Smart beta: 2018 global survey findings from asset owners



FTSE Russell

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Introduction

FTSE Russell is proud to present the fifth annual survey of global institutional asset owners' attitudes toward evaluation and adoption of smart beta. Each year we have surveyed decision makers across a broad spectrum of AUM tiers and organizational types at a variety of stages in their evaluation of smart beta. This year, 185 asset owners responded. Respondents are drawn from North America (54%), Europe (31%), Asia Pacific (11%) and other regions (4%), and have an estimated total AUM of over \$3.5 trillion.

Over the past five years, our survey has documented global institutional asset owners' growing interest in smart beta index-based strategies and allocations to investable products based on smart beta indexes. In the 2018 survey, 77% of survey respondents have implemented, are currently evaluating, or plan to evaluate smart beta strategies. Just 9% of survey respondents reported no existing allocation and no plans to evaluate it in the near future. In the past, asset owners with more than \$10B AUM had the largest adoption rate by far. Today, adoption rates are more evenly distributed between small (39%), medium (43%) and large (56%) asset owners. Clearly, smart beta has become an important part of an industry-wide conversation.

The 2017 survey documented a strong trend in multi-factor strategy adoption. That headline continued in 2018, where multi-factor combinations accounted for the largest number of adoptions (49%), well past the second and third place single factor indexes of Low Volatility (35%) and Value (28%). Furthermore, 87% of those who have implemented a smart beta strategy for the first time within the last two years are using a multi-factor combination. This dramatically illustrates a growing awareness of the

diversification, downside protection, and return potential of combining factors, something we have witnessed during our many discussions with asset owners. By contrast, fundamentally-weighted strategies have steadily fallen in use from 41% in 2014 to 19% in 2018.

As in past surveys, risk reduction, return enhancement and improved diversification remain the top three motives for allocations to smart beta. Cost saving has remained steady in fourth place (31%), as budgetary considerations continue to play a significant role in investment planning. As a bonus this year, we also asked respondents for their opinion of factor timing: 28% believe it is possible for timing strategies to be successful.

In 2017, we initiated questions on smart beta in fixed income. Similar to last year, few asset owners have a smart beta fixed income allocation (9%) in 2018. This highlights the need for additional education and greater product choice.

Regarding ESG, a substantial number (42%) of all respondents who anticipate applying ESG considerations to a smart beta strategy are doing so because they see a compatibility of the smart beta approach with ESG. This is a theme that FTSE Russell has been emphasizing within its indexes with its tilt-tilt

methodology. The greatest interest in ESG continues to be from European asset owners.

A happy customer is a repeat customer. When asked how satisfied asset owners are with their smart beta strategies, 62% said they were satisfied or very satisfied. Only 3% reported being dissatisfied, in spite of a challenging year for some strategies. So perhaps it is no surprise that 60% of those with an existing smart beta allocation are contemplating further allocations. The high satisfaction levels of current users suggest growth will continue.

Finally, the largest barrier to smart beta allocation and implementation is "How to determine the best strategy or combination of strategies for my portfolio" (45%). This underscores the continuing need for research, education and product innovation to meet the needs of asset owners. 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

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Summary of key themes

Why smart beta

Fifty-six percent of all survey respondents are currently evaluating a smart beta index-based strategy, either for an initial allocation or an additional one. Our survey results indicate return enhancement, risk reduction and improved diversification as the most commonly reported objectives for using smart beta. The majority of asset owners continue to report their implementation of smart beta strategies as either strategic in nature, or as a combination of both strategic and tactical. For strategic purposes, separate accounts tend to be the investment vehicle of choice, while ETFs are the most popular vehicle type for tactical use.

Primary objectives

- ✓ RETURN ENHANCEMENT
- ✓ RISK REDUCTION
- ✓ IMPROVE DIVERSIFICATION

Smart beta evaluation and adoption

Smart beta adoption rates globally have reached a record high of 48% in 2018. From a regional perspective, European asset owners maintain the highest rate of smart beta adoption, with 61% of survey respondents in Europe reporting an existing allocation to smart beta. North American asset owners displayed the largest increase in smart beta adoption since our last survey, with 42% reporting an existing allocation in 2018 – up from 37% in 2017.

Global adoption

8
7
6
5

Equity smart beta strategies

Multi-factor index-based strategies are reported as the most commonly evaluated and the most widely adopted smart beta equity strategies, especially among more recent adopters of smart beta. Allocating to a single multi-factor product is far more common than allocating to multiple individual factor products. Among single factor strategies, value and low volatility persist as the most widely used and evaluated.

Multi-factor adoption

Smart beta allocation less than 2 years

87% Smart beta allocation

Smart beta allocation

2 years or more



Fixed income smart beta strategies

Fixed income smart beta strategy adoption rates are up slightly from last year (now 9%) but remain low relative to equity strategies. Twenty-four percent of survey respondents indicate they are currently evaluating or plan to evaluate a fixed income smart beta strategy. However, a lack of documented investment merit, lack of resources to make the evaluation, and limited product choice remain as significant hurdles to both evaluation and adoption.

Fixed income allocation

Not allocated or evaluating



33% Alloc or evalu

Allocated or evaluating

ESG considerations and smart beta

Evaluation and application of environmental, social and governance considerations is gaining in popularity, with over half of asset owners implementing or evaluating ESG consideration in their investment strategy. Globally, among those who either have an existing smart beta allocation or plan to evaluate and/or implement one in the near future, 38% anticipate applying ESG considerations to a smart beta strategy.

ESG considerations

Implementing or evaluating ESG in portfolio

53%

Outlook

We expect sustained growth in smart beta, especially when it comes to multi-factor combination strategies. Satisfaction rates among those already using smart beta remain high, as do reported plans to increase existing allocations. Furthermore, most of those who have not yet adopted smart beta are still evaluating their options thanks to new innovations in smart beta and increased product availability.

