How smart beta meets different investor outcomes

Smart beta is being used by investment institutions to address multiple requirements and to produce different types of investment outcomes. As investors’ growing interest in smart beta is driven by risk- and return-based considerations, we provide examples of how smart beta indexes are being used by investors in both these areas. Finally, we illustrate investors’ current use of smart beta through case studies involving FTSE Russell clients.

What is smart beta?

Smart beta is a catch-all term that covers a wide range of systematic, index-based investment strategies across asset classes. Smart beta indexes select and weight their constituents differently from the standard methodology of capitalization-weighting (i.e., apportioning index weights to securities according to their market capitalization).

FTSE Russell defines smart beta indexes as encompassing two indexing strategies:

- **Alternatively-weighted indexes**, designed to address perceived concentration risks in capitalization-weighted indexes or to reduce index volatility;
- **Factor indexes**, designed to replicate factor return premia in a transparent, rules-based and investable format.

There is an overlap between these two categories: alternatively-weighted indexes have factor exposures. However, these exposures may not be stable over time and are a by-product of the index design (rather than its primary objective).
Two categories of smart beta indexes

<table>
<thead>
<tr>
<th>Smart Beta</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternatively-weighted</td>
<td>Value</td>
</tr>
<tr>
<td></td>
<td>Size</td>
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<tr>
<td></td>
<td>Momentum</td>
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<tr>
<td></td>
<td>Low Volatility</td>
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<tr>
<td></td>
<td>Illiquidity</td>
</tr>
<tr>
<td></td>
<td>Quality</td>
</tr>
<tr>
<td></td>
<td>Yield</td>
</tr>
</tbody>
</table>

Equal Weight
Minimum Variance
Equal Risk Contribution
Maximum Diversification
Maximum Sharpe Ratio
Fundamental

Who uses smart beta?

Smart beta assets under management seem likely to increase significantly over coming years, according to the FTSE Russell 2016 survey of global asset owners, with an estimated US$2 trillion under management. 52% of European institutions and 28% of North American institutions have a current allocation to smart beta.

Seventy-six percent of investors with a current smart beta allocation and evaluating smart beta expect to increase their percentage allocation in the next 18 months. And over half of those asset owners without a smart beta allocation who are evaluating smart beta expect to make an allocation within the same 18 month period.

For those with an existing allocation to smart beta, satisfaction levels are high. 74% of asset owners with a smart beta allocation report being satisfied or very satisfied with smart beta’s ability to deliver intended investment outcomes, an increase from 61% in the 2015 survey.

Usage outlook (next 18 months) for asset owners evaluating smart beta

Asset owners with smart beta allocation

- 76% Increase allocation
- 19% Maintain allocation
- 2% Reduce allocation
- 2% Don’t know

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1 “Smart beta: 2016 global survey findings from asset owners,” FTSE Russell.
What is driving investors’ interest in smart beta?

According to the 2016 FTSE Russell smart beta survey, investors seek to address a variety of investment objectives when considering smart beta indexes for their portfolios. These objectives include return enhancement, risk reduction, improved diversification, access to factor exposure, cost savings and income generation.

Investors’ interest in smart beta appears driven by both return and risk considerations. Across size segments, over 50% of investors said they were seeking return enhancement when considering smart beta. Over 40% of asset owners, across size segments, seek risk reduction as their investment objective when evaluating smart beta. Potential cost savings were cited by over a third of larger investors (with over $10 billion under management) as a reason for interest in smart beta.

Given that the implementation of smart beta strategies is generally more expensive than traditional passive strategies and less expensive than traditional active strategies, one interpretation is that allocation to smart beta can replace a more expensive active strategy with a lower-cost smart beta allocation, freeing up resources to implement active strategies that the asset owner favors. In this way, smart beta can become a complement to active investing.

Return, risk and cost considerations are driving interest in smart beta

<table>
<thead>
<tr>
<th>Objective</th>
<th>&lt;$1B</th>
<th>$1-$10B</th>
<th>$10B+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return enhancement</td>
<td>56%</td>
<td>51%</td>
<td>63%</td>
</tr>
<tr>
<td>Risk reduction</td>
<td>44%</td>
<td>43%</td>
<td>50%</td>
</tr>
<tr>
<td>Provide specific factor exposure</td>
<td>16%</td>
<td>25%</td>
<td>47%</td>
</tr>
<tr>
<td>Cost savings</td>
<td>22%</td>
<td>19%</td>
<td>34%</td>
</tr>
<tr>
<td>Improve diversification</td>
<td>47%</td>
<td>35%</td>
<td>34%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
<td>7%</td>
<td>6%</td>
</tr>
<tr>
<td>Income generation</td>
<td>3%</td>
<td>7%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Source: “Smart beta: 2016 global survey findings from asset owners,” FTSE Russell. Investors were asked, “What investment objective initiated the evaluation of smart beta strategies?”
What index-level risk outcomes does smart beta produce?

