Smart beta: 2016 global survey findings from asset owners

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Introduction

FTSE Russell is proud to present the third annual survey of global institutional asset owners' attitudes toward, understanding of and implementation of smart beta indexing. Each year, we have recruited equity decision makers from across a broad spectrum of AUM tiers and at a variety of stages in their evaluation of smart beta. And each year, participation by global asset owners has increased, with over 250 asset owners responding in 2016. Respondents are drawn from North America (49%), Europe (33%), Asia Pacific (13%) and Other regions (4%) and have estimated total AUM of more than $2 trillion.

Over the past three years, our survey has documented global institutional asset owners' growing interest in smart beta indexes, and in 2016 their growing acceptance and use of the indexes. This year, 72% of survey respondents indicated that they have implemented or are actively evaluating smart beta indexes, up from 44% just last year. Clearly, the smart beta "phenomenon" has matured to the point that large numbers of asset owners now consider smart beta indexes to be an important part of the investing toolkit.

Our survey documents some interesting trends in asset owners' thinking about smart beta. While low-volatility and value factor indexes still lead in asset owners' implementation, adoption of the multi-factor combination strategy has nearly doubled year-on-year and is now a close third. This undoubtedly reflects a growing awareness of the diversification potential of combining factors, something we have seen in our many discussions with asset owners. The survey also shows an increasing share of equity going into smart beta index–replicating products: 39% of respondents with smart beta allocations report more than a 20% share of equity in smart beta, up from 18% in 2014.

Return enhancement, risk reduction and increased diversification remain primary objectives for smart beta allocations across AUM tiers. But for the largest of asset owners – those with $10B or more in AUM – there has been a notable increase in cost savings as an objective. Given that smart beta strategies are generally more expensive than traditional passive strategies and less expensive than traditional active strategies, one interpretation of this result is that allocation to smart beta can more efficiently utilize the asset owner's fee budget, replacing a more expensive active strategy with a lower-cost smart beta allocation – and thus freeing up resources to implement active strategies that the asset owner finds more promising. In this way, smart beta can become a complement to active investing.

The 2016 survey demonstrates accelerating interest in and implementation of smart beta indexing among global institutional asset owners. While many asset owners and their consultants have clearly moved up the learning curve with respect to the "what" and the "how" of smart beta, the continuing innovations in multi-factor and multi-asset-class smart beta underscore the need for further education and information. We hope the results of this survey provide a degree of insight for all market participants with an interest in smart beta.

Rolf Agather, CFA
Managing Director of Research, North America

Peter Gunthorp
Managing Director, Research & Analytics

Summary of key themes

Smart beta evolution and adoption

2016 is a turning point in smart beta evaluation – the percentage of asset owners currently evaluating smart beta has doubled since 2014. The strongest growth in smart beta adoption is among asset owners with under $1B in AUM.

Outlook

We expect continuing growth in smart beta to be driven by those asset owners who are currently evaluating smart beta, as well as by asset owners with existing allocations who will be making larger investments in smart beta over time.

Why smart beta?

Return enhancement and risk reduction continue to be the primary objectives for use of smart beta; cost savings are more important in 2016 than in years past.

Smart beta strategies

Smart beta strategies employed by asset owners have evolved over time, with an increasing share using high-quality, momentum and multi-factor strategies and declining usage of fundamentals.

Strategic vs. tactical implementation of smart beta[1]

Separate accounts are the most-preferred vehicle for strategic implementation of smart beta, driven by demand from asset owners with $1B or more in AUM. For tactical implementation of smart beta, asset owners are using a wide range of vehicles, including internal management of assets, separate accounts, ETFs and CITs.

Evolving roles of external investment manager and consultant

The roles assumed by investment managers, consultants and index providers in the evaluation of smart beta vary, depending on the AUM tiers of asset owners. External investment managers are most extensively engaged with asset owners with under $1B in AUM; consultants, with asset owners with $1B to $10B in AUM; and index providers, with asset owners with $10B or more in AUM.

[1] At FTSE Russell, strategic implementation is viewed as a long-term allocation, while tactical implementation is viewed as a short-term adjustment to the portfolio.

Survey background

This is the third year in which FTSE Russell has conducted this study. Each year, the number of global asset owners participating in our survey has increased, from 181 in 2014, to 214 in 2015, to 253 in 2016. This year's survey was conducted in January and February 2016. The 253 asset owners included this year are drawn from North America (49%), Europe (33%), Asia Pacific (13%) and Other regions (4%). Over 90% of the respondents either have direct responsibility for selecting equity investments or play roles in teams that perform this function. The sample crosses a wide mix of organization types – corporations or private businesses (23%), government organizations (24%), unions or industry-wide pension schemes (18%), non-profit organizations or universities (14%) – and the rest is a mix of insurance companies, sovereign wealth funds, health-care organizations and family offices. 63% of survey respondents manage defined benefit plan assets, 45% manage defined contribution plan assets and 14% manage endowment or foundation assets. Respondents also include asset owners with insurance general accounts, sovereign wealth funds and other types of institutional entities. Respondents are, by AUM tiers, asset owners with under \$1B in AUM (20%); those with \$1B to \$10B in AUM (46%); and those with \$10B or more in AUM (34%). Total AUM of the survey participants is estimated to be over \$2 trillion.

The distribution of our asset owner sample has shifted from year-to-year across regions and AUM tiers. This can contribute to year-over-year changes in the results, such as smart beta adoption rates. In our analysis, the sample differences have been taken into account to ensure that the trend data changes are not due to shifts in the sample.

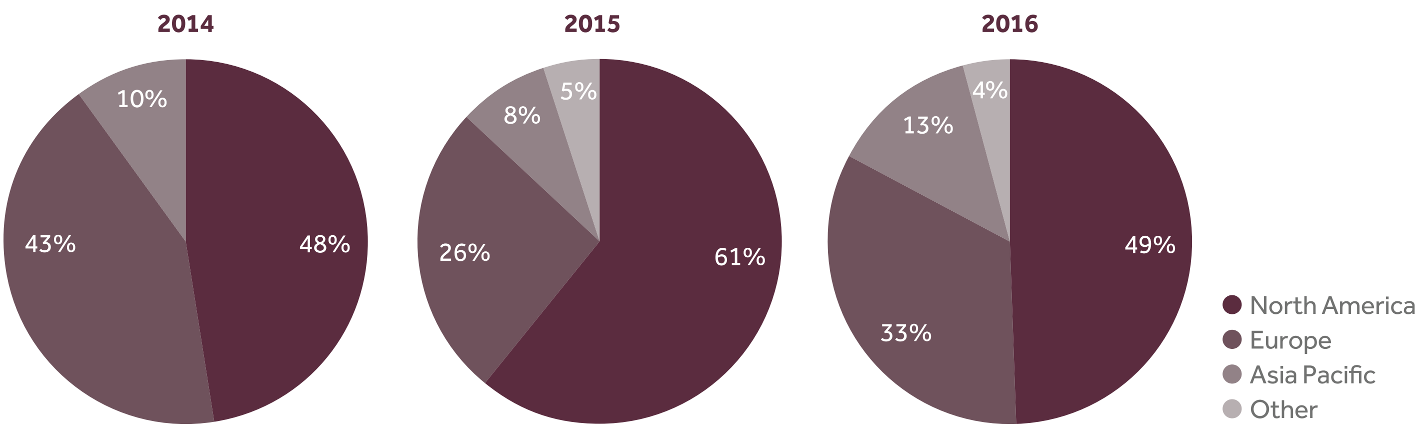
For the purposes of this survey, "smart beta" is defined as an index-based investment strategy that is not traditionally market cap–weighted (i.e., fundamentally weighted, equal weighted, factor weighted, optimized, etc.).

For a sample size of 253, the margin of error is +/- 7% at a 95% confidence margin. Throughout the report, percentages may not total 100, due to rounding, and/or because some questions allowed for multiple responses. (Allowance for multiple responses is noted in each exhibit footer.)

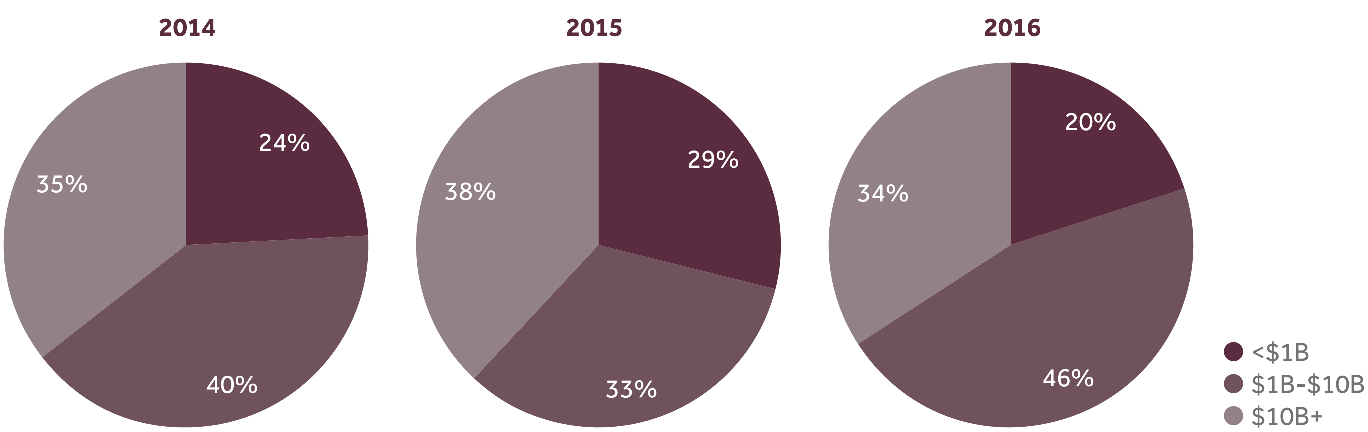
Exhibit 1

Sample distribution by year

Region



AUM tier



1

Smart beta evaluation and adoption

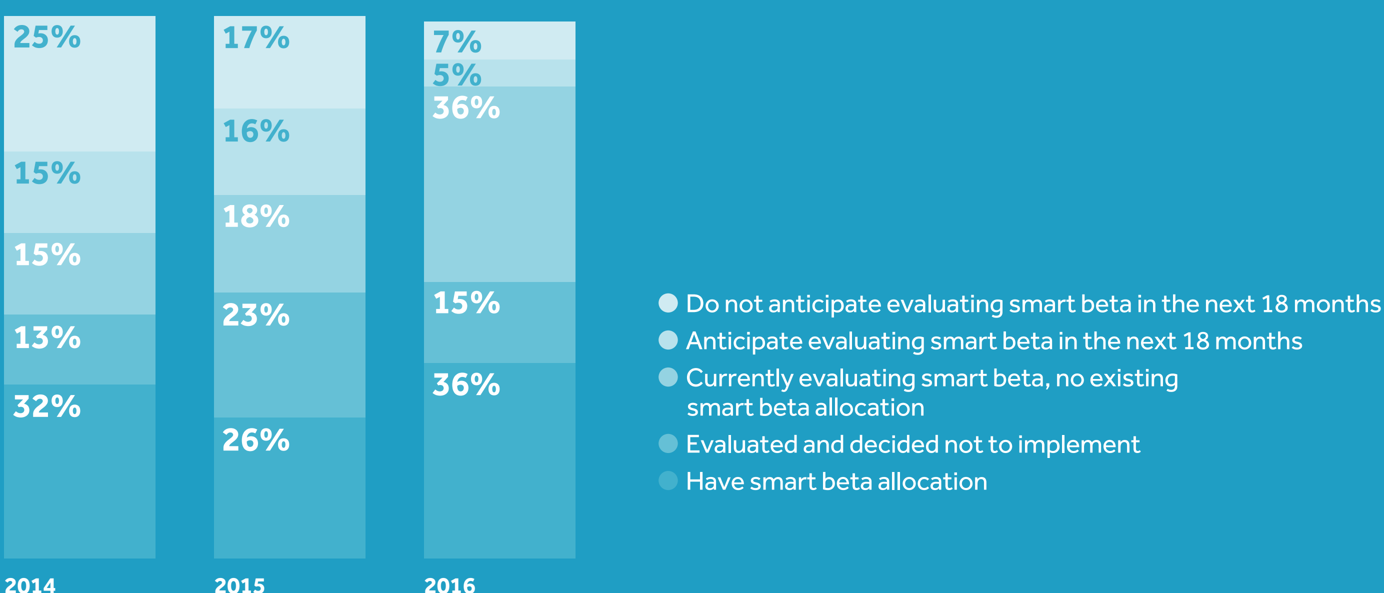
2016 is a turning point in smart beta evaluation – the percentage of asset owners currently evaluating smart beta has doubled since 2014.