Survey background

This is the fifth year FTSE Russell has conducted this study, the purpose of which is to measure smart beta market trends and offer insight into how and why asset owners are evaluating and implementing smart beta strategies within their portfolios.

The 2018 survey was conducted in January and February. This year, 185 asset owners participated in the survey. The majority of respondents were located in North America (54%) and Europe (31%). Participation from the Asia Pacific region declined from 19% in 2017 to 11% this year. Given the smaller sample size, our 2018 analysis of regional trends does not include a breakout for Asia Pacific as it has in prior years. Survey responses from asset owners outside of the North America and Europe regions are included in the "total" category in cases where responses are analyzed from a regional perspective.

Organization types represented include government organizations (36%), corporations or private businesses (20%), non-profit organizations or universities (15%), and unions or industry-wide pension schemes (10%). Insurance companies, sovereign wealth funds, healthcare organizations and family offices are represented as well.

Sixty- seven percent of the asset owners who responded manage defined benefit plan assets, 36% manage defined contribution plan assets and 15% manage endowment or foundation assets. Participants also include asset owners with insurance general accounts, sovereign wealth funds and other types of institutional asset owners.

In order to analyze trends by asset owner size, respondents were segmented into tiers by total AUM as follows: those with under \$1B in total AUM (20%); those between \$1B and \$10B in total AUM (39%); and those with over \$10B in total AUM (41%). Aggregate AUM of the survey participants is estimated to be over \$3.5 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.

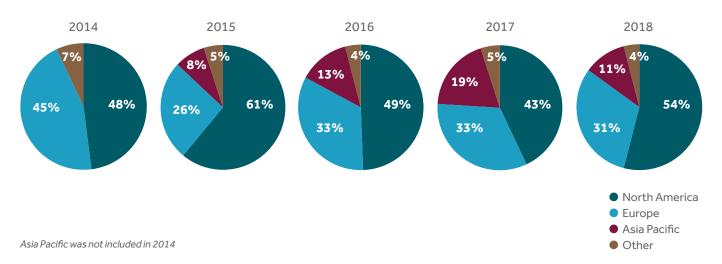
For the purposes of this survey, "smart beta" is defined as an investment strategy which applies an index-based investment strategy that is not traditionally market cap—weighted (i.e. fundamentally weighted, equal weighted, factor weighted, optimized, etc.).

For a sample size of 185, the margin of error is +/- 10% 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 as "multi pick" in each exhibit footer).

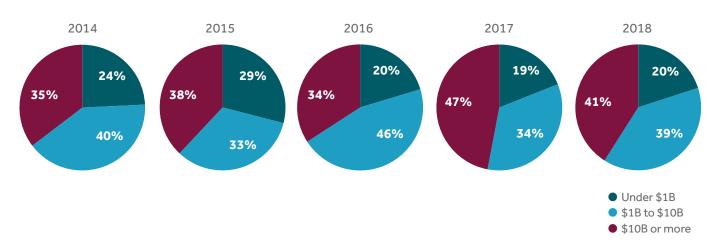
Sample distribution by year for 2014 – 2018

Exhibit 1

Region distribution



AUM tier distribution





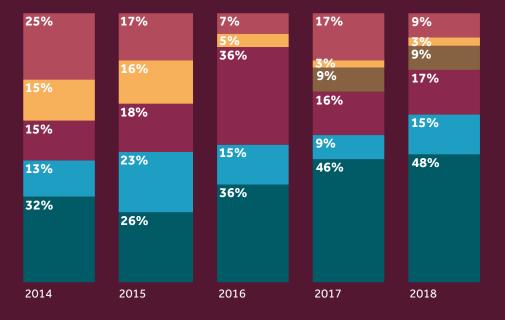
Smart beta evaluation and adoption

Globally, smart beta adoption rates have reached record levels, and most asset owners who report no existing allocation are either currently evaluating smart beta or planning to do so in the near future.

On a global scale, 48% of asset owner survey respondents reported an allocation of a portion of their assets to smart beta, up 2 percentage points from 2017. The number of participants reporting no existing allocation and no plans to evaluate smart beta in the near future decreased from 17% in 2017 to 9% in 2018.

The 2018 combined share of asset owners either currently evaluating (17%), re-evaluating (9%) or planning to evaluate smart beta soon (3%) represents nearly a third of survey participants, indicating that interest in smart beta remains active.

Exhibit 2Which best describes your organization's usage of smart beta strategies?



- No existing allocation, do not plan to evaluate in the next 18 months
- No existing allocation, plan to evaluate in the next 18 months
- Currently re-evaluating
- No existing allocation, currently evaluating
- Evaluated, chose not to implement
- Have existing allocation

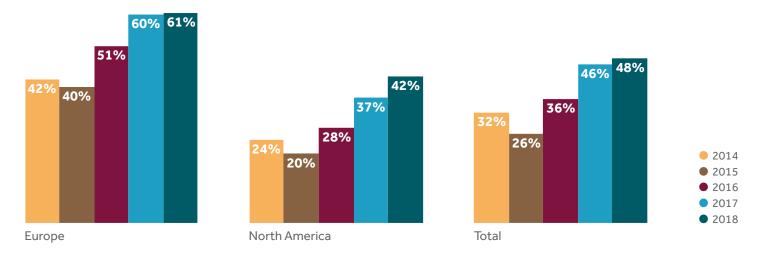
^{*}Currently re-evaluating not included in 2014-2016

Europe's smart beta adoption rates are the highest, while North American asset owners report the largest increase in adoptions since last year.

A comparison of smart beta adoption by region continues to reveal that Europe's adoption rate is the highest (61%), as European asset owners were the earliest adopters of smart beta strategies. North American asset owner adoption rates

are increasing at the fastest pace, however, reaching 42% for 2018 — the level we recorded for Europe during our inaugural survey in 2014.

