management, because of the lower cost, lower governance, and need for less oversight, but we see it funded from both sides,” she says. She observes that the general trend is to streamline the investment lineup by reducing the number of active managers and giving higher allocations to index funds and smart beta. Her colleague Ronald Kahn,

Is it Smart, Strategic or Advanced?

Smart beta has become the term accepted by the marketplace for indexes that are not cap weighted, or more specifically, for alternative ways to gain exposure to the market based on risk factors or market segmentation techniques. However, the tag remains a controversial choice. “We don’t believe there’s an industry standard,” says Sara Shores at BlackRock. “The term ‘strategic beta’ better describes the products and strategies we’ve developed that seek to deliver exposure to the factors that are long-term drivers of asset class returns.”

Other terms include advanced beta, engineered equity, factor indexes, alternatively weighted indexes, and many others. “Smart beta is an unfortunate and provocative term,” says Lynn Blake at SSgA. “We call it advanced beta, or alternative beta, which are true to what these strategies represent.” She explains that it implies that anything other than a non-cap weighted approach isn’t smart. “The term smart beta suggests that a cap-weighted portfolio is not relevant, and it very much is,” says Lyxor’s Francois Millet. Cap-weighted beta forms the basis of most benchmarks, it remains central to many investing strategies, and is the only portfolio that everyone can hold. “We prefer the term ‘engineered equity,’” says Matt Peron at Northern Trust. It captures what we’re trying to do with compensated risk factors—engineer them in or engineer them out.”
Factor Diversification: ActiveBeta Equity Strategies from Goldman Sachs Asset Management

With its acquisition of Westpeak Global Advisors in June of this year, Goldman Sachs Asset Management (GSAM) has what it believes is a comprehensive and customizable platform for implementing a smart beta program in a global equity portfolio. Kal Ghayur, head of GSAM’s ActiveBeta Equity Strategies team, tells us how.

How does Goldman Sachs define smart beta?
Broadly, smart beta is any index-like portfolio that is not weighted by market capitalization, but in practice, there is much more to these long-only equity strategies. Smart beta investing seeks to gain efficient exposure to common equity factors—value, momentum, quality, and volatility—through rules-based, non-cap-weighted portfolios that aim to generate positive excess returns over the long term.

What are some of the potential benefits?
GSAM’s patented ActiveBeta Equity Strategies provide clients the opportunity to tailor their exposure to equity factors using a unique and customized approach. The benchmark-aware portfolio construction methodology allows for client-specified tracking error objectives in individual or combined factor portfolios. Individual ActiveBeta Smart Portfolios can be blended to allow investors to diversify across a custom mix of investment factors that reflect their own investment beliefs and objectives (e.g., enhancing returns vs. dampening risk). Individual factor portfolios can also be used as completion vehicles to manage factor exposures and risk within a broader portfolio structure (e.g., adding momentum to a portfolio that has a pronounced value tilt).

The main benefit is transparency and the control that transparency enables. With smart beta, investors can make a direct and intentional allocation to a set of common factors rather than accept the allocation provided indirectly by an active strategy for which exposures may be difficult to determine. Another is a potentially more attractive cost profile. It is generally less expensive to gain factor exposures through smart beta than through active management.

What differentiates GSAM from other providers of smart beta strategies?
Our ActiveBeta investment methodology allows us to package investment factors in a customized, building-block approach for each unique portfolio. ActiveBeta Equity Strategies include a diverse set of investment factors called ActiveBeta Smart Portfolios, which form the basis of a factor diversification framework for pursuing explicit investment objectives or factor diversity. They are designed to harvest factor betas in an efficient, rules-based, and cost-effective approach with a focus on benchmark-relative implementation.

What does smart beta work best in a portfolio?
Historically, investors have achieved exposure to common factors through either traditional market cap–weighted passive indices or active management. Using smart beta to replace a passive cap–weighted strategy may be sensible for some investors who redefine their policy benchmark. For example, an investor may decide to substitute a portion of their existing cap–weighted index with a low-volatility index. This perspective focuses on absolute return, absolute risk, and Sharpe ratio. On the other hand, using smart beta to replace active management may work for investors who continue to use cap–weighted indices to define their policy portfolio. In these cases, smart beta strategies may be a good substitute for an investor’s active allocation. These investors seek to implement smart beta strategies relative to the cap-weighted market index, within the constraints of their tracking error budgets. This perspective focuses on relative risk and return.

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It is a spectrum.

Integration of smart beta strategies within a broader portfolio requires a high degree of assessment and ongoing analysis and review, similar to those of any active strategy.

managing director and global head of scientific equity research at BlackRock, says, the impact is on active management,” pointing out that strategic beta takes what active management does and puts it into a transparent, low-cost product.

“Now active managers can focus on driving alpha,” he says.

“Anecdotally, it’s been a replacement for active management,” says SSgA’s Blake, and 64 percent of respondents to SSgA’s survey say that smart beta is a viable alternative to active management. The answer is both. Respondents to Russell Indexes’ survey are divided equally when asked if smart beta should be part of an active or passive equity allocation. “We see allocations to long-only ‘smart beta’ strategies coming from active long-only managers,” says AQR’s Israel, while those for long/short strategies often come from alternative and hedge fund allocations. Investors are recognizing that a lot of what they’re getting currently is exposure to these classic sources of return but on worse terms and in a less efficient way, he notes.

Many investors with a core-satellite approach often use market cap-weighted indexes as the core and utilize a number of active managers to pursue satellite strategies.

“In this strategy, we’ve found that the risk exposures from active managers tend to cancel each other out,” says Matt Peron, global head of equities, Northern Trust., noting that there usually unintended exposures that need to be mitigated in the indexes as well.

“An investor might hold a combination of actively managed strategies, cap-weighted indexed strategies and smart beta strategies within a diversified global multi-asset portfolio,” says Rolf Agather, managing director of global research and innovation at Russell Investments.

Determining which strategies are preferable will depend on the investor’s individual beliefs, objectives, tolerance for risk and time horizon. Integrating smart beta strategies within a broader portfolio requires a high degree of assessment and ongoing analysis and review, similar to those of any active strategy. “For example, smart beta strategies that target the same factor, such as low volatility, can differ in their construction, and can have significant differences in market exposures and performance,” he says. Investors need to have a thorough understanding of the objectives and the construction methodology of a smart beta index, and how the index can be expected to perform in a range of market cycles.

Adding Outperformance
The process of integrating a smart beta strategy into a portfolio is considered active, like any investment decision. “It requires extensive due diligence, which can be similar to the process used when selecting an active manager,” says SSgA’s Blake. Perhaps most importantly, advanced beta involves the transfer of risk to the in-house team, which must hold responsibility for the investment performance and therefore be judged in the same way as an active manager, she explains.

However, being systematic, transparent, and rules based, its execution is passive in nature, and once implemented, there isn’t generally a great need for active intervention.

