



Invesco Global Factor Investing Study 2020



Get interactive

For a richer, interactive experience, this document is best viewed on a desktop with Adobe Acrobat.

Welcome



Stephen Quance

Director, Factor Based Investing

stephen.quance@invesco.com

+65 6603 9197

Telephone calls may be recorded.

Welcome to our fifth annual Global Factor Investing Study, based on an interview programme with 238 factor investors. This study incorporates the views of 138 institutional investors and 100 wholesale investors that are together responsible for managing over US\$25.4 trillion in assets (as of 31 March 2020).

Factor investing is a type of investment strategy whereby securities are chosen based on their particular characteristics and attributes (commonly termed 'factors') that have tended to offer favourable risk and return patterns over time. While the concepts behind this approach have existed since

the mid-twentieth century, levels of adoption and sophistication have increased rapidly in recent years, with investors recognising the potential benefits of incorporating factor strategies within their portfolio.

This study, the largest and most in-depth examination of global factor investing currently being undertaken, offers an opportunity to understand investor experiences, paths and barriers to adoption, as well as methods of implementation. We explore these topics through five key themes described below. Interviews for this study were conducted in April and May of 2020, against the backdrop of Covid-19 and following the initial shockwaves this pandemic sent through investment markets. We note instances throughout the report where investors' reactions to the pandemic may have impacted responses.

Theme one focuses on recent experiences and allocation intentions. Around half of investors increased their factor allocations in the 12 months leading up to the study, with a similar proportion planning an increase in allocations over the next 12 months. This is despite a period of divergent factor performance, which saw some factors outperform but saw others, including value, perform poorly. Around two-thirds of investors reported that their factor allocations had met or exceeded expectations, with investors encouraged by factors behaving as they should despite a period of market turbulence. And despite a run of challenging performance, we found investors still committed to the value factor with only 5% of institutional investors, and 16% of wholesale investors, doubting that value would perform over the full cycle.

In our second theme, we focus on the extension of factor investing in fixed income portfolios. We found near-universal belief in the applicability of factor investing in fixed income, representing a significant increase over the past two years. Application is also increasing, with two-fifths of the sample using factors in fixed income and more than two-thirds actively considering its introduction. Some 63% of respondents believe the factors in fixed income are equally as important as they are in equities, with fixed income alpha sources generating significant opportunities. Despite this enthusiasm we also found continued barriers to adoption, with price modelling the most pressing challenge for institutional investors and a lack of product most cited by wholesalers.

In theme three, we examine the intersection of factor investing and ESG, and how they continue to advance independently but in parallel, with 55% of institutional investors and 44% of wholesale investors incorporating ESG into their factor allocations. ESG and factor investing were seen to be complementary, with ESG viewed as an aid to factor investing implementation in both mitigating risk and delivering additional returns. Meanwhile, the proportion of investors analysing their ESG portfolios through a factor lens has increased year on year, with investors looking to better understand the impact of ESG on their factor exposures.

Theme 1

“We would be more concerned if our factor investments started to behave erratically and didn’t do what they should during periods of volatility.”

Institutional investor,
North America

Theme 2

“We are increasing our use of factors in fixed income but face the challenge of not enough data to do everything we want to do.”

Institutional investor,
North America

Theme 3

“We believe that incorporating ESG in our factor models should provide us with the means to manage short-term downside, with the potential for a greater upside over the longer term.”

Institutional investor,
APAC

In theme four, we look at how investors use factor ETFs to implement their factor strategies and discuss the drivers behind growing allocations to these vehicles. We found that 60% of institutional investors and 67% of wholesale investors now use ETFs as part of their factor implementation, accounting for an average of 14% and 50% of factor portfolios respectively. For respondents investing in factor strategies based around passive indexing strategies, ETFs were particularly valued for their ease of use and price. However, ETFs are also increasingly used to implement active strategies, sometimes displacing swaps and other types of derivatives, with investors particularly valuing their liquidity and flexibility, as well as reduced counterparty risk.

In our final theme, we discuss the growing sophistication of factor investors and the additional demands that this is placing on external asset managers. Multi-factor strategies are now the norm, used by 81% of institutional investors and 73% of wholesalers, and this has encouraged investors to assign increased resources to monitor factor exposures and track factor correlations. The growing dynamism and complexity of factor portfolios is leading to greater demands on external managers. 63% of institutional investors look to external asset managers for tactical recommendations (up from 38% a year ago). This shift also reflects how investors choose factor managers, with risk management and expertise in portfolio construction cited as the key selection criteria.

Theme 4

“We use ETFs because of the price and the ability to tactically take on targeted exposures and make quick adjustments to our portfolio.”

Institutional investor,
EMEA

Theme 5

“We started off with a value ETF some years ago and the sophistication of our factor strategy has grown from there.”

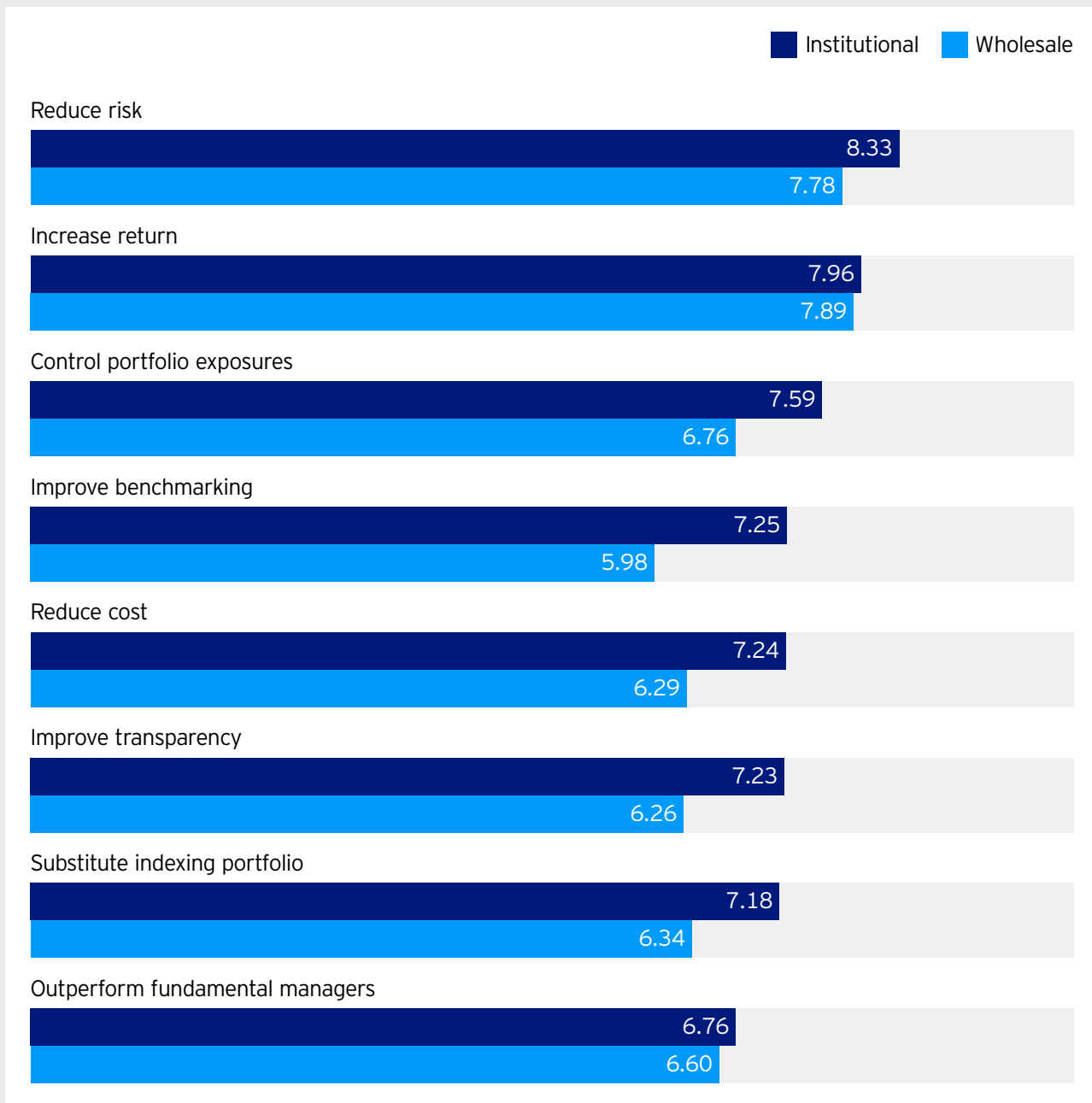
Wholesale investor,
EMEA





Key metrics

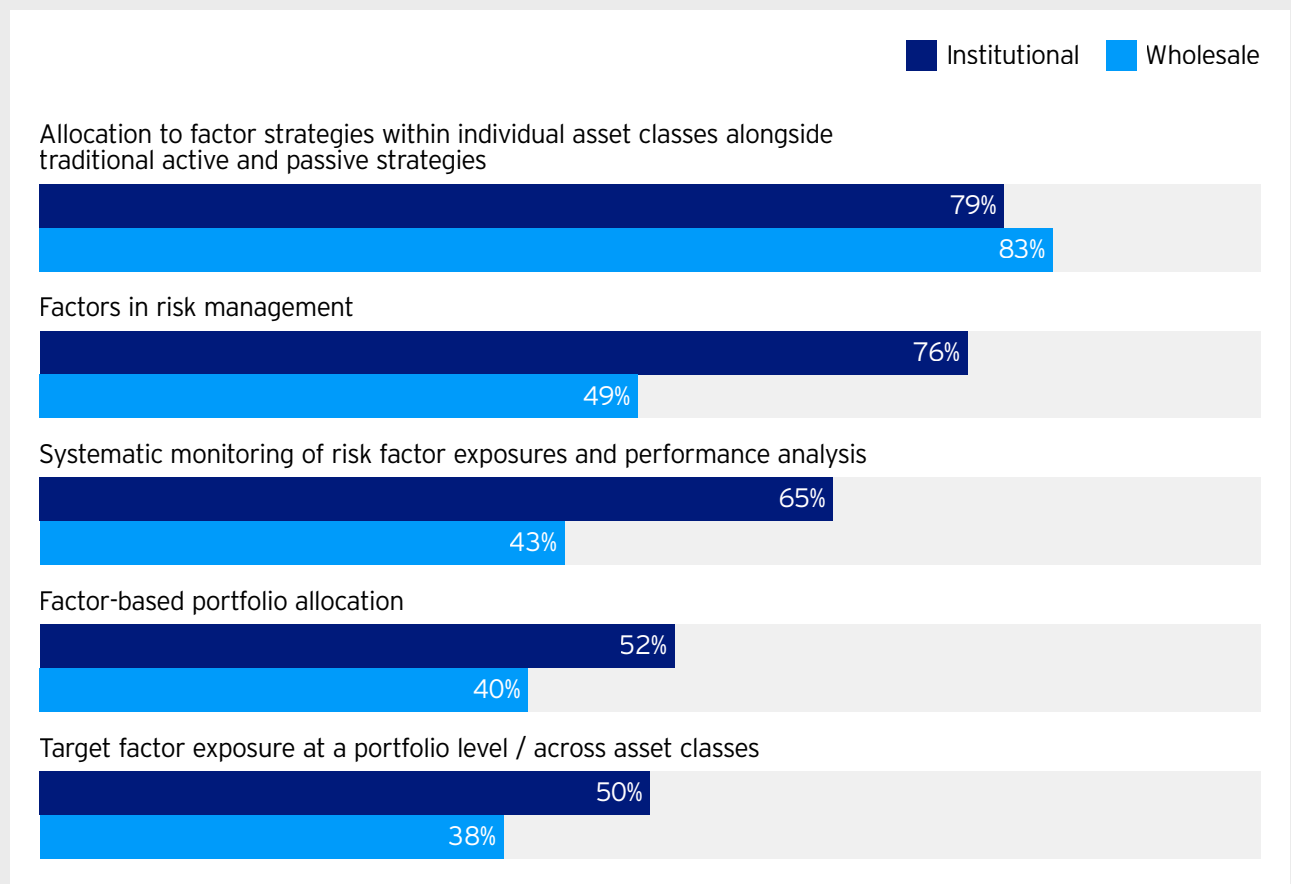
Figure A
Reasons for investing in factor strategies (average score out of 10)



How important are each of the following reasons for investing in factor strategies? (scale from 1 to 10, 10 = very important)

Sample size: Institutional = 137
Wholesale = 99

Figure B
Approaches to factor investing (% citations)

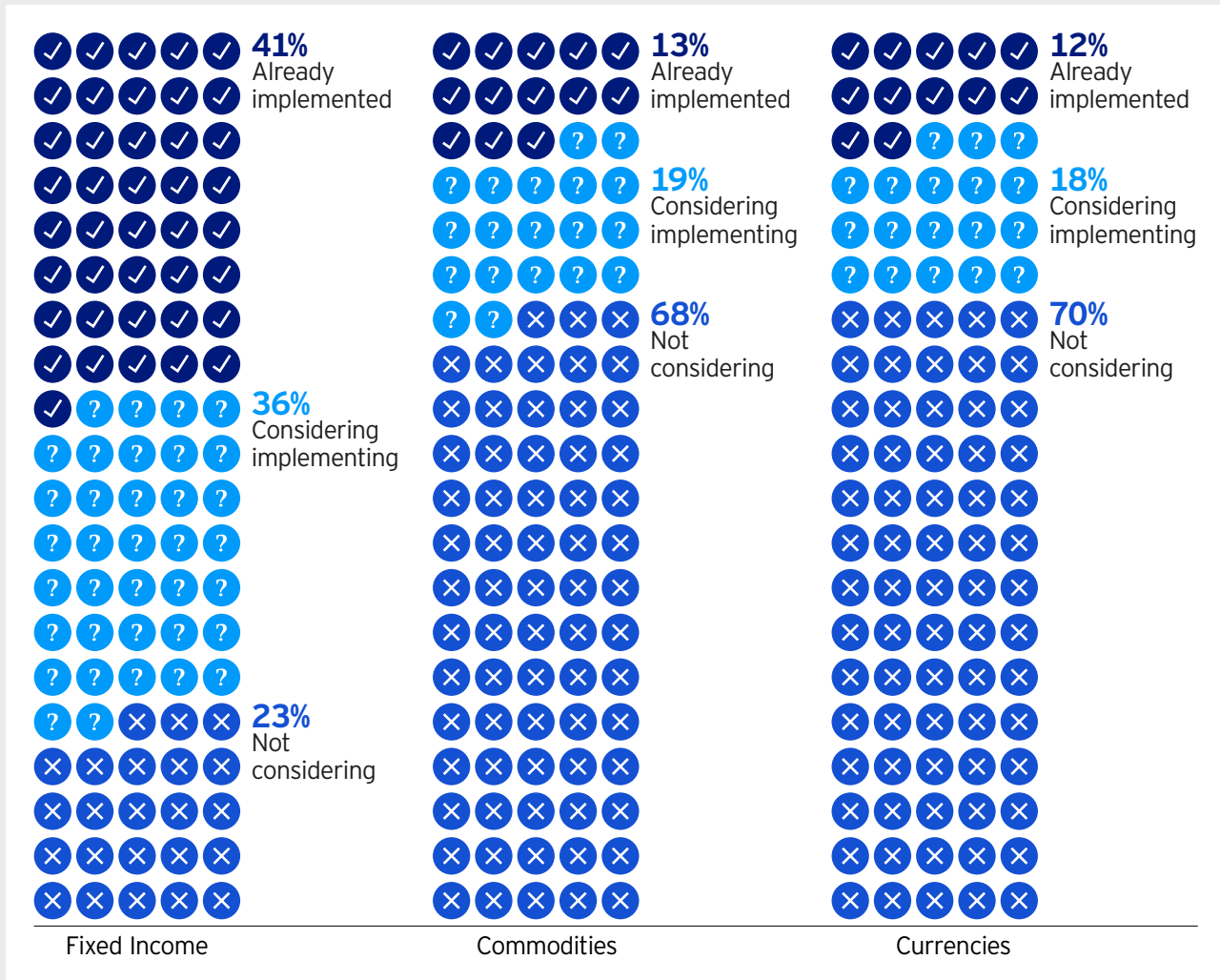


Which approaches to factor investing do you use within your portfolio (or client portfolios)?

Sample size: Institutional = 136
 Wholesale = 98

Figure C

Use of factor investing in fixed income, commodities and currencies (% cit ations)

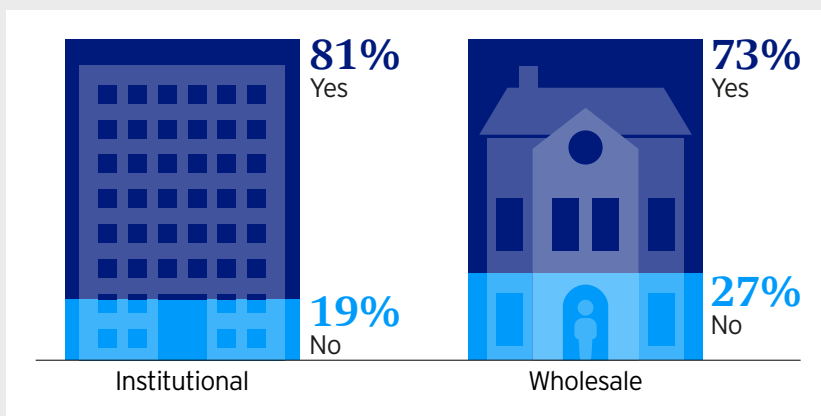


Do you use factors in the following asset classes?

Sample size: 216

Figure D

Use of multi-factor strategies (% cit ations)

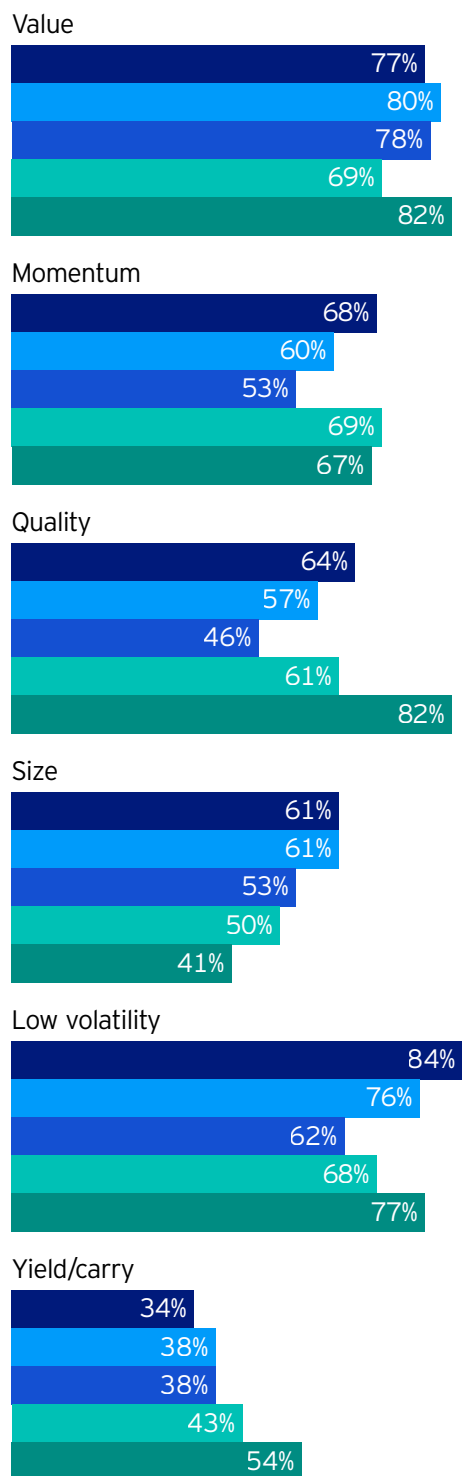


Do you invest in multi-factor strategies?

Sample size: Institutional = 132
Wholesale = 92

Figure E
Factor exposures sought in the portfolio (% citations)

2016 2017 2018 2019 2020

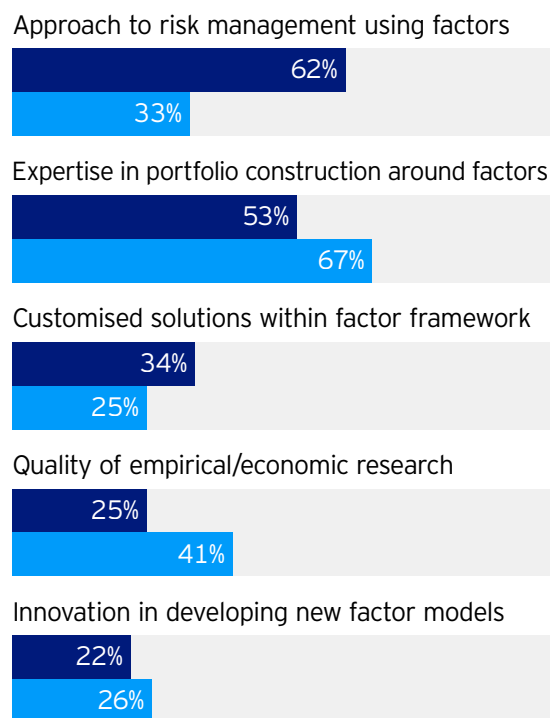


What factors do you explicitly seek/have exposure to in the portfolio?

Sample size:
 2016 = 56, 2017 = 98
 2018 = 260, 2019 = 236
 2020 = 237

Figure F
Criteria used to select a factor manager (% citations)

Institutional Wholesale



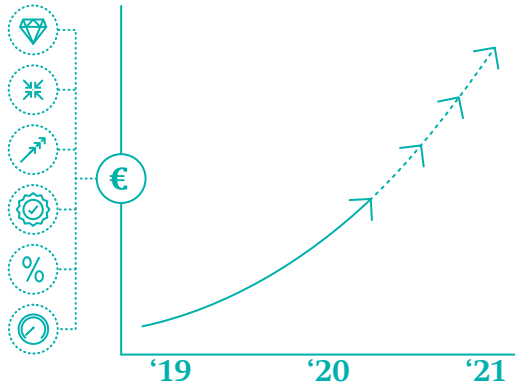
What criteria do you use to select a factor manager?

Sample size:
 Institutional = 130
 Wholesale = 85

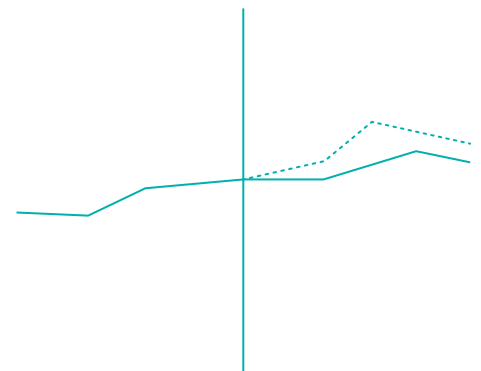
Theme 1

Factor investors are resilient in the face of uncertainty

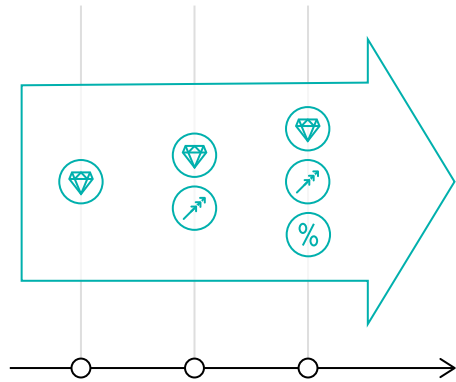




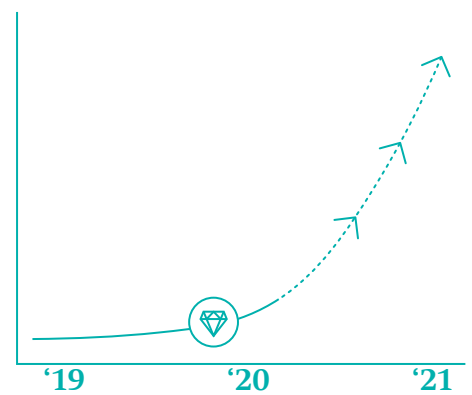
Investors continued to increase factor allocations in the 12 months leading up to the study, and intend to continue doing so, despite a challenging period and divergence in factor performance.



Perceptions of underperformance against expectations increased marginally, driven by short-term factor returns.



Committed to assessing risk and return of factor investing strategies over a long-term horizon, investors identify additional drivers as they gain experience.



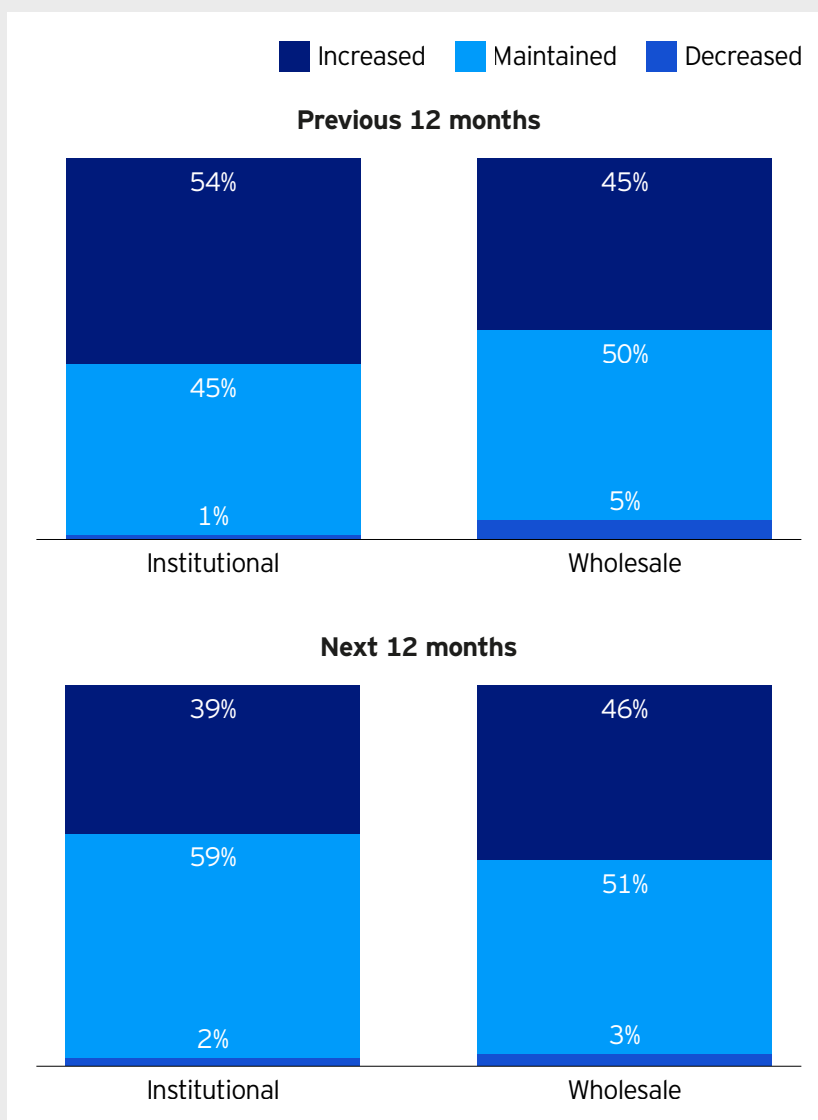
Exceptional valuations and continued belief give rise to hopes of a change in fortune for investors in the value factor.

Despite challenges, investors continue increasing allocations

Investors reported adding to their factor allocations, continuing a course observed in last year's study (Figure 1.1). 54% of institutional investors and 45% of wholesalers increased allocations during the previous 12 months, while 39% and 46% respectively expected to increase allocations over the next year. Europe, the Middle East and Africa (EMEA) and Asia Pacific (APAC) investors are the most likely to be increasing allocations, while investors in North America are less likely to make additional allocations to factor strategies. This incremental rise in allocations is being driven in part by the broader adoption of factors in the portfolio as investors move along the 'S-curve', including its incorporation in additional asset classes (especially fixed income), and by the gradual building up of exposures over some time.

Interviews for this study were conducted in April and May of 2020, against the backdrop of Covid-19 and following the initial shockwaves this pandemic sent through investment markets. Caution among investors towards the outlook for their portfolios was noticeable and for many the full impact was not yet clear. Yet as they looked at their factor allocations, investors remained confident on balance, reflected in the intention to continue allocating to their factor investing strategies.

Figure 1.1
Factor allocation changes (% citations)



Over the last 12 months, have you increased, decreased or maintained your factor allocations? Over the next 12 months, how do plan to change your factor allocations?