Exhibit 3Smart beta adoption percentage by region.



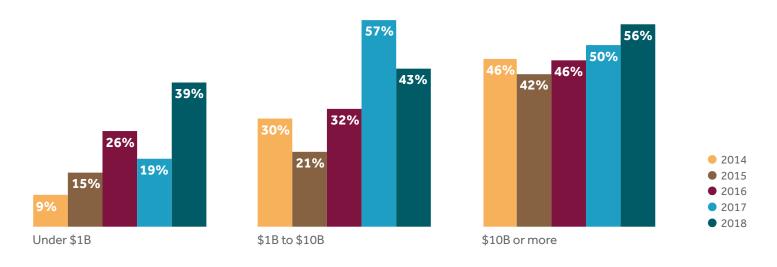
Sample size for Asia Pacific and Other regions not large enough to break out; respondents from these regions are included in total.

Asset owners report growth in smart beta adoption rates.

Five years ago, asset owners with \$10B or more AUM had the largest rate of smart beta adoption. Today, the adoption rates are more evenly distributed between small (39%), medium

(43%) and large (56%) asset owners. Survey respondents vary by region and AUM tier each year, but the overall trend shows growth across all three tiers since 2014.

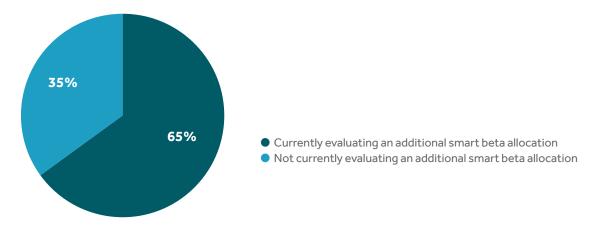
Exhibit 4Smart beta adoption percentage by asset size.



Two thirds of asset owners who have already adopted a smart beta strategy are evaluating additional allocations.

Among asset owners with an existing smart beta allocation, 65% are currently evaluating additional allocations.

Exhibit 5Evaluation of smart beta among asset owners with a current smart beta allocation.



Segment = Have an existing smart beta allocation

Over a third of those who had previously evaluated smart beta and decided not to implement are currently reconsidering smart beta.

Among the asset owners who had previously evaluated smart beta and decided not to implement, 37% are now re-evaluating their smart beta options. Most reported their reason for doing so as related to new developments in smart beta strategies as well as increased availability of off-the-shelf smart beta investment products.

Exhibit 6Re-evaluation of smart beta among asset owners who previously evaluated smart beta and decided not to implement.

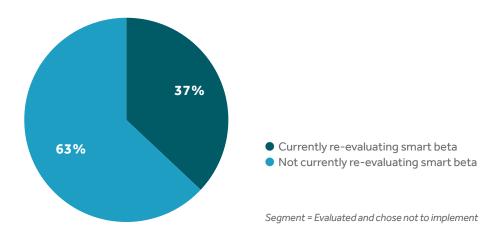
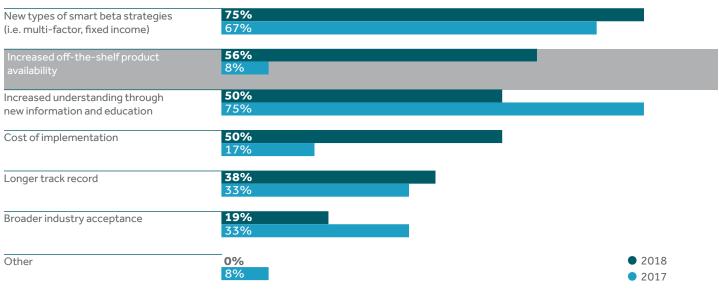


Exhibit 7

What are the top reasons you are re-evaluating smart beta strategies?



Segment = currently re-evaluating

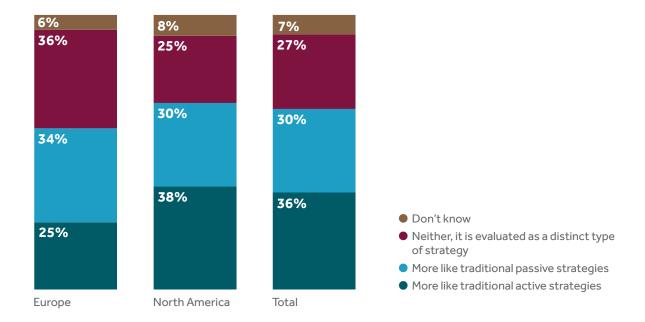
Sample size for currently re-evaluating smart beta is 12, below preferred threshold of 30

Globally, among asset owners who have adopted or are evaluating smart beta strategies, roughly one-third view them as traditional active strategies, one-third as traditional passive strategies, and one-third as distinct strategies.

Views vary slightly when broken down by region. The majority of European respondents either view smart beta's role in their investment process as its own distinct type of strategy (36%) or more like a traditional passive strategy (34%). Their North

American counterparts, however, are more likely to view smart beta's role as akin to a traditional active (38%) or traditional passive (30%) strategy than classify it a distinct type of strategy.

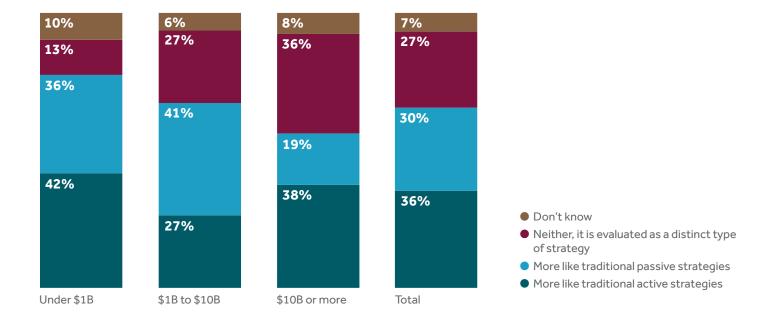
Exhibit 8Which best describes how you are evaluating or positioning smart beta's role in your investments?