“While there are active managers who outperform the market with pure alpha on a factor-adjusted basis, there are many others whose outperformance relative to the market (traditional alpha) which can largely be explained by exposures to one or more common factors,” says Kal Ghayur, head of ActiveBeta equity strategies at Goldman Sachs Asset Management (GSAM). Smart beta strategies, which seek to deliver an efficient capture of common factors, can thus be viewed as a passive alternative to factor-based active management. Additionally, for investors with predominantly index exposure on a market-cap basis, smart beta strategies can potentially add sources of outperformance, while typically providing more transparency, simplicity, and lower fees, compared to active management, he says.

“It’s the third pillar, in addition to active and passive, of a dynamic institutional portfolio,” says Lyxor’s Millet. Smart beta is intended to be integrated into the core portfolio of institutional investors, weighing generally between 10 and 40 percent of their passive management. “In
Engineer equity risk to work in your favor.

It’s time you were better compensated for the equity risks you’re taking. At Northern Trust, we use our most active strategy — listening to your unique needs — to help design the smartest equity strategy for your portfolio. Together, we identify the risks worth taking to help you more efficiently achieve your goals. We call it Engineered Equity. You can call it delivering answers beyond the expected. Still skeptical? Call Steve Potter to find out how Engineered Equity can help you today at 866-803-5857 or visit northerntrust.com/evolvingequity.
some European pension funds, sometimes smart beta indices exceed 40 percent of their core portfolio,” he explains. More traditional investors allocate it to their active asset management.

Because of decisive factor tilts and purposeful integration into portfolios, US investors typically see smart beta as more of an active strategy competing with other active managers, explains Shirbini at ERI Scientific Beta. European investors use it as more of a rules-based and semi-passive approach to achieving relative returns at a lower cost. In this context, there are two applications. “If an active manager is not performing, an asset owner can often replicate the strategy more efficiently and at a lower cost,” he says. In addition, when looking at overall exposures and evaluating risk, an asset owner can add a factor to balance and mitigate if there is too much in one particular area. “For example, if you’re overweight in value, you can add a growth smart beta strategy as part of the asset allocation decision,” he says.

Integration
Smart beta should be set up to give exposures you want to achieve your goals. “It works best when changing the question from ‘How do I beat the benchmark’ to ‘How do I meet my goals,”’ says Peron at Northern Trust. “How do you know if your benchmarks are even the right ones to reach your goals,” he asks, adding that investors need to get out of the style box.

(continued on page 12)
Be smart with your factors

Many investors are seeking to invest today by allocating to risk factors, such as Value, Momentum, Size or Low Volatility, that are well rewarded over the long term.

By offering indices, as part of the Smart Beta 2.0 approach, that have well controlled factor exposures and whose good diversification enables specific and unrewarded risks to be reduced, ERI Scientific Beta offers some of the best performing smart factor indices on the market.

With a 68% average improvement in risk-adjusted performance observed over the long run* in comparison with traditional factor indices, ERI Scientific Beta’s smart factor indices are the essential building blocks for efficient risk factor allocation.

For more information on the Scientific Beta Smart Factor Indices, please visit www.scientificbeta.com or contact Mélanie Ruiz on +33 493 187 851 or by e-mail to melanie.ruiz@scientificbeta.com

* Average of the differences in Sharpe ratio observed between 31/12/1972 and 31/12/2012 for all long-term track record multi-strategy factor indices and their cap-weighted factor equivalent calculated on a universe of the 500 largest capitalisation US stocks. All the details on the calculations and the indices are available on the www.scientificbeta.com website.
How Advanced Beta Is Changing the Game

For sophisticated investors, advanced beta offers a new answer to an old question: "What is the optimal way to take and be compensated for risk?" Lying somewhere between active and index investing, advanced beta represents a new sweet spot for generating risk-adjusted returns.

While active and traditional index strategies continue to have distinct roles to play in portfolio construction, we believe advanced beta strategies are changing the game in terms of how investors identify and take risks in their portfolios.

Simply defined, advanced beta is a rules-based approach to investing that seeks to capture specific risk premia in the marketplace, such as those historically associated with value, low volatility and small-cap stocks, or the issuer and credit risk of corporate or sovereign bonds. Advanced beta strategies combine the transparency, liquidity and flexibility of indexing with the ability to take an active view of which risk factors may offer so much protection.

As a result, advanced beta portfolios are able to capture specific risk/return characteristics in a more cost-efficient package than active management can. With the potential for generating attractive long-term risk-adjusted performance, advanced beta strategies may serve as an effective complement to both traditional active and index holdings. Whether investors are rebalancing away from active or index strategies, advanced beta offers the potential for improving Sharpe ratios without overpaying for performance.

From Theory to Practice

Starting in the 1970s, many researchers began to find that some of what people thought of as an active manager's outperformance due to superior asset selection could actually be chalked up to distinct, identifiable market factors.1 Often more important than the performance of an individual stock, for example, was whether the stock belonged to the value, low volatility or momentum. Selection alone, the data seemed to suggest, may not fully explain their performance.2 Part of the returns an active manager delivers may be derived from general risk premia that exist in the marketplace.

Still, it took the financial crisis of 2008 for the day-to-day investment community to start taking up these ideas. In the aftermath of the crisis, we have seen many investors re-examining the question of how to access the risk premia they seek. A big part of the appeal of indexing had always been the diversification it provides through holding a large number of securities. Yet during the low point in the crisis, when the broader market was down by nearly 50%, even index strategies could only offer so much protection.

At the other end of the spectrum, it was thought by many that the selective use of active management provided lower tail risk in addition to the potential for excess return over the market. The crisis highlighted the limitations of this view.

Against this backdrop, advanced beta has emerged as a way to potentially solve for the sometimes-competing objectives of the post-crisis environment. To the extent that such factors are attributable to systemic risk premia— beta, in a word— investors can capture them with simple, transparent, rules-based beta strategies and cut out the middleman.

Factoring in Specific Objectives

Still, advanced beta is not a magic bullet. It's a tool in the hands of the investor. When considering an equity investment, for instance, looking at some common equity factors can provide a logical jumping-off point.

Factors to consider may include:

- Low-valuation stocks have outperformed high-valuation stocks over time.
- Low-volatility stocks have delivered better risk-adjusted performance than high-volatility stocks over time.
- Small-cap stocks have tended to outperform their large-cap peers over time.
- Momentum stocks associated with higher momentum have outperformed stocks with lower momentum over time.
- Quality stocks of higher-quality companies have delivered better risk-adjusted performance than stocks of lower-quality companies over time.

Investors can choose to access one factor or combine multiple risk factors within a single portfolio. One popular combination is value, quality and low volatility. This combination theoretically creates a portfolio with lower-than-average valuation and volatility, and higher-than-average quality (measured by metrics like profitability, earnings variability and leverage). A three-factor portfolio helps to neutralize cyclical variations.

Once investors have identified the factor or factors they may be most interested in capturing, they can begin to look at the specific realities of their current holdings to consider where and how advanced beta strategies may fit in. If investors need to lower the volatility of their funded status, they would likely seek out advanced beta strategies with a distinctly different (and lower-volatility) cast than the traditional beta holdings being swapped out. Or if they have determined that they are overpaying for some of their performance, they may be looking to mimic existing active strategies, but at a better price.