Sample size:
Institutional = 136
Wholesale = 97

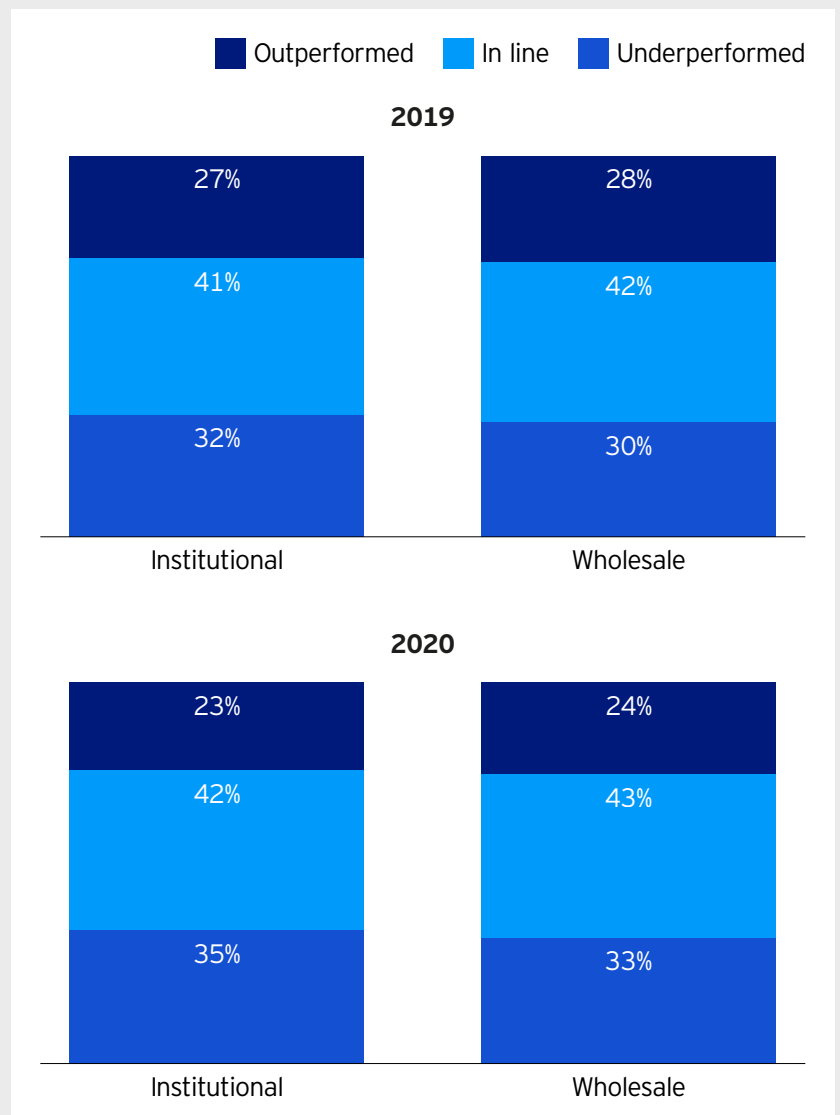
Yet as they looked at their factor allocations, investors remained confident on balance, and this is reflected in the intention to continue allocating to their factor investing strategies.

Factors continue to perform in the long run

Investor perceptions of performance relative to expectations are only marginally more negative than recorded in last year's study (**Figure 1.2**)¹. This year over 65% of institutional and wholesale investors reported meeting or exceeding their performance expectations. A third of wholesalers and 35% of institutional investors reported underperformance, up three percentage points from 2019.

This reflects two important attitudes held by investors: factor investors are mostly long-term investors, whose belief that factor premia results in excess return over the long run underpins a sense of pragmatism in the face of short-term volatility. In the words of one EMEA institutional investor: "For us, factor can only be judged over the long run." Factor strategies have performed as expected, even considering the peculiar conditions and lower returns for some factors over the past couple of years. One US institutional investor focused on the importance of consistency: "We would be more concerned if our factor investments started to behave erratically and didn't do what they should during periods of volatility."

Figure 1.2
Factor performance over 12 months to March 2020 relative to expectations (% citations, common cohort)



Looking holistically across your portfolio, how have your factor strategies performed in terms of return relative to your expectations over the past 12 months?

Sample size:
2019 = 217
2020 = 228

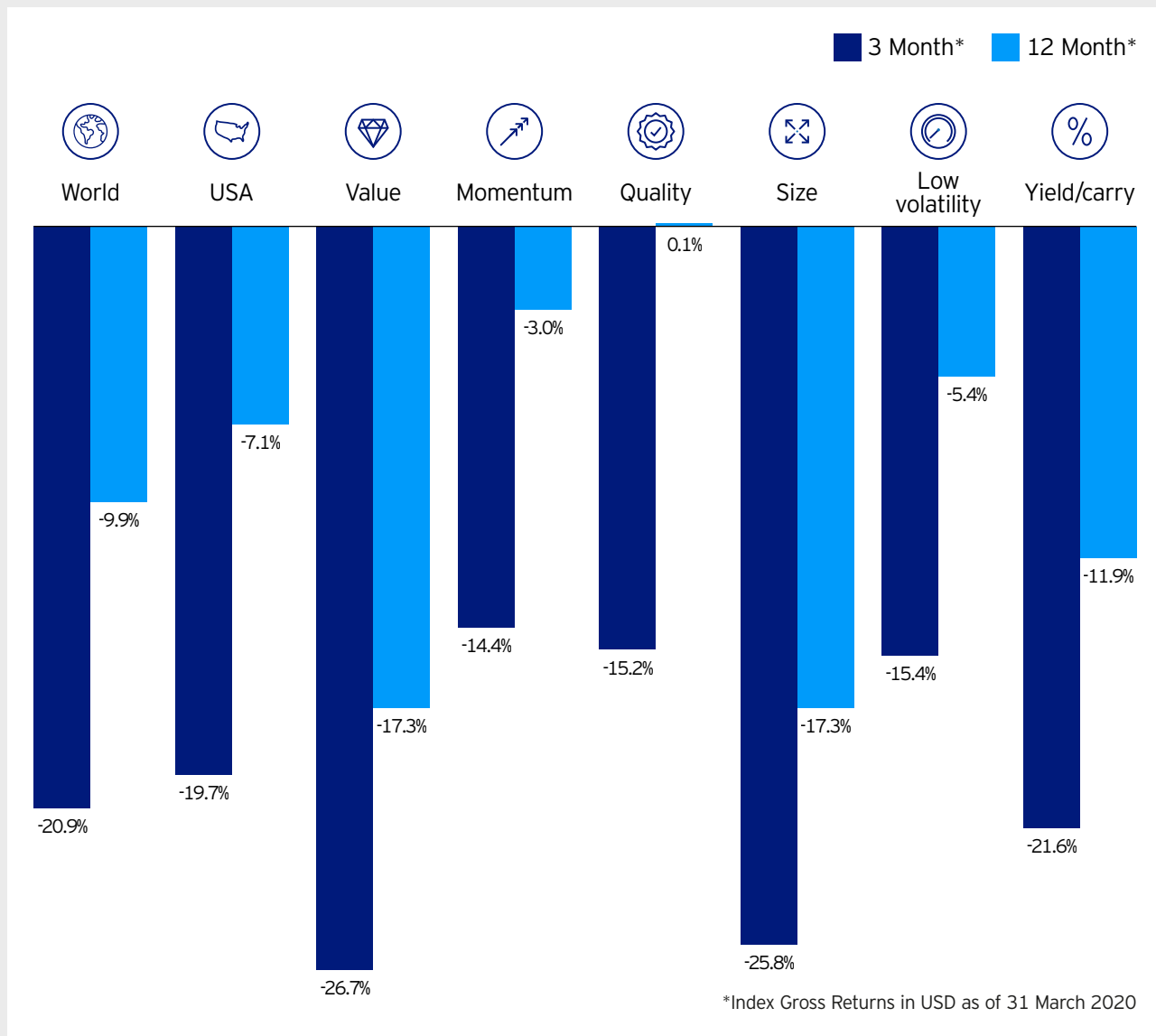
¹ Past performance is not a guarantee of future results.

Taking the long view: pragmatism in the face of market dislocation

Factor investing is not a speculative short-term strategy for most respondents, meaning that a longer-term view contributed to a sense of pragmatism in the face of the market dislocation arising from Covid-19 and poor performance from some individual factors. While investors expressed some caution towards the outlook for their portfolios generally, sentiment towards their factor strategies remained largely positive.

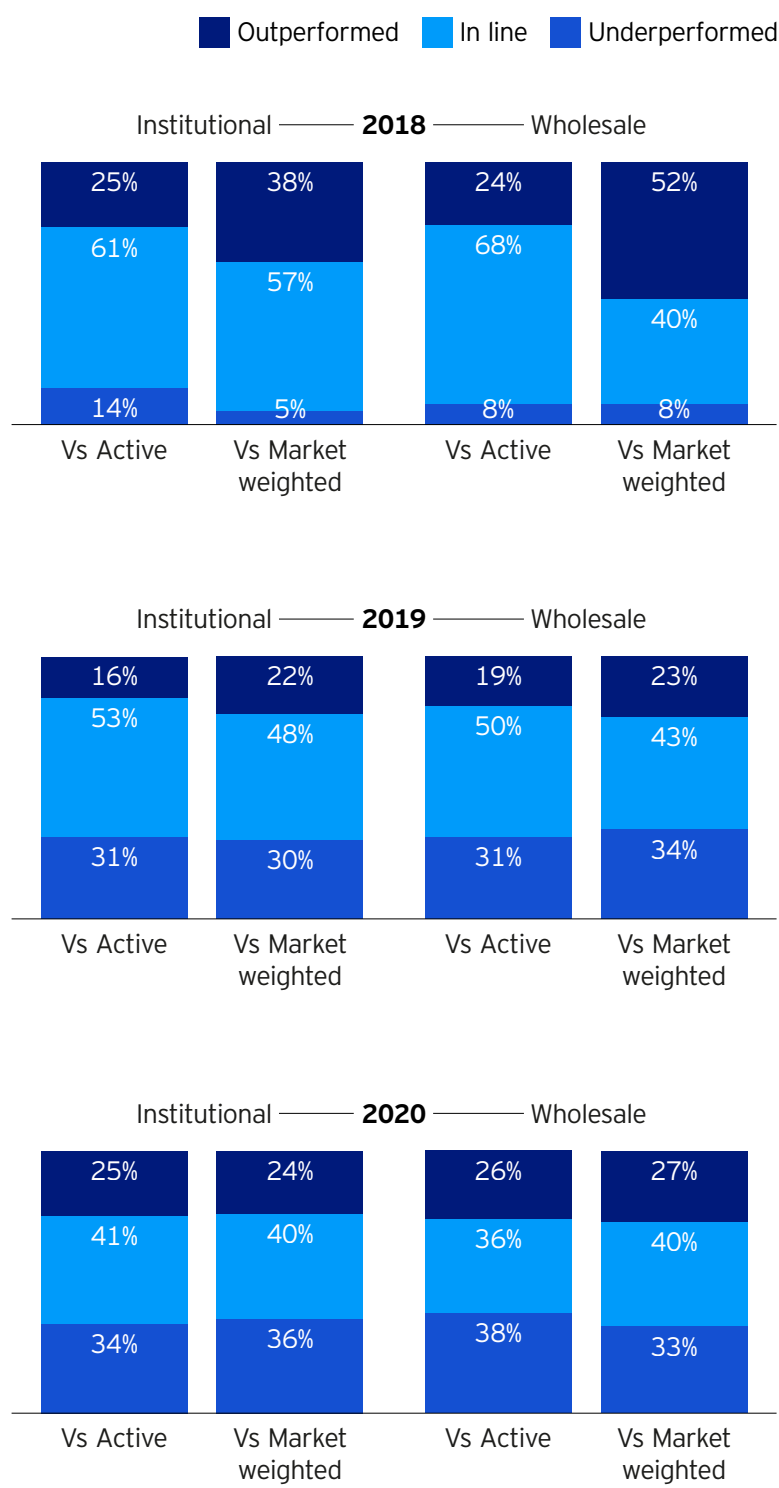
In global equity markets, the momentum, quality and low volatility factors generally outperformed the market over the survey period (**Figure 1.3**). In contrast, the value factor, and to a lesser extent the size factor, performed poorly. Indebtedness and liquidity concerns weighed particularly on the size and value factors, especially early in the interview period, when many firms rushed to raise capital.

Figure 1.3
Factor performance to March 2020 (3 month, 12 month)



Source: MSCI. Past performance is not a guarantee of future results. MSCI World Minimum Volatility Index (low volatility factor), MSCI World Momentum Index (momentum factor), MSCI World Quality Index (quality factor), MSCI World Equal Weight Index (size factor), MSCI World Value Weighted Index (value factor), MSCI World High Dividend Yield Index (yield/carry), MSCI World Index (World), MSCI USA Index (USA). All in Gross USD terms. An investment cannot be made into an index.

Figure 1.4
Factor performance relative to active and market-weighted allocations
in 12 months to March 2020 (% citations, common cohort)



How have your factor strategies performed in terms of return relative to traditional active/market-weighted strategies respectively over the past 12 months?

Sample size:
 2018 = 296
 2019 = 232
 2020 = 227

Performance relative to active and market-cap strategies was variable, reflecting the divergences between factors. Over 60% of investors reported performance of their factor portfolios met or exceeded performance of their active and market-weighted allocations. This performance report, and the continued uptake of factor investments generally, suggests that many investors are committed for the long haul. However, over a third of factor allocations underperformed both active and market cap strategies in both wholesale and institutional segments (Figure 1.4)², slightly higher than what was reported in 2019: For a small number of investors, poor performance over 2019 is driving a re-evaluation, predominantly among those using single-factor funds. One EMEA wholesaler described a “stepping back” from their value factor allocations.

² Past performance is not a guarantee of future results.

Risk and return remain central, but investors cite a wide range of adoption drivers as they gain experience

The drivers behind the adoption of factor strategies have remained constant over the past three editions of the study, demonstrating a continued broad consensus as to their benefits (**Figure 1.5**).

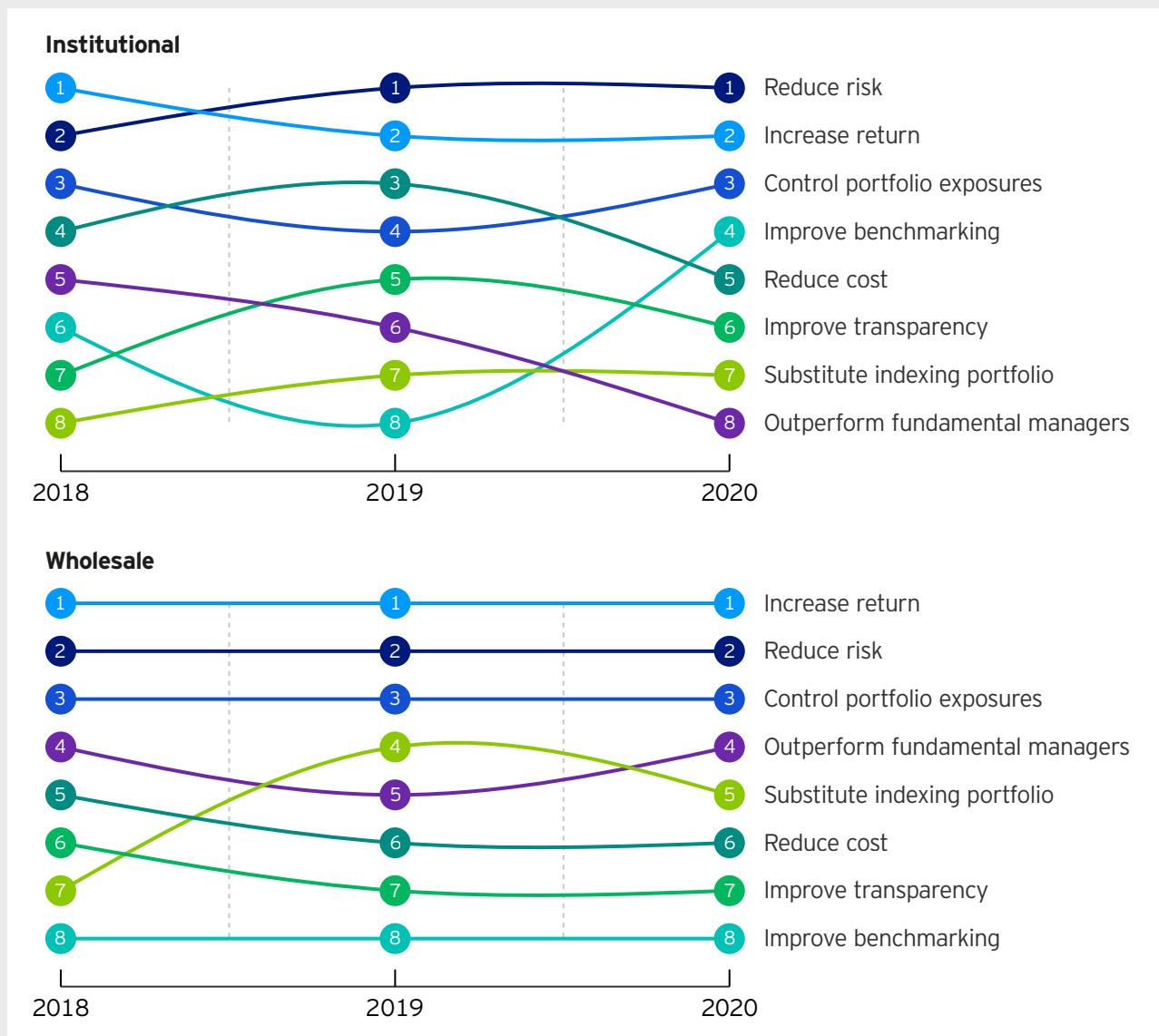
For institutions, risk reduction has consistently been the most important driver of adoption, followed by increasing returns. However, the increased focus on controlling portfolios and improving benchmarking over the last two

years suggests that investors are increasingly considering factors in the context of the whole portfolio, rather than in select sleeves or asset classes, for example equities.

Wholesale investors consistently cite return as the primary driver of adoption, befitting their closer proximity to end clients, and perhaps their shorter timeframes. Reducing risk is consistently noted as the second most important driver, with greater control over

portfolio exposures cited as the third. In contrast to their institutional counterparts, 'outperforming fundamental managers' and 'substituting parts of the indexed portfolio' rank as important drivers. This points to the nuanced understanding of factor investing among wholesalers - not just 'beta plus', but as a strategy with a distinct profile that can combine the advantages of both active and passive approaches.

Figure 1.5
Reasons for investing in factor strategies (average score, ranked)



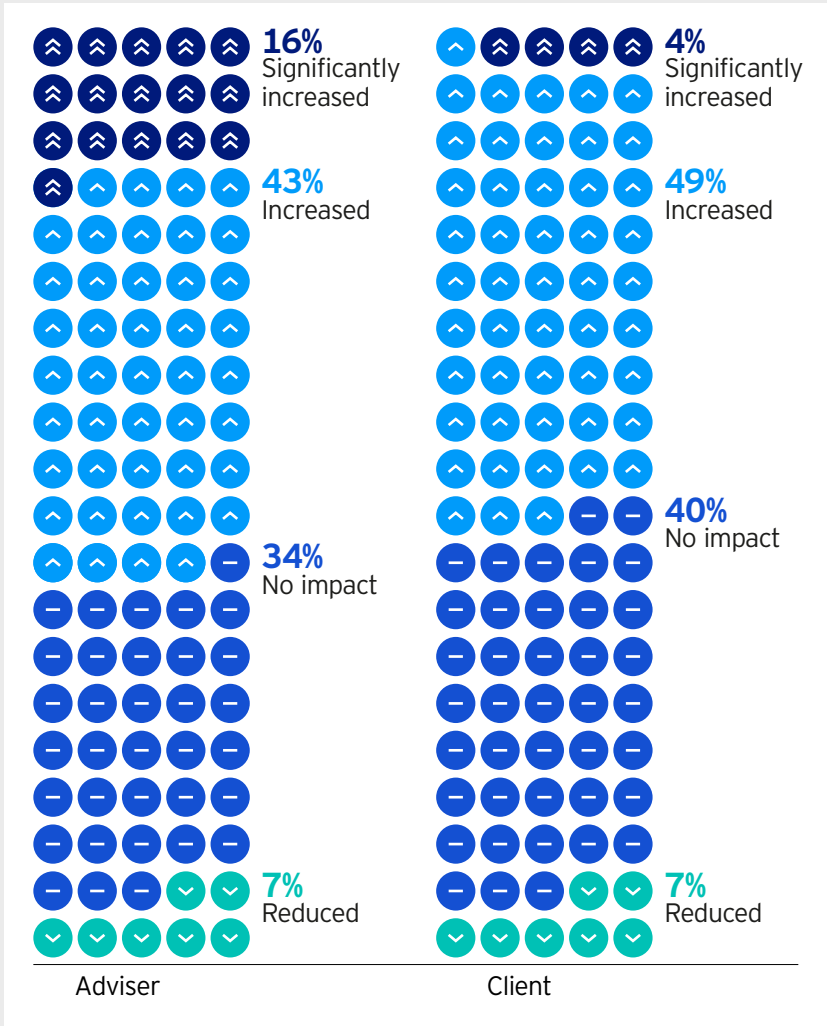
How important are each of the following reasons for investing in factor strategies?

Sample size: 2018 = 220
2019 = 232, 2020 = 236

**Wholesale investors:
support for factor
investing is increasing
with understanding
and experience**

Among wholesale investors, the commitment to factor investing has remained steady, or has increased, among both clients and advisers, despite recent performance pressure for some factors (Figure 1.6). Only 7% of investors reported an adverse effect on support for factor strategies from advisers, a similar proportion reporting a fall in support from clients. Meanwhile, over half of wholesalers report increased client and adviser support for factor investing.

Figure 1.6
Effect of recent performance on support and adoption (% citations, wholesale)

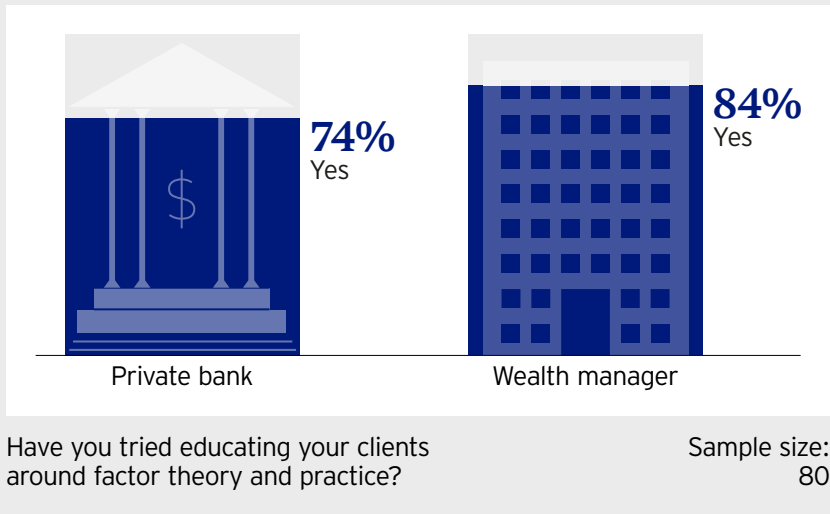


How has recent performance influenced client and adviser support and adoption of factor strategies?

Sample size:
74

Figure 1.7

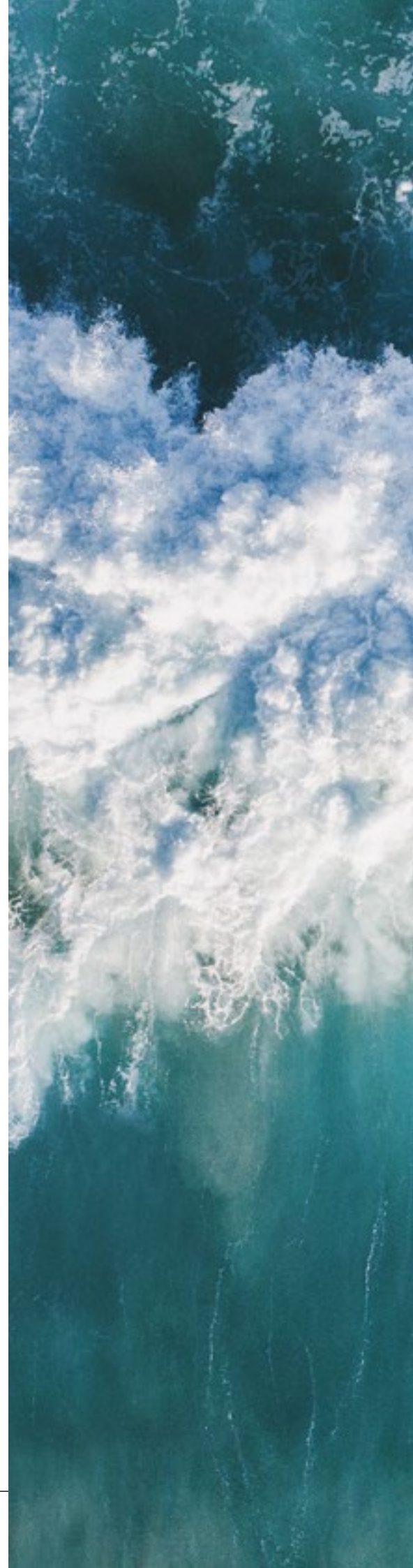
Firms looking to educate end-clients in factor theory (% citations, wholesale)



A clue to this result can be found in the activity of wholesale investors. Some 74% of private banks and 83% of wealth managers have provided some form of factor-specific education to clients, helping them understand the underlying theory and highlighting some of the research and evidence supporting the approach (**Figure 1.7**).

This is not necessarily the easiest task: one EMEA wealth manager highlighted the “difficulty of overcoming the hurdle of understanding with clients”, especially if they are not already interested. However, another EMEA adviser described how some level of factor performance could add to the advice process: “Factors are a really good way for our advisers to narrate performance”, adding that advisers at the firm “relate the performance of client portfolios to the performance of particular factors.”

It is likely that the wholesalers whose efforts focus on educating and supporting distribution teams have helped bring clients on board and lead to more informed conversations. As discussions around factor investments become more specific, it becomes easier for advisers and wholesalers to add value to client portfolios, building broader support for the long term.





“We would be more concerned if our factor investments started to behave erratically and didn’t do what they should during periods of volatility.”

Institutional investor, North America

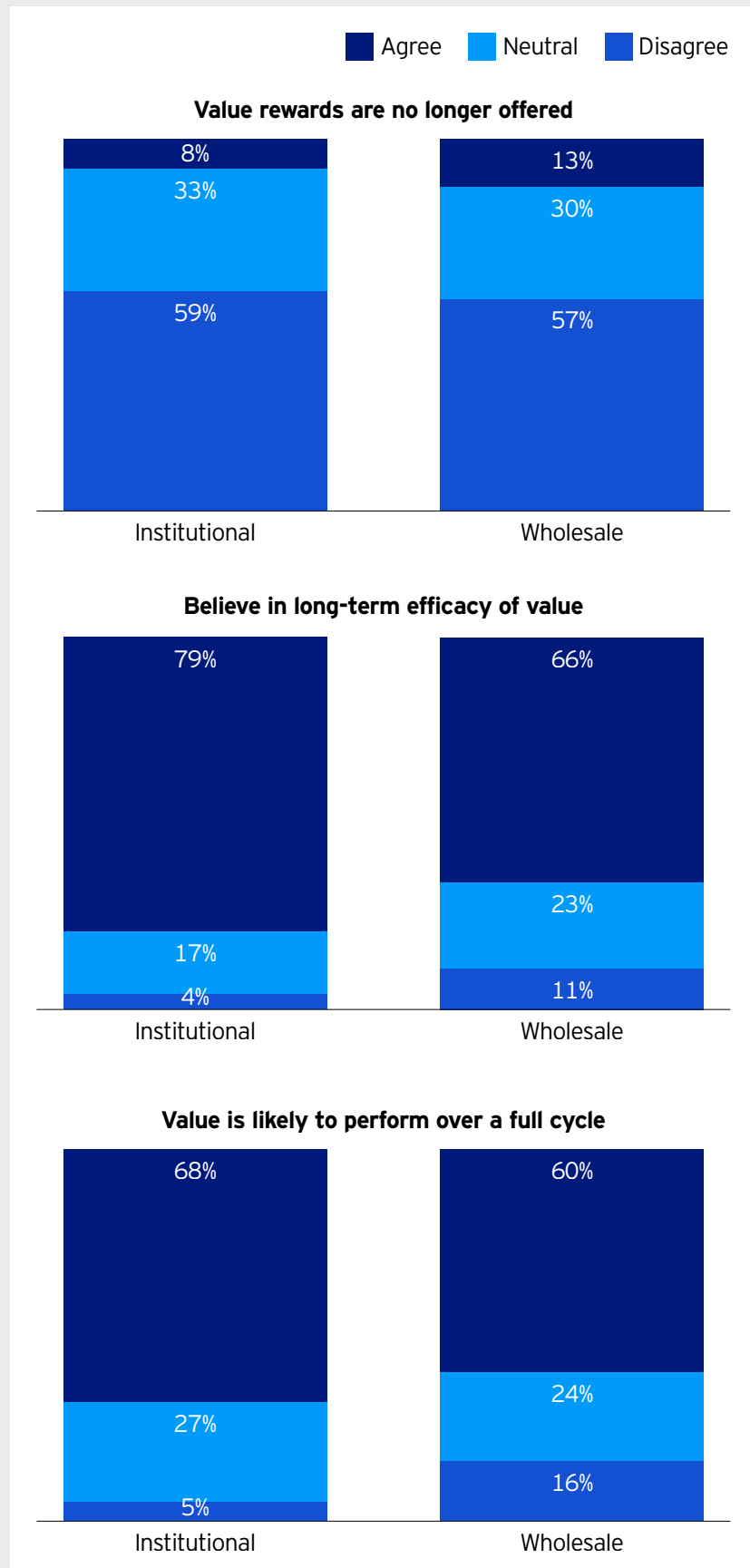
A fork in the road for the value factor?