Segmenting the survey respondents by size indicates that the smallest asset owners (those with under \$1B AUM) are the most likely to align smart beta with either traditional active or passive strategies rather than evaluating them as a distinct type of strategy. The largest asset owners (those with

\$10B or more AUM) are more inclined than smaller plans to evaluate smart beta as a distinct type of strategy, but most respondents in this group (38%) view smart beta as more like a traditional active strategy.

Exhibit 9Which best describes how you are evaluating or positioning smart beta's role in your investments?





Why smart beta?

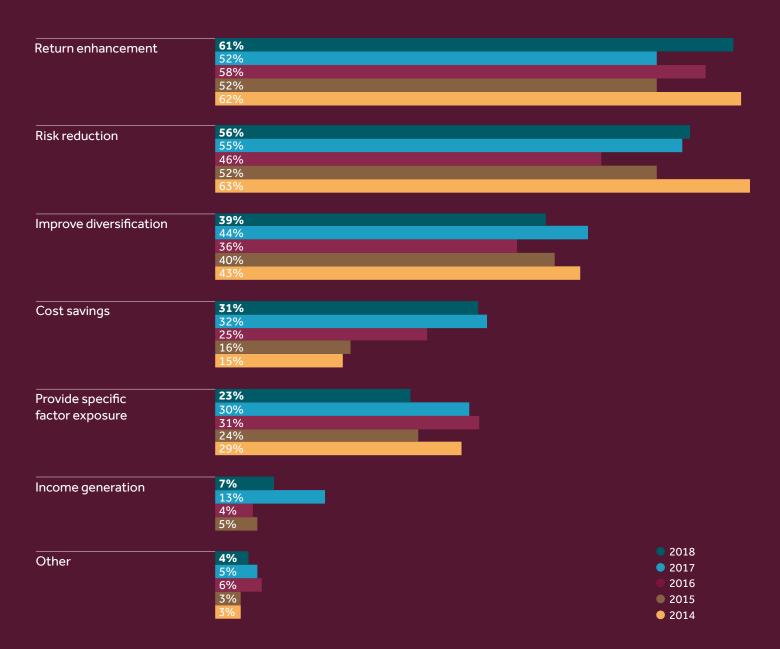
Return enhancement and risk reduction continue as the primary smart beta investment objectives.

For the last five years, return enhancement and risk reduction have prevailed as the top two investment objectives motivating asset owners to evaluate smart beta strategies. Improved diversification and cost savings continue to be commonly cited objectives as well. Targeting specific factor

exposure(s) has experienced a decline over the last three years, and while income generation saw a spike in 2017, only 7% of respondents chose it as a reason for evaluating smart beta in 2018.

Exhibit 10

What investment objectives initiated evaluation of smart beta strategies?



Multi-pick; Segment = Have an existing smart beta allocation, evaluated and chose not to implement, or currently evaluating smart beta, AND using/evaluating/evaluated smart beta equity strategies

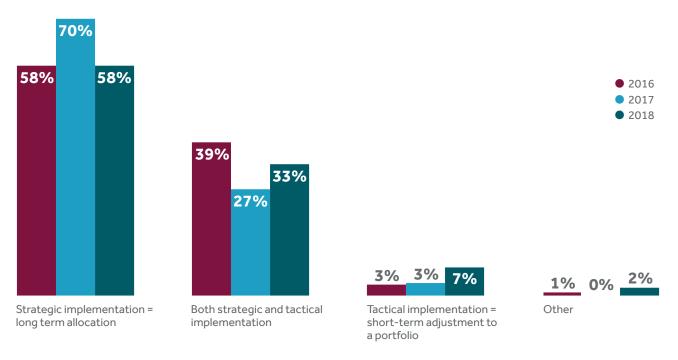
[&]quot;Income generation" was not included in 2014

The majority of asset owners report strategic-only or a combination of both strategic and tactical use of smart beta strategies.

Fifty-eight percent of asset owners are allocating (or evaluating) smart beta for strategic (long term) implementation, while 33% cite a combination of strategic and tactical (short-term) implementation. Using smart beta

solely for making tactical adjustments to a portfolio is the least common use reported, but this response has grown slightly in popularity (up from 3% to 7%).

Exhibit 11For which of the following are you using or evaluating use of smart beta strategies?

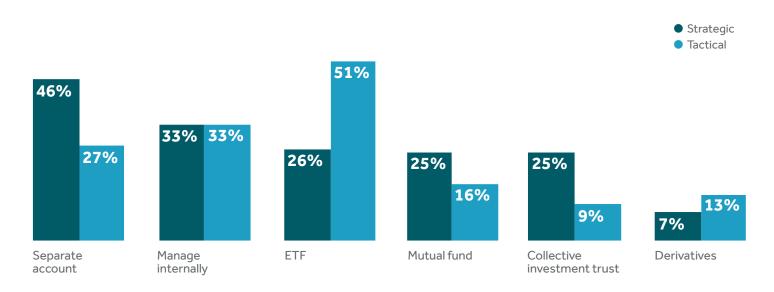


 $Segment = Have \ an \ existing \ smart \ beta \ allocation, OR \ no \ existing \ allocation \ but \ currently \ evaluating / re-evaluating \ smart \ beta \ allocation \ for \ evaluating \ smart \ beta \ evaluating \ evaluati$

Separate accounts are the preferred vehicle for strategic implementation of smart beta, while ETFs are the most popular choice for tactical implementation. Internal management is the second most preferred vehicle type for

both strategic and tactical implementation. Compared to 2017 (not shown), separate accounts have declined significantly in popularity for tactical implementation (down from 41% in 2017 to 27% in 2018).