The percentage of asset owners reporting that they are currently evaluating smart beta has doubled since 2014 and 2015 levels. This growth has come from asset owners who had not previously evaluated smart beta, as well as from asset owners who have evaluated smart beta in the past, but who choose not to implement, and who, we believe, are again evaluating smart beta. As smart beta adoption and evaluation have become broad-based, the percentage of asset owners reporting that they have not evaluated smart beta has dropped notably – from 40% in 2014 to 12% in 2016.

Total adoption levels in the survey have increased, from 32% in 2014 to 36% in 2016. We believe the decline in the adoption rate in 2015 is due to sample differences.

Exhibit 2

Which best describes your organization's usage of smart beta strategies?

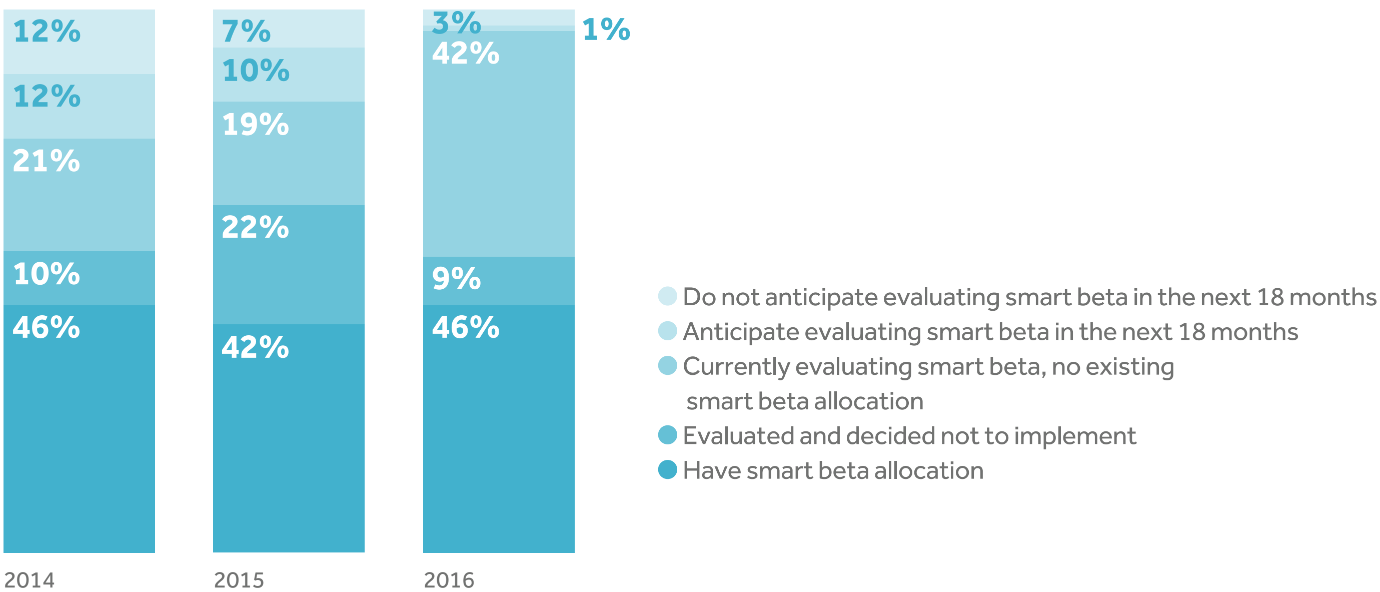


Increased smart beta evaluation is happening among asset owners across all AUM tiers; the strongest growth in smart beta adoption is among asset owners with under $1B in AUM.

Just under half of asset owners with $10B or more in AUM have a smart beta allocation, and this has been flat over the past two years. This segment has seen a notable increase in the evaluation of smart beta in the past year, now at 42%. This increase in evaluation appears to be coming both from asset owners who have evaluated smart beta in the past, but who choose not to implement (this segment has declined, from 22% in 2015 to 9% in 2016) and from asset owners who have never evaluated smart beta (this segment has declined as well, from 17% in 2015 to 4% in 2016).

Exhibit 3

Which best describes your organization's usage of smart beta strategies?

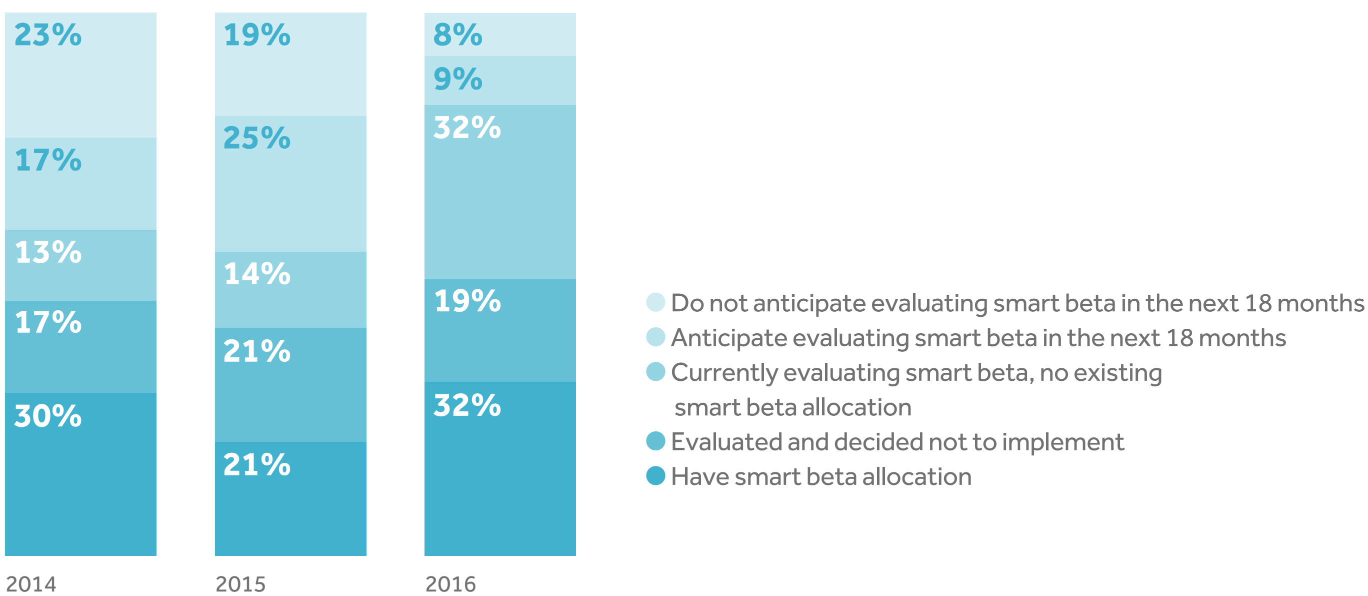


Segment = $10B+ in AUM

Among asset owners with $1B to $10B in AUM, there is a notable decline in the percentage of those who have never evaluated smart beta: from 41% in 2014 to 17% in 2016. As with asset owners with $10B or more in AUM, the percentage of asset owners with $1B to $10B in AUM who are currently evaluating smart beta has doubled since 2014, while the adoption rate has been relatively flat.

Exhibit 4

Which best describes your organization's usage of smart beta strategies?

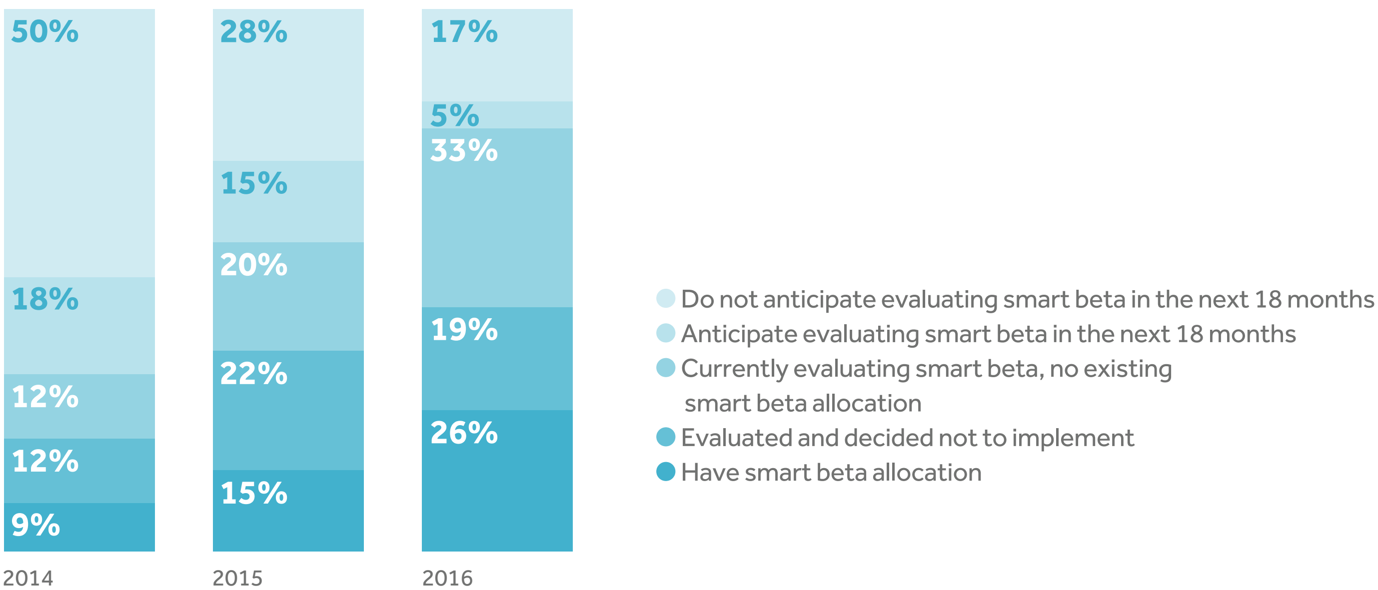


Segment = $1B-$10B in AUM

The strongest growth in smart beta adoption has come from asset owners with under $1B in AUM. In 2016, over one quarter of asset owners with under $1B in AUM have a smart beta allocation, up from 9% in 2014. The percentage of asset owners in this segment currently evaluating smart beta has steadily grown, from 12% in 2014, to 33% in 2016. The percentage of asset owners in this segment who have never evaluated smart beta has fallen, from 68% in 2014 to 22% in 2016.