Previous editions of the study have pointed towards questions around the 'value of value.' The previous decade was difficult for investors in the value factor. For instance, the MSCI USA Value Index has underperformed the MSCI USA Index by 3.4 percentage points on an annualised basis over the 10-year period ending 31 March 2020.³ Investors are faced with two possible explanations - either the value factor was undermined by fundamental shifts in markets, or that decade of underperformance was 'part of the game' - especially given the significant chance of long-term factor underperformance in volatile conditions.

This dilemma is still on the minds of investors. One institutional investor in North America summed up the views of some when he described fears that a "global economy that is reconfiguring itself might cause some value investments not to revert at all." This study has documented underperformance from the value factor; value also underperformed in the 12 months to 31 March 2020, with the MSCI World Value Index falling 17%, as opposed to 10% for the MSCI World Index.

Despite its run of challenging performance, this edition of the study finds that most investors remain committed to the value factor, believing its run of underperformance as a temporary phenomenon. Only 5% of institutional investors and 16% of wholesale investors doubted that value would perform over the full cycle (**Figure 1.8**). One APAC wholesaler summed up the mood: "Value should be effective based on historical data, yet at this point in the cycle it cannot work - value investing is a game of patience."

Figure 1.8
Attitudes to the value factor (% citations)



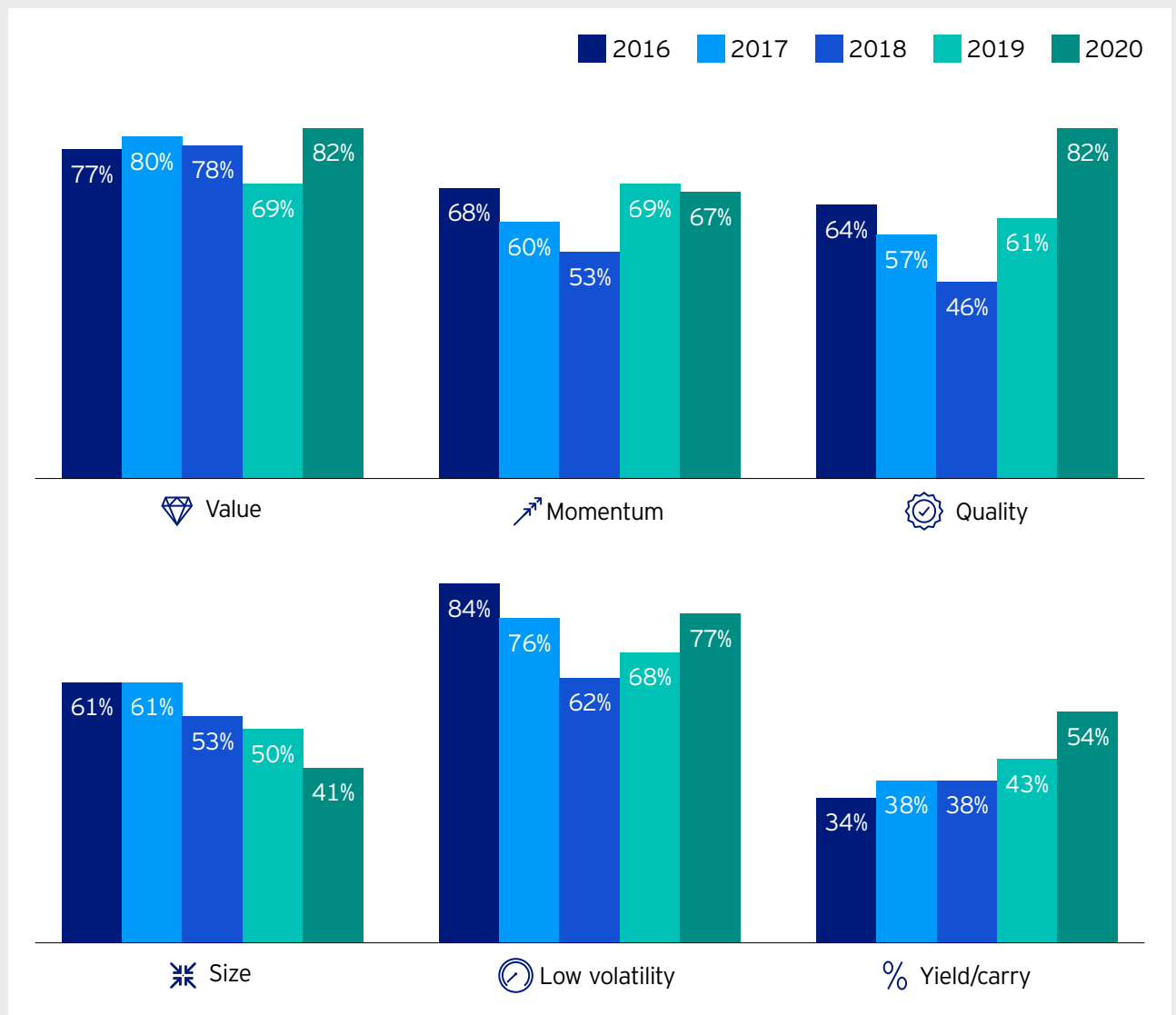
Do you agree or disagree with the following statements?

Sample size: Institutional = 135
Wholesale = 91

³ MSCI USA Value Index (USD), Factsheet by MSCI, 31 March 2020; MSCI USA Index (USD), Factsheet by MSCI, 31 March 2020.

As one APAC wholesaler explained: “We have tilted slightly away from value for tactical reasons based on our momentum metrics, but not due to any fundamental reconsideration of the worth of the value factor.”

Figure 1.9
Factor exposures sought in the portfolio (% citations)



What factors do you explicitly seek / have exposure to in the portfolio?

Sample size: 2016 = 56, 2017 = 98, 2018 = 260, 2019 = 236, 2020 = 237

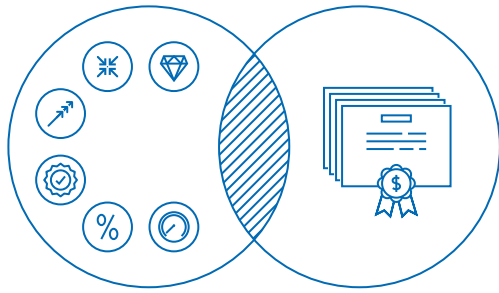
Likewise, investors reported increasing their exposures to the value factor in 2020 relative to 2019 (up 13 percentage points) (Figure 1.9). This increase in allocations to the value factor occurred at the same time investors reported increasing exposures to the quality factor (up 21 percentage points).

However, for a small number of wholesale investors, this has proven something of a challenge and some investors reported tilting away from value. As one APAC wholesaler explained: “We have tilted slightly away from value for tactical reasons based on our momentum metrics, but not due to any fundamental reconsideration of the worth of the value factor.”

Theme 2

Fixed income factor investing continues to gain traction through potential for enhanced returns and stronger risk management

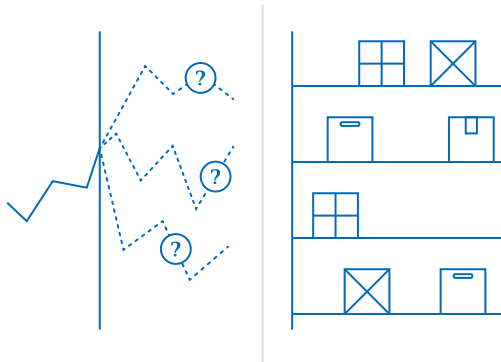




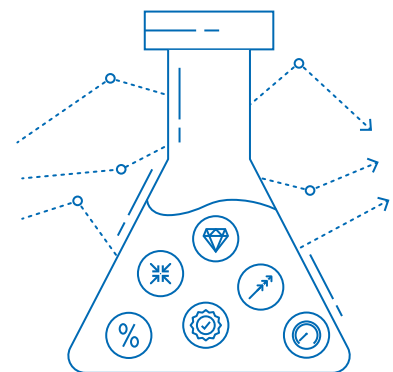
Nearly all respondents believe factor investing can be applied to fixed income, a dramatic increase over the past two years.



Alpha sources in fixed income markets have helped drive uptake.



Price modelling remains a key challenge for institutional investors, while limited availability of products has slowed adoption among wholesalers.



Investors see factors as an important tool for managing fixed income risks and capturing the alpha targeted by traditional active managers in a more systematic way.

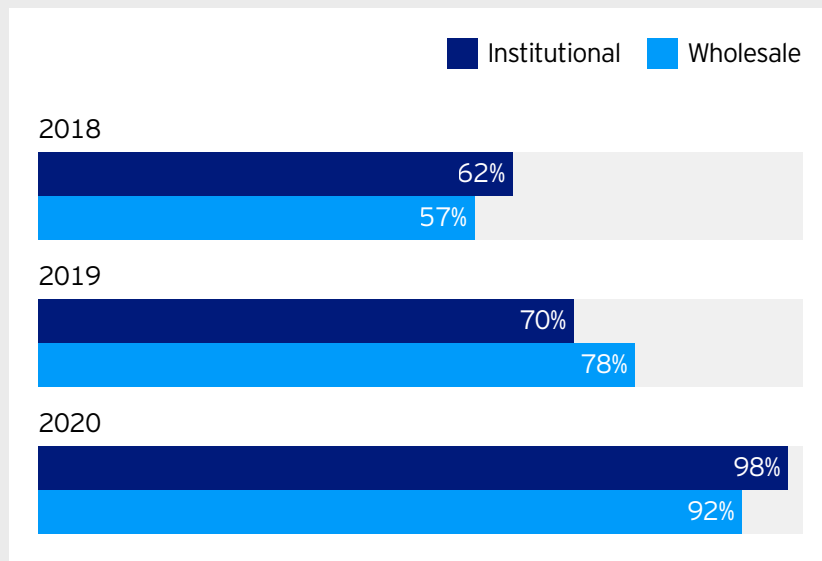
The belief that factor investing can be applied to fixed income is now close to universal, having increased from 59% in 2018 to 95% this year (Figure 2.1).

This is reflected in growing levels of adoption: 40% of the sample are using factors in fixed income, while more than two-thirds are actively considering its introduction (Figure 2.2).

Those surveyed (many of whom are relatively new to the application of factor investing to the asset class) who see themselves as 'fixed income factor investors' embrace a broad range of implementation methodologies. This includes the targeting of style factors such as value and momentum in line with the approach taken in equities. However, it also includes those applying a systematic approach to monitoring and targeting of more traditional fixed income return drivers, such as term and credit.

Indeed, the adoption of factor investing in the fixed income space often follows a similar pattern. Investors first look at how they can apply a more systematic approach to their fixed income portfolio across these traditional return drivers, before moving to look at the role of additional style factors. This is often seen as a natural progression and an additional tool for managing risk and return.

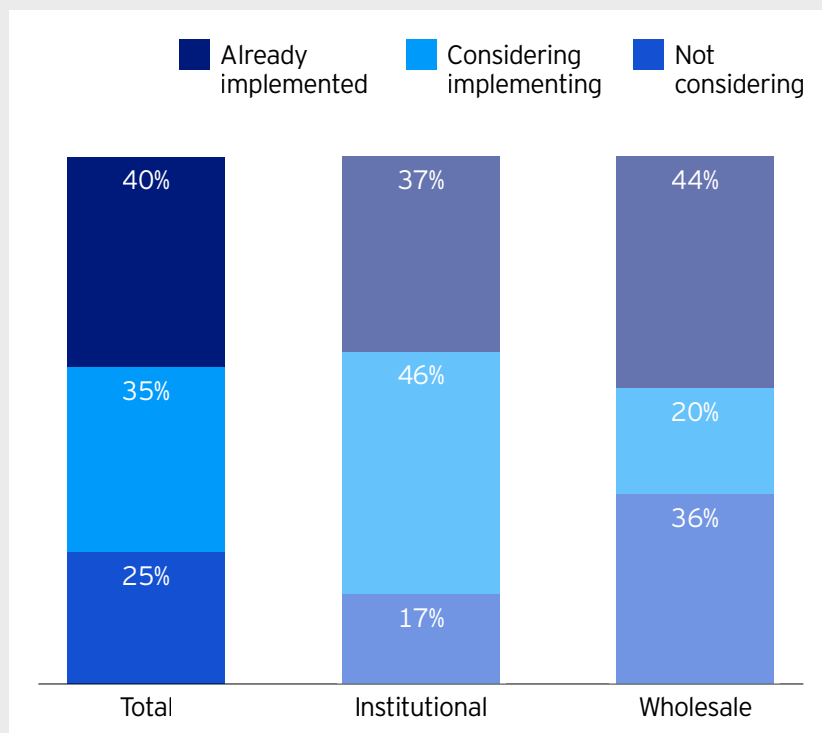
Figure 2.1
Belief that factor investing can be extended to fixed income (% citations)



Do you believe that factor investing can be applied to the following asset classes?

Sample size:
2018 = 284, 2019 = 231
2020 = 237

Figure 2.2
Use of factors in fixed income (% citations)



Do you use factors in the following asset classes?

Sample size: Institutional = 135
Wholesale = 91

Alpha sources make fixed income a good fit for factor investing

Investors believe that fixed income is a good fit for a factor-based approach. Some 63% agree that factors in fixed income are equally as important as they are in equities (Figure 2.3). However, the rationales for employing a factor approach in these asset classes differ slightly (Figure 2.4). Investors recognise risk premia as most important to both but ascribe a larger role to market structure as a driving force behind fixed income factors. They believe that fixed income offers well-established opportunities due to the nature of its market rules or restrictions. For example, some parts of the market, such as high yield bonds, are not accessible for certain types of investors, creating segmentation and giving rise to exploitable opportunities. In contrast, behavioural rationales related to human biases were viewed as less important in fixed income than in equities. The reduced role of retail investors in driving market movements was cited as one reason for this discrepancy.

Figure 2.3
Belief in applying factors within fixed income (% citations)

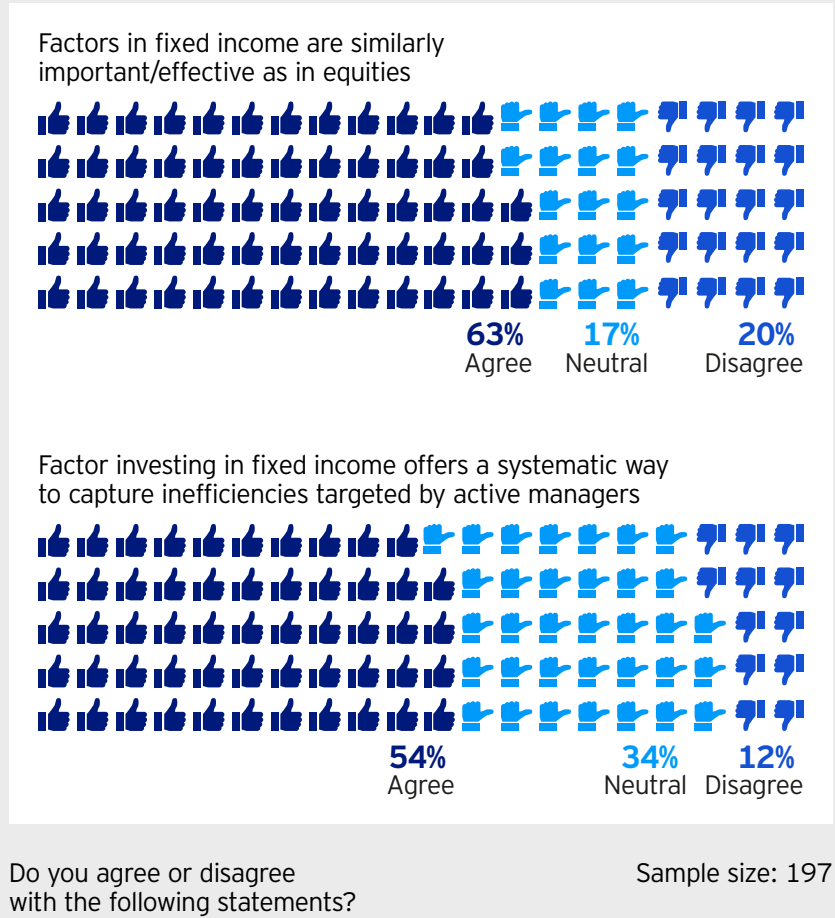
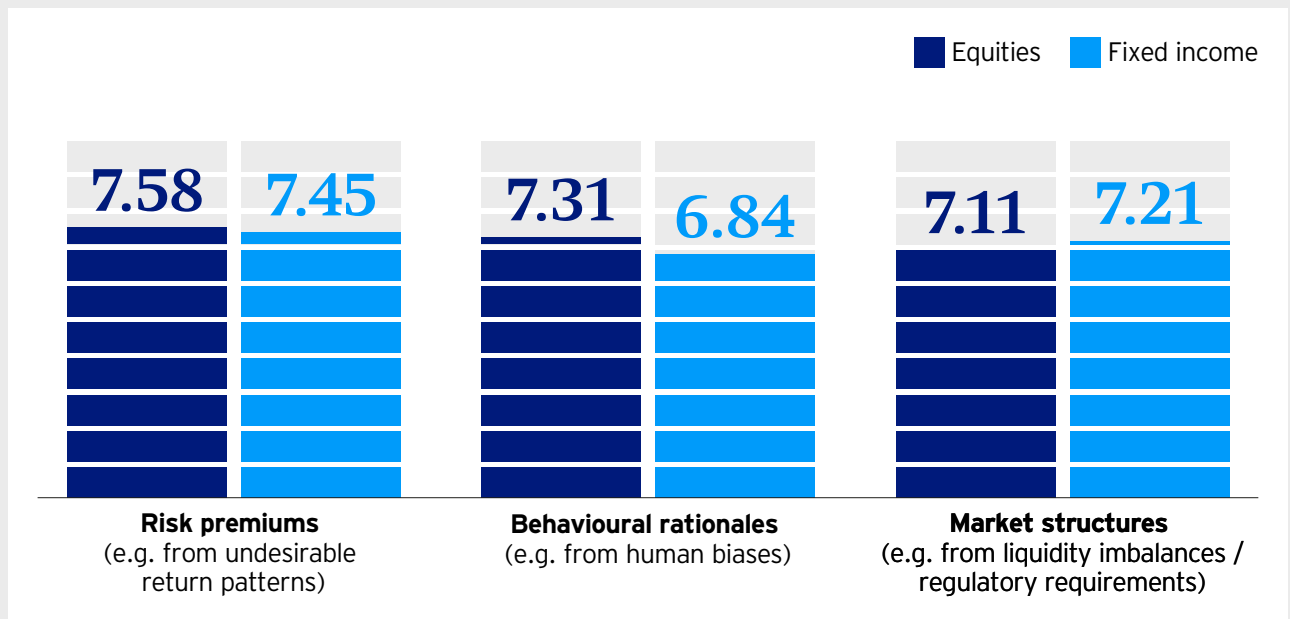


Figure 2.4
Rationale for factor investing in equities vs. fixed income (average score /10)



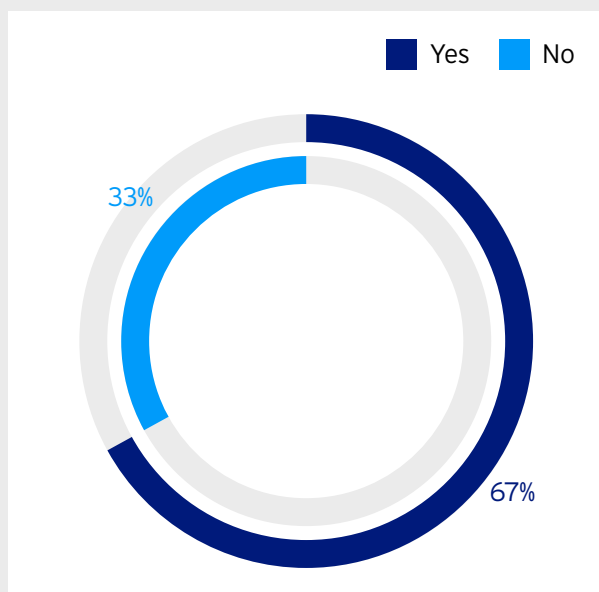
Please rate to what degree the following rationales/explanations for factors apply in (A) Equities and (B) Fixed Income (where 10 is very important)

Sample size: 185

The relatively high proportion of respondents investing in fixed income via factors, or considering their introduction, points to the appeal of more systematic approaches to the asset class. Investors also cited the potential for a factor approach to shine a spotlight on alpha generation by active fixed income managers, bringing more transparency to the market overall, as has been the case with equities.

Investors stressed that they often adopted a fully active approach within fixed income due to the structural problems inherent in tracking market-weighted indices, including the greatest exposure to the index's most indebted constituents, and greater than desired exposure to negative-yielding debt. Many feel that factor strategies offer some of the efficiency benefits of a market-weighted approach but with the potential to avoid the inherent disadvantages of market-weighted indexes (**Figure 2.5**). An APAC-based wholesaler commented: "There are many reasons not to passively follow a bond index. Using factors allows you to apply constraints to overcome these inherent issues."

Figure 2.5
Belief that factor investing can overcome biases of tracking an index (% citations)



Tracking a market-weighted fixed income index passively can lead to structural biases, such as larger relative exposures to the index's largest corporate and government companies or governments issuing the most debt and exposures to negative interest rates bonds. Do you think a factor approach can overcome these challenges?

Sample size: 173

Figure 2.6
Fixed income risks that can be managed with factors (average score /10)

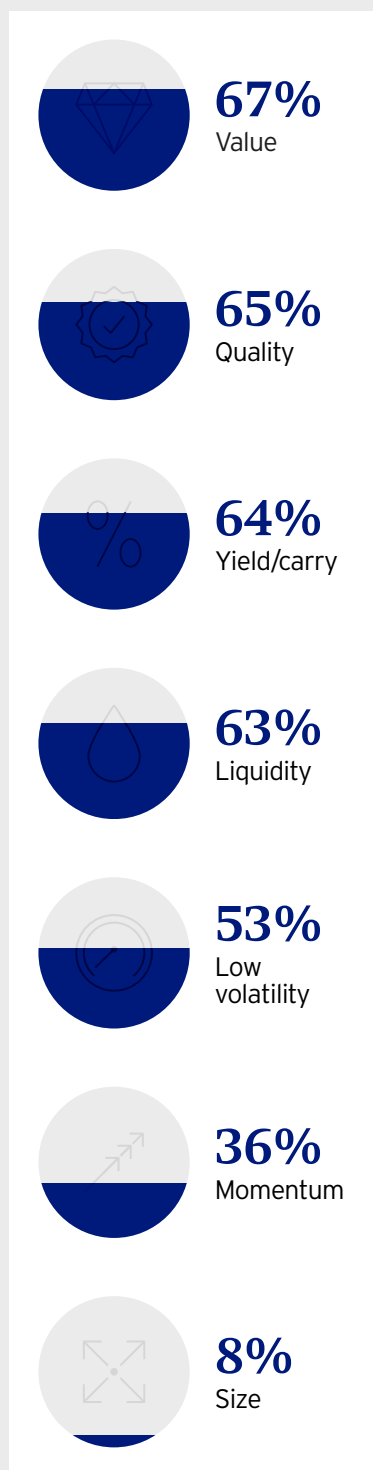


How well do you think factor investing can manage the following sources of risk within fixed income? Sample size: 180

Potential improvement to risk management is another reason that investors are adopting factors in this asset class, viewing interest rate risk as the most suitable among traditional fixed income risks for this approach. Similar levels of support were exhibited towards managing credit risk, less so for liquidity risk (**Figure 2.6**). In practice, this often took the form of setting the acceptable level of risk and then using factors to enhance return potential in comparison to benchmarks. For example, investors described using a target risk profile for both duration and credit that was in line with benchmarks, and then using a multi-factor fixed income portfolio to capture additional returns against that benchmark.

An APAC-based wholesaler commented: "There are many reasons not to passively follow a bond index. Using factors allows you to apply constraints to overcome these inherent issues."

Figure 2.7
Factors targeted in fixed income (% citations, fixed income factor investors)



Which factors are you targeting in your fixed income portfolio?

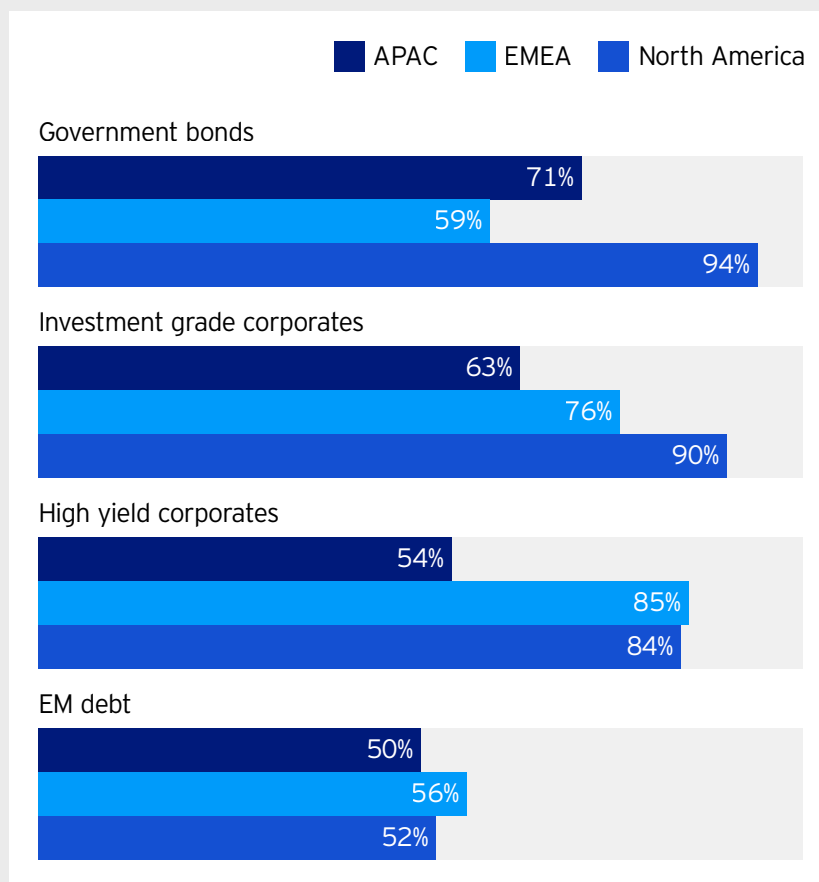
Sample size: 86

As in equity portfolios, the widening use of factor investing leads to the targeting of a broader range of investment factors. Within the overall sample, no one factor gained pre-eminence, with value, quality, yield and liquidity all popular (**Figure 2.7**). However, there is a lack of standardisation of terminology, with investors from different organisations often applying different labels to similar strategies, particularly when these were being done in-house rather than as part of a mandate or via an ETF.

There are also some regional variations in the underlying asset classes that are being targeted with factors (**Figure 2.8**). APAC investors were much less likely to

use factor investing strategies within corporates, while North American investors were likely to apply factors across the full range of government bonds and credit. An APAC-based wholesaler commented: "We apply factors across the fixed income portfolio, but mostly focused on government bonds, as corporate bonds are more difficult to trade in our region." With systematic factor strategies requiring minimum levels of trading to be viable, the levels of liquidity in each underlying market continue to act as a challenge for factor applications in certain regions and segments.

Figure 2.8
Asset classes in which using factor investing (% citations, fixed income factor investors)



Which fixed income asset classes do you use factor investing for in your fixed income portfolio?
 EM = Emerging Markets

Sample size: 89

Price modelling and lack of product continue to pose challenges

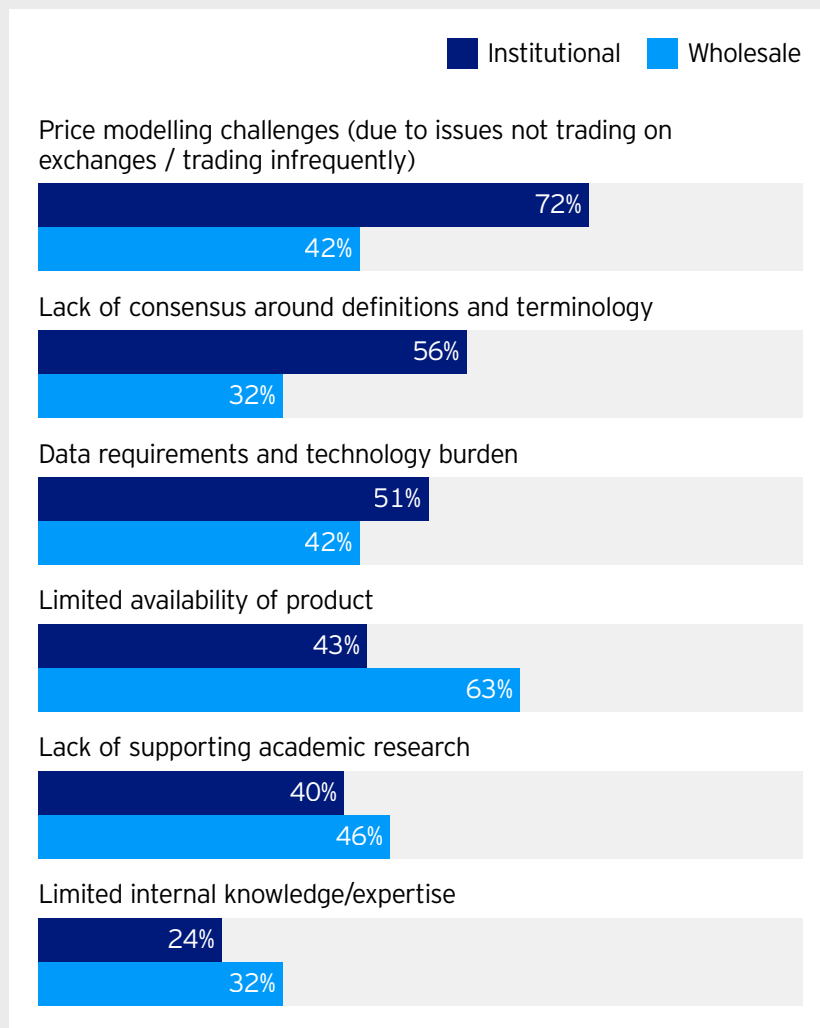
Despite support for the principle of factor investing in fixed income, challenges remain that act as a barrier to adoption among some investors (**Figure 2.9**). Some 72% of institutional investors highlighted price modelling challenges, with many saying that they wanted to implement these strategies in-house but lacked access to the right data or the ability to make sense of data that is available. “We are increasing our use of factors in fixed income but face the challenge of not enough data to do everything we want to do,” said one institutional investor in North America.