Exhibit 12For strategic/tactical uses of smart beta strategies, which vehicle type do you prefer?

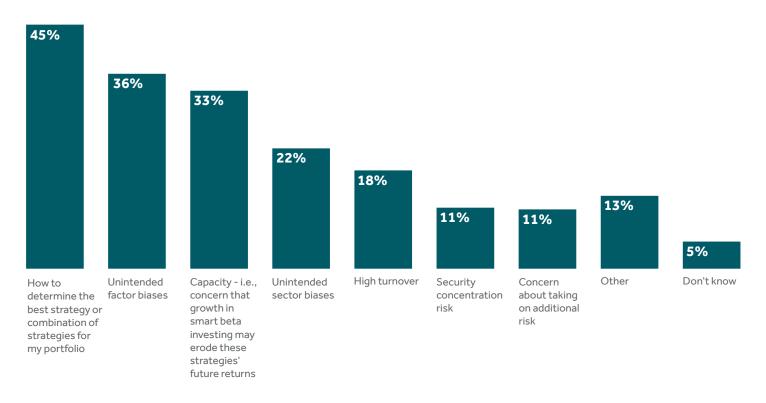


Multi-pick. Segment = Have an existing smart beta allocation, or no existing allocation but currently evaluating/re-evaluating smart beta, AND have or intend to have a strategic/tactical implementation

Asset owners view lack of awareness and uncertainty as key barriers to smart beta adoption, indicating a need for continued education from smart beta product providers.

Almost half of respondents cite not knowing how to determine the best smart beta strategy (or which combination of strategies) for their portfolio as a barrier to adoption. Many are also concerned with unintended factor biases and/or capacity issues.

Exhibit 13What barriers to equity smart beta allocation and/or implementation do you perceive?



Multi-pick





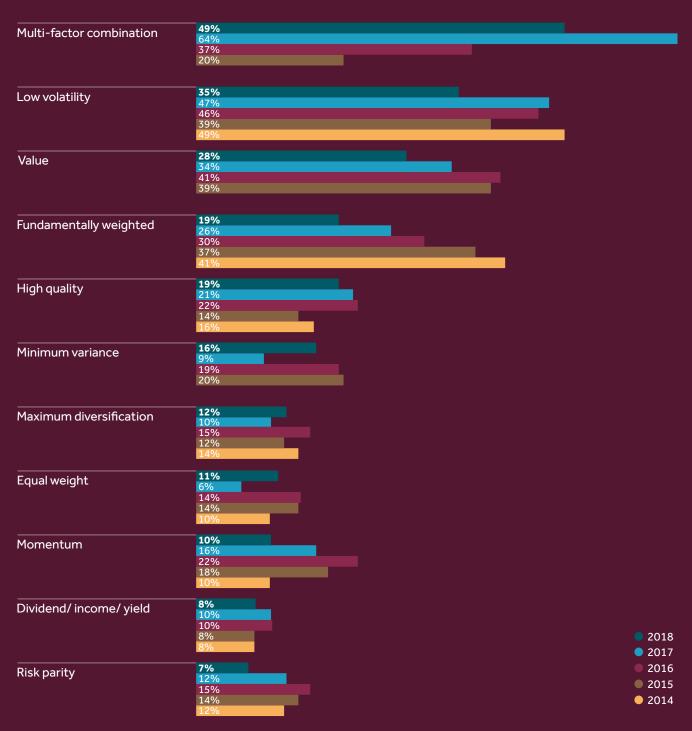
Equity smart beta strategies

Multi-factor combination strategies remain the most widely used form of smart beta. Among those implementing single-factor strategies, low volatility and value are the most popular.

Multi-factor combination strategies remain the most widely used, but the percentage of survey respondents who reported using a multi-factor combination strategy dipped from 64% in 2017 to 49% in 2018. Low volatility remains the top single factor strategy, followed by value, though levels have declined somewhat for these as well.

Fundamentally weighted strategies continue to have negative growth rates year over year, likely because most recent adopters of smart beta have chosen to implement multi-factor combination strategies rather than single factor strategies (see Exhibit 16).

Exhibit 14What type of smart beta strategies are you currently using?



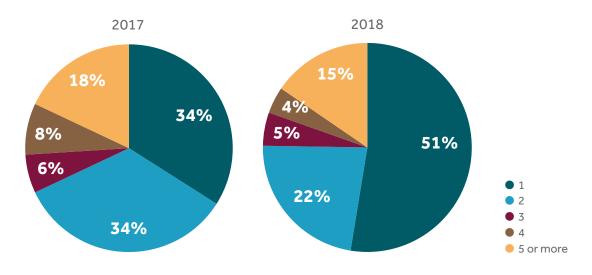
Multi-pick. Segment = Have an existing smart beta allocation

"Multi-factor," "value" and "minimum variance" were not included in 2014

Among asset owners with an existing smart beta allocation, more are using just one strategy.

Compared to last year, among asset owners with an existing smart beta allocation, using a single smart beta strategy rather than allocating to more than one strategy has gained in popularity.

Exhibit 15
Number of strategy types used



 $Segment = Have \ an \ existing \ smart \ beta \ allocation$

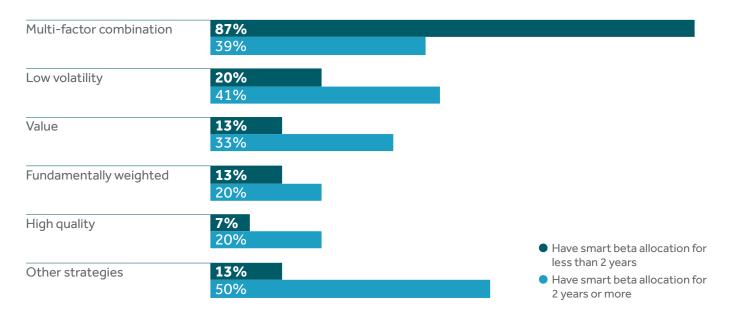
Most recent adopters are using multi-factor combination strategies, while low volatility remains a popular choice among those with longer term smart beta allocations.