Exhibit 5

Which best describes your organization's usage of smart beta strategies?



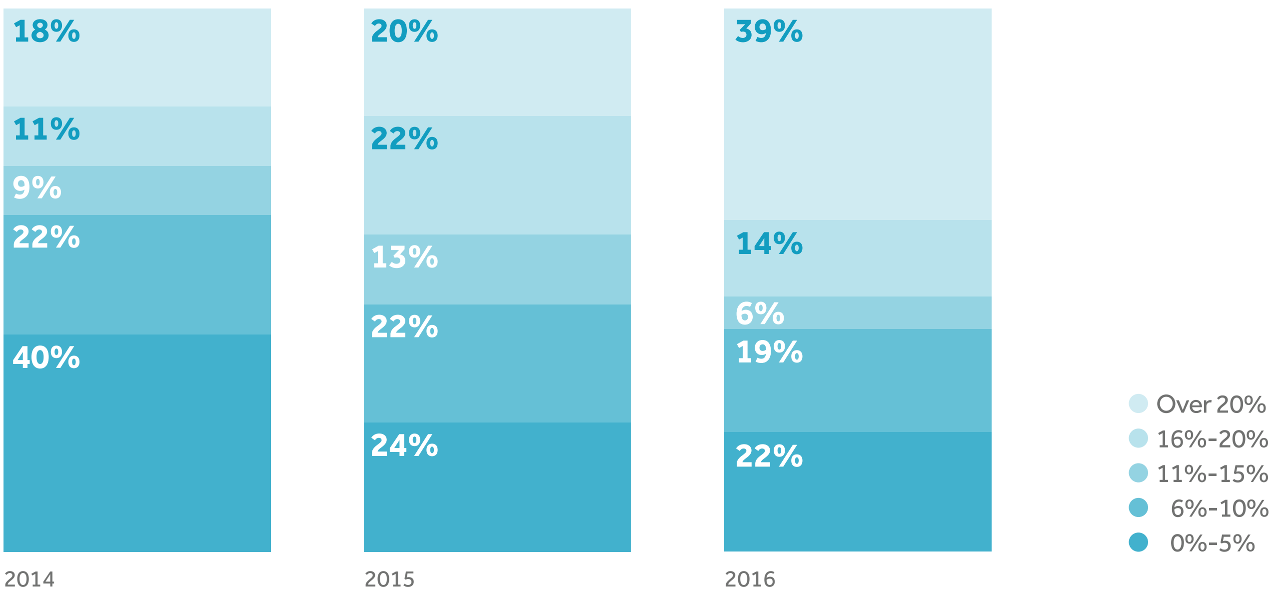
Segment = <$1B in AUM

Among adopters, smart beta's share of equity portfolio AUM has increased.

Among adopters of smart beta allocations, the smart beta share of the equity portfolio has grown over time. Of all asset owners with a smart beta allocation, the share with over 20% of equity assets has grown notably: from 18% in 2014, to 20% in 2015, to 39% in 2016. The share with 0% to 5% invested has similarly decreased, from 40% in 2014 to 22% in 2016.

Exhibit 6

What percentage of your equity portfolio is invested in smart beta?



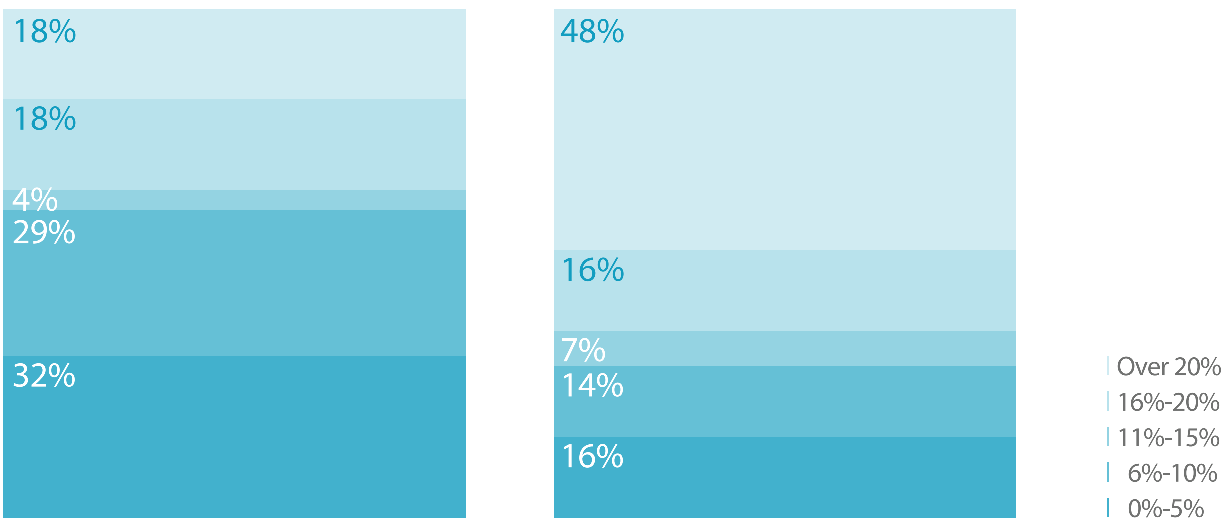
Segment = Have smart beta allocation

Asset owners who have had smart beta allocations for more than two years tend to have larger allocations than more recent adopters.

In 2016, almost half of asset owners who have had a smart beta allocation for more than two years have over 20% of the equity portfolio invested in smart beta. In comparison, the majority of asset owners in the 2016 study who have had smart beta allocations for less than two years have 10%, or less, of the equity portfolio invested in smart beta.

Exhibit 7

What percentage of your equity portfolio is invested in smart beta?



Have smart beta allocation for less than 2 years

Have smart beta allocation for more than 2 years

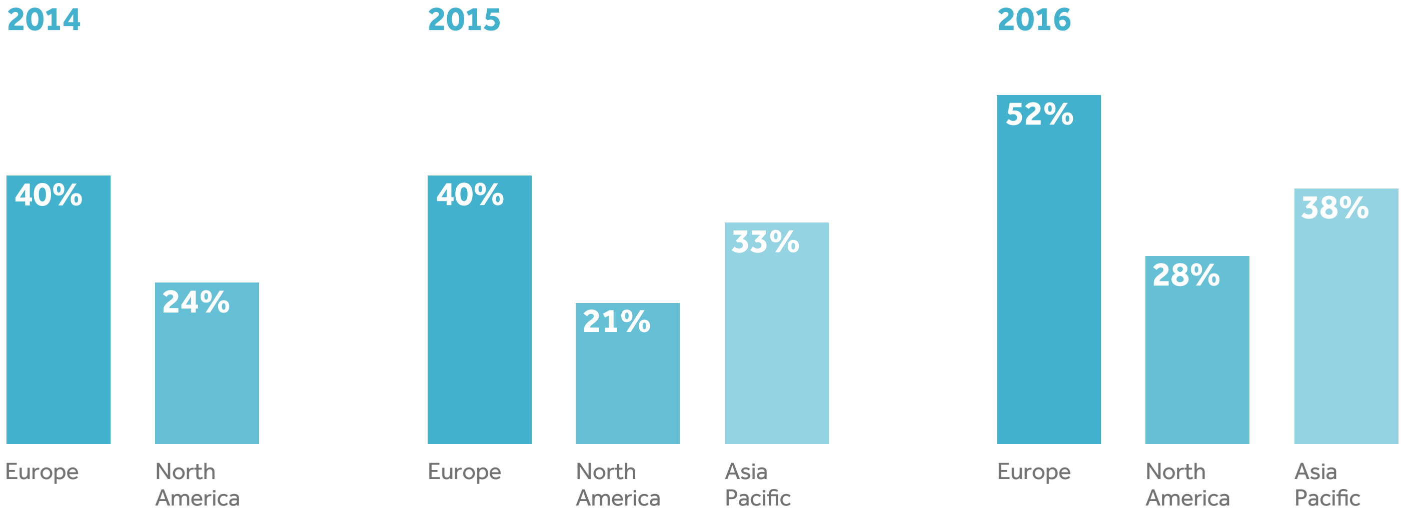
Segment = Have smart beta allocation

Europe continues to lead North America in smart beta adoption and growth in share of equity portfolio.

The smart beta adoption rate in Europe has led that of other regions over the past three years. In 2016, 52% of the European asset owners surveyed have adopted smart beta, compared to 28% in North America and 38% in Asia Pacific. The segment with the largest adoption growth has been European asset owners with under $1B in AUM; in this segment, adoption has grown from 15% in 2014 to 47% in 2016.

Exhibit 8

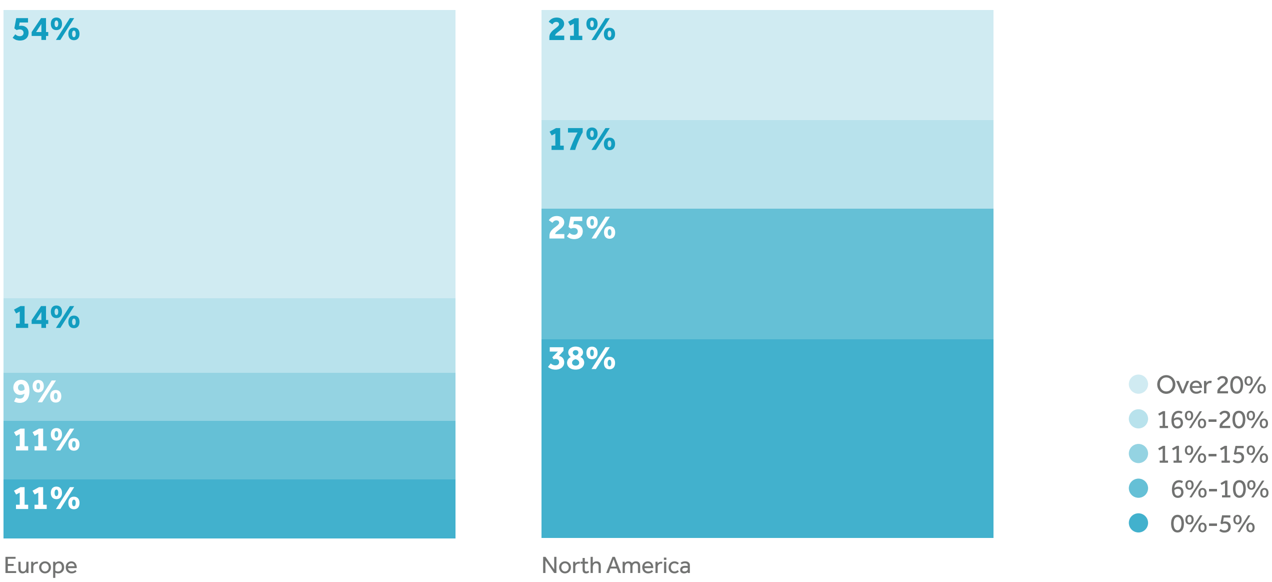
Percentage of smart beta adoption, by region



In addition to overall growth in adoption, the smart beta share of the equity portfolio among smart beta adopters is growing with particular speed in Europe. Over half of European asset owners with smart beta allocations have more than 20% of their equity portfolio invested. European asset owners, particularly those who have had smart beta allocations for more than two years, are a significant driver of the trend of larger smart beta allocations. 68% of European asset owners who have had smart beta allocations for more than two years have over 20% of their equity portfolio invested.