Putting Investors in the Driver’s Seat

Advanced beta strategies allow investors to take true ownership and control of their investment decisions. Rather than relying on asset selection for performance, though, advanced beta seeks to capture risk premia through a rules-based approach. Investors are actively identifying the risk premia they want, while enjoying an index-like implementation of the strategy. The result is the potential for active-like returns, in a rules-based, lower-cost vehicle.

When investing in a single-factor strategy, investors may naturally want to consider making an initial investment when prices are low among securities representing that particular risk factor.1

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1 Several factors would eventually be discovered, including: low beta (Black, Jensen, and Scholes, 1972); size (Banz, 1981 and Reinganum, 1981); P/E (Basu, 1977); P/B (Fama / French 1993); quality (Haugen, 1979); and momentum (Jagadeesh, and Titman, 1993).
2 The data was reported by researchers in several different articles, including: The Capital Asset Pricing Model: Some Empirical Tests (Black, Jensen, and Scholes, 1972); The Relationship Between Return and Market Value of Common Stocks (Banz, 1981); A New Empirical Perspective on the CAPM (Reinganum, 1981); Investment Performance of Common Stocks in Relation to Their Price-Earning Ratios (Basu, 1977); Common Risk Factors in the Returns of Stocks and Bonds (Fama / French 1993); Do Common Stock Ratings Predict Risk? (Haugen, 1979); Returns to Buying Winners and Selling Losers (Jagadeesh, and Titman, 1993).
The Spectrum of Factor Investing

Investors can gain exposure to risk premia associated with different market factors across a broad spectrum of investment styles. Advanced beta represents an inflection point in the continuum—it is the last fully rules-based style of investing before the spectrum begins to tip into active management via active quant strategies. As a result, advanced beta can provide investors with active-like returns, while still maintaining many of the benefits that investors expect from traditional indexing, including low costs, transparency and liquidity.

Even within advanced beta, investors can choose from a range of options for accessing the specific market factors they seek. Depending on their objectives, some investors may choose advanced beta strategies based on a single market factor such as value stocks. Others may choose an advanced beta strategy combining multiple factors such as value, quality and low volatility for a more diversified and potentially less cyclical strategy. At State Street Global Advisors, our solutions group can also help investors deconstruct their entire portfolios through a factor lens. They help investors identify precisely where their factor exposures currently exist. They then help them determine which can be accessed most efficiently via indexing, where a true active approach is required and where advanced beta is the best solution, given investors’ total return objectives, their preferences for managing risks and expenses, and their views on the market.

When investing in a multi-factor strategy, timing and pricing may still be a consideration, but it may be easier to implement the strategy at a broader range of points in the market cycle. Working with an experienced advanced beta manager can help investors better understand and forecast market conditions impacting the factors they ultimately choose to pursue.

A Leader in Beta and Advanced Beta Strategies

With advanced beta strategies establishing a firmer foothold in institutional portfolios, investors have more ability than ever to choose the exact risk exposures they want. At State Street Global Advisors, we draw upon decades of hands-on experience managing advanced beta portfolios to help clients make the most of these powerful tools. We are one of the largest providers of index and rules-based strategies in the world, with more than $1 trillion in traditional and advanced beta assets under management. Our advanced beta strategies alone represent more than $70 billion of assets, making us a valued partner for institutions pursuing rules-based investment opportunities related to specific investment characteristics.

As pioneers in the field of advanced beta, we continue to be on the front lines of bringing advanced beta solutions to market. We believe advanced beta is potentially underused by many investors—particularly among those who have clear beliefs in the benefits of capturing individual or combined risk premia. The new rules of the game provide investors the opportunity to meet investment goals with greater precision while paying less for performance. All they need are the convictions, the right guidance and the willingness to do it.

To view the complete report or for more information on Advanced Beta, please visit ssiga.com/advancedbeta.
The probability of success depends on the thoughtful exposure to factors. “The market is grappling with the question of integrating active management, traditional indexes, and engineered strategies, but each can complement the other,” says Peron. Again, it depends on the investment goals. Low-cost indexing can provide broad market exposure, and engineered strategies with a value tilt can drive returns and mitigate risk, but a sizeable allocation is required to move the needle. The recommended allocation depends on investment goals, philosophy, measurement, and many other factors, but it’s generally in the 20-30 percent range or more, he says. “One or two active managers, chosen with high conviction, can be used to capture the premiums associated with alpha strategies,” he adds. “It’s out there!”

Smart beta strategies offer two levels of diversification within a broader portfolio structure, which directly impact the overall risk-return profile. First, individual factor portfolios have unique risk-return characteristics, which result in low or negative pairwise correlations. “As such, factor diversification strategies are designed to provide an opportunity to realize significant risk reduction as well as return enhancement benefits, and facilitate certain investment

AWARENESS AND ADOPTION

Thanks to their low cost, flexibility, transparency and ease of implementation, smart beta ETFs have experienced tremendous growth over the past year. They are now being used by 1 in 4 institutional decision makers, according to Cogent Research in a survey done for Invesco PowerShares. Additionally, over one quarter of the US ETF equity net flows in 2013 went into smart beta ETFs even though this category represents just 19 percent of assets in the ETF industry.

According to several surveys, most institutional investors have a high level of awareness of smart beta. More than two-thirds say their awareness of advanced beta as a concept is excellent or good, while a similar portion say the same about their understanding of different advanced beta strategies. Investors in Europe, where advanced beta strategies are better established, are more familiar with the concept: 70 percent describe their awareness of advanced beta as excellent or good, compared with 57 percent in the US, according to SSgA’s “Beyond Active and Passive: Advanced Beta Comes of Age.” Knowledge about advanced beta also varies between different investor types. Public and private pension funds report high levels of
objectives,” explains GSAM’s Ghayur. Second, investors that explicitly allocate to smart beta strategies to capture factor returns, and separately allocate to active managers with demonstrated uncorrelated excess returns, have added an additional layer of diversification, he says. “While traditional quantitative equity alpha strategies share much in common with smart beta strategies, there are important differences in their approach to investing, the characteristics of resulting portfolios, and the flexibility that is afforded to investors,” says Ghayur. Ultimately investors will need to decide whether they believe in the ability of common, well-understood and rewarded factors to provide long-term outperformance, or whether a quantitative approach utilizing the proprietary skills and capabilities of an experienced investment manager may provide an edge. “We believe that these strategies can also be used together for those investors who want to combine the benefits of common factor investing with the insight of a skilled quantitative equity alpha manager,” he says.

Implementation “The top two uses of smart beta are risk reduction and return enhancement.” Says Russell’s Agather. After (continued on page 18)

Smart beta strategies offer two levels of diversification within a broader portfolio structure, which directly impact the overall risk-return profile.
Smart Beta Not New, Not Beta, Still Awesome

By Clifford S. Asness, Ph.D. and John M. Liew, Ph.D.