Eighty-seven percent of those who have had a smart beta allocation for less than two years reported using a multi-factor combination approach, with low volatility as the second most popular response (20%) among those with newer allocations.

Responses from asset owners who have had a smart beta allocation for more than two years vary — low volatility, multifactor combinations and value as well as "other strategies" were each listed by at least a third of respondents.

Exhibit 16

What type of smart beta strategies are you currently using?



Multi-pick. Segment = Have an existing smart beta allocation

Other strategies include momentum, risk parity, dividend/income/yield, maximum diversification, minimum variance and equal weight in the property of the pro

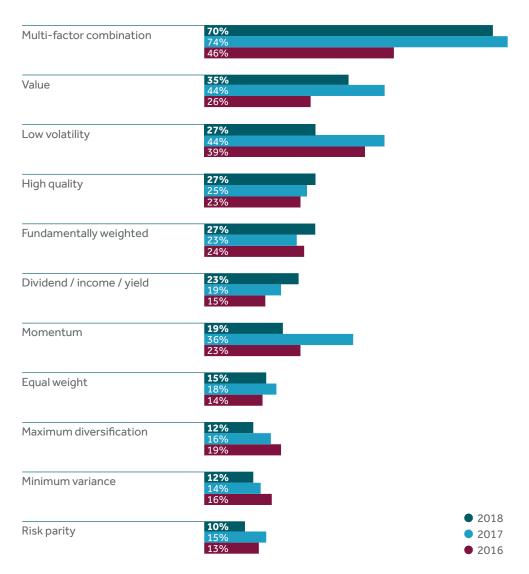
^{*}Sample size for asset owners with smart beta allocation for less than two years is 15, below the preferred threshold of 30

Multi-factor combination strategies remain the most commonly evaluated smart beta options.

Over two thirds of asset owners currently evaluating smart beta strategies are looking at multi-factor combinations. While still among the most commonly evaluated, the number of respondents currently considering low volatility or value has decreased. Fundamentally weighted strategies showed a slight uptick in popularity from 23% in 2017 to 27% in 2018, as did high quality and dividend/income/yield.

Exhibit 17

What smart beta strategies are you currently evaluating?

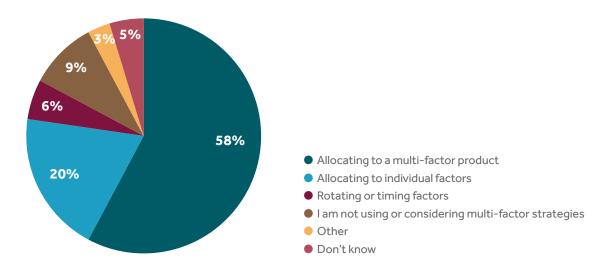


Multi-pick. Segment = Currently evaluating smart beta equity strategies

For asset owners implementing multi-factor strategies, allocating to a single multi-factor product is more common than allocating to multiple individual factor products separately.

Fifty-eight percent of asset owner respondents said their approach to implementing multi-factor strategies utilizes a single multi-factor product rather than spreading their allocation across a number of individual factors.

Exhibit 18Which statement best reflects how you are implementing or considering implementing multi-factor strategies?



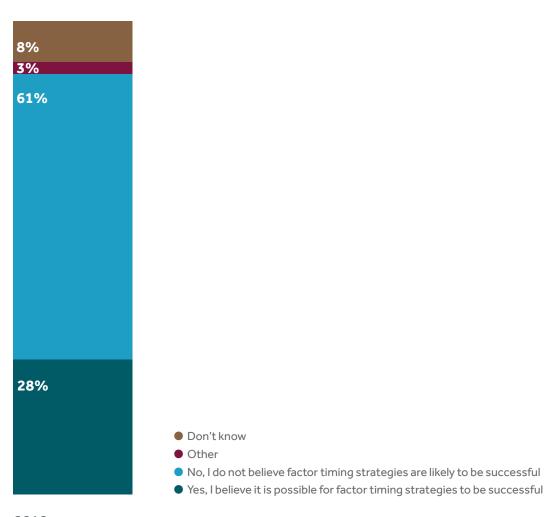
Segment = Have an existing smart beta allocation, OR no existing allocation but currently evaluating/re-evaluating smart beta

The majority of survey respondents do not think it is possible to successfully time factors.

Sixty-one percent of asset owners do not believe factor timing strategies are likely to be successful, while 28% believe it is possible to successfully time factors.

Exhibit 19

Do you think it is possible to successfully time factors?



2018

 $Segment = Have \ an \ existing \ smart \ beta \ allocation, OR \ no \ existing \ allocation \ but \ currently \ evaluating/re-evaluating \ smart \ beta, OR \ evaluated \ and \ chose \ not \ to \ implement$





Fixed income smart beta strategies

Fixed income smart beta evaluation and adoption rates are up slightly from last year, but the need for more products and improved awareness persists.

Adoption of fixed income smart beta strategies has occurred among 9% of asset owners surveyed in 2018, up from 7% last year. In addition, 24% are currently evaluating or planning to evaluate fixed income smart beta strategies in the next 18 months, up from 20% last year.

About a quarter of asset owners who were asked why they had not yet evaluated fixed income smart beta strategies said that they did not believe there was merit in the approach, while 17% indicated lack of resources to make the evaluation as a primary reason. The lack of product choice was another fairly common response (14%), as was not knowing why fixed income smart beta strategies had not yet been evaluated (15%). This year's responses echo 2017's notion that there is a lack of education, awareness and corresponding product offering within the fixed income community.