Exhibit 9

What percentage of your equity portfolio is invested in smart beta, by region?



Segment = Have smart beta allocation

Asset owners in Europe are the most likely to view smart beta indexes as an appropriate benchmark.

Asset owners in Europe are those most likely to view smart beta indexes as an appropriate benchmark – 48% responded thus, compared with 39% in North America and 27% in Asia Pacific. Asset owners in North America are more likely to view smart beta indexes as a tool to help control against unwanted exposures or to introduce wanted exposures, and as a tool for research and analysis.

Exhibit 10

In your view, what are appropriate applications for smart beta indexes?	Europe	North America	Asia Pacific
Basis of an investable product	67%	65%	70%
Tool to assist in controlling unwanted exposures or introduce wanted exposures	47%	66%	52%
Benchmark	48%	39%	27%
Research and analysis	25%	37%	27%
Other	5%	3%	0%

Multi-pick

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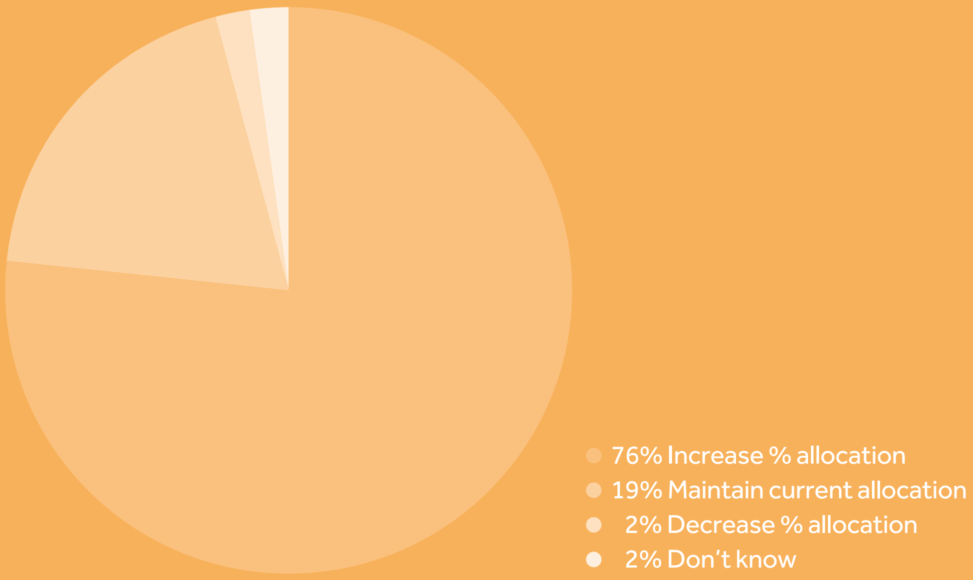
Outlook

We expect continued growth in smart beta to be driven by those asset owners who are currently evaluating smart beta, as well as by asset owners with existing allocations who will be making larger investments in smart beta over time.

Approximately 62% of respondents with an existing smart beta allocation are currently evaluating additional smart beta strategies. Of those currently evaluating smart beta who have an existing smart beta allocation, more than three-quarters plan to increase their allocations, and most of the others plan to maintain their current allocations.

Exhibit 11

What is your outlook for future usage of smart beta in your portfolio in the next 18 months?

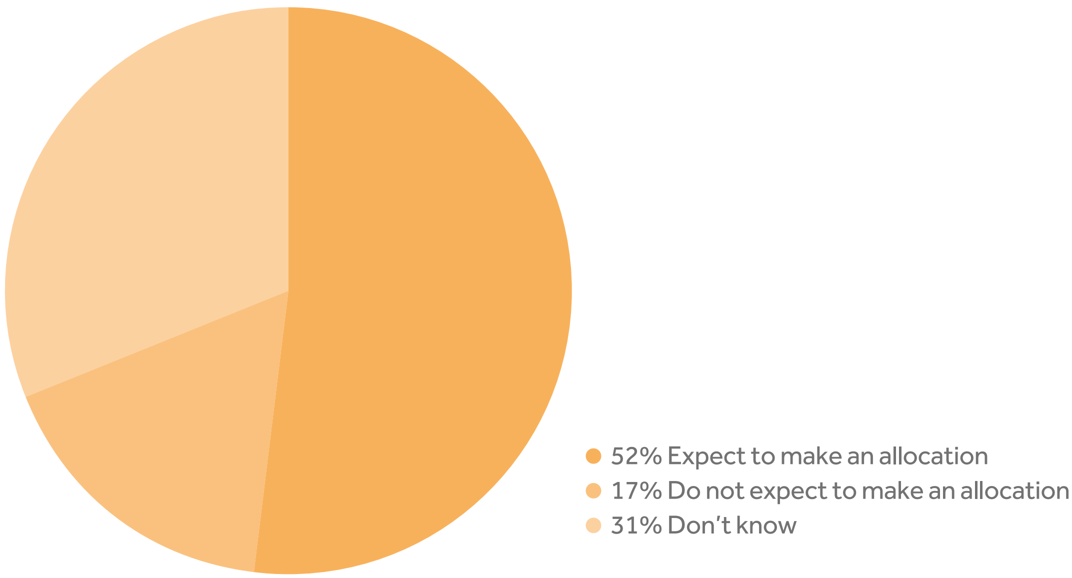


Segment = Have smart beta allocation AND currently evaluating smart beta

Of those asset owners without existing allocations who are currently evaluating smart beta, over half expect to make allocations.

Exhibit 12

What is your outlook for future usage of smart beta in your portfolio in the next 18 months?

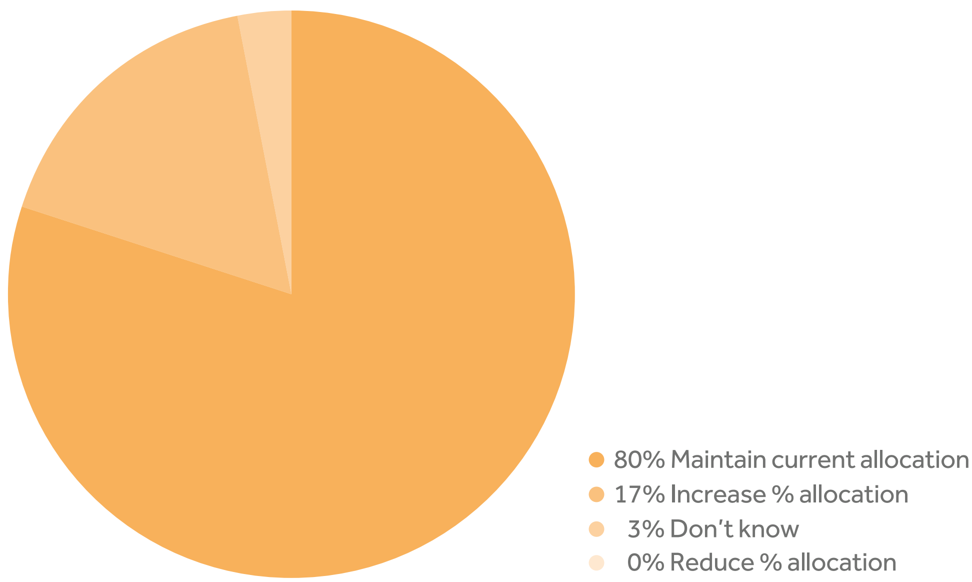


Segment = Currently evaluating smart beta, no existing smart beta allocation

80% of asset owners with smart beta allocations who are not currently evaluating additional smart beta strategies generally plan to maintain their current allocations. 17% of this group plan to increase their smart beta allocations.

Exhibit 13

What is your outlook for future usage of smart beta in your portfolio in the next 18 months?



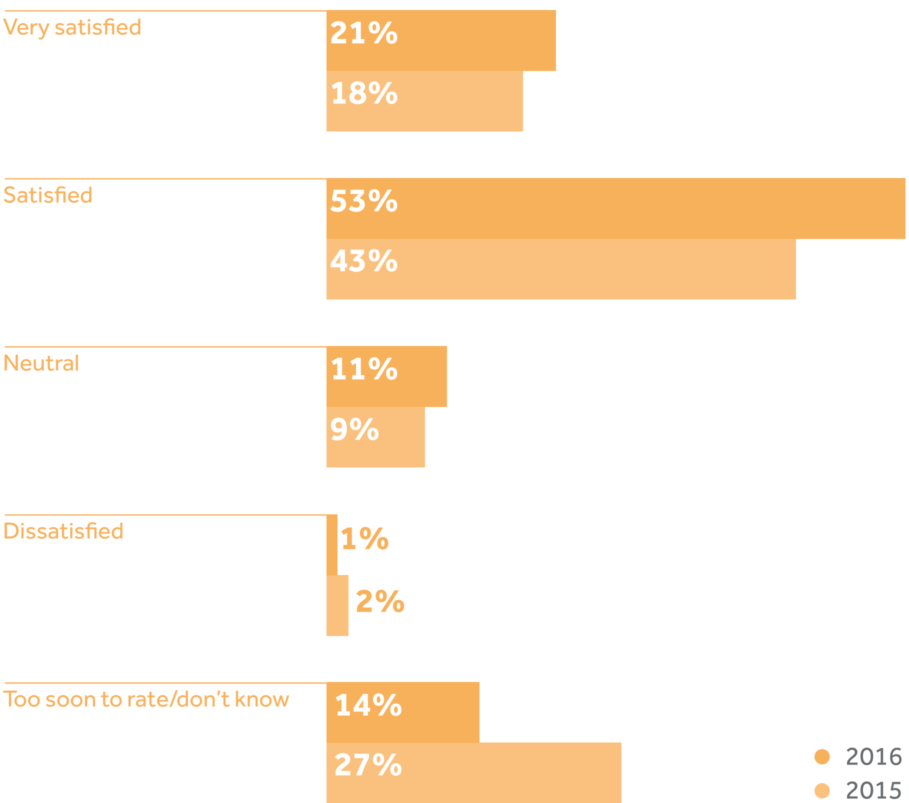
Segment = Have smart beta allocation AND NOT currently evaluating smart beta

74% of asset owners with smart beta allocations report being "Satisfied" or "Very satisfied" with smart beta's ability to deliver on intended outcomes, an increase from 61% in 2015.