Let’s be blunt. Smart Beta1 is mostly re-packaged, re-branded quantitative management. That’s not to say we don’t like it or think it’s not good for investors. We love quantitative management, having spent our careers pursuing these types of strategies. However, we work in a business where good ideas are constantly repackaged as something new. Smart Beta is the latest example. It takes well-established, quantitative investing styles, or factors, and implements them in a simple, transparent manner often, though not always, at lower fees than what we’ve seen in the past. That certainly sounds like a worthwhile repackaging, and it’s not surprising that Smart Beta has received great attention.

Ironically, despite Smart Beta’s aim for transparency and simplicity compared with traditional active (judgmental or quantitative) management, there remains much confusion about what Smart Beta means (sometimes the marketing can serve to obscure not enlighten2). This likely stems from the fact that there are so many related concepts and so much overlapping terminology. Furthermore, they are implemented either directly (e.g., tilting toward or restricting investments to value or low-risk stocks) or through portfolio construction choices that give exposure to these styles (e.g., equal-weight or weighting by non-price measures of size). Some argue a lot about which of these should actually be called Smart Beta. (While we like to argue, we’re going to skip this one.3)

In this article, we try to put Smart Beta into perspective by categorizing the major approaches and describing how each might contribute to a broad portfolio. In doing so we extend the concept from the very basics, to what we believe are logical next steps. Exhibit 1 lays out our plan of attack. We will start out with Smart Beta as it is most commonly implemented (long-only using a single factor within a single asset class — usually equities). We will then broaden out to multiple factors. Finally, for a bigger jump (in both efficacy and risk/unconventionality), we’ll go to multiple factors across multiple asset classes in a long/short framework.

Basic Smart Beta: Single Factor Within a Single Asset Class (Long-Only)

Most Smart Beta funds today are long-only equity strategies focused on one investment style or factor4 and these generally come from the academic and practitioner literature. This fact was underappreciated, even denied, by some of the creators of early versions of what came to be called Smart Beta products. However, today it’s generally accepted that Smart Beta is a repackaging of these well-trodden ideas.

To be considered Smart Beta, we believe that these factors must also be simple and transparent. However, they don’t have to be the same for all managers or products. One can, and many do, argue that their particular version of simple value, low risk or any other tilt is better. These are the same arguments quant managers used to have with each other. However, in the case of Smart Beta, these factors are implemented in a somewhat simpler, more understandable framework (until we all start arguing and obscure it again).

Furthermore, they are implemented either directly (e.g., tilting toward or restricting investments to value or low-risk stocks) or through portfolio construction choices that give exposure to these styles (e.g., equal-weight or weighting by non-price measures of size). Some argue a lot about which of these should actually be called Smart Beta. (While we like to argue, we’re going to skip this one.)

Let’s be clear about a few things that are sometimes obscured:

• Rebranding old school “quantitative management” into Smart Beta doesn’t change the fact that the factors must work. You want to avoid the perils of data-mined factors or strategies that were chosen to fit history, but have little hope of future returns. To help achieve these aims, an important criterion for any viable factor is that it have a good economic story behind it — there must be a reason it is expected to deliver positive excess returns. In addition, robust

Exhibit 1: The Big Picture on Smart Beta

<table>
<thead>
<tr>
<th>Focus on Efficiently Harvesting Active Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Old Beta</strong></td>
</tr>
<tr>
<td><strong>Passive Index</strong></td>
</tr>
<tr>
<td><strong>Single-Style</strong></td>
</tr>
<tr>
<td><strong>Multi-Style, Multiple Asset Class</strong></td>
</tr>
<tr>
<td><strong>Exposure to Style Premia</strong></td>
</tr>
<tr>
<td><strong>Correlation to Traditional Portfolios</strong></td>
</tr>
<tr>
<td><strong>Use of Leverage and Shorting</strong></td>
</tr>
</tbody>
</table>

Source: AQR. For illustrative purposes only.
Exhibit 2: Combining Styles May Lead to More Consistent Returns
Worst 3-Year Rolling Excess Returns for Hypothetical Smart Beta Portfolios, U.S. Equities, 1980–2013

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value</strong></td>
<td><strong>Momentum</strong></td>
<td><strong>Profitability</strong></td>
</tr>
<tr>
<td>-20%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>-10%</td>
<td>5%</td>
<td>5%</td>
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<td>30%</td>
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</tbody>
</table>

Source: AQR. Based on long-only hypothetical returns for the U.S. Large Cap universe from “A New Core Equity Paradigm,” Frazzini, Israel, Moskowitz, Novy-Marx (2013). The U.S. Large Cap universe approximately corresponds to the largest 1,000 U.S. stocks by market capitalization. Returns are gross of fees and net of transaction costs. Performance is hypothetical and is not based on an actual portfolio or account. Hypothetical performance results have certain inherent limitations, some of which are disclosed at the end of this article.

out-of-sample evidence — over time, in other markets and even in other asset classes — can help assuage data-mining concerns.

- **One difference between Smart Beta and traditional quantitative management** is that the former is usually built from the bottom up with “tracking error” against a benchmark falling out (though outperforming a benchmark is still the goal). Another is that while traditional quantitative investing generally bets on many of the same factors, it tends to be more about the particular manager’s improvements (real or data-mined) to these factors, new factors (real or data-mined) that the manager has found, and the manager’s particular portfolio construction and implementation methodology, among other things.

“We’re here to praise...Smart Beta — but only after an honest understanding of it.”

- **Even though we call this “Smart Beta,” it’s not really beta in the traditional sense (we considered “Clever Beta,” “Ingenious Beta,” “Pensive Beta,” “Perky Beta” and, of course, “Ennui-Stricken Beta,” but they didn’t make it past the drawing board). Smart Beta is an exposure to market-capitalization-weighted indices (traditional beta) plus an attempt to outperform these indices (remember when we used to call this alpha?).** Perhaps the simplest equation in the world is:

  \[ \text{Smart Beta} = \text{Cap Weight Index} + \frac{\text{Smart Beta – Cap Weight Index}}{} \]

- The second part, [Smart Beta – Cap Weight Index], is usually a very well-defined simple tilt in the direction of known factors. For instance, take the case of an index where you weight stocks not by their market cap, but instead by their sales. In this Smart Beta index (this of course follows for any such measure), the ultimate weight of a stock will be its weight in the Cap Weight Index multiplied by the price-to-sales ratio of the market (P/S) divided by the price-to-sales ratio of the stock (P/S). It’s that simple. In other words, it’s not “kind of like a price-to-sales tilt.” In this case it is, and always is, only a specific price-to-sales tilt. This index owns precisely the below amount of stock i:

  \[
  \text{Value in Smart Beta Portfolio} = \left( \frac{\text{P/S}_i}{\text{P/S}^\text{market}} \right) \times \text{Weight in Cap Weight Index}
  \]

The value-add in Smart Beta is that we, and many others including a legion of researchers looking in a legion of places, believe certain factor tilts work reliably over time, and that simple versions such as a one-factor Smart Beta strategy can be understandable, transparent and available at a reasonable fee. We believe there can be tremendous value add to this undertaking and we’re here to praise, not bury Smart Beta — but only after an honest understanding of it.