For many institutional investors (56%), a lack of consensus around definitions and terminology remains a challenge. Several pointed to the difficulties of working with different external managers across fixed income factor mandates and the lack of unified definitions when discussing fixed income factors internally.

In contrast, wholesalers identified a lack of product as by far their most prominent challenge (63%). Among these investors, yield-based factor strategies have been the most popular, with two-thirds of wholesalers targeting this strategy in their factor portfolio. This was partly tied to the popularity of products targeting high yield securities more generally, as a result of falling yields, but also reflects the fact that improving returns is consistently listed as the principal driver of adoption of factor strategies among wholesale investors, ahead of risk management (see Theme 1). For many wholesale investors factor strategies are seen as a way of boosting yields from their fixed income allocations, rather than a tool for reducing volatility of the overall portfolio.

While yield-based strategies are attracting flows, many wholesalers said that in other strategies, including value, a shortage of products (and in particular a shortage of ETFs) meant that they often struggled to find products to recommend to their clients.

Figure 2.9
Challenges of implementing factor investing in fixed income (% citations)



What are the challenges of implementing factor investing in fixed income?

Sample size:
Institutional = 117
Wholesale = 76



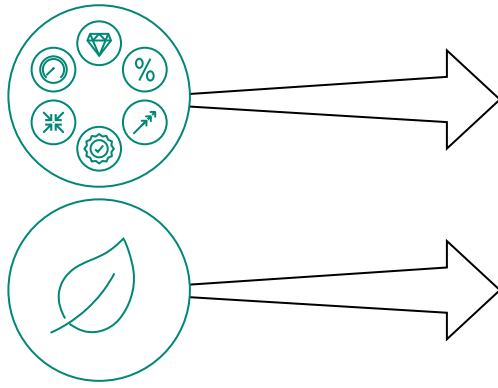
“We are increasing our use of factors in fixed income but face the challenge of not enough data to do everything we want to do.”

Institutional investor, North America

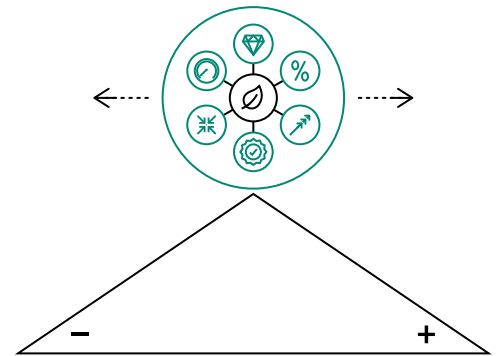
Theme 3

Investors look to the intersection of ESG and factor investing

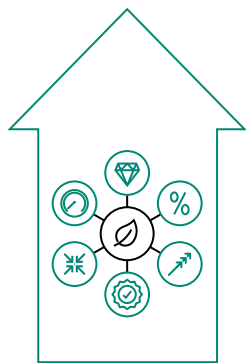




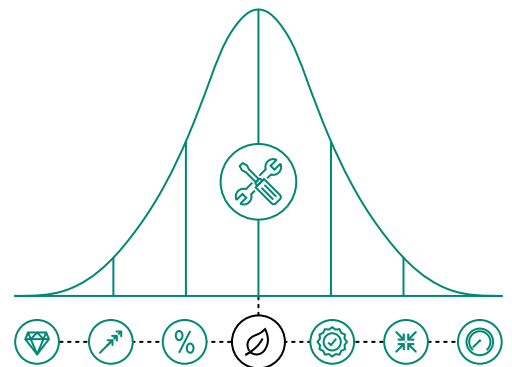
Factor investing and ESG adoption and integration are advancing independently but in parallel, with most factor investors having an ESG policy in place.



In principle, investors see ESG as aiding factor strategies, but some are having difficulties understanding the potential effects and mitigating potential challenges.



Despite the challenges, recent performance has added to momentum; investors who have incorporated ESG are more likely to cite positive performance from their factor allocations.



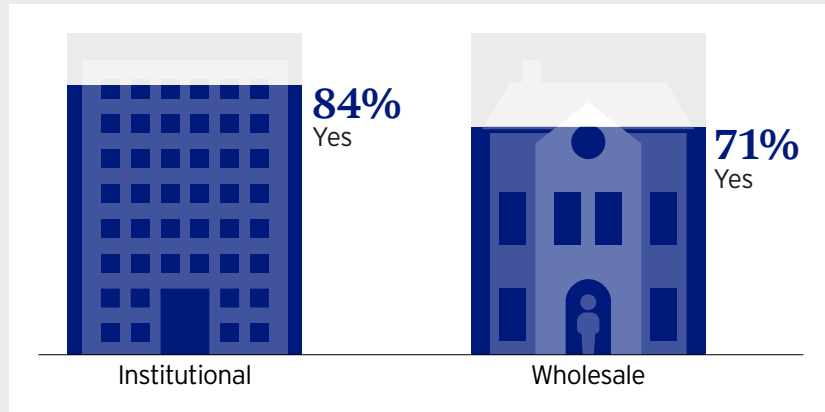
A number of tools exist to ease the ESG adoption process, depending on where investors are on the adoption curve.

ESG adoption continues apace

ESG has been a principal area of focus among both institutional and wholesale investors for some time, and last year's report noted that factor adoption has often taken place in parallel with ESG adoption. This year, 84% of institutions and 71% of wholesalers (all of them factor investors) had an ESG policy in place (**Figure 3.1**), while more than half were already incorporating or considering incorporating ESG into their factor portfolio (**Figure 3.2**).

While ESG and factor investing are generally separate phenomena that are implemented independently of each other, the concurrent adoption of both can cause challenges for investors. This is especially true as many factor products are not ESG integrated, and most ESG products are not factor products.

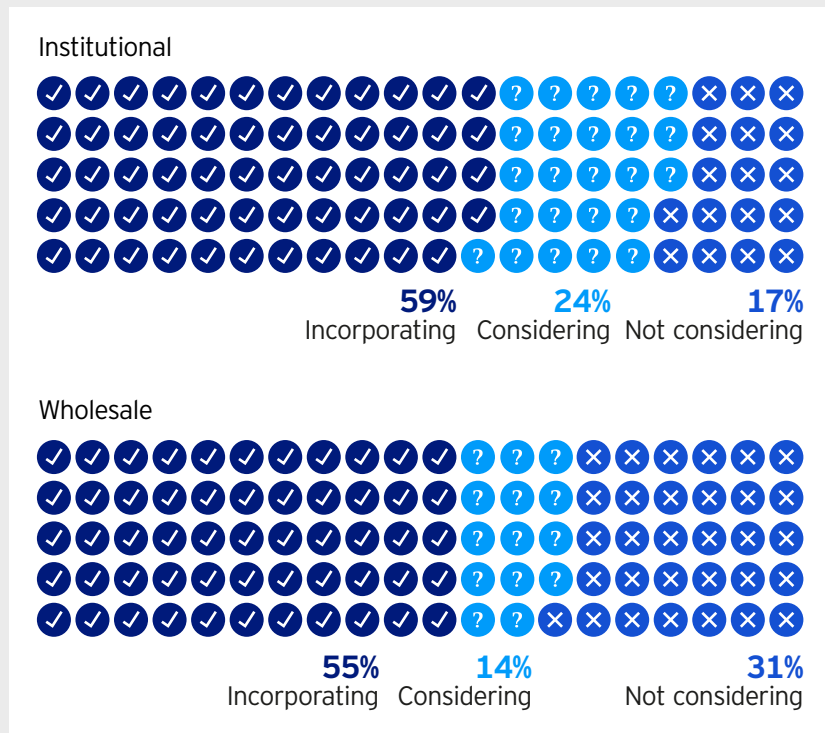
Figure 3.1
Investors with an ESG policy (% cit ations)



Do you have an ESG policy at the organisational level?

Sample size: Institutional = 135
Wholesale = 89

Figure 3.2
Investors incorporating ESG in factor portfolios (% cit ations)

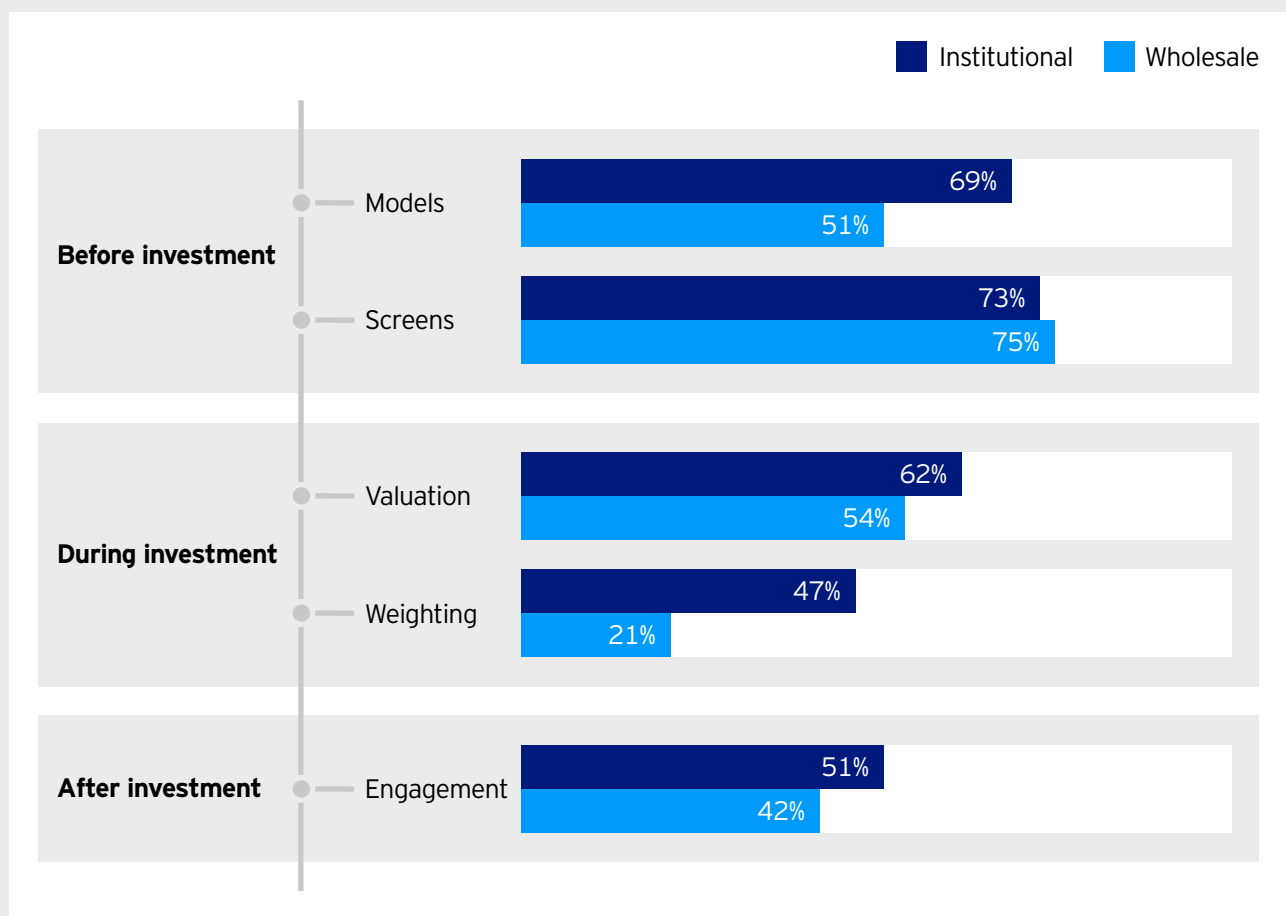


Do you incorporate or are you considering incorporating ESG in your factor portfolio?

Sample size: Institutional = 129
Wholesale = 86

While ESG and factor investing are generally separate phenomena that are implemented independently of each other, the concurrent adoption of both can cause challenges for investors.

Figure 3.3
Stage where ESG was incorporated (% citations)



At which stage do you incorporate ESG for your factor mandates?

Sample size: Institutional = 93
 Wholesale = 57

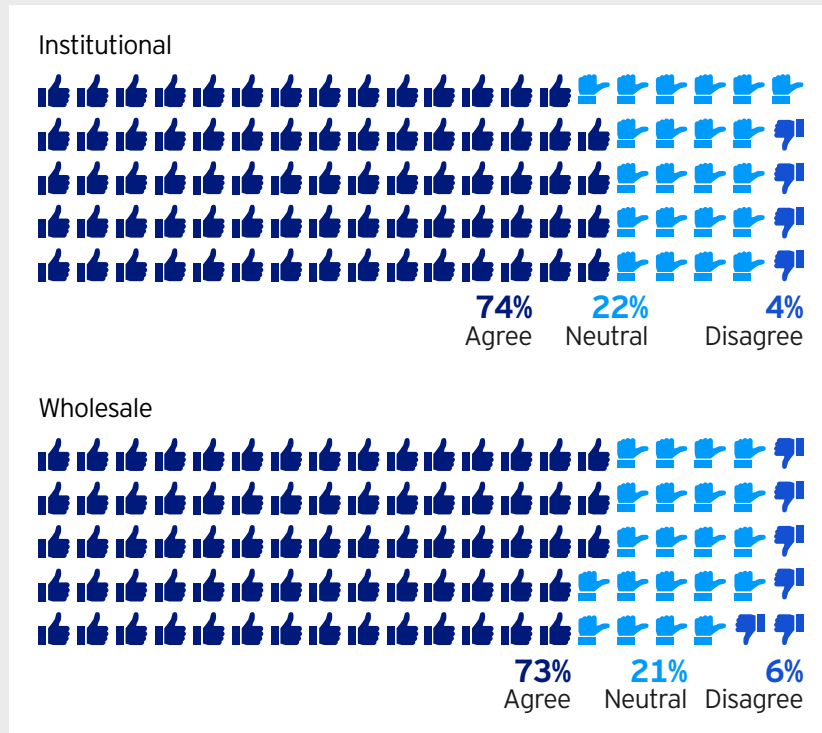
ESG is not just being adopted by more investors, it's also playing a more prominent role throughout the investment process (**Figure 3.3**). While some kind of negative screen was the most common form of implementation (73% institutional, 75% wholesale), 68% of institutional investors and 51% of wholesalers were incorporating ESG in models, 62% of institutions and 54% of wholesale investors were incorporating when assessing security valuations, and around half of each were pursuing some form of active engagement strategy.

Recent performance experiences point to benefits from ESG

For a significant number of factor investors, ESG is a valuable signal for security selection. This suggests that while ESG is not yet a purely quantitative metric, it is a useful qualitative signal prompting important questions about particular securities (**Figure 3.4**).

Most investors saw ESG as aiding factor strategies (**Figure 3.5**). Some 64% of institutional and 47% of wholesale investors perceived a helpful symbiosis: in the words of one APAC institutional investor: “We believe that incorporating ESG in our factor models should provide us with the means to manage short-term downside, with the potential for a greater upside over the longer term.”

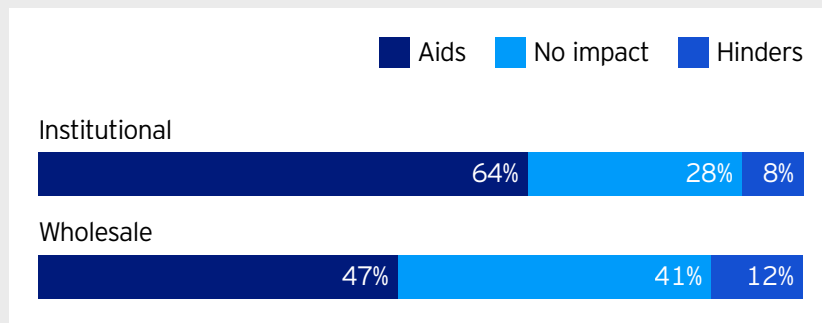
Figure 3.4
ESG a valuable additional signal for security selection (% citations)



ESG is an additional signal for stock selection

Sample size: Institutional = 128
Wholesale = 85

Figure 3.5
Effect of ESG on factor strategies (% citations)



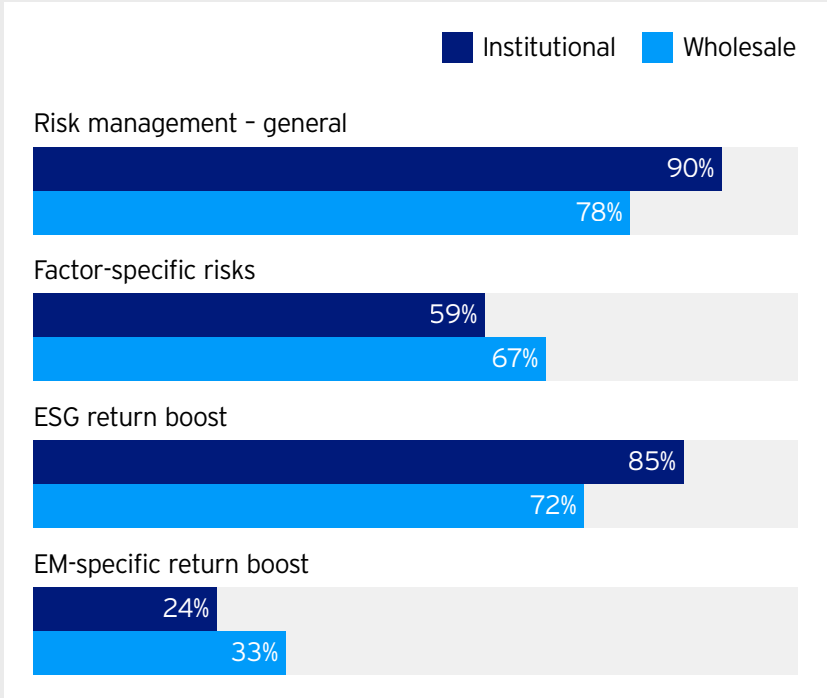
Do you find that ESG hinders or aids factor investment strategies?

Sample size: Institutional = 130
Wholesale = 86

In the words of one APAC institutional investor: “We believe that incorporating ESG in our factor models should provide us with the means to manage short-term downside, with the potential for a greater upside over the longer term.”

For institutions, these benefits were generally broad (**Figure 3.6**): they see them in terms of risk management (90%) and potential ESG-related return. Meanwhile, wholesalers, while also focused on return and risk management, saw benefits from ESG including the ability to manage factor-specific risks, such as the risk of value traps (securities that appear cheap but which have little prospect of significant increase due to broader economic shifts).

Figure 3.6
Ways in which ESG supports factor strategies (% citations)



[If aids] Why is this the case?

Sample size: Institutional = 80
 Wholesale = 36

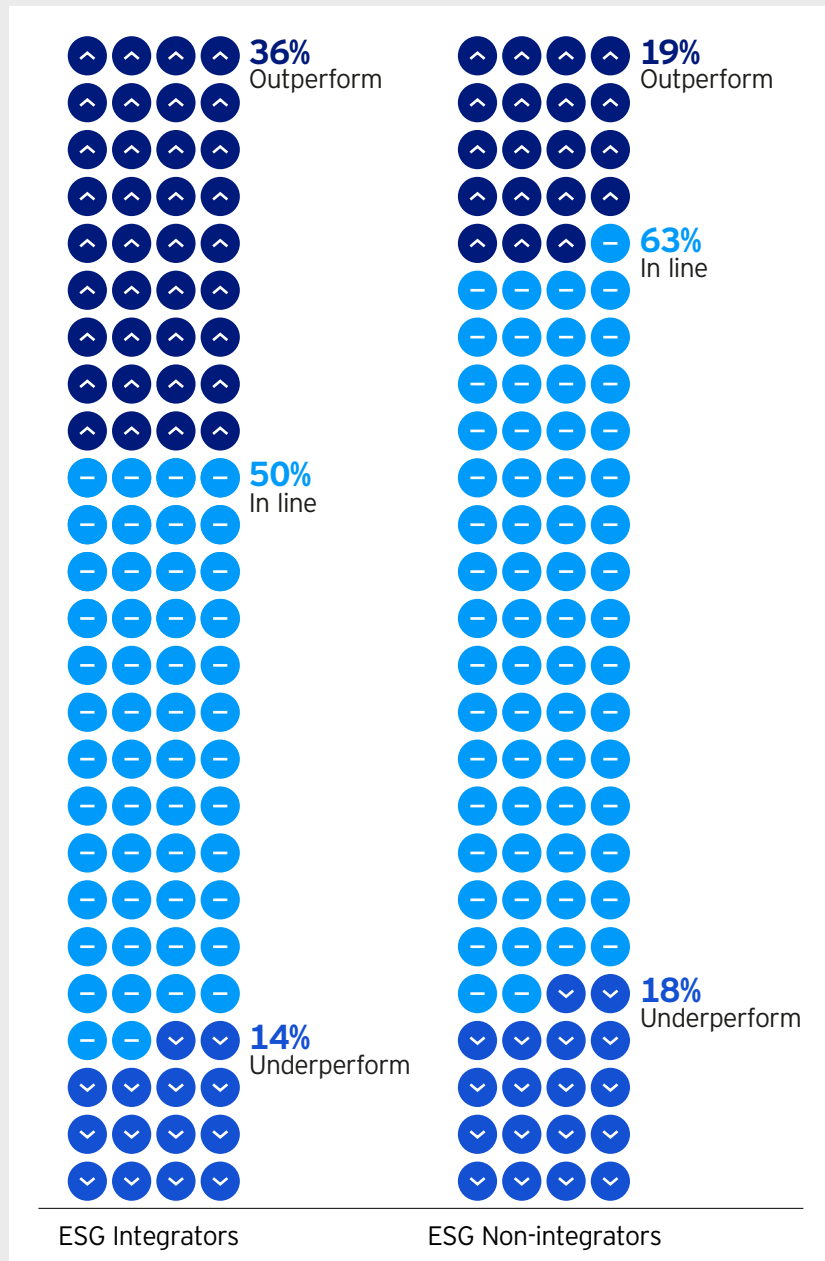
Investors who have incorporated ESG were more likely to outperform expectations

Interestingly, respondents who had integrated ESG within their factor strategies were twice as likely to say that their factor strategies had outperformed their expectations over the past 12 months (**Figure 3.7**)⁴. While such a finding should be treated more as an indicator, as it is difficult to interpret this statistic without understanding the particular circumstances of each investor, it serves to underline the views of those investors that see positive benefits in ESG integration.

Whether by, in the words of one APAC institutional investor, “helping investors weed out some poorer quality firms, controlling risk in the process”, or in the words of another, “providing investors with a means to manage short-term downside, with the potential of a greater upside over the longer term,” it is clear to many that ESG can make a material contribution to performance.

One possible explanation of this outperformance can be found in some of those worst hit by the Covid-19 crisis. Oil and gas, already reeling from a low oil price, were further hit by a slowdown in global activity resulting from global lockdowns. However, these securities frequently trade at a discount, making them useful components for a value strategy: energy companies comprise 7% of the MSCI World Value Index, as opposed to 3.2% of the MSCI World. A basic ESG strategy that underweights carbon-intensive energy producers would have reduced exposure, and potentially drawdown.

Figure 3.7
Factor performance over past 12 months to March 2020, relative to expectations (% citations)



Looking holistically across your portfolio, how have your factor strategies performed in terms of return relative to your expectations over the past 12 months?

Sample size: 228

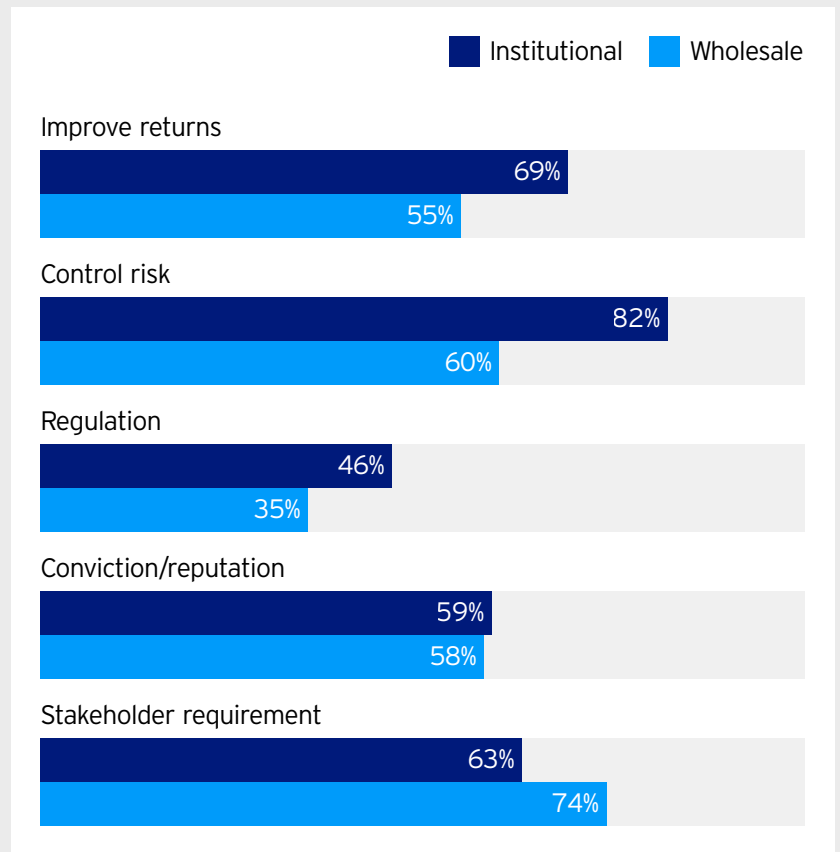
⁴ Past performance is not a guarantee of future results.

Understanding the relationship between ESG and factor is a major challenge

While ESG is often seen as stakeholder-driven, investors recognise a wide range of other benefits prompting adoption. In particular, risk control and the prospect of potentially higher returns ranked highest among institutional investors. This is unsurprising: the Covid-19 pandemic and several high-profile failures of governance have caused losses to investors, including the collapse of Wirecard, a German payments firm, under a cloud of governance failures. For wholesalers, stakeholder requirements rank highest, reflecting not necessarily a rush of client and adviser questions around ESG, but a recognition that ESG is rapidly becoming a prerequisite to any discussion (**Figure 3.8**).

There has been an increase in the proportion of investors undertaking factor exposure analysis on their ESG portfolios compared to last year. Over half of institutional investors (58%) and a similar proportion of wholesale investors (53%) had carried out this analysis (**Figure 3.9**), up from 34% of institutional and 29% of wholesale investors the year before.

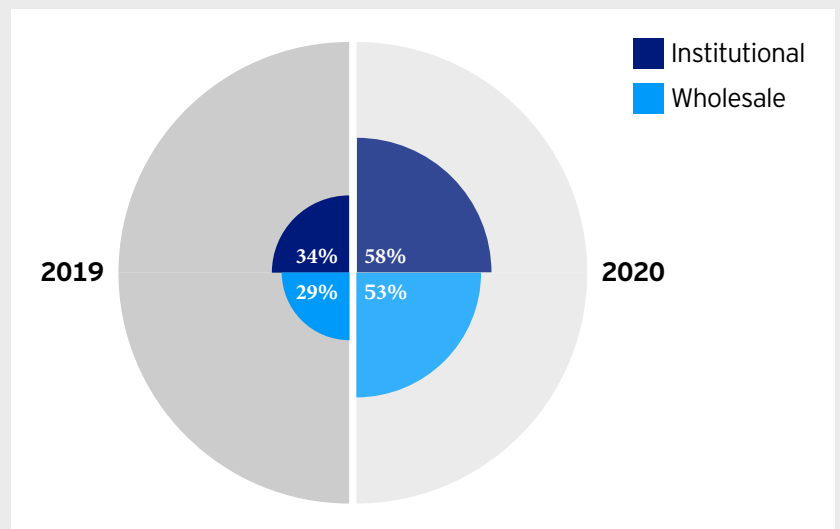
Figure 3.8
Motives for ESG adoption (% citations)



What is your motivation to incorporate ESG into your strategies?