In 2016, 74% of asset owners with smart beta allocations report being "Satisfied" or "Very satisfied" with smart beta's ability to deliver on intended outcomes, an increase from 61% in 2015. This increase in satisfaction came from a decrease in "Too soon to rate/don't know" responses.

Exhibit 14

How satisfied are you with your smart beta strategies' ability to deliver on your intended investment outcome?



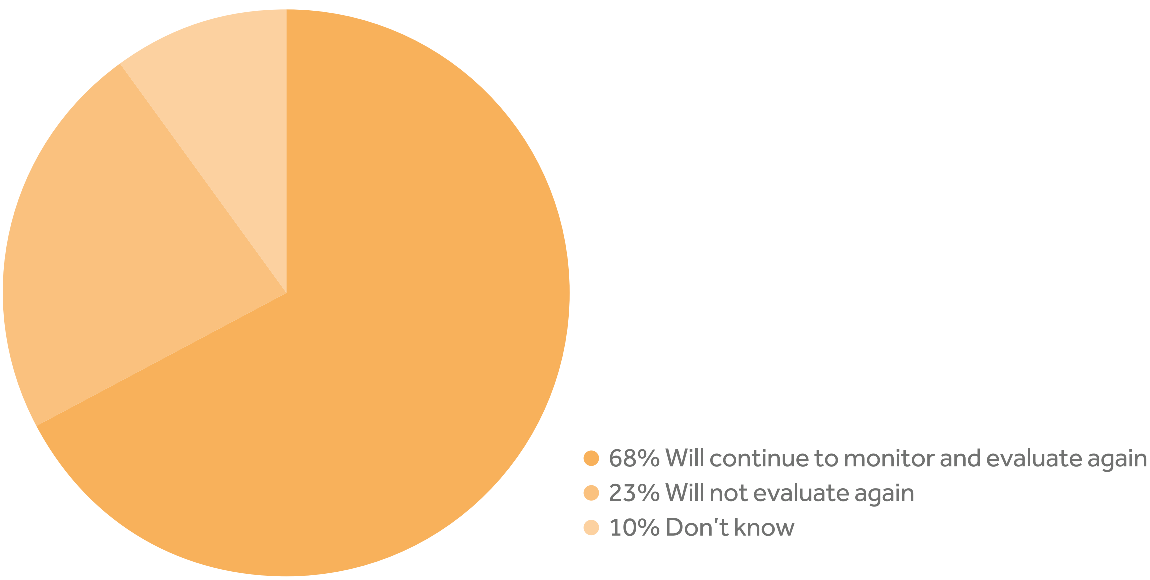
Segment = Have smart beta allocation

Among asset owners who have evaluated smart beta and decided not to implement, 68% report that they plan to continue to monitor smart beta and evaluate it again.

68% of asset owners who have evaluated smart beta but have chosen not to implement are planning to monitor and evaluate smart beta again. This is a decline from 2014 and 2015, when responses were 88% and 92%, respectively. This supports our belief that part of the increase in smart beta evaluation this year has been drawn from asset owners who have previously evaluated smart beta and chosen not to implement.

Exhibit 15

What is your outlook for future usage of smart beta in your portfolio in the next 18 months?



Segment = Evaluated and decided not to implement

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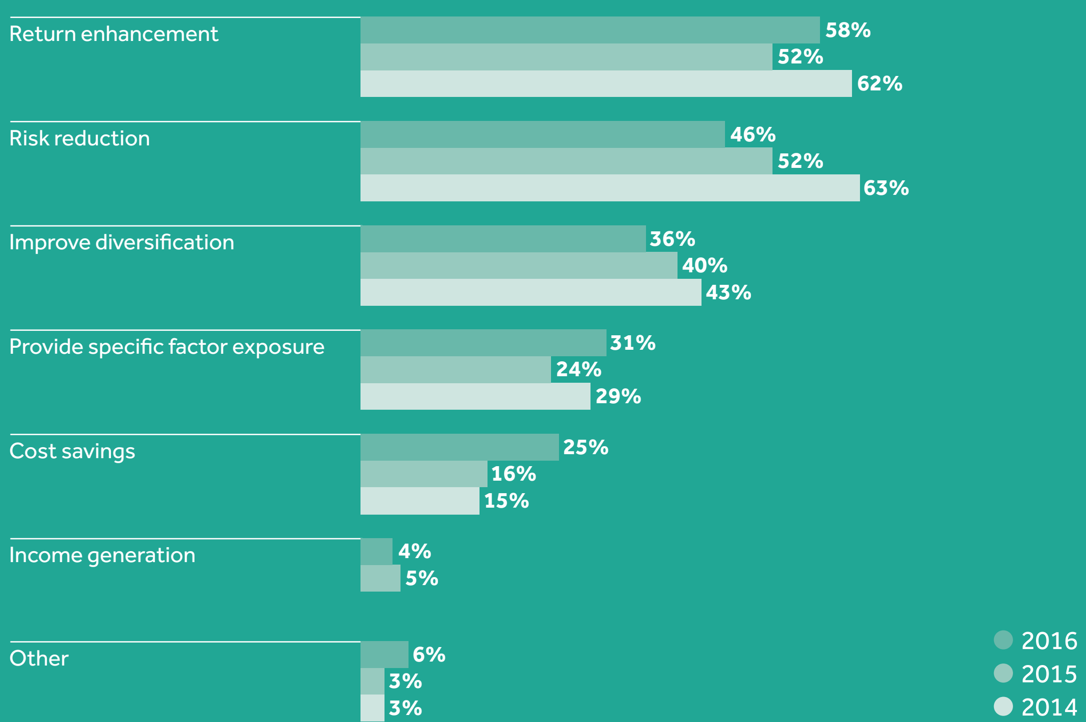
Why smart beta?

Return enhancement and risk reduction continue to be the primary objectives of smart beta; cost savings more important in 2016 than in the past.

For the last three years, return enhancement and risk reduction have been the top two objectives for users of smart beta. In 2014 and 2015, these two objectives were equally important, but in 2016, return enhancement is cited by 58% of asset owners, compared to 46% citing risk reduction. Also notable in 2016 is the increase in importance of cost savings, compared to 2014 and 2015.

Exhibit 16

What investment objectives initiated evaluation of smart beta strategies?



Multi-pick. Segment = Have smart beta allocation; Evaluated and decided not to implement; Currently evaluating smart beta . "Income generation" was not asked in 2014

"Cost savings" is a primary objective, particularly for asset owners with $10B or more in AUM, while "Improve diversification" is more likely to be a primary objective for asset owners with under $1B in AUM. The likelihood of "Provide specific factor exposure" being a primary objective increases with AUM tier.

Exhibit17

What investment objectives initiated evaluation of smart beta strategies? By AUM Tier.

	<$1B	$1B-$10B	$10B+
Return enhancement	56%	51%	63%
Risk reduction	44%	43%	50%
Provide specific factor exposure	16%	25%	47%
Cost savings	22%	19%	34%
Improve diversification	47%	35%	34%
Other	0%	7%	6%
Income generation	3%	7%	3%

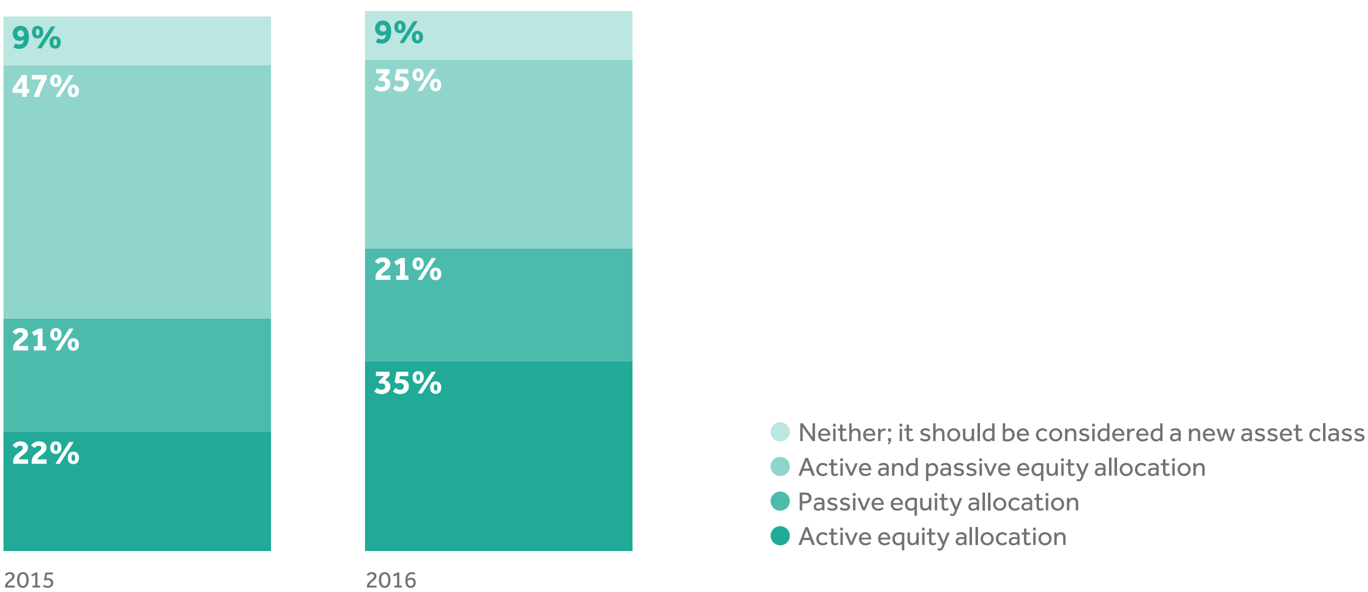
Multi-pick. Segment = Have smart beta allocation; Evaluated and decided not to implement; Currently evaluating smart beta

Asset owners increasingly view smart beta as being part of the active equity allocation.

The percentage of asset owners who view smart beta as part of their active equity allocation has increased to 35% in 2016, from 22% in 2015. This growth has come from the percentage of asset owners who have previously viewed smart beta as part of active and passive allocations.

Exhibit 18

Which allocations do your smart beta strategies form part of?