**Why Stop at One Factor? Multiple Factors Within a Single Asset Class (Long-Only)**

Among the various investment styles, let’s consider the efficacy of three that are well known (and admittedly chosen as near and dear to our hearts): Value, Momentum and Profitability. Based on our analysis and a large body of academic and practitioner literature, each has produced long-run, hypothetical excess returns with low correlation to traditional markets over multiple decades, in multiple geographies and asset classes, and each is well-supported by economic theory and research. We believe that each of these, at the proper fee, would be an attractive proposition in a single factor, simple Smart Beta format and should add value to most traditional portfolios.

Furthermore these styles’ excess returns tend to be lowly correlated with one another, with performance often coming at different times. This can be really important. Consider Exhibit 2, which separately shows the worst three-year hypothetical excess returns for each style along with the hypothetical performance for the other two styles during that same period. In each case, the worst performance for any one style is mitigated by the other two. Diversifying across various Smart Betas can and has provided a more consistent way of beating a traditional benchmark.

If multiple styles are better than just one, how should investors combine them? There are two broad choices (ignoring the many narrow choices like how best to get a value tilt) while staying with traditional long-only investing: (1) invest in single-style funds a la carte (e.g., a separate value fund, a momentum fund, etc.), or (2) invest in a single fund that integrates multiple styles simultaneously. Assuming fair fees for the risk taken, both approaches can be useful. However, we believe that the second choice — multi-style — is naturally more efficient for at least three reasons:

- **Lower transactions costs:** The multistyle approach can net different style signals before trading, avoiding needless turnover and its associated costs — and for taxable investors, potentially lowering their tax burden.
- **Interaction benefits:** A stock that might barely fall below the threshold for being included in separate, single-style funds may be among the most attractive when
viewed across multiple styles. Furthermore, if deemed warranted, more weight can be given to stocks that are attractive on multiple style dimensions.

- **Maintaining active risk**: Combining separate single-style funds into an investor’s portfolio lowers “active risk” (versus the relevant benchmark) because the style tilts will tend to partly offset each other. This can be a good thing, except if the expected excess return comes out too low (because the active risk gets too low). In an integrated, multi-style fund, the amount of active risk can be chosen so this does not occur.

We’d be remiss in not pointing out that the advantages to integrating multiple styles in one fund are not free. They generally involve less diversification across managers and less explicit end-investor control of factor exposures. Perhaps most importantly, while fixable with transparency, the multi-style tilt does lose some of the beautiful simplicity that perhaps first attracted investors to Smart Beta. We think it’s a natural evolution and believe the hard quantifiable advantages outweigh the soft disadvantages, but we mention them and leave them for the reader to decide.

**The Next Step: Multiple Factors Within Multiple Asset Classes (Long/Short)**

Now we take it to its logical, though admittedly more-provocative and less-conventional conclusion. Remember our simplest equation in the world?

\[ \text{Smart Beta} = \text{Cap Weight Index} + (\text{Smart Beta} - \text{Cap Weight Index}) \]

This equation tells us that long-only Smart Beta is a tie-in sale. When you buy it, you actually get two things. One is a traditional index fund (Cap Weight Index) and the other is a long/short portfolio that bets on the style underlying the particular Smart Beta product (Smart Beta – Cap Weight Index). In a long-only Smart Beta product you don’t get to choose how much of the long/short stuff you get. It just falls out of the particular way the product was constructed. There might be some legitimate reasons to buy these together, but why not consider breaking this tie-in sale? Isn’t that the next logical step? By the way, if you’re laughing a bit as we extend the “Smart Beta” concept by removing the actual “Beta” part, you are paying attention!

We call this long/short portfolio **style premia** but it is really just Smart Beta where you’re going long the smart part and short (and we apologize for this, the dumb part)! Not only can a long/short strategy allow investors to explicitly pursue “both sides” of an investment style, it also creates a portfolio that is naturally hedged to the underlying market. That is, while long-only Smart Beta will strongly tend to rise and fall with equity markets, long/short style premia may offer a more diversifying, truly alternative return source.

\[ \ldots \text{while long-only Smart Beta will strongly tend to rise and fall with equity markets, long/short style premia may offer a more diversifying, truly alternative return source.} \]

**Other Asset Classes Besides Equities**

Since we’re going unconventional, why stop at equities? Style premia, such as value, momentum, low risk and others, can be harvest-ed in other asset classes, including bonds, currencies and commodities. Importantly, these are not new, original styles tailored to these other asset classes, but the same ones being used in long-only equity Smart Beta. If you believe cheap stocks have higher expected returns than expensive stocks, why would you believe that it ends at stocks? Is valuation a phenomenon that is unique to stocks? Shouldn’t cheap bond markets outperform expensive bond markets? Shouldn’t cheap currencies outperform expensive currencies? The data suggest that the answer to each of these questions is yes. It turns out that many of the styles that work for predicting stock returns also work in other asset classes. And why shouldn’t they? Given the economic intuition and the empirical evidence, it’s hard not to make the small logical jump to implementing these styles in these other asset classes, too. However, the long-only smart beta construct makes benefiting from ALL the places Smart Beta works quite difficult.

Using simulations from 1990–2013, we find a significant benefit from combining style premia and implementing them across multiple asset classes. While simulations no doubt paint a rosier picture than what the future may bring, we believe that the results are directionally accurate. Namely, with style premia, diversification across both styles and asset classes can make a meaning-

**Conclusion: Smart Beta in Perspective**

Smart Beta and style premia investing bring decades of academic research to investors, and can help investors better understand — and potentially more reliably capture — sources of value-added returns. They may be “less new” than sometimes advertised, but still often bring important innovation in the areas of transparency and clarity (though the clarity sometimes comes only after fighting through the marketing).

However, confusion exists on how best to compare and decide among different products. While there’s still plenty of room to argue about which are the best factors and best ways to implement and combine them, our effort here is to help clarify the true variety and objectives of these strategies, and the true range of possibilities.