Exhibit 20

What best describes your organization's usage of fixed income smart beta strategies?



- Have not evaluated fixed income smart beta strategies and have no plans to do so in the next 18 months
- Plan to evaluate fixed income smart beta strategies in the next 18 months, have not previously evaluated
- Previously evaluated fixed income smart beta strategies, not currently evaluating and do not have existing allocation
- Currently evaluating fixed income smart beta strategies, do not have existing allocation
- Have fixed income smart beta allocation

Exhibit 21

What are the primary reasons you have not yet evaluated fixed income smart beta strategies?

	2017	2018
Do not believe they have investment merit	13%	24%
Lack of investment resources to make the evaluation	23%	17%
Lack of product choice	_	14%
Consultant has not recommended this option	15%	13%
Do not believe in passive allocations	17%	9%
AUM is too small for this type of strategy	8%	7%
Other	14%	24%
Don't know	21%	15%

Multi-pick. Segment = Do not have a fixed income smart beta allocation AND have not previously evaluated fixed income smart beta strategies AND are not currently evaluating fixed income smart beta strategies

"Lack of product choice" was not included in 2017



Application of ESG considerations and smart beta

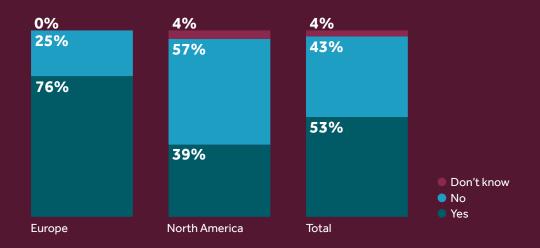
Globally, over half of asset owners are currently implementing or evaluating ESG considerations in their investment strategy. Among those who are using and/or evaluating smart beta strategies, 38% anticipate applying ESG considerations to their smart beta strategy of choice.

Fifty-three percent of survey respondents reported that their organization is currently implementing or evaluating ESG considerations in their investment strategy. Comparing

ESG usage by region, over three quarters of European asset owners are currently implementing or evaluating ESG, as compared to 39% of North American asset owners.

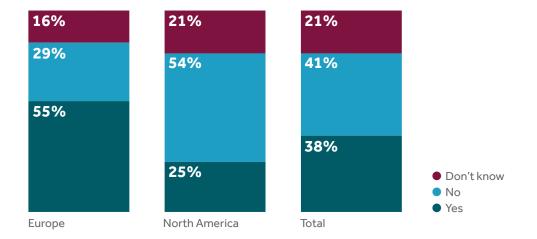
Exhibit 22

Is your organization currently implementing or evaluating ESG considerations in your investment strategy?



Among those who either have an existing smart beta allocation or plan to evaluate and/or implement one in the near future, 38% anticipate applying ESG considerations to a smart beta strategy. More asset owners in Europe (55%) report plans to apply ESG considerations to a smart beta strategy than in North America (25%).

Exhibit 23Do you anticipate applying ESG considerations to a smart beta strategy?

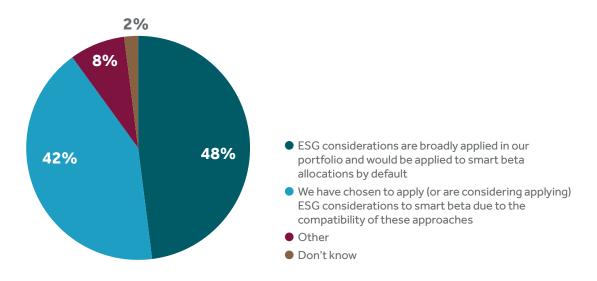


 $Segment = Have\ a\ smart\ beta\ allocation\ OR\ are\ currently\ evaluating/re-evaluating\ smart\ beta\ strategies\ OR\ are\ planning\ to\ evaluate\ smart\ beta\ strategies\ in\ the\ next\ 18\ months$

Of those who anticipate applying ESG considerations to a smart beta strategy, 48% said that ESG considerations are applied broadly across their portfolio, meaning the application of ESG to a smart beta allocation would occur by default. A similar number of respondents (42%) said they have chosen to apply (or are considering applying) ESG considerations to a smart beta allocation not by default, but due to the compatibility of these approaches.

Exhibit 24

Which statement best describes the application or evaluation of ESG considerations to smart beta within your organization?



 $Segment = Anticipate\ applying\ ESG\ considerations\ to\ a\ smart\ beta\ strategy$

The top motivations for applying ESG considerations to a smart beta strategy are promoting societal good and avoiding long term risk.

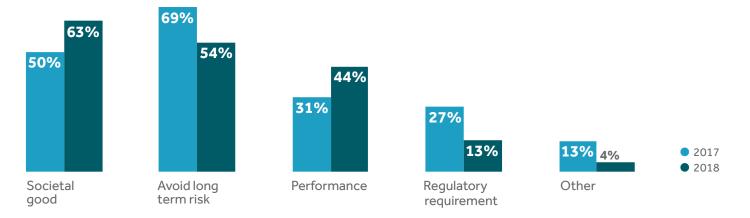
Among those who anticipate applying ESG considerations to a smart beta strategy, 63% are motivated by societal considerations, a shift from last year's top driver of avoiding long-term risk. North America, in particular, showed an

increase in preference for societal good (not shown).

Performance has gained in popularity as a reason for applying ESG considerations as well.

Exhibit 25

What is your motivation for applying ESG considerations?