Segment = Have smart beta allocation; Currently evaluating smart beta

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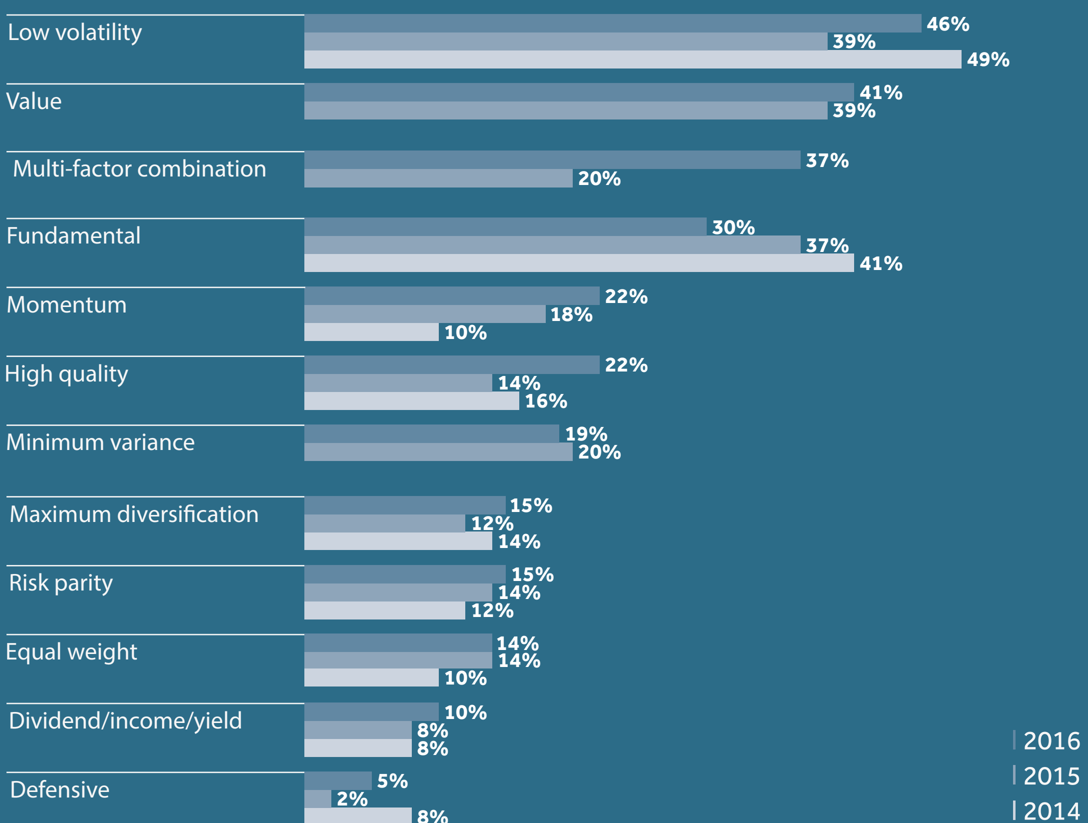
Smart beta strategies

Smart beta strategies employed by asset owners have evolved over time, with increasing usage of high-quality, momentum and multi-factor strategies and declining usage of fundamentals.

In 2016, the top strategies used by asset owners are “Low volatility,” “Value,” and “Multi-factor combination.”

Exhibit 19

What type of smart beta strategies are you currently using?



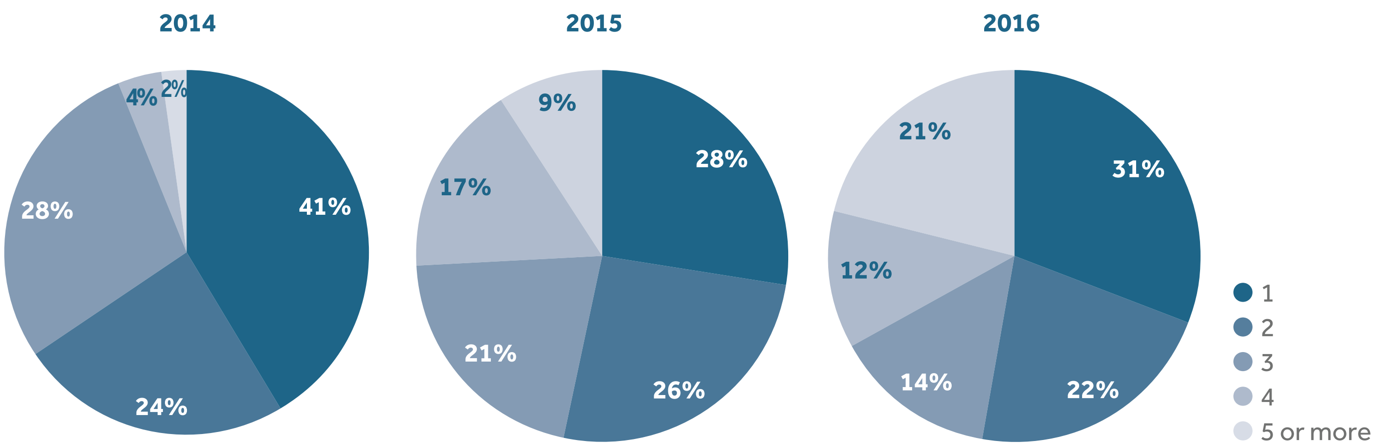
Multi-pick. Segment = Have smart beta allocation. “Multi-factor,” “Value” and “Minimum variance” were not asked in 2014

Over 20% of asset owners who have adopted smart beta are now using five or more smart beta strategies.

The percentage of asset owners using five or more smart beta strategies has increased significantly, from 2% in 2014, to 21% in 2016. In 2016, 31% of respondents are using just one strategy. Of the single-strategy users, "Fundamental" is the most often used.

Exhibit 20

Number of strategies used



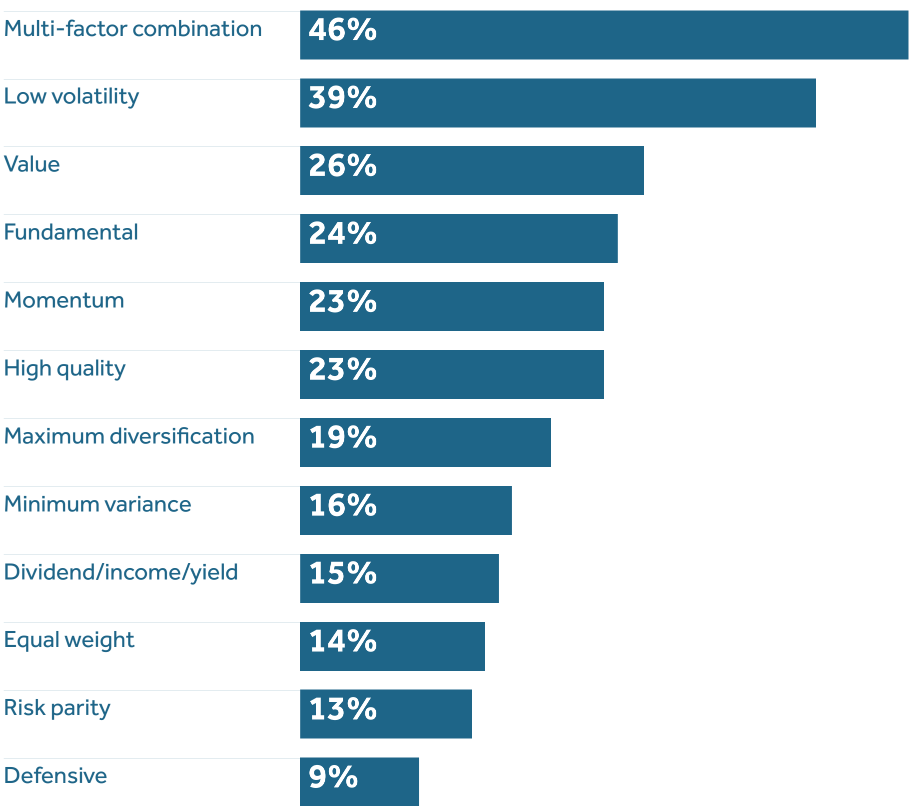
Segment = Have smart beta allocation

Multi-factor combination and low volatility lead in the strategies being currently evaluated.

Nearly half of asset owners who are currently evaluating smart beta are evaluating multi-factor combination strategies, and nearly 40% are evaluating low-volatility strategies.

Exhibit 21

What smart beta strategies are you currently evaluating?



Multi-pick. Segment = Have smart beta allocation AND currently evaluating smart beta; Currently evaluating smart beta, no existing smart beta allocation

Determining the best strategy or combination of strategies and managing unintended factor biases have consistently been the top two concerns with smart beta implementation.

The top two concerns with smart beta implementation have consistently been determining the best strategy or combination of strategies and managing unintended factor biases. The management of unintended sector biases and high turnover is an increasing concern for asset owners. Meanwhile, determining the optimal percentage of the portfolio to allocate, and monitoring and adjusting exposures for tactical use, are now lower-order concerns.

Exhibit 22

Please rate your level of concern with the following if implementing a smart beta strategy?

	Concern rank		
Implementation concerns	**2014**	**2015**	**2016**
How to determine the best strategy or combination of strategies for my portfolio	1	1	1
Unintended factor biases	2	2	2
Unintended sector biases	5	5	3
High turnover	9	8	4
Underperforming the benchmark index	6	3	5
How to determine the % of portfolio to allocate	3	6	6
If used tactically, how to monitor and adjust exposures	4	4	7
Cost of implementation	8	7	8
Lack of transparency	7	9	9
How to time the implementation of the strategy	11	11	10
Tracking error to the benchmark	10	10	11

Ranking based on Top 2 Box percentage, on seven-point scale

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Strategic versus tactical implementation of smart beta

As AUM tier increases, asset owners are more likely to use smart beta in both strategic and tactical implementations.

Very few asset owners use smart beta for tactical-only implementation. As AUM tier increases, an asset owner is more likely to use smart beta for both strategic and tactical implementation.

Exhibit 23

For which of the following are you using or evaluating use of smart beta strategies?

	<$1B*	$1B-$10B	$10B+	Total
Strategic implementation (long-term allocation)	67%	60%	55%	58%
Both strategic and tactical implementation	29%	37%	43%	39%
Tactical implementation (short-term adjustment to a portfolio)	0%	4%	2%	3%
Other	4%	0%	0%	1%

** Sample size for <$1B is 24, below preferred threshold of 30*

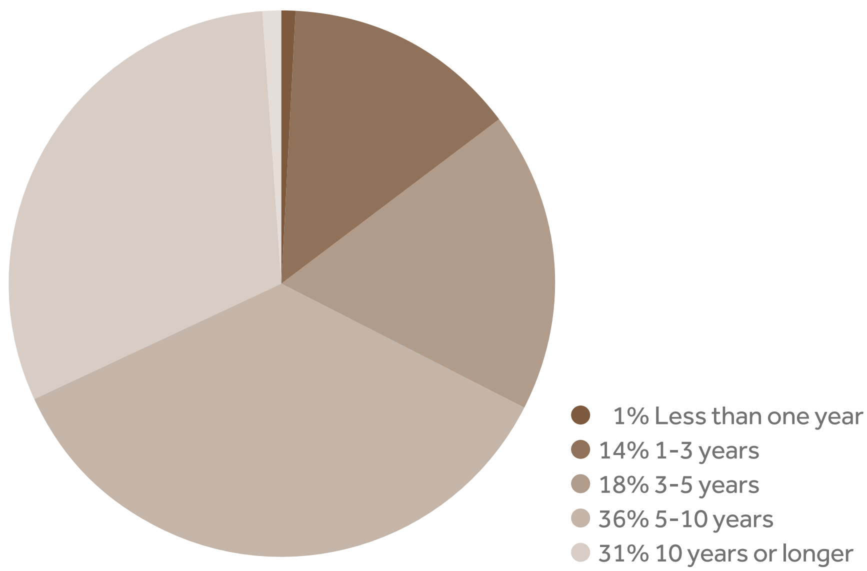
Segment = Have smart beta allocation; Currently evaluating smart beta

Close to 70% of asset owners intend to hold their smart beta strategies for five years or longer to achieve investment objectives.