Finally, many investors liken Smart Beta to an index strategy, which often results in manager selection based on fees alone. We caution against this (though we are happy to compete on this basis). While they share some elements with index strategies, such as transparency and rules-based decisions, Smart Beta and style premia are active strateg-ies in the sense of trying to outperform. Though the concepts underlying them may appear straightforward, as Exhibit 1 shows, the amount and quality of active sources of returns varies, and this can determine how well or poorly the portfolio performs. We don’t eschew analysis based on fees. Rather, we encourage and advocate for it. Just keep in mind that, as with any strategy, we believe it should be done considering what is purchased, not just what is spent.
Footnotes:
1 Note that while we’ve been critical of the term “smart beta” in other articles (Peeve #6 in “My Top 10 Peeves,” Financial Analysts Journal (2014)) here we just fully accept it. Even if it’s not the term we’d have chosen, it is being so widely used, we concede. Language is, after all, a democratic process!
3 The list does not end here. Some people extend the term Smart Beta to encompass investment strategies like reinsurance or even short-volatility; the connection being their relative passivity and consistency in trading. 4 While most focus on equities, Smart Beta investing can also be applied in other asset classes, including bonds, currencies and commodities. In addition, while most are really focused on one style, some do blend the lines and look at more. We focus on the typical case here: one type of tilt in long-only equities.
5 Well, maybe just one small argument. In a recent essay by Arnott and Kose (2014) they want to, in effect, restrict the term to their method of implementing it. This is particularly bizarre given their version, fundamental indexing, is only a simple value tilt (though Rob originally claimed it was not) and is functionally quite similar to other value tilts as shown by the work of his colleague, Jason Hsu (Chow, Hsu, Kalesnik, Little, “A Survey of Alternative Equity Index Strategies,” Financial Analysts Journal (2011)). Renaming the value strategy as “Smart Beta” involved serious chutzpah. Claiming that others already doing said value strategy can’t then also call their strategies “Smart Beta,” well that involves chutzpah that can only be called sublime.
6 Sometimes such an index will be shown, empirically, to have both a value and a small tilt, and can have positive or negative “alphas” in tests. That is only when it’s not being compared with the precise value tilt being used to construct it. This includes not just different ways to define value but also different universes. It all gets more complicated when creators of Smart Beta portfolios broaden their universe to include more stocks than there are in the index they then compare themselves to, thus not an apples-to-apples comparison.
7 A firm more smart-alecky than ourselves might call this the “Fundamental Equation of Fundamental Indexing.”
8 Another common Smart Beta factor is low risk (volatility, beta or some other measure or portfolio-construction method). We are also big fans of this tilt, but in a long-only implementation it serves mostly to deliver long-term returns similar to cap-weight indices with less risk, and only generally outperforms with some modest leverage applied. Thus, while we are advocates, we don’t analyze it in the same framework as the three we look at here, which all have added return without any need for leverage.
9 Again, we encourage anyone who is analyzing these funds to pay specific attention to the fees paid for the amount of expected gain. Diversifying across many low or negatively correlated factors in separate single-style funds may produce a very attractive gross-of-fee risk-adjusted outperformance. However, it may not look quite as good net-of-fees (both because of fees and diversification being used to lower risk, not increase returns).
10 This is perhaps too strong as you could, of course, hire multiple multi-style managers.
11 In fact, it could be an oddly constrained, low volatility long/short portfolio that might not be the one you would construct if you were going to build a long/short factor portfolio from scratch.
12 There can and have been other terms for this long/short construction, including “alternative risk premia.” In contrast to Smart Beta, again a long-only construct, these long/short implementations generally use derivatives (usually quite “plain vanilla,” not complex, derivatives used to apply these same long/short styles in other markets like countries and currencies at lowest cost) and leverage (when you leave out the market you must use some leverage to make diversified portfolios meaningful, and when you implement Smart Beta long/short across things from commodities to fixed income you must use and vary leverage to keep their contributions relatively balanced) to obtain meaningful style exposures. We call such use of leverage, long-selling and derivatives, LSD! We are advocates of it in moderation (the portfolio technique, not the Timothy Leary version) when it is used for the purpose of diversification, and we use this term for clarity (and a bit of check).
13 Strictly speaking as we have shown above, a long-only approach can also capture “both sides,” but to only a limited extent, as it’s naturally constrained in what it can underweight by the asset’s weight in the benchmark, which may not correspond to the level of the asset’s (un)attractiveness.
14 For multiple decades of evidence across multiple geographies and asset classes, see Asness, Ilmanen, Israel and Moskowitz (2014).

AQR is a global investment management firm that employs a systematic, research-driven approach to manage alternative and traditional strategies. As of June 30, 2014, we managed approximately $113 billion for institutional investors and investment professionals.

Clifford S. Asness, Ph.D.
Managing and Founding Principal

John M. Llew, Ph.D.
Founding Principal

SPONSORED STATEMENT
The financial crisis, many pension plans were severely underfunded. To improve funding ratios, they needed to maintain significant allocation to equities, he explains, and defensive/low volatility strategies enabled them to benefit from exposure to the growth in equities while reducing volatility. “There is an inverse relationship: lower risk has meant higher returns in a down market,” he says, and allocations to low volatility index funds lowered the overall volatility of a fund. Today, with equities at record highs and most pension plans at 100 percent funded levels, the same strategy is used for derisking.

Over the past three years, more investors have embraced a strategic combination of factors. “The greatest demand is the multi-beta-approach,” says ERI Scientific Beta’s Shirbini, pointing out that combining them gives smoother performance over time. Factor returns are quite cyclical, but the timing of cycles can vary, so the idea is to invest in a range of indices that aren’t correlated. “Smart factor investing isn’t a short-term strategy even when investing in multiple factors,” he says. “You have to think over the long term, and at least through one complete cycle but by investing in multiple factors relative drawdowns are reduced.”

Many investors combine low volatility, which performs well in a falling market, with value, which performs better in a rising market. “In our current bull market, low volatility has become slightly less popular now, so some investors are combining value with momentum,” he says, “but the key to smart beta investing is to think of the investment over the long term.”

Many investors start with a single factor to achieve a specific goal and progress into a multifactor strategy. “When you utilize a factor in isolation, the risk-return profile can be compelling in the long term, but there can be periods of significant underperformance,” explains SSgA’s Blake. “There are times when factors move differently, so the idea is to combine them.” The benefits are good diversification but not at the expense of high returns, and the element of timing is

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**Smart Beta experience of institutional investors, by size**

<table>
<thead>
<tr>
<th>Response</th>
<th>Under $1 billion*</th>
<th>$1 billion to $10 billion*</th>
<th>$10 billion or more*</th>
<th>All respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have Smart Beta Allocation</td>
<td>9%</td>
<td>30%</td>
<td>46%</td>
<td>32%</td>
</tr>
<tr>
<td>Evaluated and decided not to implement</td>
<td>12%</td>
<td>17%</td>
<td>10%</td>
<td>13%</td>
</tr>
<tr>
<td>Currently evaluating Smart Beta</td>
<td>12%</td>
<td>13%</td>
<td>21%</td>
<td>15%</td>
</tr>
<tr>
<td>Anticipate evaluating SB in the next 18 months</td>
<td>18%</td>
<td>17%</td>
<td>12%</td>
<td>15%</td>
</tr>
<tr>
<td>Do not anticipate evaluating SB in the next 18 months</td>
<td>50%</td>
<td>23%</td>
<td>12%</td>
<td>25%</td>
</tr>
</tbody>
</table>

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*Assets Under Management*
taken out. The trick is how to combine, and significant research and evaluation is needed to determine which factors to include.

**Identifying Objectives**

Implementing smart beta is about problem solving and addressing specific investment issues strategically. “Investors want to capture smart beta in relation to their risk budgets,” says GSAM’s Ghayur. “The idea is to provide a framework for investing in smart beta, within the context of an overall portfolio. It’s not a specific product-push solution.”

Low volatility and fundamental indexes dominate the smart beta strategies being evaluated and used by asset owners, according to Russell Indexes’ survey. However, there are regional differences. Fundamental index usage is much greater in the US and UK, while low volatility is the dominant strategy in continental Europe and Canada.