Multi-pick. Segment = Anticipate applying ESG considerations to a smart beta strategy



6

Outlook

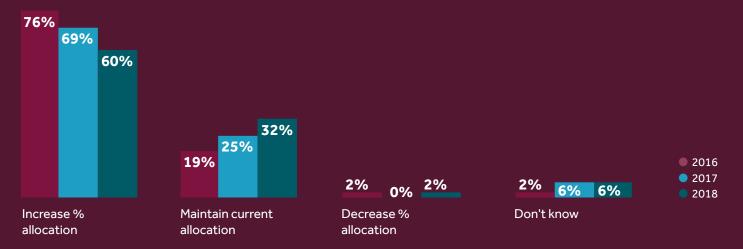
While growth of adoption rates on a global scale may have slowed, it has not stopped. Satisfaction with existing allocations remains high, as do reported plans to increase existing allocations. Evaluation rates in general are higher than ever, and over half of those not currently using smart beta plan to do so in the next 18 months.

Growth is still occurring in the smart beta space, as approximately 48% of asset owner respondents globally have an existing smart beta allocation, up from a reported 46% in 2017. Sixty five percent of asset owners with an existing

smart beta allocation are currently evaluating an additional allocation, and roughly 60% of those currently evaluating plan to increase their allocation in the next 18 months.

Exhibit 26

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

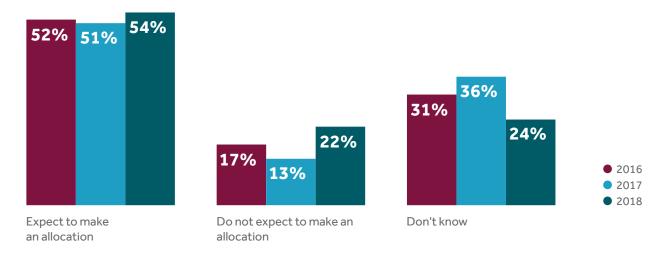


Segment = Have an existing smart beta allocation, currently evaluating additional allocation

Of those who do not have a current allocation to smart beta, over half are currently evaluating smart beta with plans to make an allocation in the near term.

Exhibit 27

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



Segment = Do not have smart beta allocation AND currently evaluating/re-evaluating smart beta

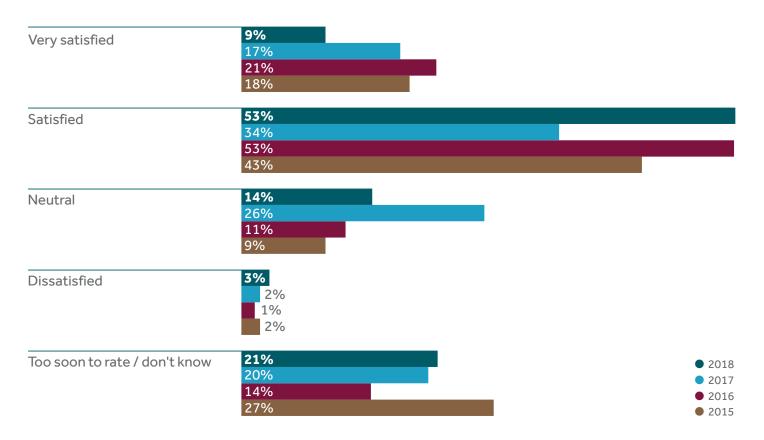
The majority of asset owners remain "satisfied" or "very satisfied" with their smart beta strategies' ability to deliver on intended outcomes.

In 2018, almost two thirds of asset owners report being either "satisfied" or "very satisfied" with their smart beta strategies' ability to deliver on intended outcomes, up from just over half who responded as such in 2017. This year we are seeing fewer asset owners providing "very satisfied" ratings.

Not surprisingly, many asset owners continue to state that it is too soon for them to rate their satisfaction levels, as many still have relatively new allocations. Very few asset owners report being dissatisfied with their smart beta strategies.

Exhibit 28

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



Segment = Have an existing smart beta allocation

Conclusion

Our annual survey continues to demonstrate an increase in smart beta adoption rates among asset owners globally, and we expect this growth to sustain. Among those with an existing smart beta allocation, 65% are currently evaluating additional allocations. Additionally 37% of asset owners who had previously evaluated smart beta and decided not to implement are currently re-evaluating their options thanks to new innovations in smart beta strategy development and increased product availability.

Multi-factor strategies are reported as the most widely implemented smart beta strategies, particularly among asset owners who have adopted smart beta in the last two years. They are also the most commonly evaluated type of smart beta strategy, so we expect to see continued growth in multi-factor strategy adoption rates.

We also expect to see growth occur in the adoption of strategies that combine ESG considerations with smart beta. Among those who either have an existing smart beta allocation or plan to evaluate and/or implement one in the near future, 38% anticipate applying ESG considerations to a smart beta strategy. We look forward to conducting this survey in the coming years, and we hope that our analysis of the results continues to prove helpful to investors of all types.

Appendix

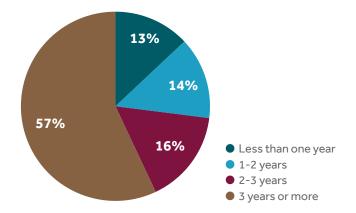
Organization type

	2014	2015	2016	2017	2018
Corporation or private business	46%	23%	23%	26%	20%
Government	25%	22%	24%	23%	36%
Non-profit, university	26%	14%	14%	13%	15%
Union or industry-wide pension scheme	0%	13%	18%	11%	10%
Other	3%	28%	21%	27%	20%

Plan type

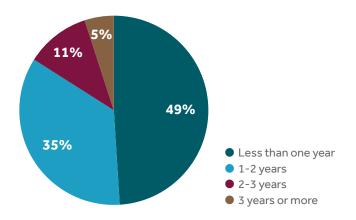
	2014	2015	2016	2017	2018
DB	75%	65%	63%	55%	67%
DC	43%	38%	45%	36%	36%
E/F	19%	17%	14%	18%	15%

How long have you had a smart beta strategy allocation?



Segment = Have an existing smart beta allocation

How long did the evaluation process of smart beta take?



Segment = Have an existing smart beta allocation

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