Approximately a third of asset owners intend to hold their smart beta strategies for less than five years, a third for five to ten years, and a third for 10 years or more to achieve their investment objectives.

Exhibit 24

How long do you expect to hold your smart beta strategies to achieve your investment objectives?



Segment = Have smart beta allocation; Currently evaluating smart beta

Separate accounts are the most-preferred vehicles for strategic implementation of smart beta, driven by demand from asset owners with $1B or more in AUM.

The most-preferred vehicle for strategic uses of smart beta is "Separate account," driven by demand from asset owners with $1B or more in AUM; "Manage [assets] internally" and "CIT" are tied for second. "Manage [assets] internally" is driven largely by asset owners with $10B or more in AUM; "CIT" is most popular among asset owners with under $10B in AUM.

Exhibit 25

For strategic uses of smart beta strategies, which vehicle type do you prefer?

	<$1B*	$1B-$10B	$10B+	Total
Separate account	14%	31%	54%	39%
Manage internally	0%	13%	38%	22%
Collective investment trust (CIT)	32%	33%	2%	19%
Mutual fund	23%	18%	6%	13%
ETF	18%	4%	0%	5%
Derivatives	14%	0%	0%	2%

** Sample size for <$1B is 22, below preferred threshold of 30*

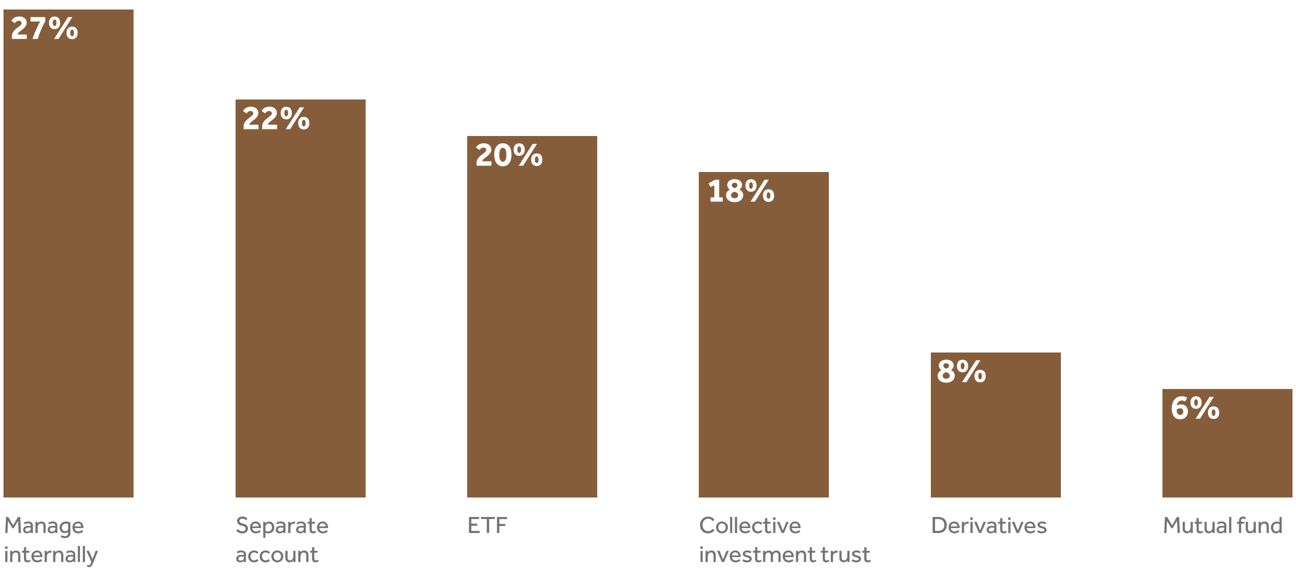
Segment = Have smart beta allocation; Currently evaluating smart beta AND have or intend to have a strategic allocation

For tactical implementation of smart beta, asset owners are using a wide range of vehicles, including internal asset management, separate accounts, ETFs and CITs.

Asset owners are using a wide range of vehicles for tactical implementation of smart beta, including internal asset management, separate accounts, ETFs and CITs. The top response for asset owners with $10B or more in AUM is "Manage [assets] internally"; for asset owners with $1B to $10B in AUM, it is "CIT"; and for asset owners with under $1B in AUM, it is "ETF."

Exhibit 26

For tactical uses of smart beta strategies, which vehicle type do you prefer?



Segment = Have smart beta allocation; Currently evaluating smart beta AND have or intend to have a tactical allocation

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Evolving roles of external investment manager and consultant

The roles assumed by investment managers, consultants and index providers in the evaluation of smart beta vary, depending on the AUM tiers of asset owners.

In our 2014 study, we noted a possible role definition overlap between consultants and investment managers in regard to smart beta. Investment managers played a key role in the evaluation process and outranked consultants as the top source of credible information about smart beta strategies. As the population of asset owners who have evaluated or are currently evaluating smart beta has grown, we see a more nuanced view of the roles of consultants, external investment managers and index providers, depending on the AUM tiers of the asset owners. External investment managers are most extensively engaged with asset owners with under $1B in AUM; consultants, with asset owners with $1B to $10B in AUM; and index providers, with asset owners with $10B or more in AUM.

For the third year, the external investment manager is the top-rated source of information about smart beta, but again, there are differences in sources of information by AUM tier.

Since 2014, the external investment manager has been the top-rated credible source of information about smart beta strategies overall. For the smallest asset owners, those with under $1B in AUM, the consultant is the most important source of information, followed by the external investment manager. For asset owners with $1B to $10B in AUM, the consultant is also number one, followed by the external investment manager and industry events / symposiums. For the largest asset owners, those with $10B or more in AUM, the external investment manager and journal publications are the top sources of information, followed by index providers.

Exhibit 27

What external sources of information do you rely on most for credible information about smart beta strategies?

	<$1B	$1B-$10B	$10B +	Total
Investment managers – external to organization	45%	55%	64%	56%
Consultant	51%	65%	21%	46%
Journal publications	34%	34%	64%	45%
Industry events / symposiums	34%	44%	32%	38%
Index providers	23%	32%	43%	35%
Peers	32%	22%	29%	27%
Trade financial news media	34%	25%	18%	25%
General financial / investment news media	32%	22%	19%	24%
Online industry forums and groups	15%	5%	8%	8%
Other	4%	6%	3%	5%

Multi-pick

Consultants are most likely to be initiating smart beta evaluation for asset owners with $1B to $10B in AUM; information from investment manager(s) external to organizations is a key driver of evaluation with asset owners with under $1B in AUM.

External initiators of the evaluation of smart beta vary by AUM tier. Academic research and information from index providers are increasingly important as asset owners' AUM increases. Information from investment manager(s) external to organizations is initiating smart beta evaluations for more than 50% of asset owners with under $1B in AUM, while more than 35% of asset owners with $1B to $10B in AUM cite consultants as initiating the smart beta evaluation.

Exhibit 28

What event(s) initiated the evaluation of smart beta strategies?

	<$1B	$1B-$10B	$10B+	Total
Academic research	38%	55%	68%	57%
Information from investment manager(s) external to organization	53%	30%	34%	36%
Information from index providers	22%	26%	34%	27%
Consultant recommendation	13%	36%	11%	22%
Board member or member of advisory committee interest	25%	22%	15%	20%
Recent press	19%	11%	12%	13%
A peer-implemented smart beta strategy	0%	11%	15%	11%
Other	3%	12%	11%	10%

Multi-pick; Segment = Have smart beta allocation; Evaluated and decided not to implement; Currently evaluating smart beta

The CIO is involved in the evaluation of smart beta strategies across AUM tiers, but involvement of the rest of the committee varies by AUM tier.

"CIO" is one of the top two responses across AUM as to who is involved in the evaluation of smart beta strategies. Asset owners with under $1B in AUM are more likely to involve trustees, external investment managers and consultants, and less likely to involve heads of equity. Asset owners with $1B to $10B in AUM are most likely to include a consultant. Asset owners with $10B or more in AUM are more likely to include a head of equity and an internal investment manager. Only asset owners with $10B or more in AUM are involving index providers.

Exhibit 29

Who is involved in evaluation of smart beta strategies within or on behalf of your firm?

	<$1B	$1B-$10B	$10B+	Total
Chief investment officer (CIO)	42%	56%	63%	57%
Investment manager – internal to organization	33%	35%	51%	41%
Consultant	36%	54%	20%	36%
Head of equity	3%	15%	52%	29%
Trustees	48%	32%	9%	26%
Investment manager – external to organization	27%	16%	11%	16%
Head of risk	6%	10%	17%	12%
Index provider	0%	0%	11%	4%
Other	9%	10%	9%	10%

Multi-pick. Segment = Have smart beta allocation; Evaluated and decided not to implement; Currently evaluating smart beta

Once the smart beta strategy is implemented, the internal investment manager is most likely to be responsible for monitoring and adjusting smart beta allocations, regardless of a respondent's AUM tier.

For most asset owners, regardless of AUM tier, neither the external investment manager nor the consultant is viewed as the person or entity responsible for monitoring and adjusting smart beta allocations. Across AUM tiers, the internal investment manager is most likely to be responsible. For asset owners with $10B or more in AUM, the second most likely choice is "Head of Equity," and for asset owners with $1B to $10B in AUM, it is "CIO." Lastly, for asset owners with under $1B in AUM, it is the external investment manager. This is the same AUM tier where the external investment manager is also most active in initiating smart beta evaluation.

Exhibit 30

Who is or will be responsible for monitoring and adjusting smart beta allocations?

	<$1B*	$1B-$10B	$10B+	Total
Investment manager – internal to organization	40%	35%	44%	38%
Chief Investment Officer (CIO)	12%	25%	16%	19%
Head of Equity	4%	10%	28%	17%
Investment manager – external to organization	24%	4%	0%	6%
Consultant	12%	6%	2%	6%
Head of Risk	4%	2%	5%	4%
Other	4%	19%	5%	11%

**Sample size for <$1B is 25, below preferred threshold of 30*

Segment = Have smart beta allocation; Currently evaluating smart beta

7

Feedback from survey participants on other smart beta topics that need to be addressed

More smart beta products and analytical tools desired.

"We need more different factors, such as high beta, buyback and credit spread, and need these ETFs to have UK reporting status. It would be good to be able to long and short factors by buying ETFs. I cannot short-sell an ETF, but if the ETF inversely tracks the factor, I can buy it to get short exposure to the factor."

Asset owner, UK, family office

"Increasingly looking at combining multiple factors into a single strategy, rather than blending multiple single-factor strategies."

Asset owner, Australia, union or industry-wide pension scheme

"Smart beta strategies have also been good in helping institutional investors to identify what part of an investment manager's returns is factor-based and what is genuine alpha. I think this is a positive step for the industry."

Asset owner, Australia, union or industry-wide pension scheme

"Real focus for smart beta strategies should be how to adjust the factor exposure on an ex-ante basis to ensure you aren't simply swapping the factor bias of a market cap index for that of an arbitrary group of other risk factors."