The stock and sector weightings of an index following the standard (capitalization-weighted) construction methodology are determined by the market value of the index’s constituents. An often-voiced criticism of capitalization-weighting is that it may result in concentrated exposure (or underexposure) to individual market segments, especially during bull and bear markets driven by a particular theme.

For example, during the internet bubble of 1999-2000, rapidly rising share prices meant capitalization-weighted indexes apportioned significant index weights to stocks from the telecoms, media and technology sectors. The weighting of the technology sector in the FTSE Developed Index increased from less than 5% in December 2003 to nearly 25% by early 2000 (see the chart). And during the financial and property market boom that peaked in 2007-2008, capitalization-weighted indexes became similarly concentrated in stocks from these two sectors.

![The rise and fall of technology stocks, 1993-2010](chart)

Source: FTSE Russell. Data as at October 2014. Past performance is no guarantee of future results. Please see the end for important legal disclosures.

During the share price falls that followed these two periods of market exuberance, stocks in the highlighted sectors suffered especially heavy declines. And growing awareness of the potential concentration risks in capitalization-weighted indexes has led to interest in indexes that seek to modify such risks through alternative-weighting methodologies.

Smart beta indexes address index-level risk in a variety of ways:

- **Fundamental indexes** weight constituents by a composite score based on companies’ economic fundamentals
- **Equal-weighted indexes** weight constituents equally
- **Equal risk contribution (ERC) indexes** weight constituents’ contributions to index risk equally
- **Minimum variance indexes** select stocks whose volatilities and correlations minimize index-level risk
• **Maximum diversification indexes** select stocks which maximize the index’s diversification level

• **Maximum Sharpe ratio indexes** select stocks which maximize the index’s Sharpe (return to risk) ratio

## What index-level return outcomes does smart beta produce?

The second category of smart beta indexes comprises indexes that target specific factor return premia in a transparent, rules-based and investable format.

In finance theory, a factor is a common driver of securities’ returns. The component of stocks’ returns that is driven by factor exposure (i.e., from exposure to systematic risk) is seen as distinct from the return component that derives from stock-specific (non-systematic) risk.

Classical investment theory assumes that there is a single type of systematic risk, called market risk. Under the Capital Asset Pricing Model (CAPM), introduced in the 1960s, a single market factor explains stocks’ returns. This market factor carries an associated risk premium, called the equity risk premium.

However, the single factor model has limitations. In particular, empirical evidence shows that other characteristics, such as stocks’ valuation and size, also help explain their performance over time. For example, stocks with lower price-to-earnings ratios have shown a tendency to outperform those with higher price-to-earnings ratios over the long term. And over time and in many securities markets, smaller-capitalization stocks have outperformed the shares of larger companies.

In 1993, Eugene Fama and Kenneth French published a paper in which they examined three factors: a market factor, a size factor and a value factor. The authors provided evidence, to support their theory, that this three-factor model is a better representation of stocks’ real-life performance than the single-factor model.

Over time, other factors, such as momentum, volatility, quality, liquidity and yield, have been identified in financial theory, backed by empirical evidence, and have achieved acceptance amongst investment practitioners. FTSE Russell’s global factor indexes cover seven equity market factors with such academic backing and consensus support:

• **Value factor indexes** select stocks according to a composite value score (using cash-flow yield, earnings yield and country-relative sales to price ratio)

• **Size factor indexes** select stocks by their size (log full market capitalization)

• **Momentum factor indexes** select stocks by their past momentum (cumulative total 11-month return)

• **Quality factor indexes** select stocks according to a composite quality score (using profitability, efficiency, earnings quality and leverage)

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• **Volatility factor indexes** select stocks by their historical weekly standard deviation of returns

• **Liquidity factor indexes** select stocks by their historical liquidity score (log Amihud ratio)

• **Yield factor indexes** select stocks by their historical yields (log 12-month trailing dividend yield)

Investors selecting smart beta indexes to help achieve their specific return outcomes usually have the objective of gaining low-cost exposure to single or multiple factor risk premia over time.⁵

### How smart beta indexes are being used by investors

The results of the FTSE Russell 2016 smart beta survey suggest that institutional investors are using or evaluating smart beta to achieve a number of desired outcomes, including return enhancement, risk management, improved diversification, access to factor exposure, cost savings and income generation.