Low volatility funds have indeed experienced the greatest growth, practically doubling in 2013, according to Cogent Research/Invesco PowerShares. Two-thirds of respondents not currently using smart beta ETFs say they are likely to use low volatility funds in the next three years. The need to manage volatility has become more important in recent years and is driving this trend. “Investors need income, but interest rates are near zero, so many are allocating to low-volatility ETFs,” says PowerShares’ Draper.

“No one wants to live through another financial meltdown unprepared.” Inflows into high dividend fundamentally weighted and share-buyback ETFs are also expected to grow significantly as well.

“One trend we’re seeing is the tendency of investors to avoid a single risk by combining fundamental indexes with risk factors, and combining risks that counteract,” says Lyxor’s Millet. In the bull market leading up to 2008, quality tended to underperform versus the broad market, while value tended to outperform. After 2008, it was the opposite. “No one knows how to allocate among risk factors. Many investors in European markets are building equal-risk weighted portfolios by size, value and low volatility, but that’s not enough,” he says, noting the need to construct portfolios by risk factors. It’s always a bespoke solution, based on strategy dialogues with each client. “These are the building blocks of smart beta,” he says.

Depending on the investment objective, there could be a number of combinations and strategies. For example, an asset owner may wish to lower the total volatility and potential drawdown of an equity portfolio. “A low-volatility plus quality diversification strategy may help achieve that objective,” says GSAM’s Ghayur. Similarly, a value plus low-volatility diversification strategy’s objectives are return enhancement as well as risk reduction, and is

(continued on page 22)
Q. Strategic (or smart) beta has really taken off over the past few years. How have the strategies evolved during this time and where are you seeing the greatest interest today?

Growth has truly been remarkable. In a relatively short time, the category of strategic beta has risen to the forefront of investor attention and gained broad acceptance as an alternative to traditional index or active management. While most market participants currently invest in both active and index products,

we believe that all investors should include in their portfolios a combination of active, index, and strategic beta solutions.

In the early days of strategic beta, we saw a lot of institutions pursuing “off the shelf” solutions by investing a portion of their assets in funds that tracked third-party indices such as the MSCI Minimum Volatility Index or one of the FTSE RAFI indices. In essence, they were allocating some capital to indices designed to capture one or more well-established risk premia—like size, value, momentum, quality and low-volatility—and to deliver higher risk-adjusted returns.

As the field has evolved, and as investors have become more attuned to the possibilities that strategic beta can offer, we’ve witnessed a big uptick in clients pursuing broad solutions that are constructed to explicitly provide exposure to a desired set of risk factors. Many clients are interested in long/short, multi-asset strategies that provide liquid, well-diversified exposure to many of the risk premia present in (much less liquid and much more expensive) hedge funds. Other clients are exploring custom factor portfolios—often combinations of third-party factor indices—that are structured to fit their unique investment goals and that can improve upon the risk/reward profile of more traditional portfolios (See Exhibit).

Exhibit: Impact of strategic beta on a sample equity pension portfolio

In this example we examine the equity investments of a large pension investor. We compare the risk and return characteristics of the equity plan in its current state with a hypothetical example including a 25% allocation to an equity multi-factor strategic beta portfolio, funding pro-rata from existing investments. We use a simple equal-weighted combination of four MSCI ACWI Risk Factor Indices (Quality, Momentum, Value Weighted and Minimum Volatility) as the strategic beta equity portfolio. Over the three-year time period ending June 30, 2014, the allocation to strategic beta reduces the overall risk of the portfolio and improves its Sharpe ratio.
We think there will be continued growth in these advanced and custom solutions, but they do require the investor—or the selected manager—to have a view on the prospective behavior and persistence of each factor. And while it might be straightforward, for example, to allocate some funds to a quality index, some to a momentum index and some to a value index, that approach is less efficient than designing a truly bespoke, holistic solution that targets a particular investment outcome.

Q. The field thus far has been dominated by equities. What do you see on the horizon?

Outside of equities, the category is really still in its infancy, so the future is wide open. But we see a corollary if we look at the history and evolution of index funds. They began over 40 years ago with a handful of strategies that focused on US large-cap equities and eventually grew to encompass everything from micro-cap stocks to frontier markets equities—in addition to branching out to just about every asset class from fixed income to commodities.

Much like we saw in the early days of index funds, the first several years of strategic beta have been dominated by passively implemented equity strategies, but the framework can be applied to any asset class. Once we identify the risk factors that are the dominant drivers of returns, we have a very powerful way to redefine the exposure we can deliver in “beta” form.

We are currently looking at every asset class and asking ourselves: Is there a better way to deliver that exposure, one that addresses any deficiencies of standard benchmarks and takes advantage of known anomalies in the asset class?

For example, traditional credit indices have their largest allocations to the companies with the greatest amount of debt. And the most commonly used fixed income benchmark—the Barclays Aggregate Bond Index—is dominated by interest rate risk. Is this the ideal way to structure exposure to bond markets? Perhaps a better version of broad fixed income exposure involves a partial shift away from highly indebted companies and a more equal balance between credit and rate risk.

And when we start to talk about combining factor exposures, the conversation naturally shifts to trying to glean alpha from beta. Can we identify the combination of factors that yields the highest risk-adjusted return? Can we successfully time factor allocations based upon market expectations? This starts to feel a lot like active management, but it can be pursued using a strategic beta toolkit and evaluated through that lens.

It is these types of questions that can lead to significant breakthroughs, and this is the aspect of strategic beta that is perhaps most exciting to us at BlackRock—redefining the solutions we can provide to our clients by combining some of the best aspects of active and passive management. Equities, fixed income, commodities, and multi-asset—they all lend themselves to this approach.

Q. How should investors think about strategic beta alongside passive and active investing?

Strategic beta strategies take some factors common to active management and package them in simple, rules-based, transparent strategies—potentially substituting for certain components of active management.

This introduces a framework along which we can decompose active portfolios. Active management includes three sources of returns: cap-weighted index returns, the returns to static exposures to strategic beta factors, and “pure alpha” returns. The pure alpha returns include bottom-up and top-down ideas beyond strategic beta, as well as strategic beta timing. Only active management can deliver pure alpha.

We see a role for both alpha and beta in investors’ portfolios: Most investors will seek returns from all of these sources. They can get index returns inexpensively. They can increasingly buy strategic beta inexpensively. And they can buy pure alpha from active managers.

With the growth of strategic beta, active managers will need to focus on pure alpha—the performance that they deliver above and beyond what can be achieved through exposure to replicable factors. We think that active managers will increasingly be evaluated along these lines.

Looking to the future, we believe that strategic beta will become a core component of investors’ portfolios across all of the major asset classes. This framework for investing will give rise to the next generation of innovative investment solutions, enhancing both traditional index and active investment management.
designed to help improve risk-adjusted returns. Another investment objective might be to outperform the policy benchmark, while managing the risk and magnitude of potential underperformance. A momentum plus value diversification strategy might help achieve this objective, he explains.