Asset owner, Switzerland, insurance company

"Clients need to incorporate smart beta indices into policy benchmarks when making allocations, to minimize regret from outsized tracking error versus cap weighted benchmarks."

Asset owner, United States, government

"Firstly, return differences were largely explained by Energy weights. The Energy weight however is a residual and not an active decision in most strategies. Secondly, you should compare beta 1 versions in order to make a distinction between beta effect and strategy effect."

Asset owner, Netherlands, union or industry-wide pension scheme

Skepticism does exist.

"Why employ an investment manager and then take decisions on his behalf. Indices cannot look forward, and anticipate events. We had all this in the 90's over small cap versus large cap."

Asset owner, UK, foundation/endowment/charity/ not-for profit

"Continue to have suspicion it is mostly a marketing phenomenon."

Asset owner, United States, government

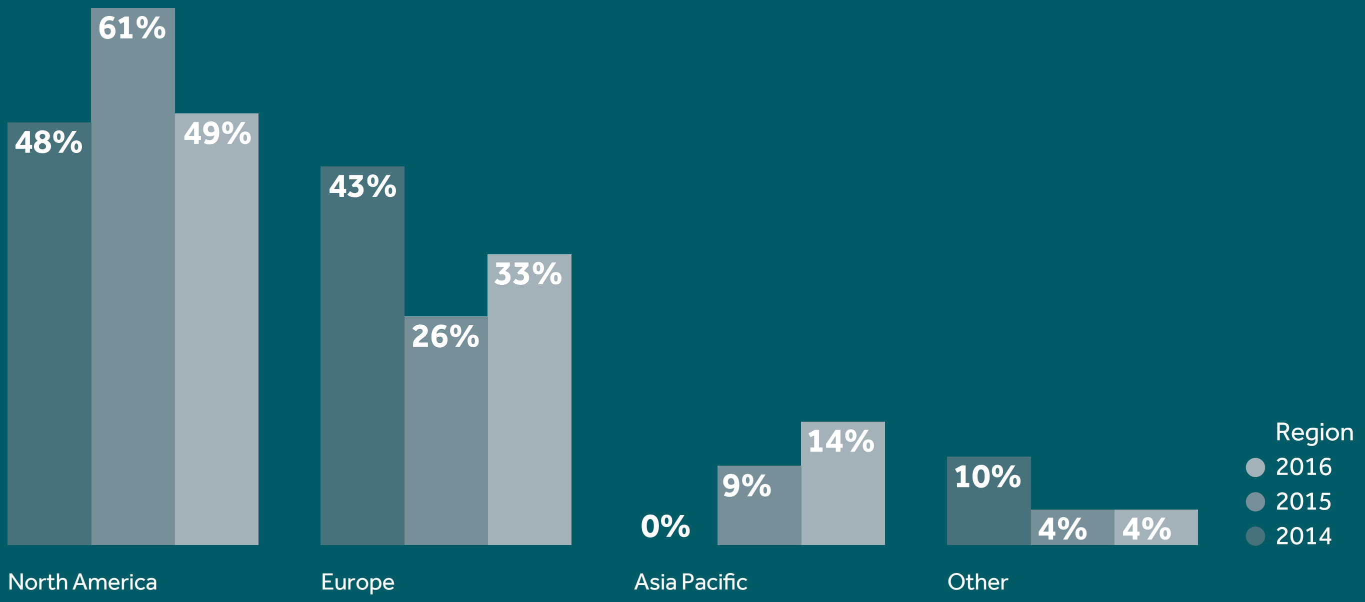
"The available history on strategy performance is typically too limited to have high confidence in how these allocations will perform in varying macro environments."

Asset owner, UK, union or industry-wide pension scheme

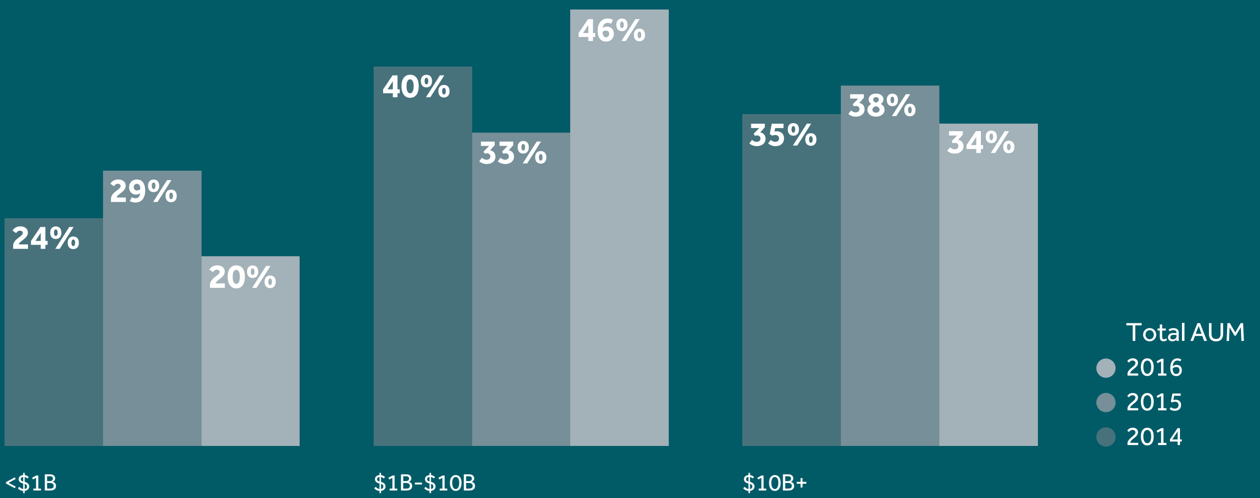
"Even if an index is labelled "smart beta," it does not mean that construct (the proprietary index) is necessarily smart nor necessarily a source of good beta (if one must qualify "beta"). I observe it is very challenging for investors and fiduciaries to wrap their heads around the definitional and statistical notion of beta in terms of implementing a risk tilt based on targeting a specific set of statistics which themselves are an outcome of the characteristics of a portfolio (or index). I am reminded of the dog running after its own tail, which is cute to watch for a while but after a while seems insane. A key building block of beta is standard deviation, which is a classical measure of absolute and relative risk and known to be notoriously unstable. Even if the statistic of a statistic could be targeted, the concept is too restricted dimensionally for serious implementation."

Asset owner, Canada, college/university

Appendix



48%
61%
49%
43%
26%
33%
0%
9%
14%
10%
4%
4%
North America
Europe
Asia Pacific
Other
Region
2016
2015
2014



24%
29%
20%
40%
33%
46%
35%
38%
34%
<$1B
$1B-$10B
$10B+
Total AUM
2016
2015
2014

Which of the following best describes your general industry or organization type?

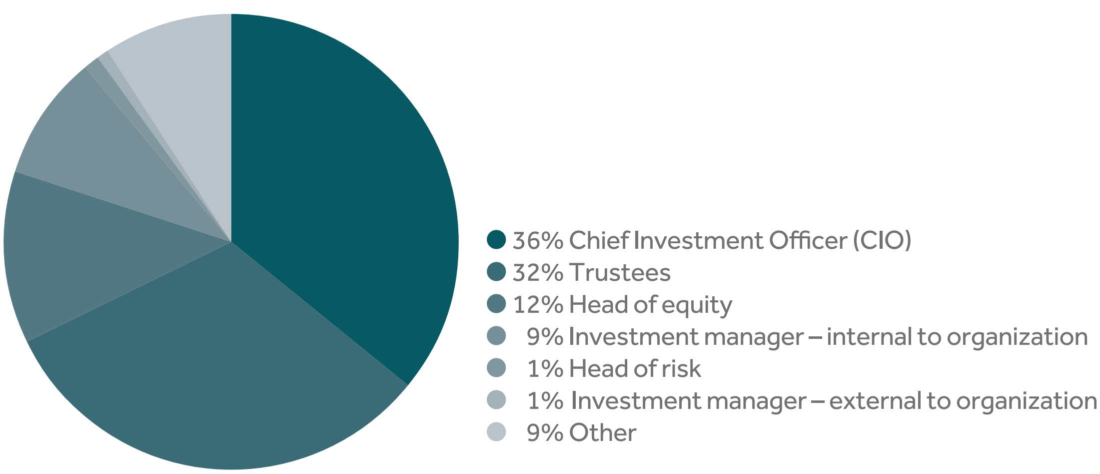
	2014	2015	2016
Corporation or private business	46%	23%	23%
Government	25%	22%	24%
Non-profit or university	26%	14%	14%
Union or industry-wide pension scheme*		13%	18%
Other	3%	28%	21%

"Union or industry-wide pension scheme" was not asked in 2014

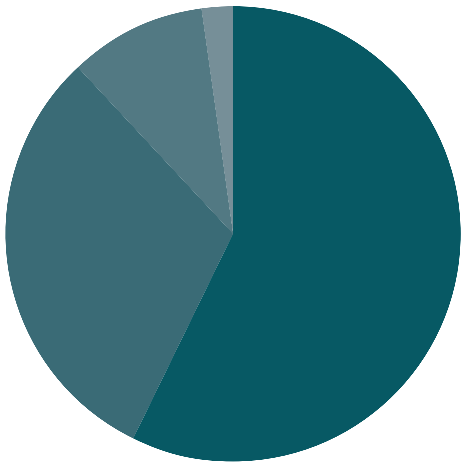
Plan type – select all that apply

	2014	2015	2016
DB	75%	65%	63%
DC	43%	38%	45%
E/F	19%	17%	14%

Who is the primary decision maker with respect to the adoption of smart beta strategies?



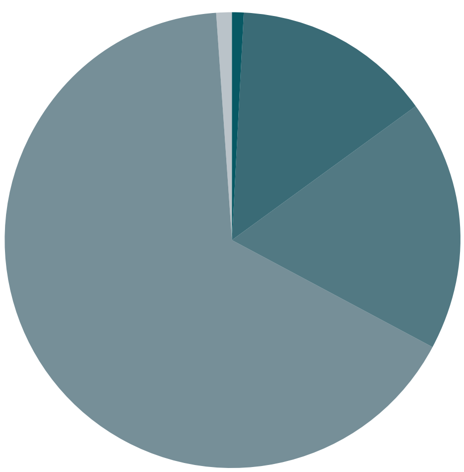
Which statement best reflects your objective of evaluating multiple strategies?



- 58% To understand how different strategies would work in combination
- 31% To select multiple strategies with distinct investment objectives
- 10% To select one strategy
- 2% Other

Segment = More than one strategy being currently evaluated

How long have you had a smart beta strategy allocation?



- 1% Less than one year
- 14% 1-3 years
- 18% 3-5 years
- 66% 5-10 years
- 1% Other

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Contact us for more information

Email: info@ftserussell.com;
or call your regional Client Service Team office:

EMEA: +44 (0) 20 7866 1810

North America: +1 877 503 6437

Asia Pacific
Hong Kong: +852 2164 3333
Tokyo: +81 3 3581 2764
Sydney: +61 (0) 2 8823 3521

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