Sample size: Institutional = 128
Wholesale = 78

Figure 3.9
Investors who have conducted factor analysis on ESG mandate (% citations)



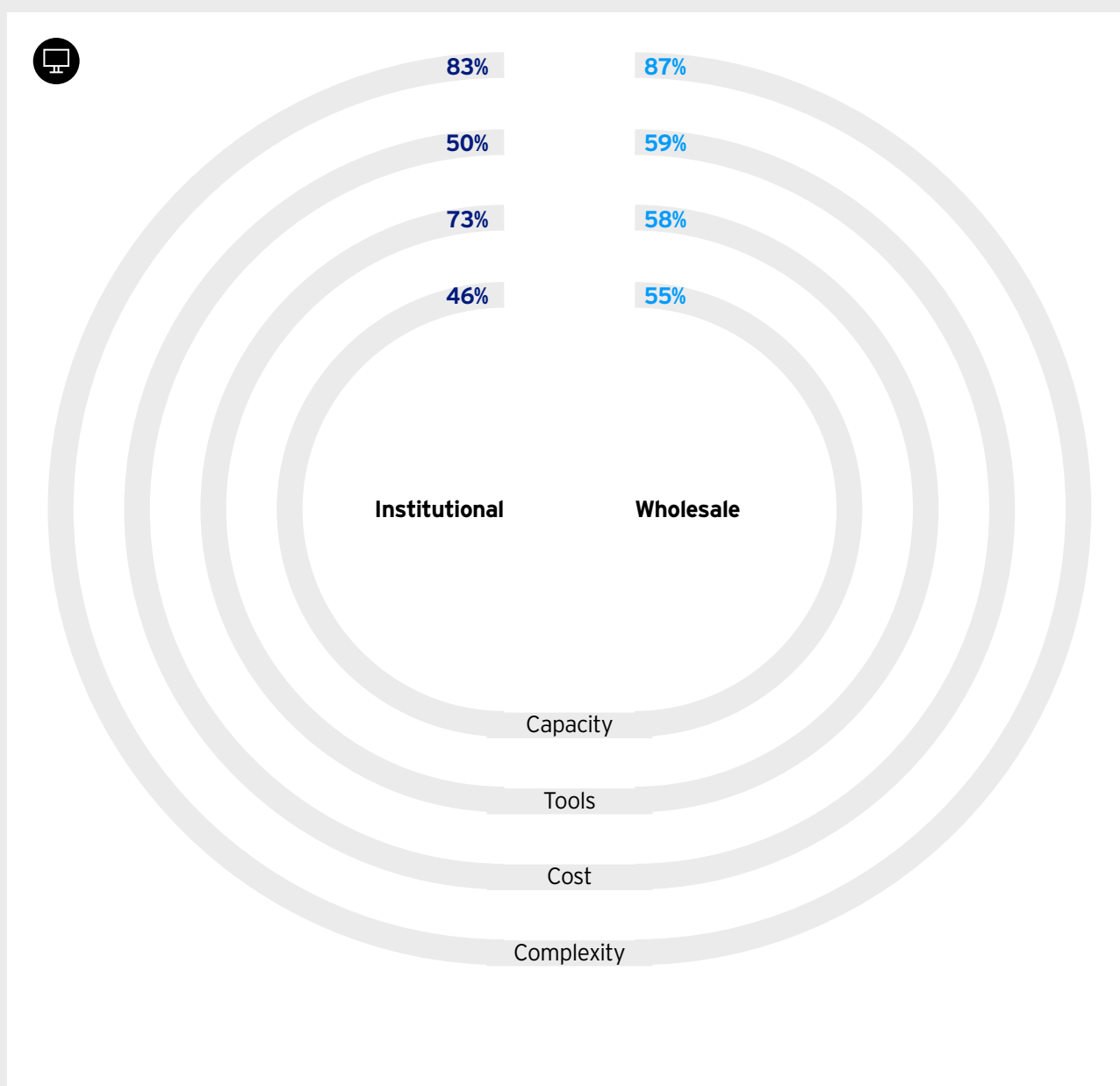
With regards to your existing ESG mandates, have you conducted a factor exposure analysis on your ESG mandate?

Sample size:
2019 = 218
2020 = 204

However, this still leaves a significant proportion unaware of potential factor biases in an ESG portfolio, with two challenges commonly cited:

- ESG initiatives have traditionally come from the top of an organisation, as a governing body decides that it is necessary to make commitments to ESG. Conversely, factor tends to start further down in an organisation, often by a specific asset class team. As one EMEA-based institutional investor put it: "While we do have an ESG allocation, it is separate from the factor allocation and consists of ETFs - we have not run a factor analysis on these."
- Resource requirements to conduct the analysis, such as qualified professionals and systems, can be prohibitive. In the words of one EMEA wholesaler "We do try to monitor the stated factor exposures, but this is by necessity highly qualitative."

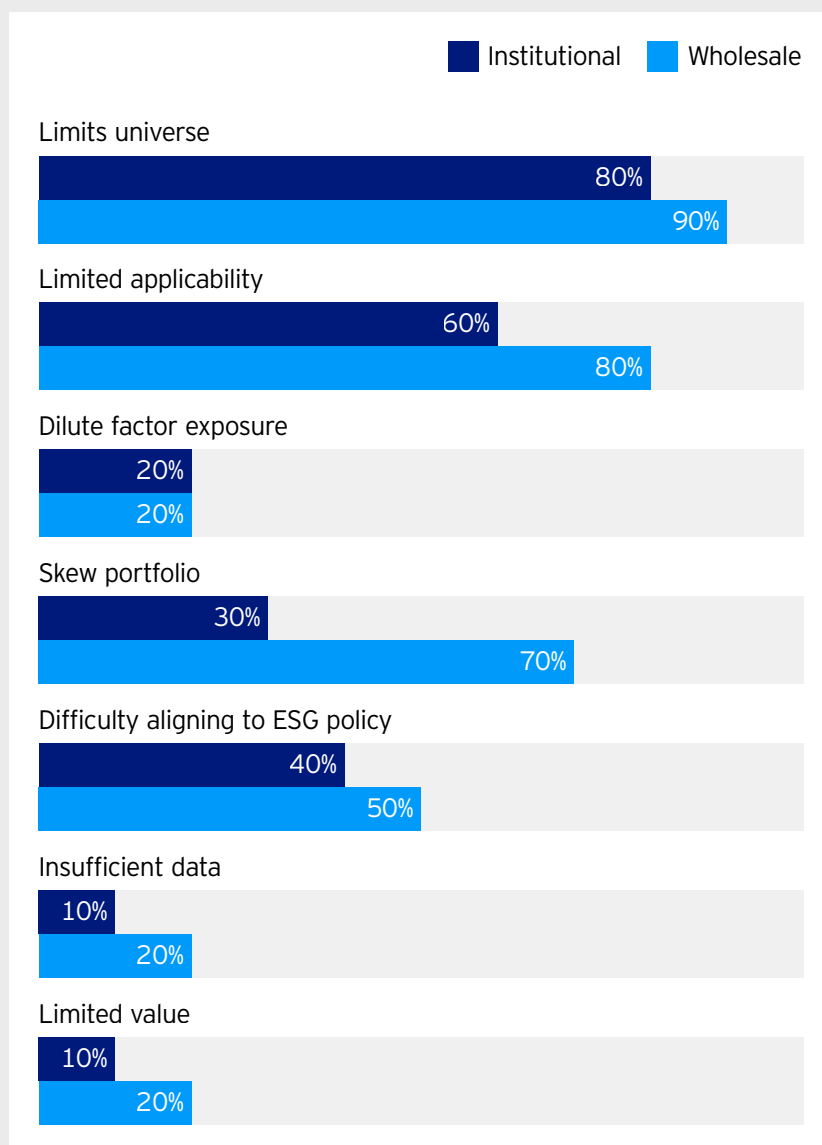
Figure 3.10
Reasons for not assessing factor exposure (% citations)



[If no] Why?

Sample size: Institutional = 42, Wholesale = 29

Figure 3.11
Reasons ESG might hinder a factor strategy (% citations)



[If hinders] Why is this the case?

Sample size: Institutional = 10
 Wholesale = 10

It was the complexity of this operation that was most frequently cited as the reason for not exploring the intersections between ESG and factor (**Figure 3.7**). However, cost and a lack of tools were also significant obstacles - in the words of one APAC institutional investor: "Full performance attribution is just too time-consuming and expensive."

Despite the range and variety of ESG policies adopted by investors, several challenges emerge (**Figure 3.11**). Negative screens and more recent approaches that adjust the weightings of certain securities (for example, those involved in controversial weapons) also have the effect of removing some securities that might aid factor capture.

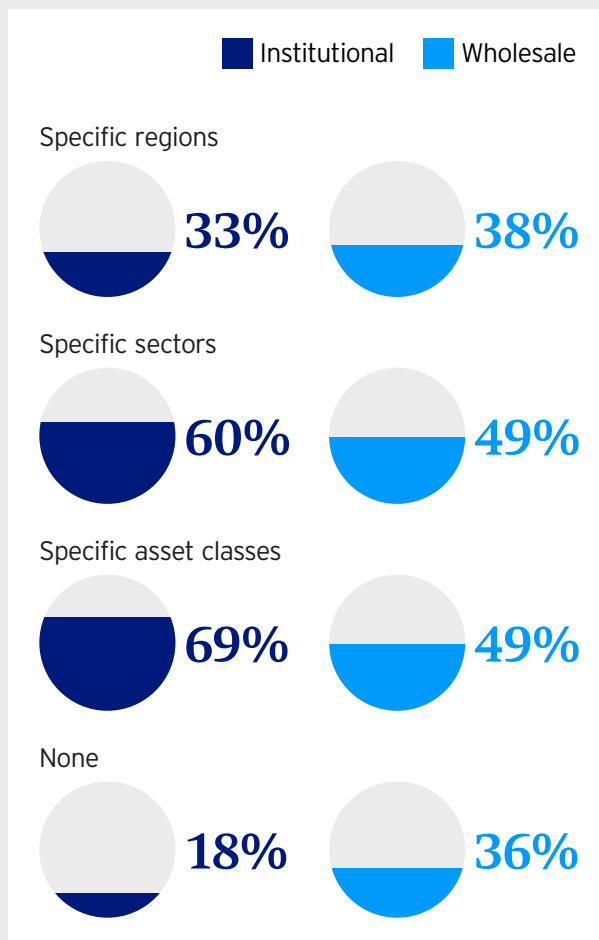
Data can also prove a problem. Investors described the challenge of finding small-cap companies that were well covered by ESG ratings agencies - some smaller firms do not have the capacity to fill out often lengthy ESG questionnaires necessary to be awarded a rating. Ratings data is also seen as an obstacle, with one EMEA investor stating: "The ratings provided by different agencies exhibit very little correlation - until there is a standardised taxonomy, we will continue to have very little faith in ESG ratings, which will limit the potential for full incorporation in the model."

In the words of one APAC institutional investor: "Full performance attribution is just too time-consuming and expensive."

As a result, ESG is broadly seen to be much easier to integrate into factor strategies focused on certain asset classes and sectors (**Figure 3.12**). Some 63% of institutions and 49% of wholesalers cited specific asset classes as aiding ESG adoption, and 60% and 49% respectively cited specific sectors as enablers of ESG policies.

The nature of ESG integration, especially in larger institutions, can also cause significant challenges. ESG is sometimes managed by a separate non-investment team with a remit to make demands of the investment teams. Where these teams are not fully aligned with open channels of communication, it's possible for tensions to emerge or opportunities to be missed. As an example, one investor described fears that similar ESG policies among different organisations were distorting the market in a predictable fashion, and that this should be taken into account when defining certain factors.

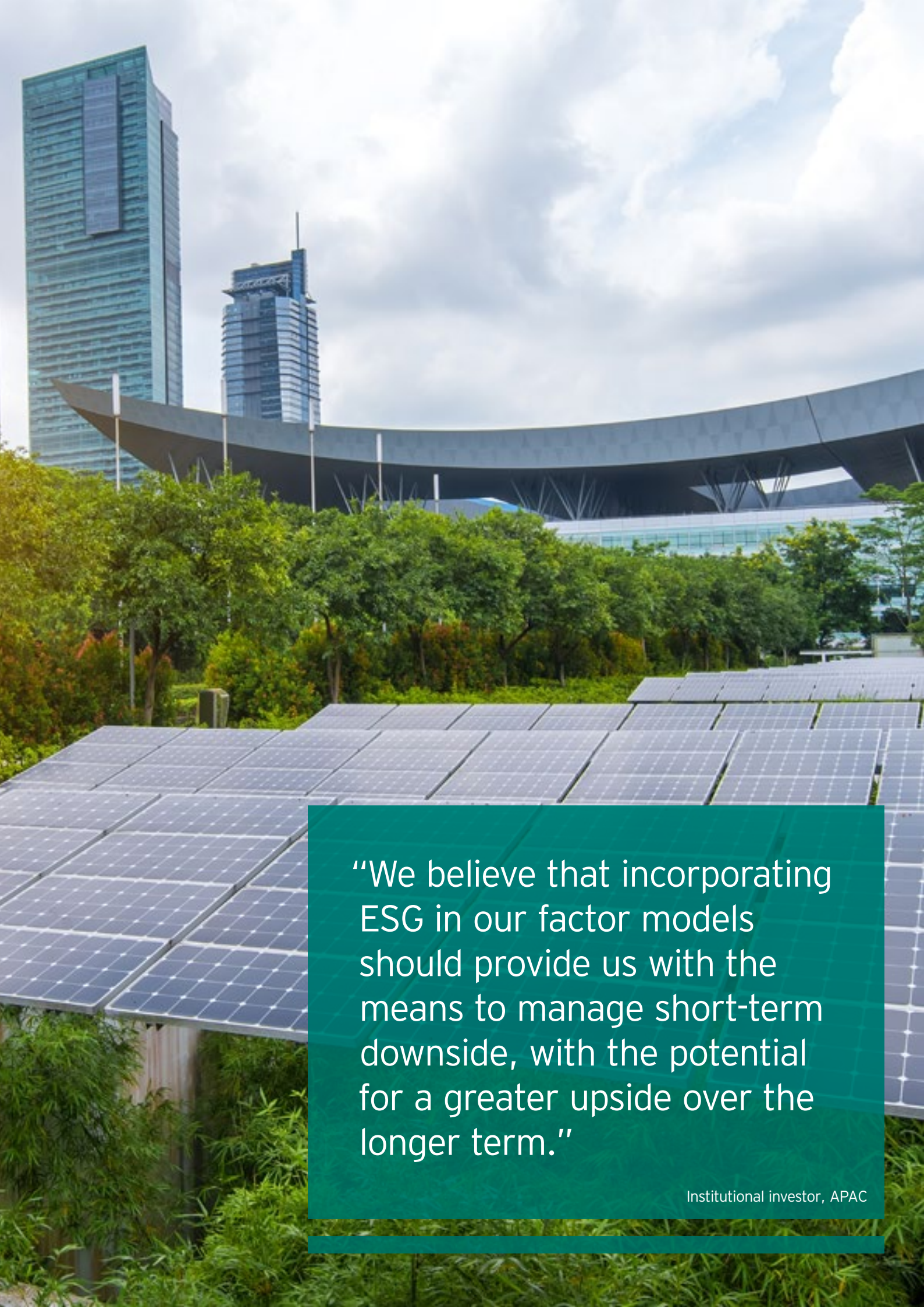
Figure 3.12
Specific circumstances that aid ESG integration
(% citations)



Are there specific circumstances that make applying ESG to factor allocations easier?

Sample size:
 Institutional = 120
 Wholesale = 73



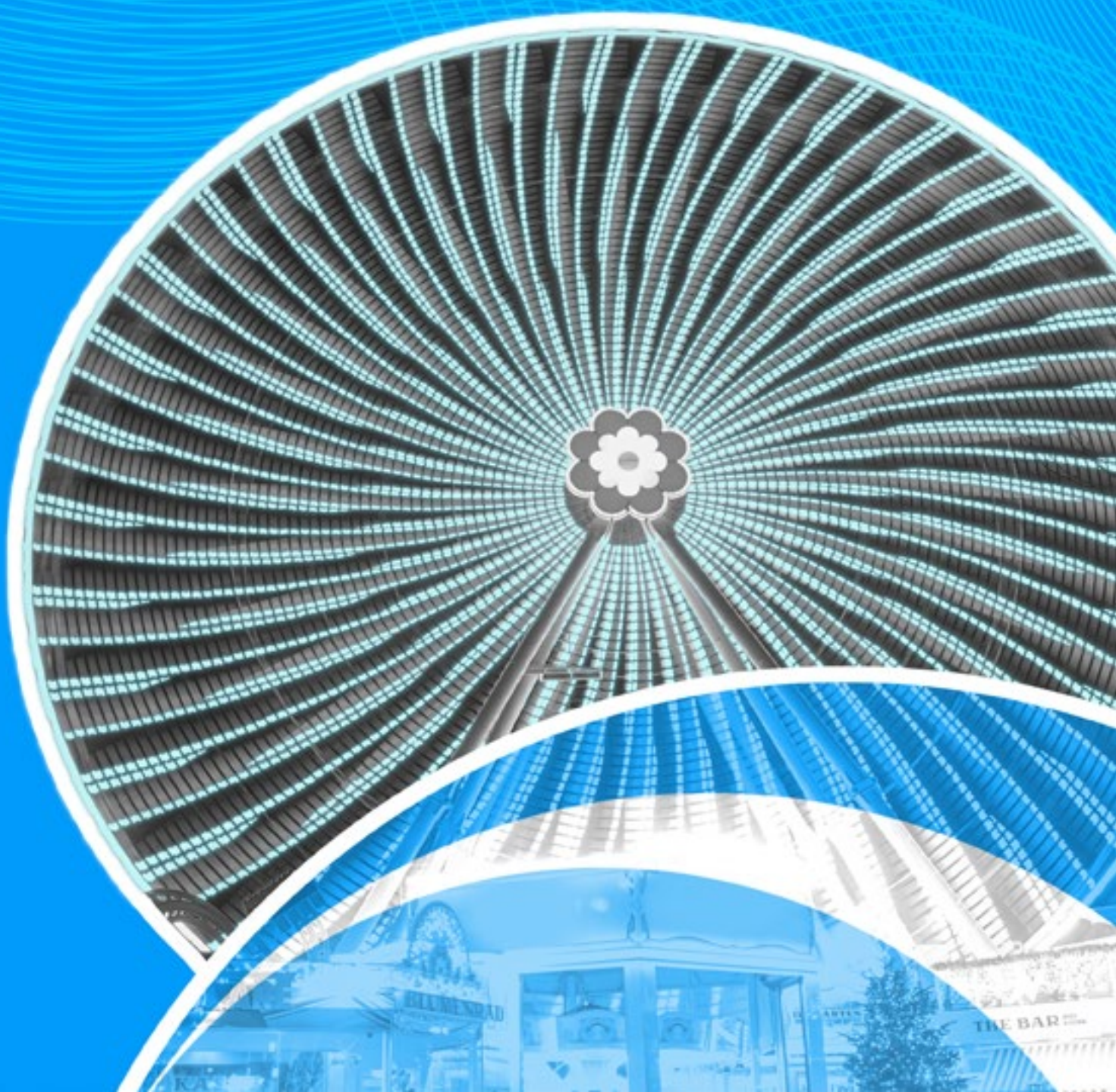


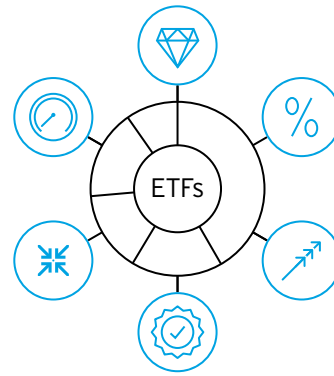
“We believe that incorporating ESG in our factor models should provide us with the means to manage short-term downside, with the potential for a greater upside over the longer term.”

Institutional investor, APAC

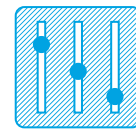
Theme 4

ETFs can offer a familiar and flexible tool for implementing factor strategies





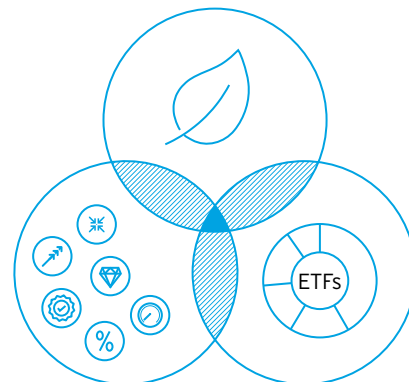
A majority of both institutional and wholesale investors now use ETFs as part of their factor strategies, with usage having increased among both segments over the past 12 months.



Wealth managers

Institutional investors

Drivers of ETF use vary by both segment and region; price and ease of use are highly valued by wealth managers, while liquidity is a key driver for institutional investors, along with the ability to tactically tilt portfolios.

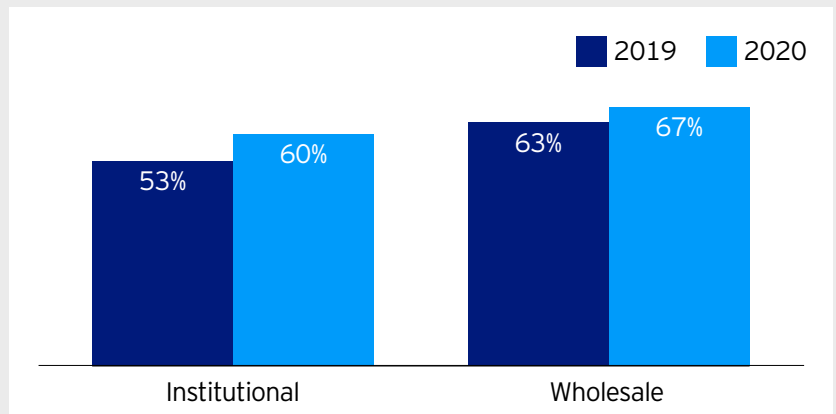


Many factor ETF users also utilise ETFs to deliver ESG goals, with investors seeing a gap in the market for ETF products that can deliver on these twin objectives.

Over the past 12 months, the use of factor ETFs has increased slightly among both institutional and wholesale investors.

A majority of institutional investors now make use of ETFs, accounting for an average of 14% of their factor portfolios (Figures 4.1 and 4.2). Meanwhile, in the wholesale segment more than two-thirds of investors make use of ETFs, accounting for half of factor portfolios overall. For wealth managers, ETFs are usually the primary vehicle for gaining factor exposure, making up three-quarters of the average factor allocation (Figure 4.2).

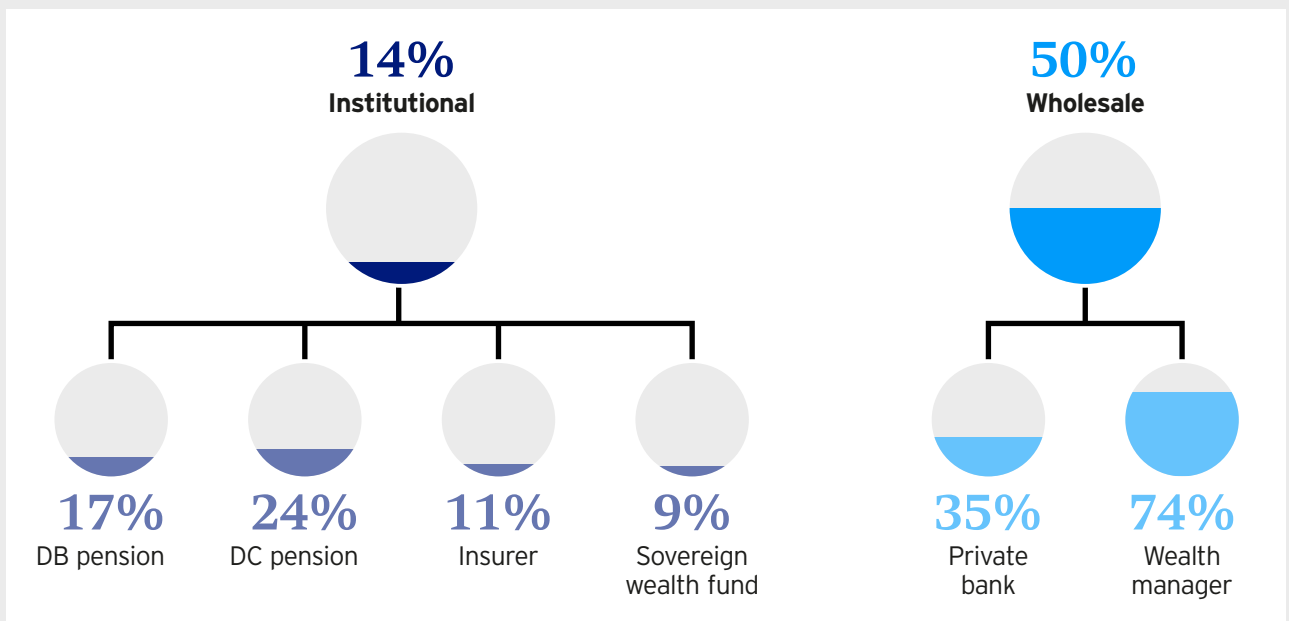
Figure 4.1
Use of factor ETFs (% citations)



How do you execute your factor strategies?

Sample size: 2019 = 214
2020 = 195

Figure 4.2
Percentage of factor allocation held via ETFs (average %, f actor ETF users)



What percentage of your factor allocation is held via ETFs?

Sample size: 104

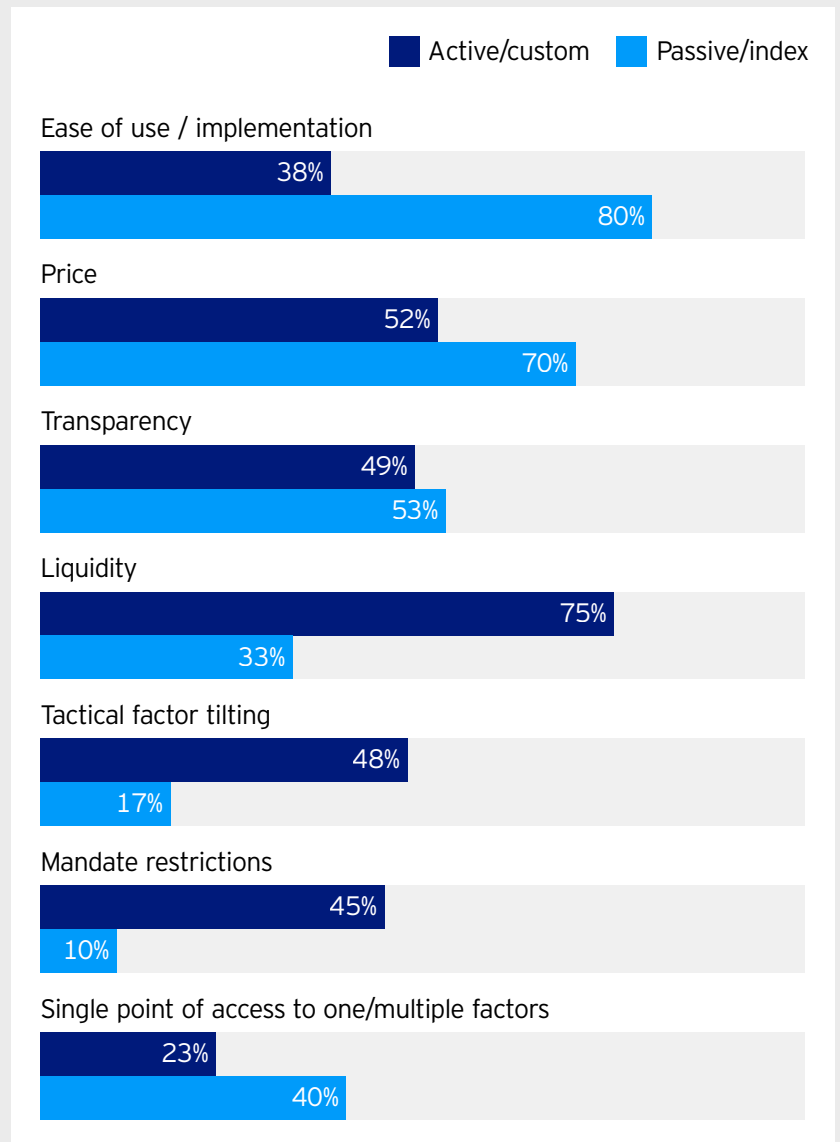
For wealth managers, ETFs are usually the primary vehicle for gaining factor exposure, making up three-quarters of the average factor allocation.

ETFs can offer easy access to enhanced indexing strategies

For respondents investing in factor strategies based on passive indexing strategies, ETFs are particularly valued for their ease of use and price (**Figure 4.3**). For these types of 'enhanced' or 'smart' beta applications investors reported being attracted to transparent, rules-based products.

For these applications, factor ETFs were seen as a good tool for building a portfolio and managing risk, particularly when viewed against the more limited option of market cap-weighted products. The growing depth of ETF products on offer, including the supply of multi-factor products, was seen as important in helping with this advance, making factor investing more accessible to a wider range of investors and allowing factor strategies to fulfil more diverse portfolio objectives.

Figure 4.3
Reasons for using ETFs by principal method of factor implementation (% citations, factor ETF users)



[If using ETFs] Why do you use ETFs to target factors?