“In the early days of 2010-2011, the question was how to apply this way of thinking,” says Shores at BlackRock. Institutions tend to be quite siloed with separate groups devoted to equities, fixed income, alternatives, and others. “It’s often hard for them to be holistic,” she says. But factor investing is becoming more of an accepted concept. Now the larger investors are beginning to think in terms of risk premia and the idea that there may be better ways to allocate among them. “Three or four years ago, we heard ‘I want one factor, like low volatility or equal weight,’ she says. Now it’s about allocation to combinations of risk factors. “It’s powerful to create a custom portfolio that allocates among them, and it highlights the best attributes of strategic beta,” she adds. Kahn adds, “A custom strategic beta strategy coupled with index and active strategies will together likely deliver a more consistent performance than just index and active strategies by themselves.”

Looking broadly, it’s best to integrate as many factors as possible. “You want to capture as many proven and diversifying styles as you can and have them work together, not in siloes, but interactively,” says AQR’s Israel. The issue is how the various portfolios net out. “Say there’s a stock that may not quite meet the criteria for the value portfolio and also may not quite meet the criteria for the momentum portfolio,” he says. “That’s potentially the cheap, outperforming stock that you might want to own the most.” The idea is to put together a rules-based portfolio that takes into account the interaction of styles, which can also save on trading costs and taxes for a taxable investor. “It’s about craftsmanship—a thoughtful selection of those elements that work best in combination,” he says.

Beyond Equities

While smart beta is usually discussed in the context of equities, it has equal applications in fixed income and other asset classes. Among respondents to SSgA’s survey, 56 percent express an interest in smart beta fixed income strategies. It works in much the same way: a traditional market-value fixed income index exposes investors to the most indebted issuers, whether they are corporations, governments, or other entities. Concentration risk is an issue here as well, and significant losses can be triggered through defaults. A smart beta strategy can weight credits by fundamental factors, such as GDP growth for sovereign debt by underweighting countries with low growth and overweighting those with high growth, for example. Additional factors can be built in as well, such as underlying volatility or pricing volatility.

The idea is to achieve a more balanced allocation of risk within fixed income. “We ask, ‘What are the risk factors that are driving returns?’ and we treat rate risk and credit risk in a more balanced fashion,” says BlackRock’s Shores. It’s the same process of asset allocation, but through a risk-factor lens. Other fixed income strategies customize a parent index or

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Top Five Reasons for Using Smart Beta ETFs

<table>
<thead>
<tr>
<th>Reason</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outperforms market indexes</td>
<td>31%</td>
</tr>
<tr>
<td>Diversification</td>
<td>18%</td>
</tr>
<tr>
<td>Reduce volatility/beta</td>
<td>18%</td>
</tr>
<tr>
<td>Alt. weighting of assets</td>
<td>18%</td>
</tr>
<tr>
<td>Better asset risk return</td>
<td>13%</td>
</tr>
</tbody>
</table>

Source: Gegenre Research/Invesco PowerShares
portfolio of assets to reduce downside credit risk. It might underweight or eliminate downgraded securities or those with the highest risk of default, reinvesting those proceeds in a thoughtful and risk-controlled manner to retain the same broad risk and return characteristics of the benchmark. The expectation is that the strategy will outperform in down markets.

There are other techniques as well. If issuers are sorted into deciles by their respective spreads, the best risk-adjusted returns are to be found in the middle. “The safest, with the lowest spreads, don’t provide sufficient return, and the riskiest, with the highest, are simply too risky,” explains Helmut Paulus, CEO, CIO, and managing partner at Quoniam Asset Management. “We like the sweet spot in the middle.” And counterintuitively, he explains that duration risk goes unrewarded. “It’s the short-duration maturities that provide the greatest level of return per unit of risk,” he says. Sorting issuers by their sensitivity to interest rates shows that longer-dated bonds are more volatile for less return than short-term paper. Sorting by duration and diversifying by sector and issuer creditworthiness can increase the Sharpe ratio by more than 30 percent, but it takes rigorous quantitative research and data evaluation, issuer selection, and regular rebalancing to keep on top of the risk and return dynamics in the market.

The development of multi-asset strategies that predominantly use passive implemented exposures reflect broad factor asset allocation views is another dimension in the broadening beta toolkit. This requires effective diversification across asset classes that achieves the best results for a strategic portfolio. One version focuses on rewarded risk factors, the drivers of return that underlie each asset class,” says BlackRock’s Kahn. Risk factor-based allocation strategies aim to deliver attractive risk-adjusted returns by focusing on the drivers of return, as opposed to asset class views, to achieve more efficient diversification.

Examples of risk factors include macro factors like interest rates, inflation, credit, political, liquidity and economic risk, in addition to style factors including value, momentum, quality and volatility. For example, an investor holding high-yield debt will expect to be compensated for all the risks to which they are exposed to such as interest rates, inflation, credit and liquidity risk, over the long term. To create a portfolio diversified by risk factors, the manager identifies which combination of asset classes gives the best exposure to each. Passive holdings are then combined to provide better balanced exposure allowing for capital growth with limited volatility. “This could change the landscape of investing,” says BlackRock’s Shores.

While typically smart beta has come in the form of single-style, long-only equity strategies, more investors are applying the rules-based concept to multi-style, long/short, multi-asset portfolios. The same concept applies when you broaden it. “You don’t have to focus on just one asset class,” says AQR’s Israel. An investor can implement a long/short strategy across multiple asset classes and styles in a way that’s diversified and uncorrelated to what an investor may already hold. “More investors are migrating in this direction,” he says.

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**Top Five Reasons for Not Using Smart Beta ETFs**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of familiarity</td>
<td>34%</td>
</tr>
<tr>
<td>Lack of history/track record</td>
<td>12%</td>
</tr>
<tr>
<td>No need</td>
<td>11%</td>
</tr>
<tr>
<td>Not part of our strategy</td>
<td>10%</td>
</tr>
<tr>
<td>Prefer active management</td>
<td>9%</td>
</tr>
</tbody>
</table>

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While smart beta is usually discussed in the context of equities, it has equal applications in fixed income and other asset classes.
In the past 12 months, smart beta exchange traded funds (ETFs) captured 25% of net ETF flows.1 Regardless of the preferred naming convention, we believe smart beta ETFs offer the best features of both active and passive worlds, expanding portfolio construction opportunities for investors.

As advisors look to help clients enhance market returns and hedge their portfolios against market volatility, consider Invesco PowerShares smart beta ETFs.

There are risks involved with investing in ETFs including possible loss of money. The funds are not actively managed and are subject to risks similar to stocks, including those related to short selling and margin maintenance. Ordinary brokerage commissions apply.

Source: Invesco PowerShares as of Mar. 31, 2014. The smart beta category includes ETFs that have an alternative and selection index based methodology that seeks to outperform a benchmark or reduce portfolio risk, or both. Smart beta funds may underperform cap-weighted benchmarks and increase portfolio risk. Beta is a measure of risk representing how a security is expected to respond to general market movements.

1 Source: Bloomberg L.P., as of March 31, 2014