From our interactions with clients, FTSE Russell believes that smart beta is being used primarily in three ways:

• **To help manage portfolio costs**
  
  Smart beta indexes offer exposure to systematic investment strategies, many of which have traditionally been offered by active fund managers under the guise of manager skill, often at relatively high fees. Switching to smart beta can therefore help generate cost savings, benefiting members of long-term savings schemes.

• **To increase investment transparency**
  
  Smart beta indexes follow transparent, publicly available rules. In addition, since smart beta indexes embed the returns of systematic investment strategies, they help throw light on the sources of return of many unconstrained active funds and their managers. Smart beta indexes help investors to analyse their exposure to market beta, sector, currency and factor risk and to highlight non-systematic (idiosyncratic) risk. In turn, this helps ensure asset owners receive value for the fees they pay to active managers.

• **To improve investment outcomes**
  
  Smart beta indexes can be used to address investors’ risk concerns (such as a desire to reduce volatility or improve diversification) and to target desired return outcomes (via exposure to factor risk premia). Smart beta therefore increases the range of choices available to asset owners.

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⁵ Source: “Smart beta: 2016 global survey findings from asset owners,” FTSE Russell.
Case studies
The three case studies described below, which are based on publicly available sources, help illustrate how institutional investors are currently using smart beta.

Case study 1
**Client type:** US public sector pension fund
**Client's objectives:** To reduce investment management costs, gain access to systematic investment strategies and improve overall investment outcomes.
**Index used:** Russell Fundamental Index
**Observations:** The client said it had decided to shift to a smart beta allocation having decided that consistent long-term excess returns from traditional, discretionary active management are difficult to achieve, and that a large portion of what has traditionally been presented as active manager “alpha” is not manager skill but is instead largely attributable to factor exposures that can be replicated via an index. The client expressed its objective of reducing investment management costs via this switch.

Case study 2
**Client type:** UK long-term insurance scheme
**Client's objectives:** To invest for the purpose of the prudent management of its financial affairs, considering the interests of current and potential beneficiaries and the interests of stakeholders contributing to the scheme.
**Index used:** FTSE Global Minimum Variance Index
**Observations:** The insurance scheme sets a strategic asset allocation consisting of liability-hedging instruments and return-seeking investments. The FTSE Global Minimum Variance Index was chosen by the client as the benchmark for the public equity component of the scheme's assets, in preference to a traditional (capitalization-weighted) benchmark. The client specified that it wished to target an additional return relative to the liabilities, while avoiding unrewarded risks where possible.

Case study 3
**Client type:** US public sector pension fund
**Client's objectives:** To increase investment transparency, improve investment outcomes and control portfolio costs.
**Index used:** Russell US High Efficiency™ Defensive Index
**Observations:** The client funded an allocation to this smart beta index from its internally managed, passive domestic equity allocation. The pension fund’s primary objectives are to provide the means to pay benefits to the scheme participants and to minimize employer contributions through an investment program designed to protect and enhance the long-term value of the assets. The fund’s asset allocation policy is intended to produce a maximum level of return consistent with policies on liquidity, diversification and investment risk.
Summary

Smart beta covers a range of systematic, index-based investment strategies across asset classes, including two principal categories, alternatively-weighted and factor indexes. Alternatively-weighted indexes address concentration risks in traditional, capitalization-weighted indexes, while factor indexes target specific factor return premia in a transparent, rules-based and investable format.

The 2016 FTSE Russell survey revealed rapidly rising interest in smart beta amongst institutional investors, with Europe leading the way in smart beta adoption. Investors said they were using smart beta for multiple purposes, including return enhancement, risk reduction, improved diversification, access to factor exposure, cost savings and income generation. It’s clear that smart beta strategies are being increasingly employed to directly meet defined investor objectives and desired outcomes. Smart beta indexation has matured to the point where it has become and will continue to be a varied and flexible tool within the investor’s toolkit.
About FTSE Russell

FTSE Russell is a leading global provider of benchmarking, analytics and data solutions for investors, giving them a precise view of the market relevant to their investment process. A comprehensive range of reliable and accurate indexes provides investors worldwide with the tools they require to measure and benchmark markets across asset classes, styles or strategies.

FTSE Russell index expertise and products are used extensively by institutional and retail investors globally. For over 30 years, leading asset owners, asset managers, ETF providers and investment banks have chosen FTSE Russell indexes to benchmark their investment performance and create ETFs, structured products and index-based derivatives.

FTSE Russell is focused on applying the highest industry standards in index design and governance, employing transparent rules-based methodology informed by independent committees of leading market participants. FTSE Russell fully embraces the IOSCO Principles and its Statement of Compliance has received independent assurance. Index innovation is driven by client needs and customer partnerships, allowing FTSE Russell to continually enhance the breadth, depth and reach of its offering.

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