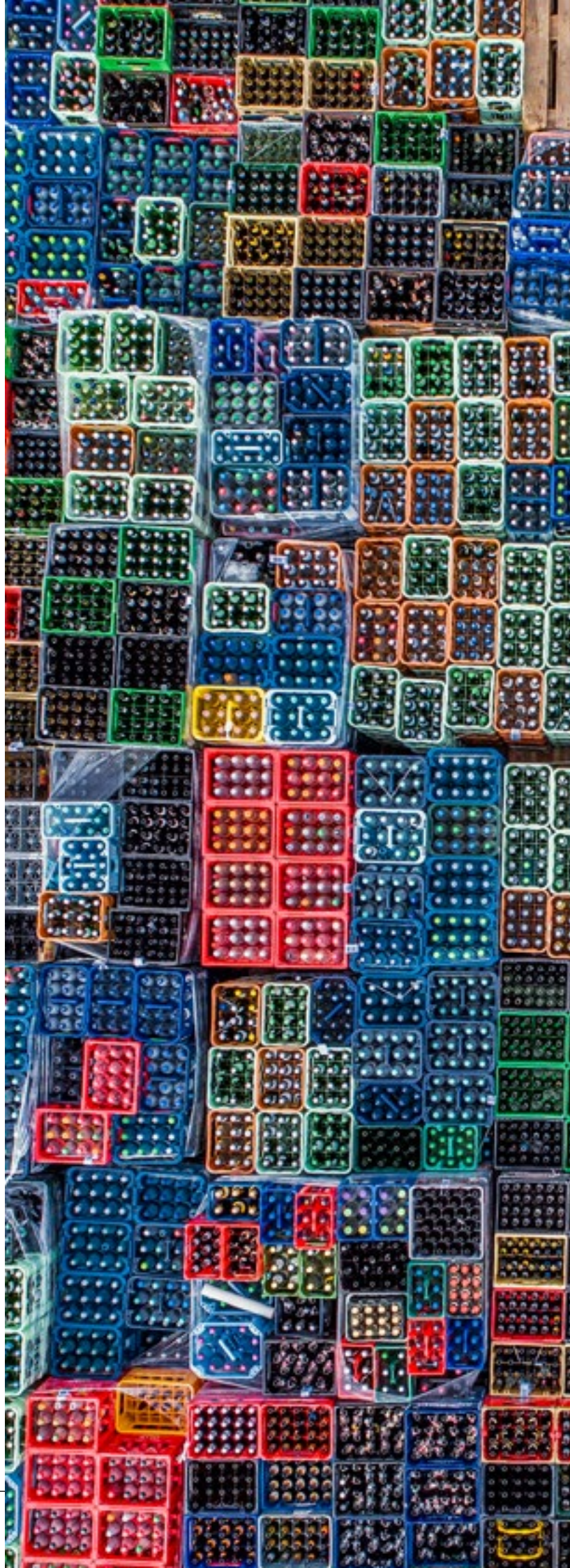
Sample size: 115

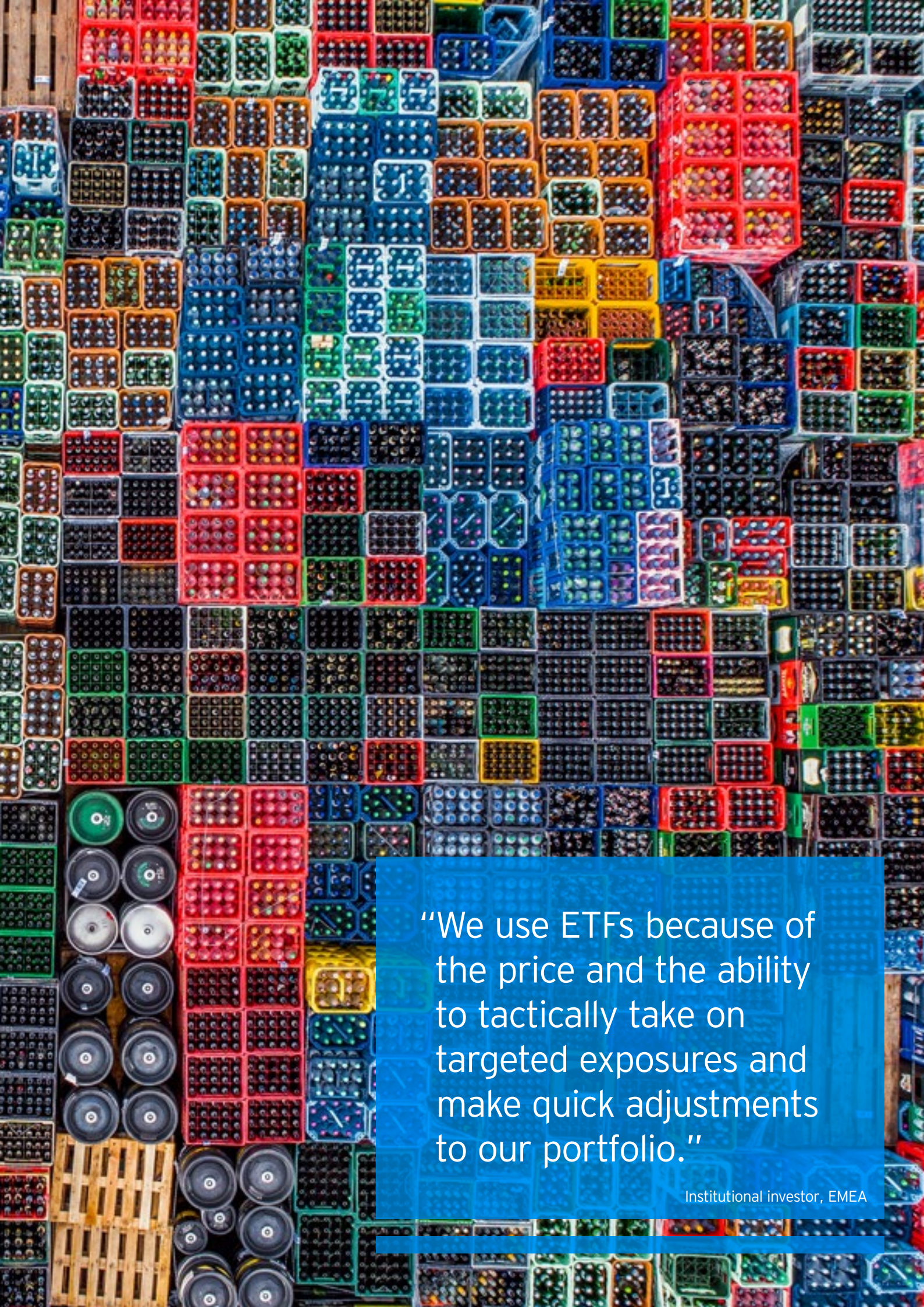
Growing use of ETFs for active strategies

ETFs are also increasingly used to implement active factor strategies. Some investors described moving towards ETFs, having previously implemented factors through swaps or other derivatives executed via an investment bank. In comparison to these vehicles, ETFs were seen as preferable due to their increased transparency, with derivative-based products criticised for being opaque. For some, this shift was being driven by the additional transparency demands of new or enhanced ESG policy thresholds. ETFs were also regarded as offering the advantage of increased liquidity⁵ (75%) and flexibility, as well as reduced counterparty risk.

The growing use of factor ETFs to implement active strategies also reflects decision makers' search for more tactical tools against a volatile economic backdrop. This includes the use of low volatility strategies to help manage overall portfolio volatility, with these cited regularly as an important driver of the trend towards ETF use among both institutional and wholesale investors.

⁵ Shares are not individually redeemable and owners of the Shares may acquire those Shares from the Fund and tender those Shares for redemption to the Fund in Creation Unit aggregations only, typically consisting of 10,000, 50,000, 75,000, 80,000, 100,000, 150,000 or 200,000 Shares.





“We use ETFs because of the price and the ability to tactically take on targeted exposures and make quick adjustments to our portfolio.”

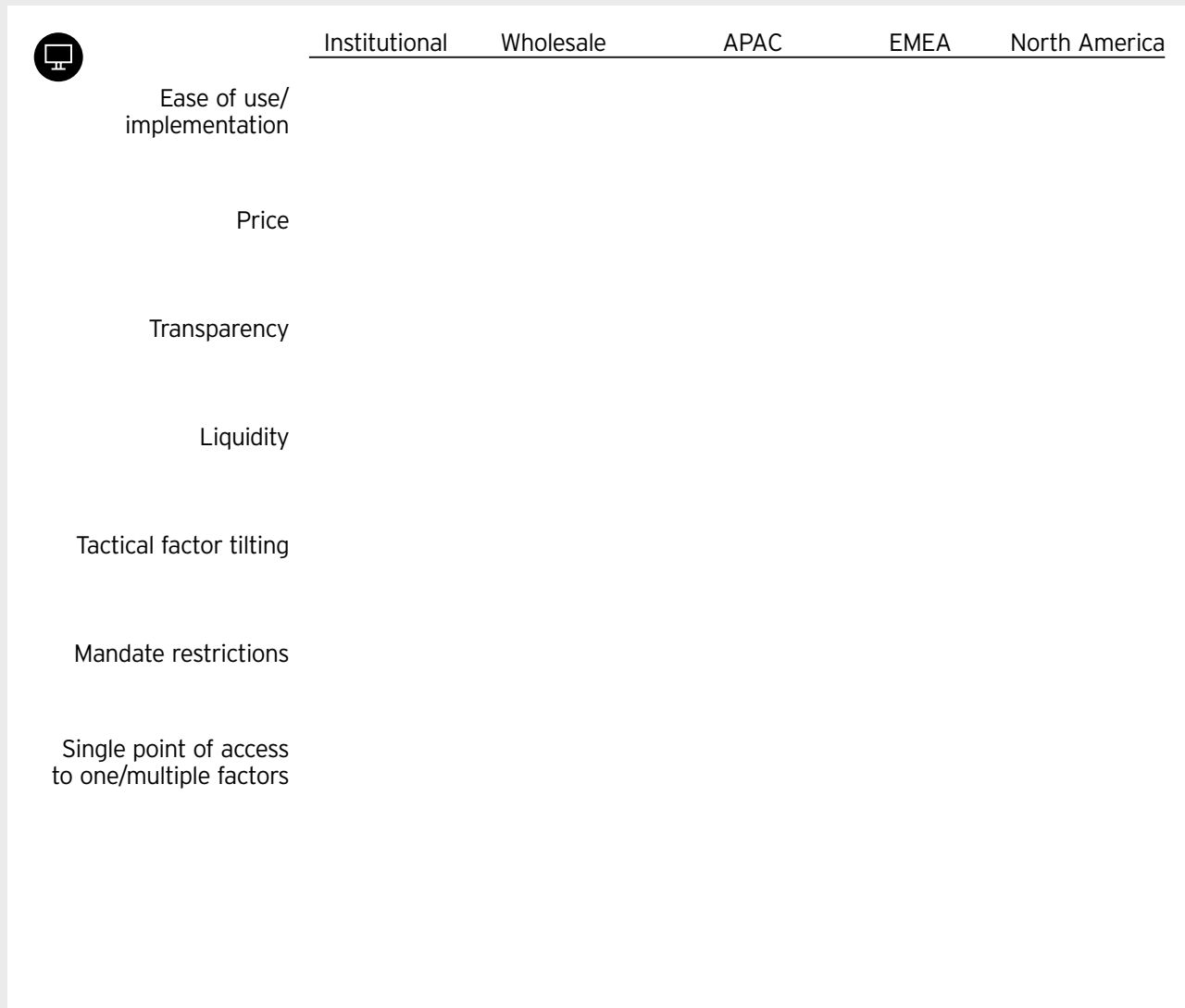
Institutional investor, EMEA

Drivers of ETF use vary by both segment and region

Institutional investors' priority for ETFs in factor investing is liquidity, with more than three-quarters citing this, while price is the dominant factor for their wholesale peers (**Figure 4.4**).

Figure 4.4

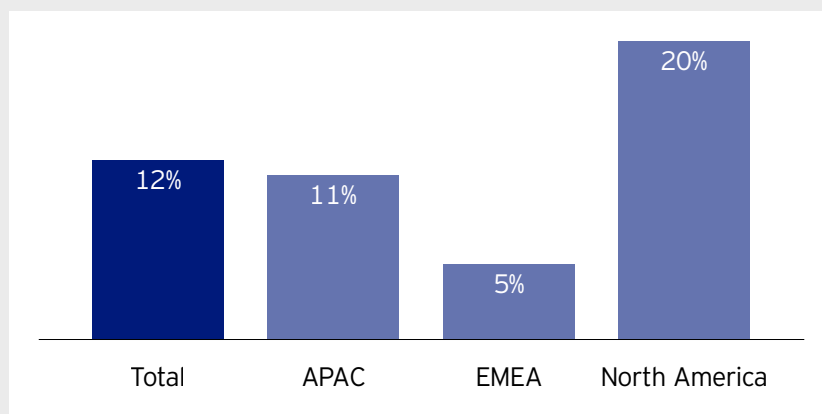
Reasons for using ETFs (% citations, factor ETF users)



[If using ETFs] Why do you use ETFs to target factors?

Sample size: Institutional = 57
Wholesale = 58

Figure 4.5
Use of leverage to amplify ETF investments
 (% citations, factor ETF users)



[If using ETFs] Do you use leverage (i.e. buying ETFs on margin) to amplify your ETF investments?

Sample size: 109

Institutional investors report using ETFs for exposure to factor strategies within asset classes that are otherwise difficult to access, as well as to make tactical adjustments to their portfolio: 47% percent are using factor ETFs for tactical factor tilting. As such, for many institutional investors liquidity is crucial, as one institutional investor in EMEA explained: “We use ETFs because of the price and the ability to tactically take on targeted exposures and make quick adjustments to our portfolio.”

For wholesalers, price and ease of use are more important drivers, with one EMEA-based wholesaler stating they are “simple to use and monitor, and also help with transparency.” Among these investors, factor ETFs are often useful for articulating the advantages of a factor approach, including the ability to offer exposure to active management styles in a more efficient way.

Regionally, price and ease of use were the most important ETF drivers for EMEA investors. In contrast, their North American peers are more likely to see ETFs as a vehicle useful for tactical factor tilting, with a fifth also using leverage to amplify their ETF investments (**Figure 4.5**). This aligns with the greater belief in this region that it is possible to time factors, as well as the greater appetite to do so, a topic discussed further in Theme 5.

As one institutional investor in EMEA explained: “We use ETFs because of the price and the ability to tactically take on targeted exposures and make quick adjustments to our portfolio.”

Choosing between products: track record and factor intensity

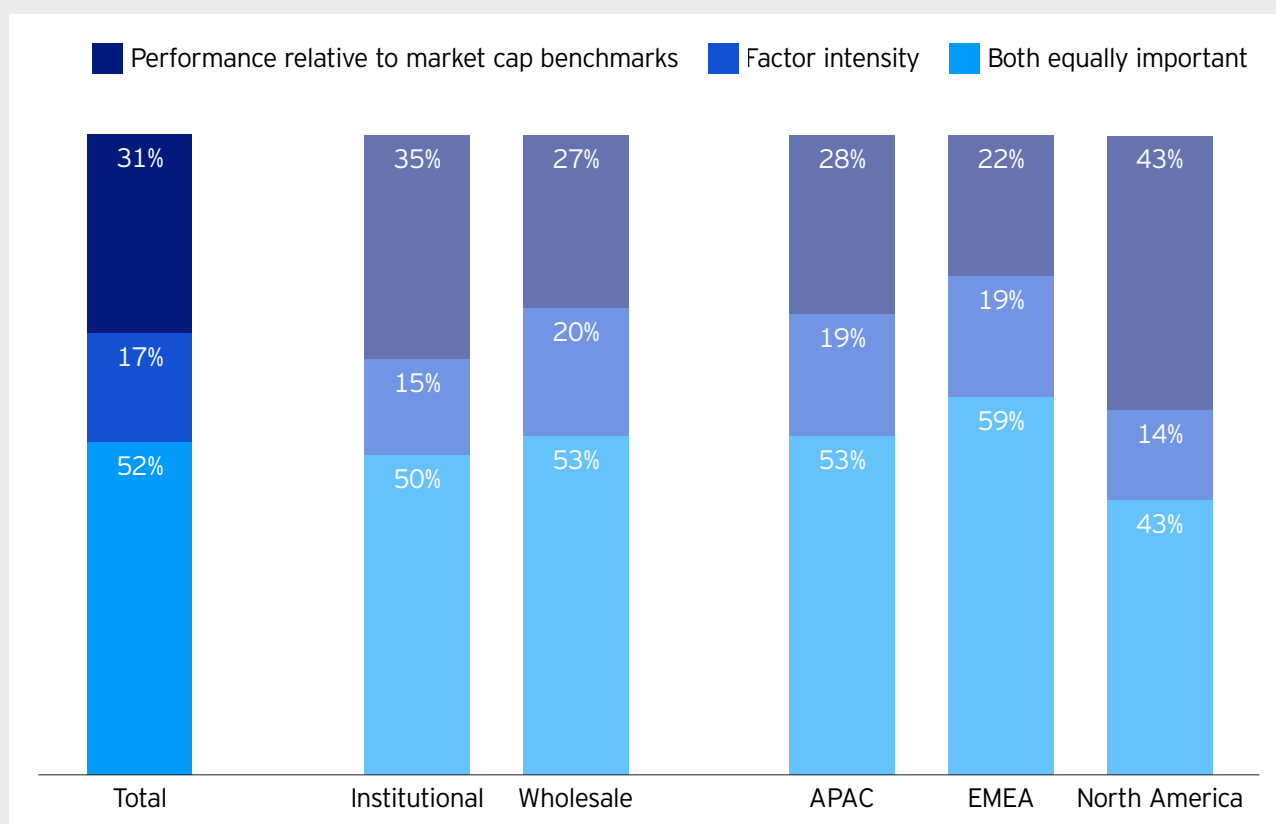
When choosing between different factor products, many investors are choosing ETFs based at least on particular track records, rather than just pure factor exposure (Figure 4.6). This is a notable result, as ETFs from different providers notionally targeting the same factor or factors can often offer different return characteristics due to differences in index construction methodology. Several wholesalers described making a shortlist of ETFs that fit their targeted factor exposure, after which they look in more detail at relative performance before making the final decision.

In contrast, other investors sought ETFs that tracked the targeted factor exposure the closest, regardless of performance, and were more focused on the underlying methodology. “We use ETFs for tactical shifts and

therefore want the product that tracks that factor the closest, regardless of performance,” said an institutional investor in North America.

For investors basing decisions at least partly on factor intensity (69%), the underlying methodology is often an important selection criterion, with different ETFs targeting the same factor or factors not always seen as equals. Investors highlighted the importance of rigorous due diligence when selecting an ETF, as well as the need for full transparency and education regarding composition and methodology from fund providers. This was seen as particularly important when selecting multi-factor and multi-asset products, where similar-looking products can differ widely in terms of definitions, weightings and rebalancing methodologies.

Figure 4.6
ETF selection criteria (% citations, factor ETF users)



Between factor intensity (accuracy in tracking academically defined factors) and performance relative to market cap benchmarks, which criteria would be more important in your ETF product selection decision?

Sample size:
Institutional = 54
Wholesale = 56

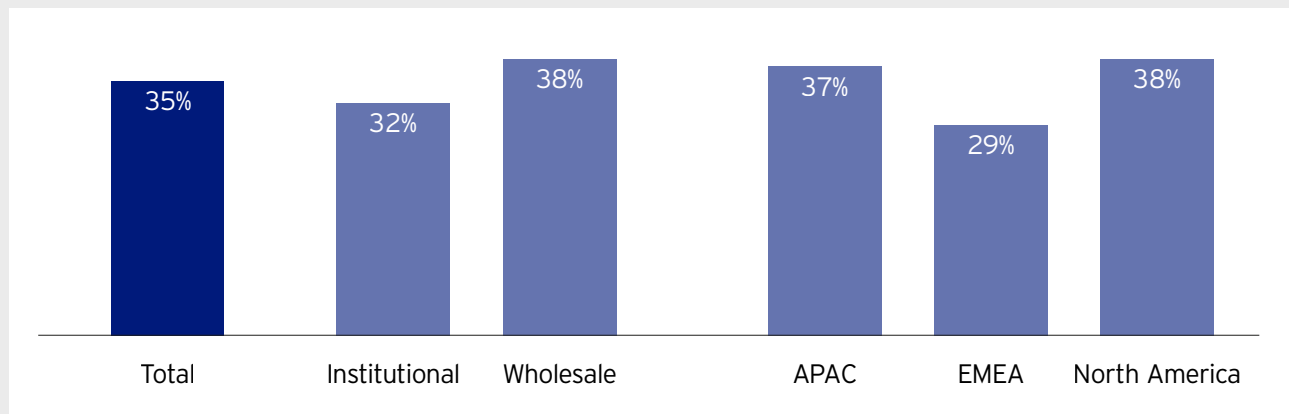
Factor ESG ETFs

ETFs are now playing an important role in the rise of ESG adoption and integration. More recent ESG adopters often lack experience and face implementation challenges, so are eager for simple, low-cost solutions, with ETFs often a stepping stone on the path to full ESG integration. In the past, respondents have cited challenges in using ETFs to accomplish their ESG objectives, due to the lack of reporting of positions and reduced flexibility to screen out certain securities. However, as more ESG ETF products have come to market and providers have developed enhanced reporting, many of these issues have been addressed.

Many factor investors have moved on to explore the use of factor ETFs to execute their ESG policies, with many highlighting that both factors and ESG lend themselves to a rules-based approach. We find that many of these investors are struggling to find products that can combine these two objectives. While many users of factor ETFs are also using ETFs to implement ESG objectives (**Figure 4.7**), rarely is this within the same product. Despite more than a third of factor ETF users also using ESG ETFs, only a small minority use a single product to achieve both factor exposure and ESG objectives (**Figure 4.8**).

Figure 4.7

Use of ESG ETFs (% citations, factor ETF users)

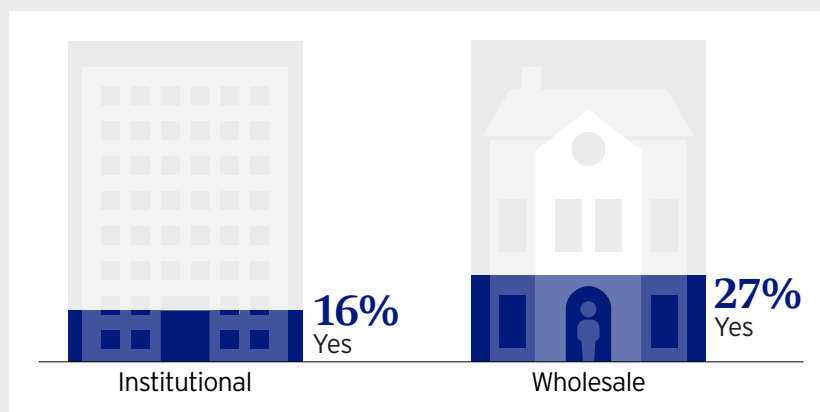


Do you use ESG ETFs?

Sample size: Institutional = 74, Wholesale = 52

Figure 4.8

Use of ESG ETFs built around factors (% citations, factor ETF and ESG ETF users)



Are any of your ESG ETFs also factor ETFs?

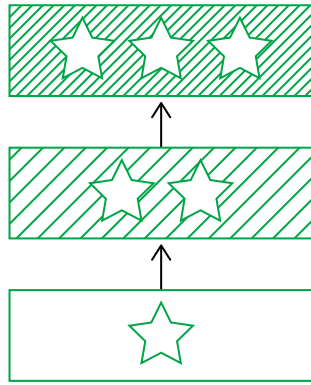
Sample size: Institutional = 24
Wholesale = 20

Given the higher number of factor ETF products, some investors expressed disappointment at the limited ESG offerings, with wholesalers in particular saying that they would like to see more factor ESG products that fulfilled these twin objectives. This was articulated by one EMEA-based wholesaler: "Given the wide range of factor products it is surprising that there aren't more that combine ESG in a transparent way that we can easily articulate to our clients."

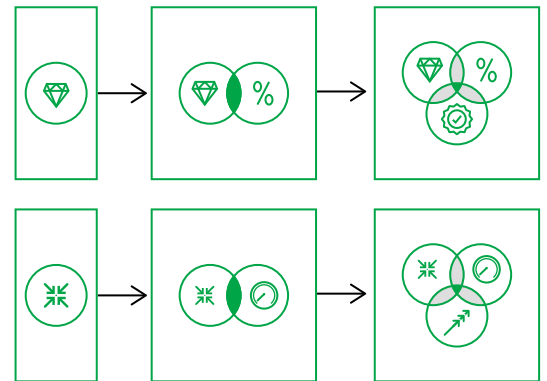
Theme 5

Levelling up: demand for additional services and improvements in implementation

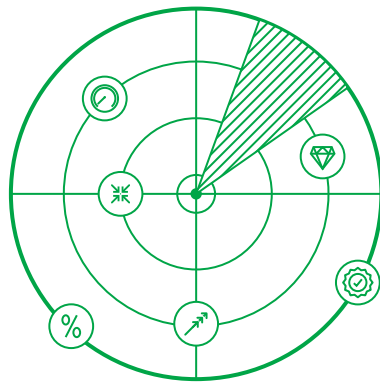




Factor investors are developing increasingly sophisticated strategies and upgrading their factor capabilities.



Innovation is seen as central to successful factor implementation, with investors adding additional factors and adopting a dynamic approach to their factor allocations.



As factor investing permeates through portfolios, there is greater tracking of exposures and correlations, with 65% of institutional investors systematically monitoring exposures.



Demand for help in constructing portfolios and advice on tactical shifts is increasing and expertise around risk management is highly valued.

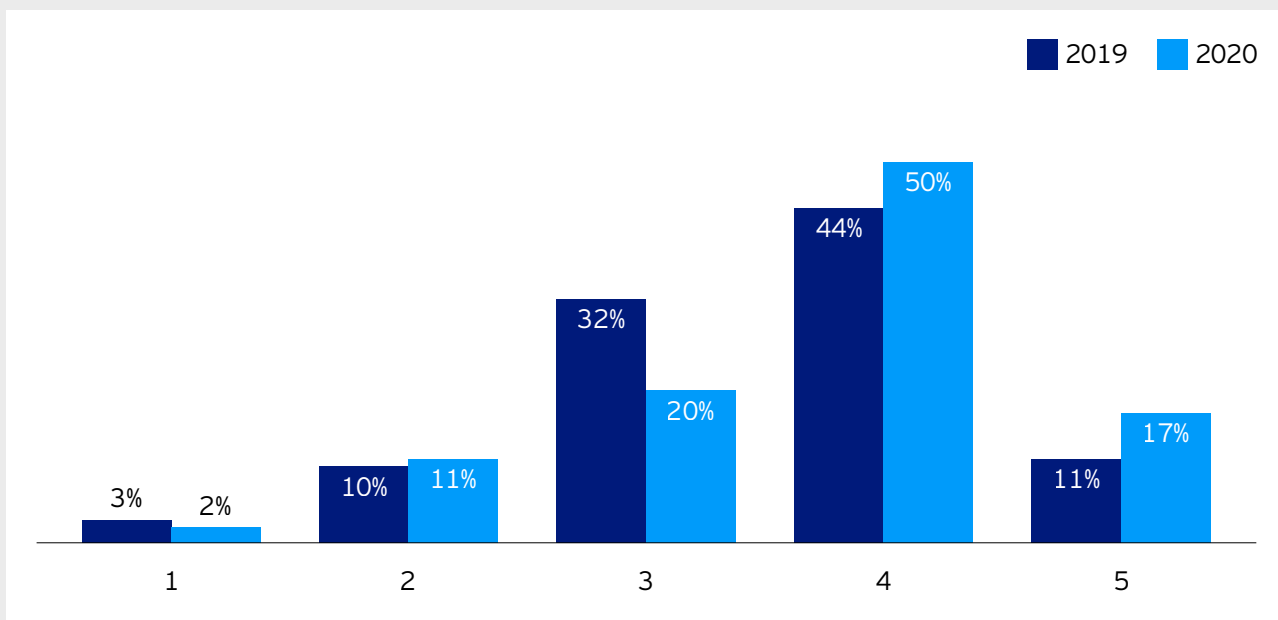
Increasing sophistication

In the 2018 edition of our annual study, we described the 'S curve' for factor adoption, a progression of factor investing from a marginal yet rapidly growing phenomenon to mainstream practice. As the practice matures, the factor approaches of practitioners diversify, tailoring to individual circumstances.

This year, we take this further and find the 'average investor' in factor strategies is doing far more than simply buying factor products.

As a simple indicator, self-scored sophistication can be used to explore this: a significant rise in self-scored sophistication suggests that many investors see rapid progress. Some 67% now rate themselves as either 4 or 5 out of 5 for sophistication (with 5 being very sophisticated), up from 55% in 2019, demonstrating not only increasing sophistication, but also perhaps a greater awareness of the factor landscape (**Figure 5.1**).

Figure 5.1
Self-scored factor sophistication (% citations, common cohort)



On a scale of 1-5, how would you score your firm's/team's level of factor investing sophistication?

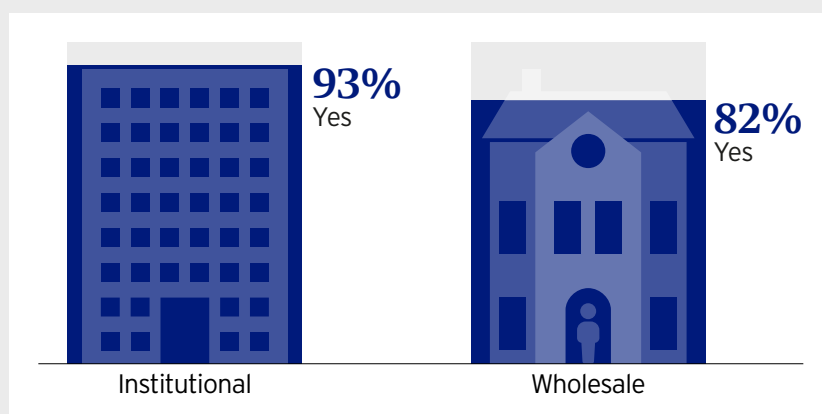
Sample size: 2019 = 240
2020 = 236

Constant evolution is central to successful factor implementation

Investors overwhelmingly recognise the need to adapt and evolve factor strategies as capabilities develop. Some 93% of institutional investors and 82% of wholesalers seek to update their approaches continually, whether by making incremental changes to data sources and execution or by making more fundamental changes (**Figure 5.2**).

This innovation could be very fundamental, as in the case of one North American investor who made use of adapted definitions to avoid perceived risks with particular factors, or it could be more incremental, such as the EMEA-based institutional investor incorporating new data sets to better pinpoint the contribution of each factor within their portfolio.

Figure 5.2
Investors seeking to evolve approach (% citations)



Do you think it's important to constantly evolve your approach to be successful with factor investing?

Sample size:
Institutional = 135
Wholesale = 93

Investors overwhelmingly recognise the need to adapt and evolve factor strategies as capabilities develop.

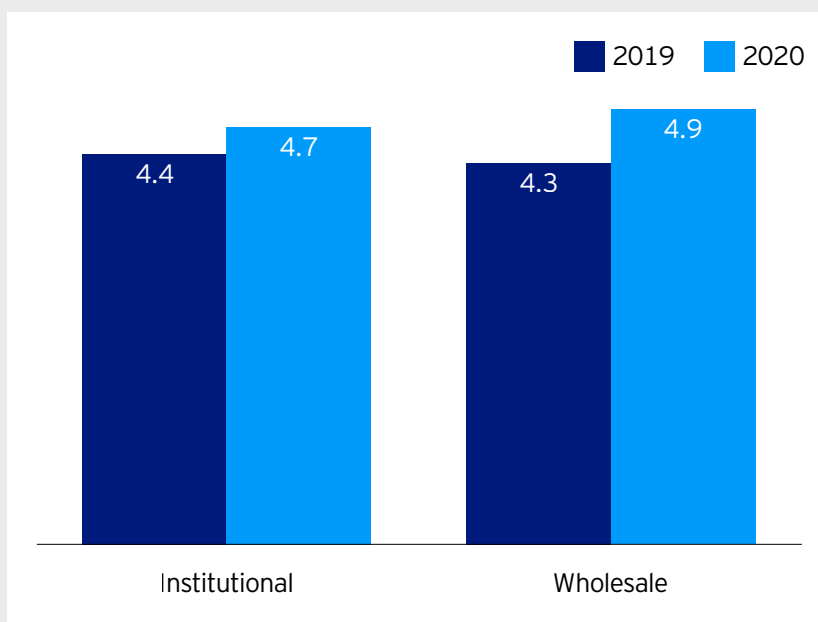
Multi-factor portfolios

It is common for investment professionals to begin their factor adoption journey with an allocation to a single factor or two, testing and learning before investing in the capability to support further adoption. In the words of one EMEA wholesaler: "We started off with a value ETF some years ago and the sophistication of our factor strategy has grown from there." Over time, as understanding increases, strategies might be enhanced, adapted and extended to perform a greater role in the portfolio.

One example of this growing sophistication is the adoption of additional factors. Today, these multi-factor strategies are the norm. Multi-factor is used by most investors - 81% among institutions and 73% among wholesale investors. Previous editions of the survey identified the growth in the number of factors being adopted. This trend has continued this year: Institutional investors have gone from an average of 4.4 factors in 2019 to 4.7 in 2020, while wholesale investors have gone from seeking exposure to 4.3 factors in 2019, to 4.9 in 2020 (**Figure 5.3**).

Investors have focused on adding low volatility and quality due to the strong performance of these factors over the past few years (**Figure 1.9**). However, this year saw an increased number allocating to value, reflecting exceptionally attractive valuations by historical standards and a sense that a change in performance was likely. According to one North American institutional investor: "At some point there will be a reversion to the mean: we are in a full economic cycle and value has yet to perform."

Figure 5.3
Numbers of factor exposures sought (% citations)

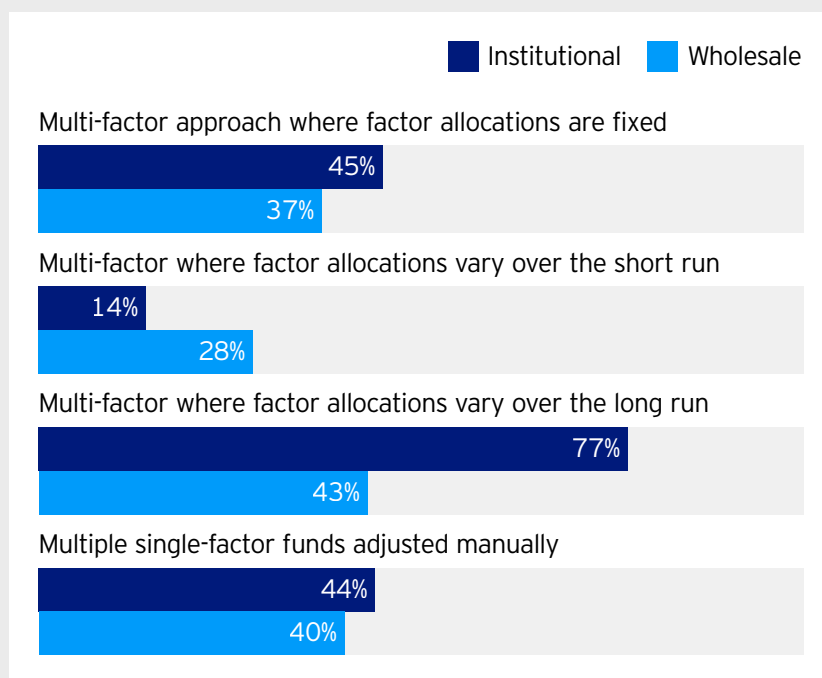


What factors do you explicitly seek / have exposure to in the portfolio?

Sample size: Institutional = 137
Wholesale = 100

According to one North American institutional investor: "At some point there will be a reversion to the mean: we are in a full economic cycle and value has yet to perform."

Figure 5.4
Approaches to multi-factor implementation (% citations)



Which of the following do you use?

Sample size: Institutional = 107
 Wholesale = 65

There is significant variation in the methods used to build these strategies. The majority make use of either fixed multi-factor strategies (where factor allocations remain steady over time), or multi-factor strategies where factor allocations can change over the long run (**Figure 5.4**).

However, almost half of our respondents also run strategies where multi-factor allocations are built up using numerous single-factor allocations. This can be for two quite different reasons. Some investors are early in their adoption journey (either as an institution or in a particular asset class), and are building up multi-factor exposure from a starting point of a single-factor allocation, while others are using single-factor allocations tactically, overweighting particular factors in order to benefit from factor correlations at different points in the cycle. Insurers were especially likely to be taking this approach, with 43% using multiple single-factor allocations, likely reflecting the early stages of fixed income adoption.

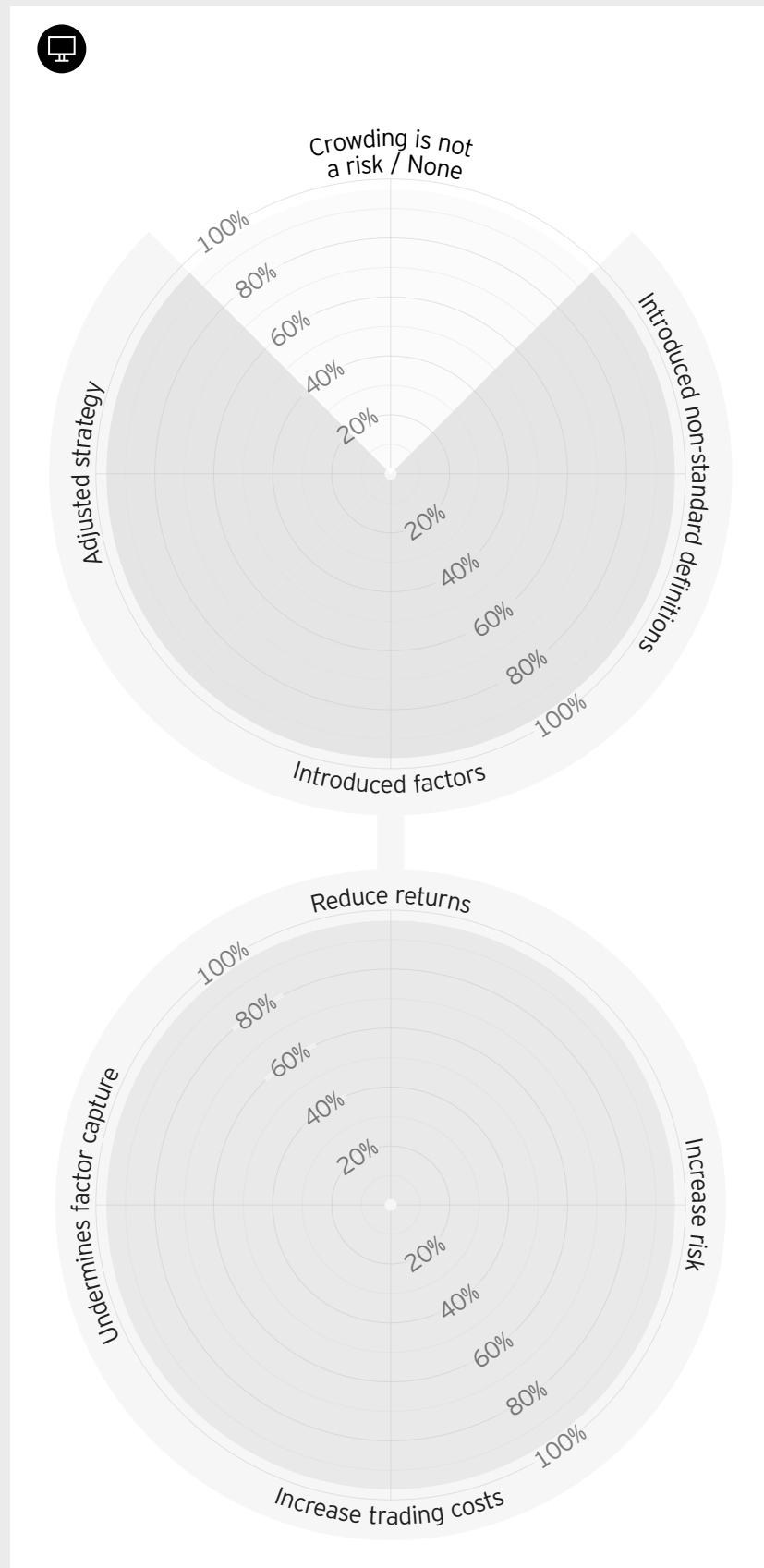
Mitigating crowding

Crowding is an issue that divides investors into two roughly equal groups – one that sees it as a risk that needs addressing and a second that does not see it as a concern and takes no action to mitigate its impact (**Figure 5.5**). Some 49% of institutional investors and 37% of wholesale investors have adjusted their strategies to mitigate the consequences of factor crowding, while 33% and 23% respectively have introduced new factors. Investors taking action to avoid crowding cite the risk of potentially lower returns (viewed as a threat by 58% of institutional investors taking action and 75% of wholesalers), or increased risk (concerning two-thirds of institutional investors and over nine in ten wholesalers).

For some, the key lies in manager selection, reflecting the growing role of asset managers in supporting more sophisticated strategies. As one North American wholesale investor put it: “We use managers with adapted definitions to try to minimise the risk of crowding.”

Figure 5.5

Measures and consequences of factor crowding (% citations)



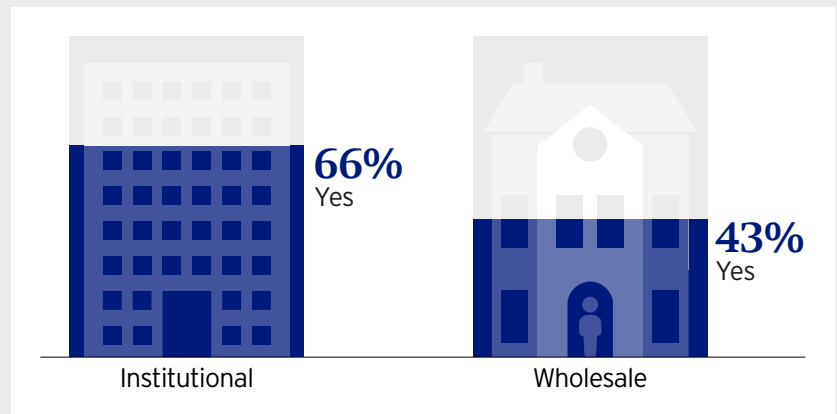
Top: Have you taken any specific measures to avoid the risk of factor crowding?
 Bottom: How does crowding impact your portfolio?

Sample size:
 Institutional = 129
 Wholesale = 88

Incorporating macro-economic variables

Macro factors are perhaps less frequently mentioned than the better-known style factors. Foremost among the former are inflation, growth and 'economic conditions' (including rates), all of which have a significant influence on asset prices. With the exception of inflation (which can be mitigated through TIPS and other inflation-linked securities), they are difficult to include directly in a portfolio.

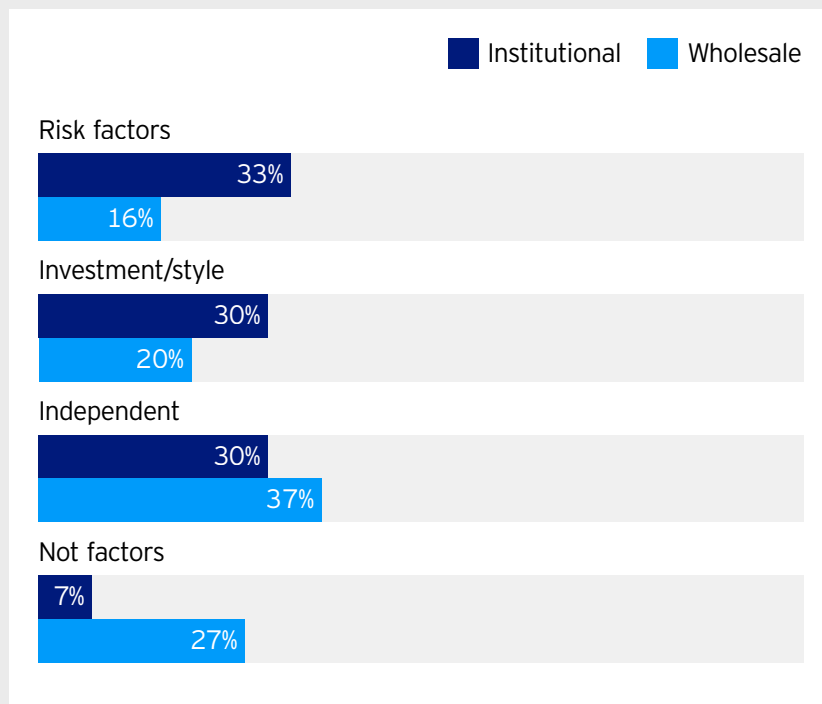
Figure 5.6
Investors incorporating macro variables (% citations)



Do you incorporate macroeconomic variables, or macro factors, into your factor strategies?

Sample size: Institutional = 128
Wholesale = 87

Figure 5.7
Role of macro-economic factors (% citations)



Do you see macro factors as risk factors, investment factors or independent of both?

Sample size:
Institutional = 122
Wholesale = 79

Some 66% of institutions and 43% of wholesale investors include macroeconomic variables or 'factors' in their factor models, reflecting a developing consensus that such variables can add value to an approach (Figure 5.6).

However, while investors recognised the importance of such macro-economic variables, they were divided as to their role (Figure 5.7). Institutional investors in particular are split fairly evenly between seeing macroeconomic variables playing the role of risk factors, style factors and being completely independent. Meanwhile, while 37% of wholesalers saw macro factors as independent of other categories of factors, 27% of wholesale investors didn't see macroeconomic variables as factors at all.

This lack of consensus points to a potential area of debate over the next few years, as investors explore and test how these variables impact factor strategies. While the effect of incorporating macro factors might not yet be fully understood, it is an area of rapid development.

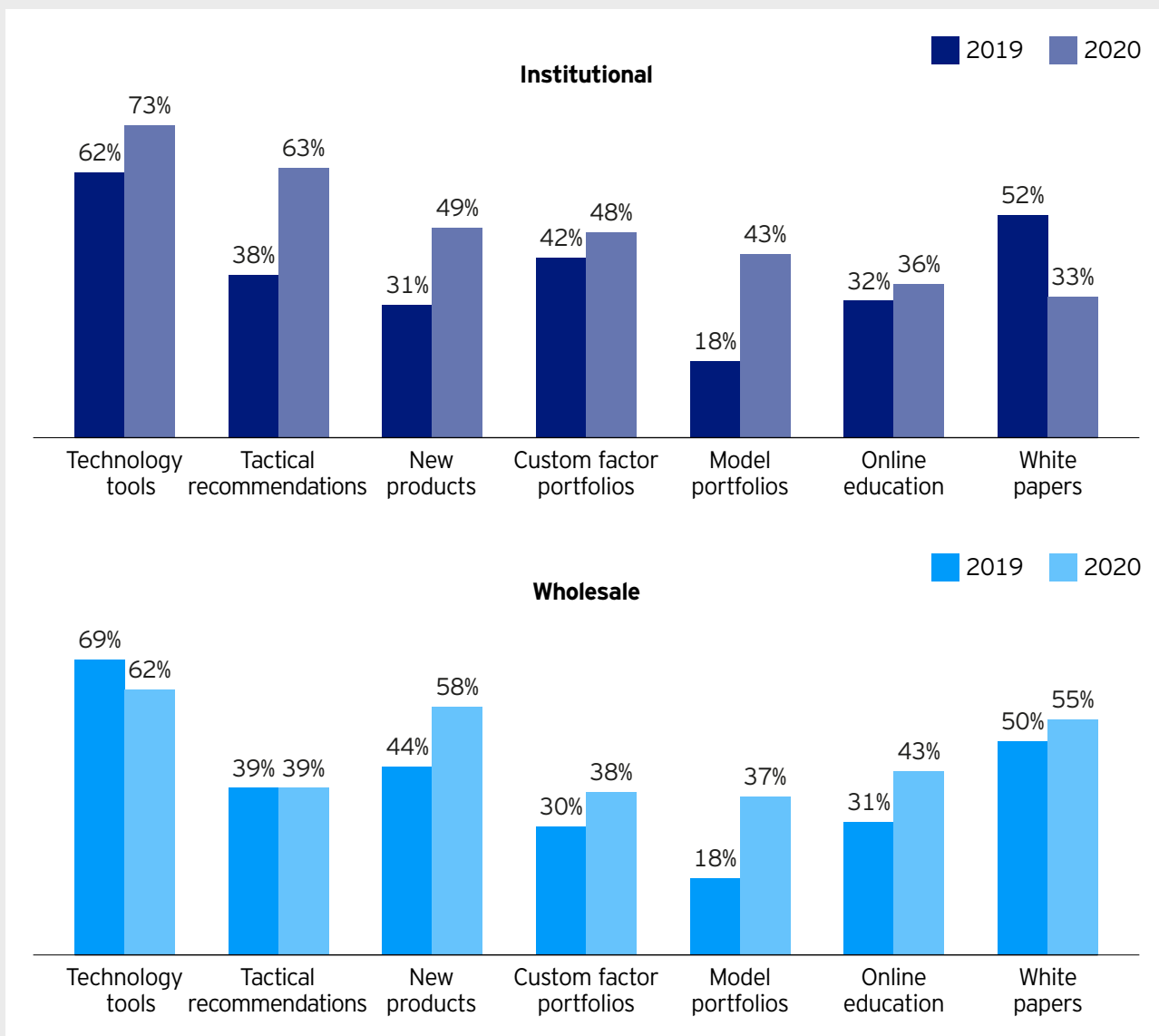
Investors looking for asset managers to advise on tactical shifts

While the principal benefits of factor investing are consistently seen as relating to core long-term objectives, a significant proportion of investors are now also using factors to express tactical portfolio views. This is an area for which external asset managers are seen as playing an important role. In last year's study just 38% of institutional investors said they would look to external asset managers for tactical recommendations. This year it has risen to 63% (**Figure 5.8**).

Factors are increasingly being used to alter risk exposures at an overall portfolio level or to target exposures to certain investment themes. This includes:

- Altering the level of overall portfolio risk based on the prevailing environment and levels of volatility
- The use of factor strategies to provide protection against tail risk (low probability but high impact events)
- 'Timing' factors based on expectations for short-/medium-term performance, generally due to conviction-based views of the macroeconomic cycle
- Modifying exposures to take advantage of perceived mispricing within factors

Figure 5.8
Help needed from external asset managers (% citations)



What can external asset managers do best to help you with your use of factor strategies?

Sample size: Institutional = 132
Wholesale = 93

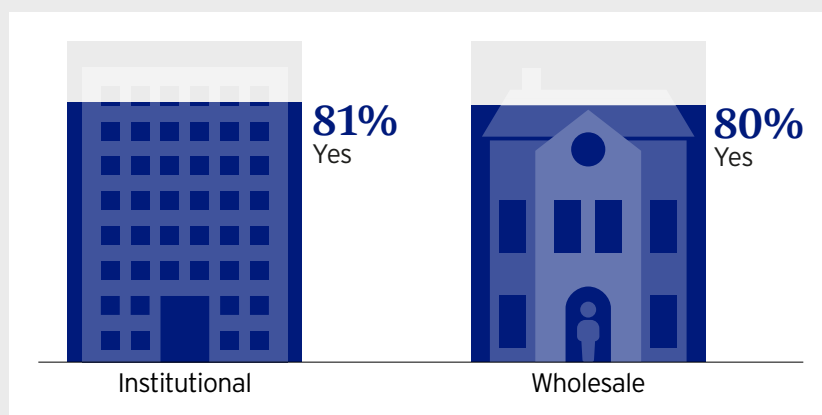
Increasingly dynamic portfolios allow some investors to generate additional return

The majority of investors accept the possibility of 'timing' factor allocations (**Figure 5.9**). Some 81% of institutions and 80% of wholesalers believe that timing factors has the potential to generate short-term excess returns. This view is particularly strong in North America where 92% accepted the possibility of factor timing, and in EMEA where 78% of investors concurred.

The smaller proportion of investors that attempt to time factors suggests that some investors, while accepting that timing might well deliver a return, are sceptical about the reliability of 'getting it right' over the long term (**Figure 5.10**). Only a third of institutions and half of wholesalers sought to time in practice.

These two groups diverged in their short-term allocation intentions. Institutional investors generally tended to be allocating to value and quality, likely reflecting a combination of rebalancing and defensive positioning, while wholesalers tended to focus on quality and low volatility. These two factors have performed especially well over the past 12 months, perhaps suggesting some element of returns chasing, but are also generally more defensive options during times of volatility.

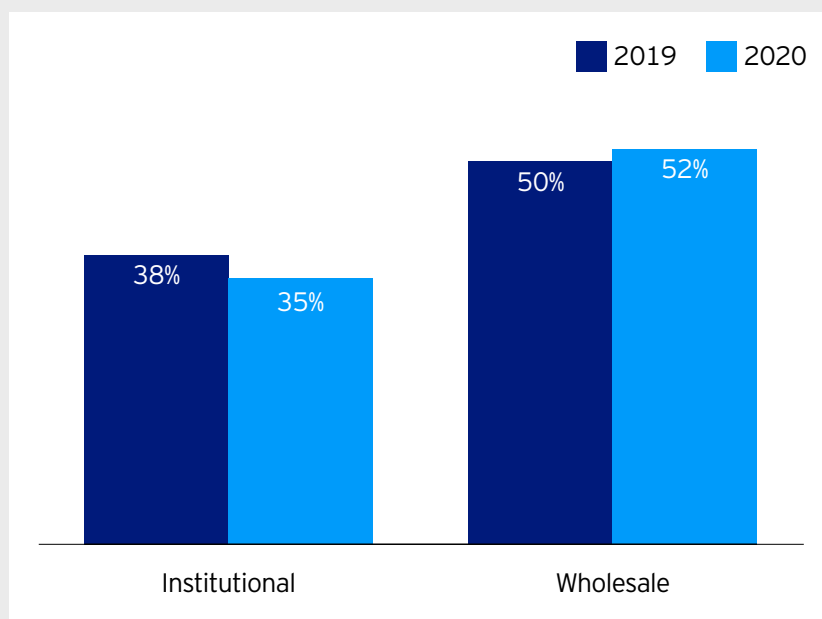
Figure 5.9
Investors accepting the possibility of timing (% citations)



Is it possible to time factors to maximise performance?

Sample size: Institutional = 130
Wholesale = 93

Figure 5.10
Investors expecting to time factor allocations (% citations)



Do you expect to tilt your factor allocations at this point in the cycle?

Sample size: 2019 = 236
2020 = 219

Investors are requiring more systematic monitoring of portfolios and assistance from managers

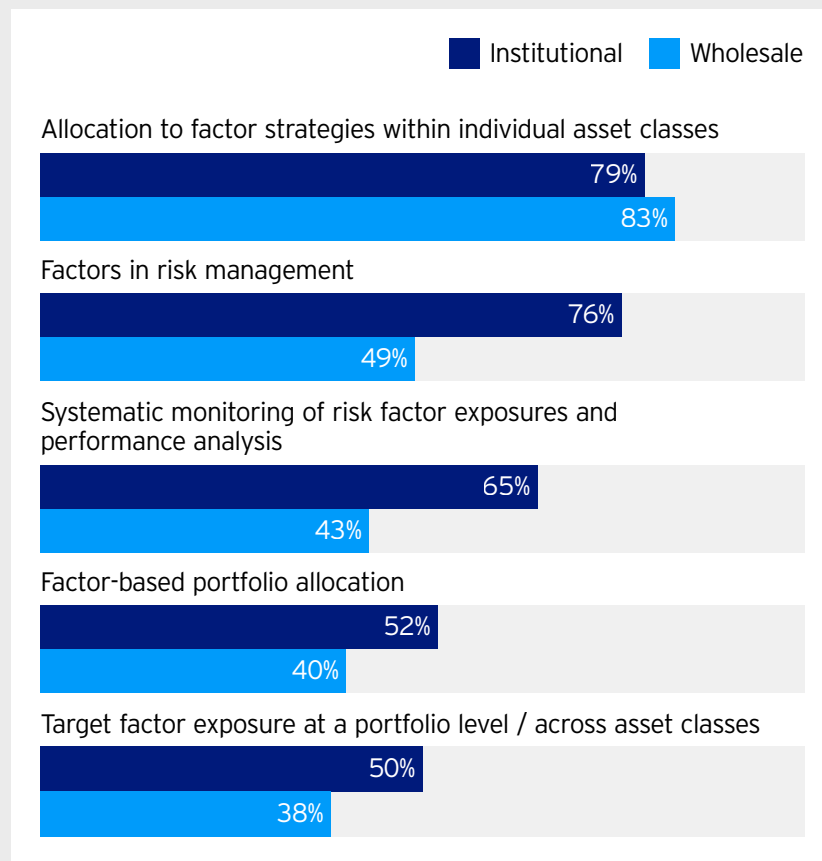
As factor approaches become more complex and dynamic, investors are putting more effort into monitoring their factor exposures. Two-thirds of institutional investors are now systematically monitoring factor exposures, up from just under half a year ago (Figures 5.11 and 5.12).

As investors move steadily towards multi-factor implementation, the monitoring of factor correlations is becoming a crucial part of the portfolio construction process - two-thirds of investors keep track of how factors are correlated and use this to guide decision making (Figure 5.13).

Tracking correlations is seen as particularly necessary for avoiding the concentration of risk. Long-term persistence suggests that some factor correlations are at least partly structural, such as a negative correlation between the value and quality factors. However, other factors have proven to become more correlated under certain market conditions, suggesting that they are at least partly dependent on some of the same underlying risk drivers.

This was highlighted by recent Covid-19-linked market volatility, when a broad-based sell-off disrupted traditional correlations across asset classes and between factors. An APAC-based wholesale investor elaborated: "Correlations between factors are a key determinant of how the portfolio is structured and also defines the assumptions in the model and the internal consistency therein."

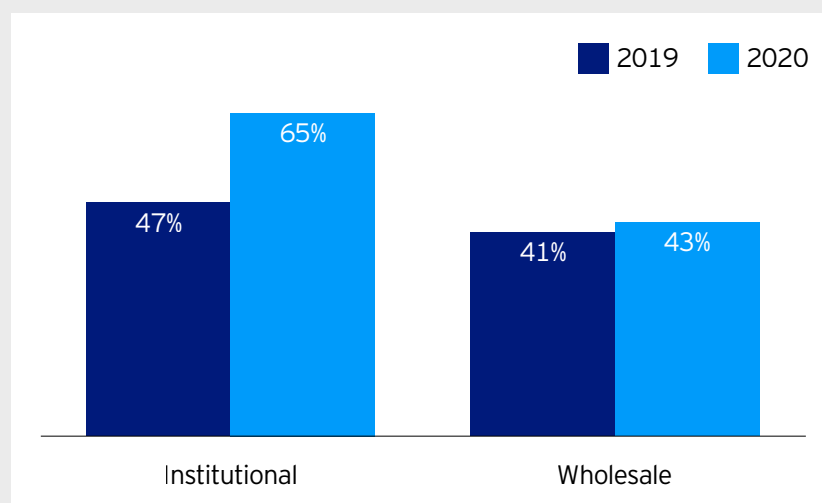
Figure 5.11
Approaches to factor investing (% citations)



Which approaches to factor investing do you use within your portfolio (or client portfolios)?

Sample size:
Institutional = 136
Wholesale = 98

Figure 5.12
Systematic monitoring of risk factor exposures (% citations)

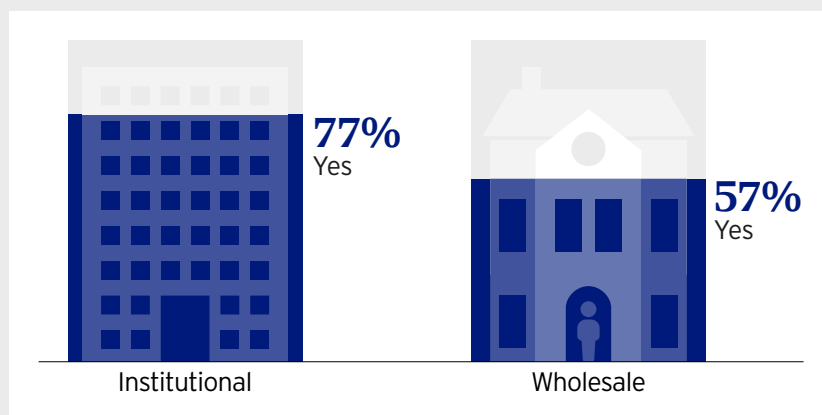


Which approaches to factor investing do you use within your portfolio (or client portfolios)?

Sample size:
2019 = 239
2020 = 234

Figure 5.13

Track correlations between factors (% citations)



Do you track correlations between factors?

Sample size: Institutional = 128, Wholesale = 92

Technology: A salve for factor pain points

Technological innovation can overcome a range of challenges related to developing allocations and monitoring exposures according to investors. However, many were unhappy with the systems available to them, a frustration best articulated by an APAC-based sovereign: “We would like to be able to tilt their portfolio based on our economic view but our current external platform makes that challenging; we don’t like the predefined factors used in the system or the standardised mapping of these factors onto our assets.”

This dissatisfaction is leading some investors to invest more in developing their own in-house solutions. However, many others are looking for asset managers to take a lead - 73% of institutional investors and 62% of wholesale investors said they were looking to external

managers for help in developing appropriate tools (**Figure 5.9**). “The challenges we face are not unique to us and we feel external managers should be coming to us with solutions”, said one EMEA-based institutional investor.

In particular, investors cited a desire to monitor factor exposure at the total portfolio level in an effort to better target and manage factors that align to their liabilities and/or their investment objectives. As more factor users move towards a holistic and strategic factor-based approach, the development of customisable solution-based tools, scalable to meet the largest and most complex of portfolios, remains an ongoing pain point that asset managers are increasingly being tasked with solving.

“The challenges we face are not unique to us and we feel external managers should be coming to us with solutions”, said one EMEA-based institutional investor.

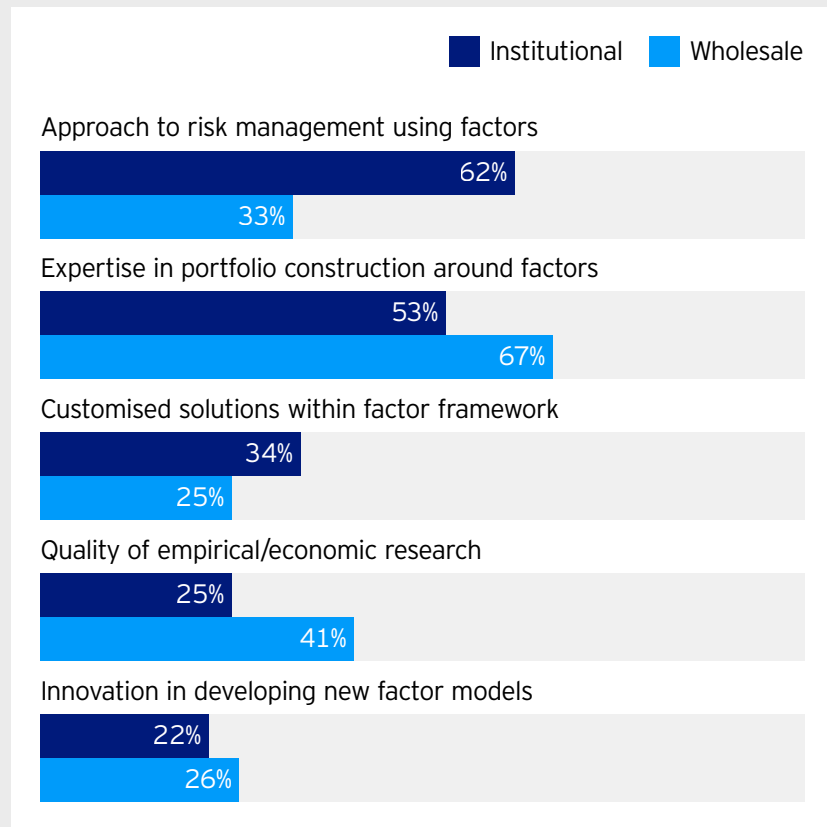
Portfolio construction and risk management are key selection criteria for asset managers

When selecting factor managers, 62% of institutional investors prioritise a manager's approach to risk management (Figure 5.14). Meanwhile, wholesalers are most likely to focus on expertise in portfolio construction (67%), something which is also of high importance to institutional investors (53%).

These results suggest that at this point in the adoption curve for many investors, an asset manager's experience in managing risk and building holistic factor portfolios is viewed as more important than further academic research or new factor models. One EMEA-based institutional investor explained: "We are focused on the approach to risk management using factors. This is in terms of how you define risk and how you allocate that risk to factors."

Figure 5.14

Criteria used to select a factor manager (% citations)



What criteria do you use to select a factor manager?

Sample size: Institutional = 130
Wholesale = 85

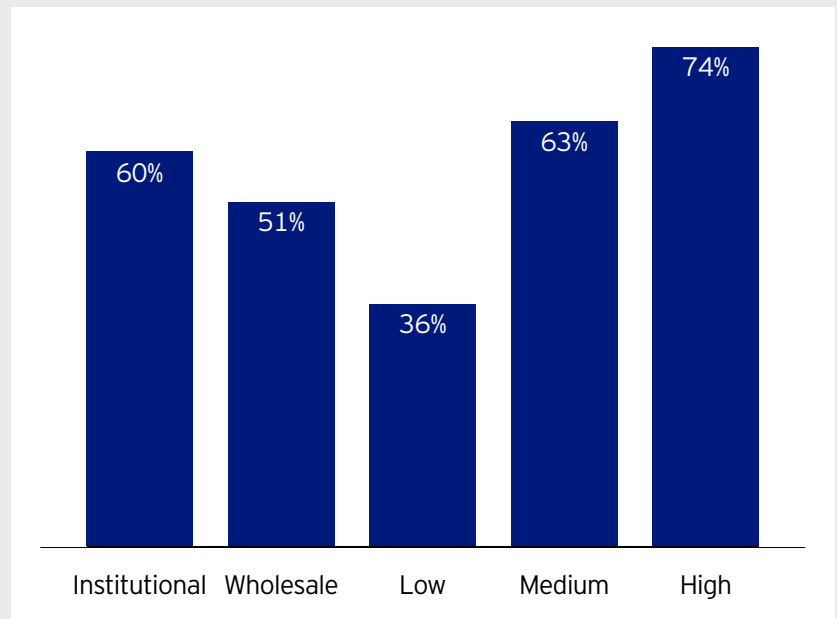
One EMEA-based institutional investor explained: "We are focused on the approach to risk management using factors. This is in terms of how you define risk and how you allocate that risk to factors."

A factor lens on active managers

As investors build a holistic factor view of their portfolio, the factor approach is increasingly influencing other parts of the portfolio. Factors are now commonly being used to monitor traditional active managers, with a majority of both institutional and wholesale investors taking this approach. Notably, this type of analysis is much more common among respondents that view their organisation's factor abilities as highly sophisticated and drops off rapidly among the less sophisticated segment (**Figure 5.15**).

Factor analyses of active portfolios are being done to see how investments will impact factor exposures, as well as identify closet factor huggers and the ability to deliver idiosyncratic alpha relative to a reference model. This in turn is driving discussions around mandates and fees (**Figure 5.16**). One North American wholesale investor elaborated on their approach: "We use regression analysis to assess which factors managers are exposed to when constructing portfolios, and also to see if they are actually delivering the alpha that they claim to or if their returns are merely a function of their factor exposures."

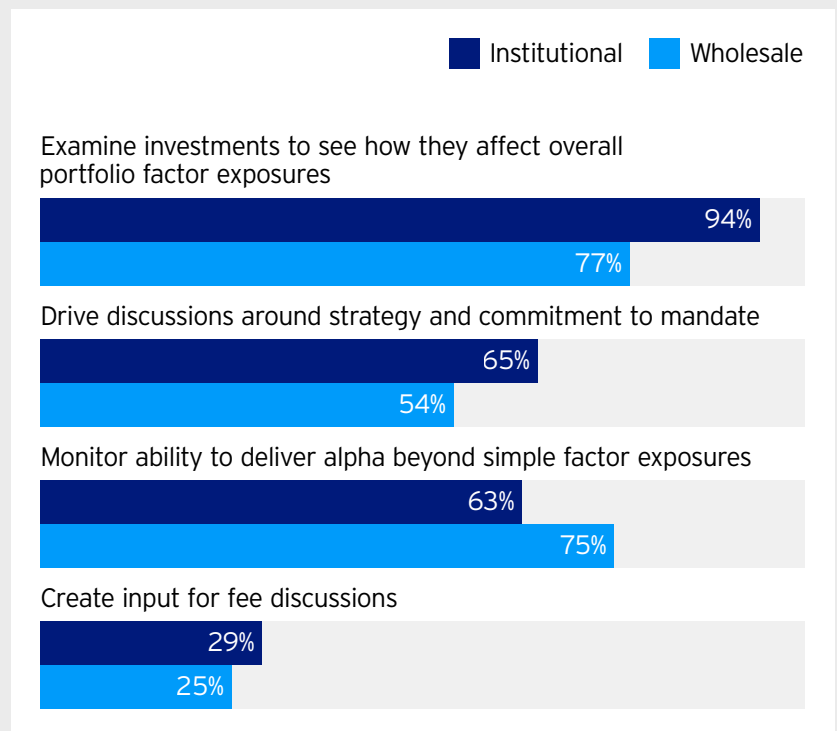
Figure 5.15
Use of factors to monitor traditional active managers (% citations)



Do you use factors to monitor the performance of non-factor managers?

Sample size: Institutional = 133
Wholesale = 94

Figure 5.16
Reasons for monitoring active managers (% citations)



[If yes] What is the motivation?

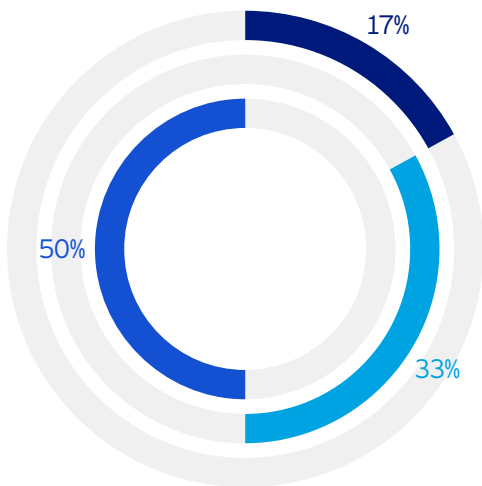
Sample size: Institutional = 79,
Wholesale = 48

This type of analysis can be done either through top-down regression analysis of returns or through a bottom-up analysis of holdings. However, these two methods can deliver different results and half of our respondents said they make use of both methods when assessing their active managers (**Figure 5.17**). This is another area where investors were likely to cite the lack of standardised tools as a pain point, with contrasting results from different methodologies sometimes hard to reconcile. This led to demands for a reliable system that could do the legwork and feed into a single solution for holistically managing the factor exposure of the total portfolio.

Figure 5.17

Approach to monitoring active managers (% citations)

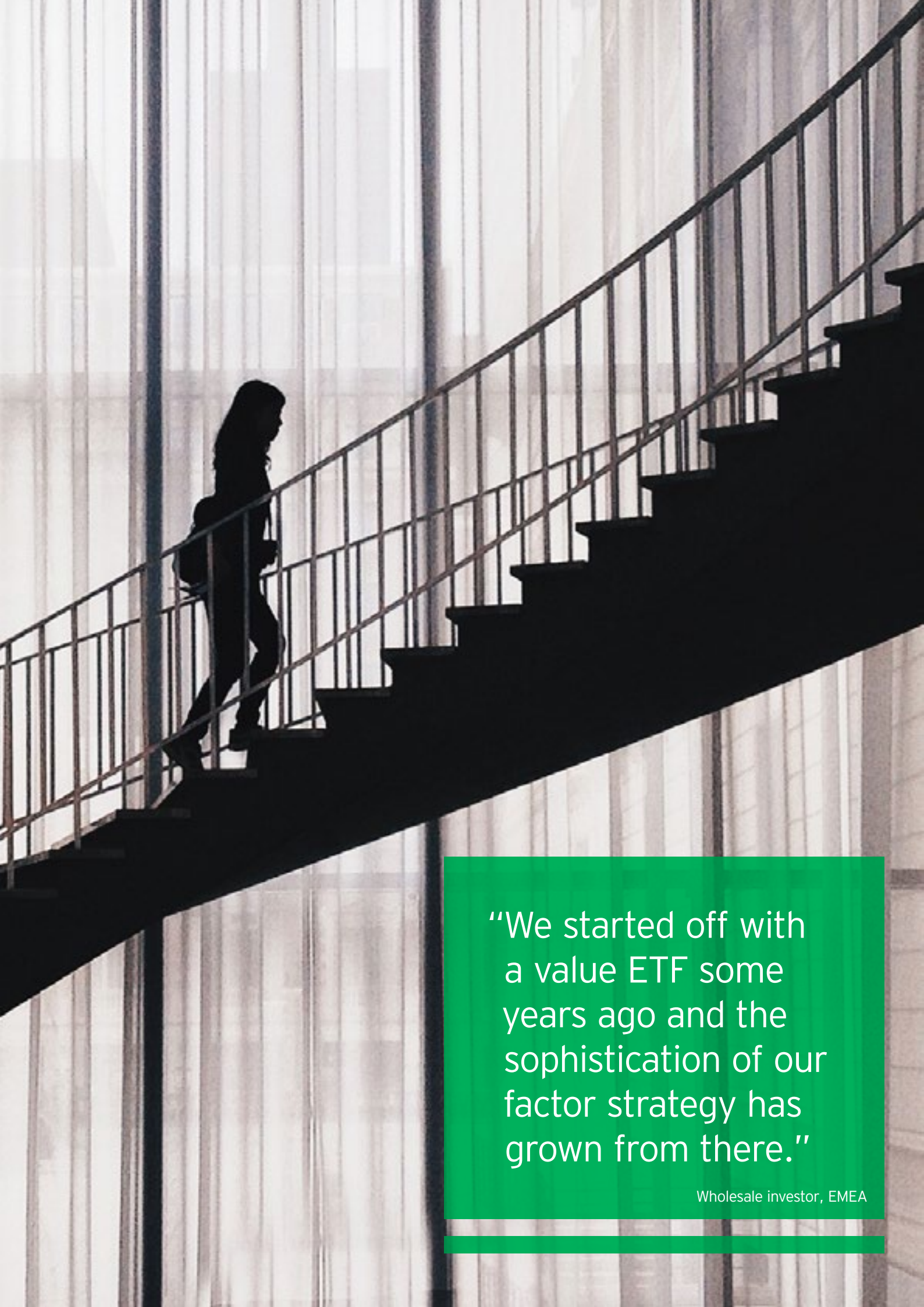
- Bottom-up analysis of holdings
- Top-down regression analysis
- Both



[If yes] What is your approach?

Sample size: 127





“We started off with a value ETF some years ago and the sophistication of our factor strategy has grown from there.”

Wholesale investor, EMEA

Appendix

Sample and methodology

The fieldwork for this study was conducted by NMG's strategy consulting practice. Invesco chose to engage a specialist independent firm to ensure high-quality objective results. Key components of the methodology include:

- A focus on the key decision makers conducting interviews using experienced consultants and offering market insights
- In-depth, face-to-face interviews (typically 1 hour) using a structured questionnaire to ensure quantitative as well as qualitative analytics were collected
- Results interpreted by NMG's strategy team with relevant consulting experience in the global asset management sector

In 2020, the fifth year of the study, we conducted interviews with 238 different pension funds, insurers, sovereign investors, asset consultants, wealth managers and private banks globally. Together these investors are responsible for managing US\$25.4 trillion in assets (as of 31 March 2020).

In this year's study, all respondents were 'factor users', defined as any respondent investing in a factor product across their entire portfolio and/or using factors to monitor exposures. We deliberately targeted a mix of investor profiles across multiple markets, with a preference for larger and more experienced factor users. The breakdown of the 2020 interview sample by investor segment and geographic region is displayed in **Figures 6.1, 6.2 and 6.3**.

Institutional investors are defined as pension funds (both defined benefit and defined contribution), sovereign wealth funds, insurers, endowments and foundations. Wholesale investors are defined as discretionary managers or model portfolio constructors for pools of aggregated retail investor assets, including discretionary investment teams and fund selectors at private banks and financial advice providers, as well as discretionary fund managers serving those intermediaries.

Invesco is not affiliated with NMG Consulting.

Figure 6.1
**Assets under management by segment
(US\$ trillion, as of 31 March 2020)**

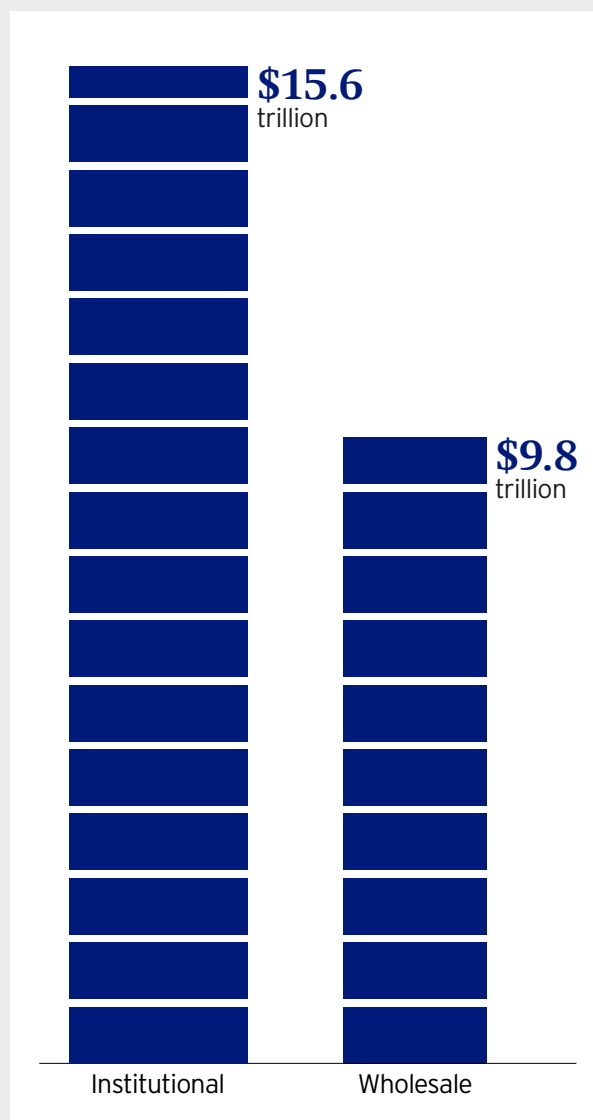


Figure 6.2
Sample by segment

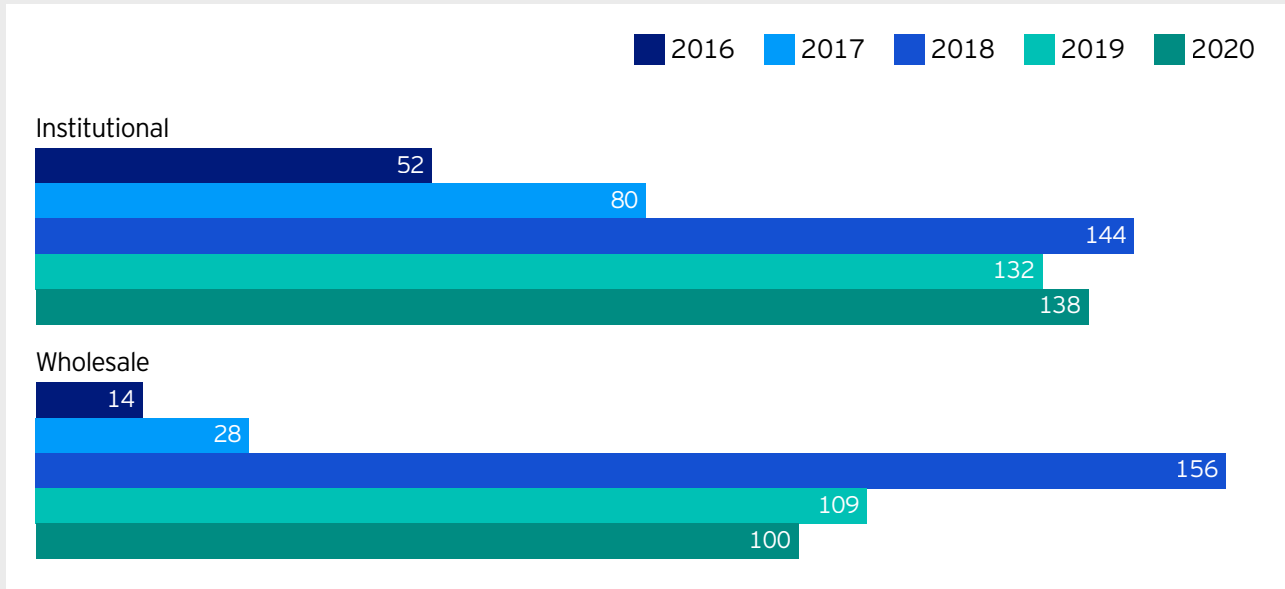
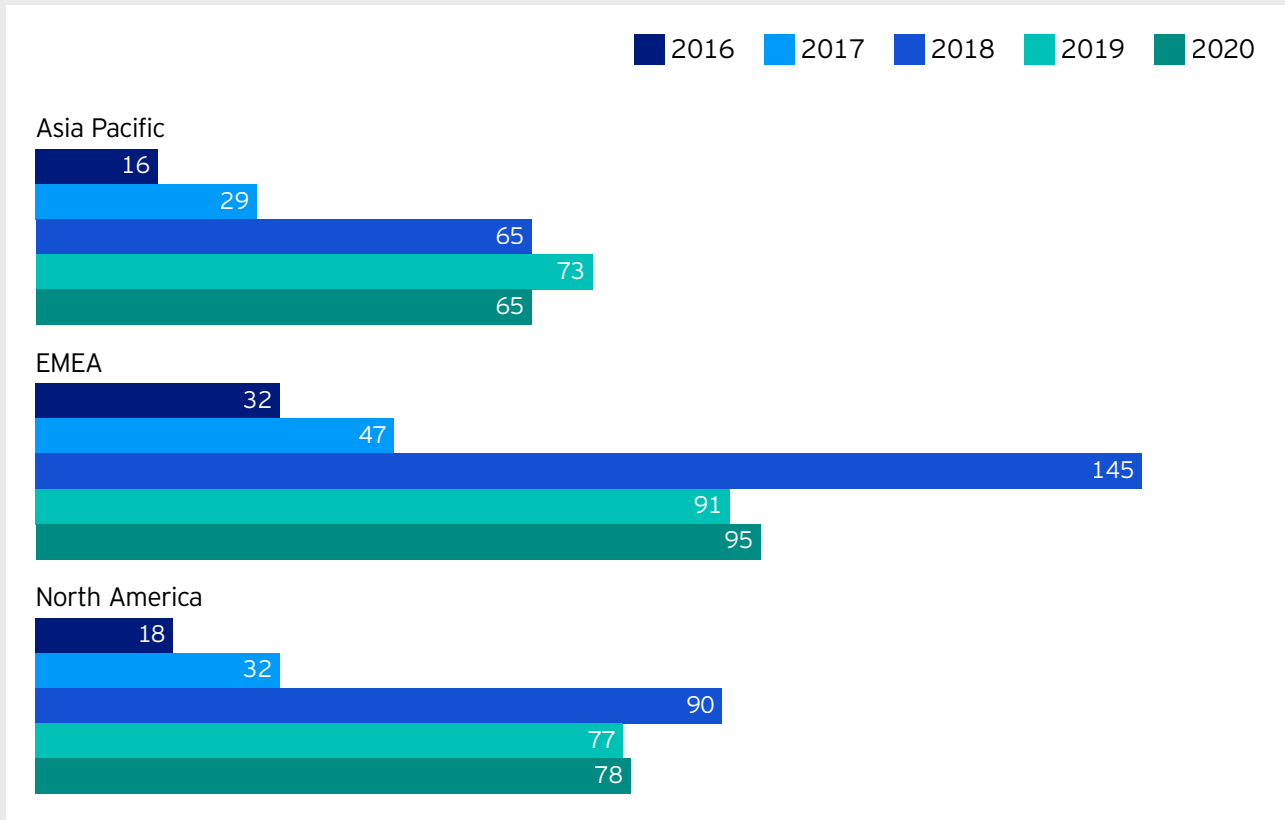


Figure 6.3
Sample by region



Important information

This document has been prepared only for those persons to whom Invesco has provided it for informational purposes only. This document is not an offering of a financial product and is not intended for and should not be distributed to retail clients who are resident in jurisdiction where its distribution is not authorized or is unlawful. Circulation, disclosure, or dissemination of all or any part of this document to any person without the consent of Invesco is prohibited.

This document may contain statements that are not purely historical in nature but are "forward-looking statements," which are based on certain assumptions of future events. Forward-looking statements are based on information available on the date hereof, and Invesco does not assume any duty to update any forward-looking statement. Actual events may differ from those assumed. There can be no assurance that forward-looking statements, including any projected returns, will materialize or that actual market conditions and/or performance results will not be materially different or worse than those presented.

The information in this document has been prepared without taking into account any investor's investment objectives, financial situation or particular needs. Before acting on the information the investor should consider its appropriateness having regard to their investment objectives, financial situation and needs.

You should note that this information:

- may contain references to amounts which are not in local currencies;
- may contain financial information which is not prepared in accordance with the laws or practices of your country of residence;
- may not address risks associated with investment in foreign currency denominated investments; and
- does not address local tax issues.

All material presented is compiled from sources believed to be reliable and current, but accuracy cannot be guaranteed. Investment involves risk. Please review all financial material carefully before investing. The opinions expressed are based on current market conditions and are subject to change without notice. These opinions may differ from those of other Invesco investment professionals.

The distribution and offering of this document in certain jurisdictions may be restricted by law. Persons into whose possession this marketing material may come are required to inform themselves about and to comply with any relevant restrictions. This does not constitute an offer or solicitation by anyone in any jurisdiction in which such an offer is not authorised or to any person to whom it is unlawful to make such an offer or solicitation.

Investment risks

The value of investments and any income will fluctuate (this may partly be the result of exchange rate fluctuations) and investors may not get back the full amount invested.

Factor investing is an investment strategy in which securities are chosen based on certain characteristics and attributes that may explain differences in returns. Factor investing represents an alternative and selection index-based methodology that seeks to outperform a benchmark or reduce portfolio risk, both in active or passive vehicles. There can be no assurance that performance will be enhanced or risk will be reduced for strategies that seek to provide exposure to certain factors. Exposure to such investment factors may detract from performance in some market environments, perhaps for extended periods. Factor investing may underperform market cap-weighted benchmarks and increase portfolio risk. There is no assurance that the factor strategies discussed in this material will achieve their investment objectives or be successful. In general, equity values fluctuate, sometimes widely, in response to activities specific to the company as well as general market, economic and political conditions.

Since ordinary brokerage commissions apply for each buy and sell transaction, frequent trading activity may increase the cost of ETFs. ETFs disclose their full portfolio holdings daily. Diversification does not guarantee a profit or eliminate the risk of loss.

Fixed-income investments are subject to credit risk of the issuer and the effects of changing interest rates. Interest rate risk refers to the risk that bond prices generally fall as interest rates rise and vice versa. An issuer may be unable to meet interest and/or principal payments, thereby causing its instruments to decrease in value and lowering the issuer's credit rating.

The use of environmental and social factors to exclude certain investments for non-financial reasons may limit market opportunities available to funds not using these criteria. Further, information used to evaluate environmental and social factors may not be readily available, complete or accurate, which could negatively impact the ability to apply environmental and social standards.

Alternative strategies typically are subject to increased risk and loss of principal. Consequently, investments such as exchange-traded funds which focus on alternative strategies are not suitable for all investors.

Commodities generally are volatile and are not suitable for all investors.

