MSCI Investment Insights 2021

Global institutional investor survey

MSCI

Introduction

Amid great uncertainty, sound investment decisions matter

Many institutional investors are facing their greatest challenges for many years.

They are transforming their investment processes at high speed to reflect today's imperatives, such as environmental, social and governance (ESG) investing, innovative technology, ever-shifting regulations and demands for greater transparency.

Yet they must do this in a complex and unstable financial environment. I compare this challenge to changing the sails and masts of a ship as it is battered by a storm.

For this report, we surveyed 200 asset owners (pension funds, insurers, sovereign wealth funds and endowments/foundations) owning assets of around $18 trillion. Reading it, I was struck by how the pandemic has further accelerated the shift to ESG. Asked for the top 3 trends that will affect their organization over the next three to five years, 62% cited either climate change or the increasing complexity of ESG measurement — far ahead of other themes such as market volatility and regulation.

But it is not the only transformation. A new wave of data technologies is bringing very significant changes to investment processes. These technologies open the door to new ways of understanding markets and increasing efficiency.

There is also a strong focus on making faster progress on employee diversity.

External forces compound the challenges. Vaccines may bring some welcome relief for society in 2021, but there is no vaccine for the very high levels of debt most governments have issued since the start of the crisis. This and the pandemic's dark economic shadow may mean the next 12 to 24 months are highly unpredictable.

But this survey also shows how institutional investors are navigating through this storm. The shift to index-based investing, especially indexes based around ESG or factors, is a vital strategy for many, driving down costs and offering an opportunity for risk-adjusted enhanced returns.

The survey also underlines the shift to private assets and real estate as investors pursue returns in a low-rates environment. There are important implications: as investors continue to load their portfolio with private assets, will they continue to accept that these investments sometimes lack transparency? I question this.

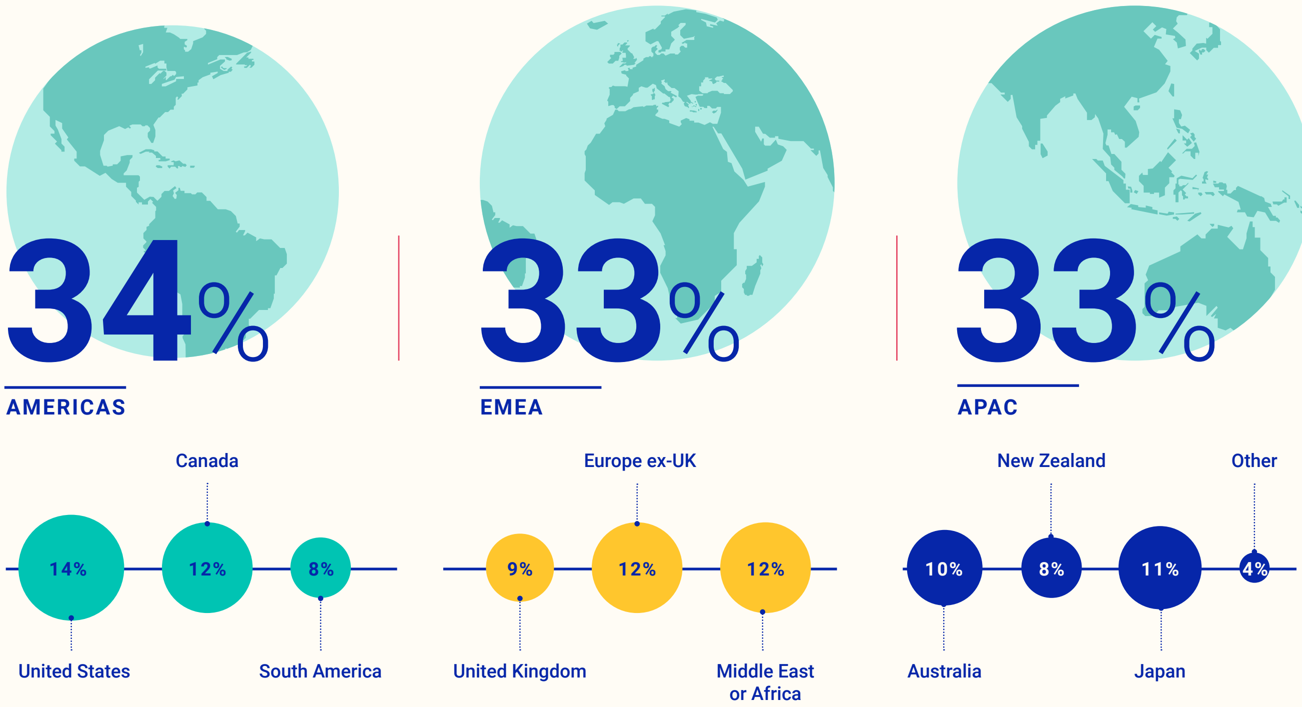
We may be entering an era of highly dispersed returns, with a wide gap between the best- and worst-performing portfolios. At MSCI, our tools and solutions help investors understand and manage both risks and opportunities. We also appreciate that each investor is unique; as this survey highlights, the problems of small- and mid-sized investors are very different from those with $200 billion.

If you are an institutional investor wrestling with these challenges, you are not alone; MSCI is working with many of your peers on these topics. We would be happy to discuss these findings in more detail and to share how others are approaching similar problems.

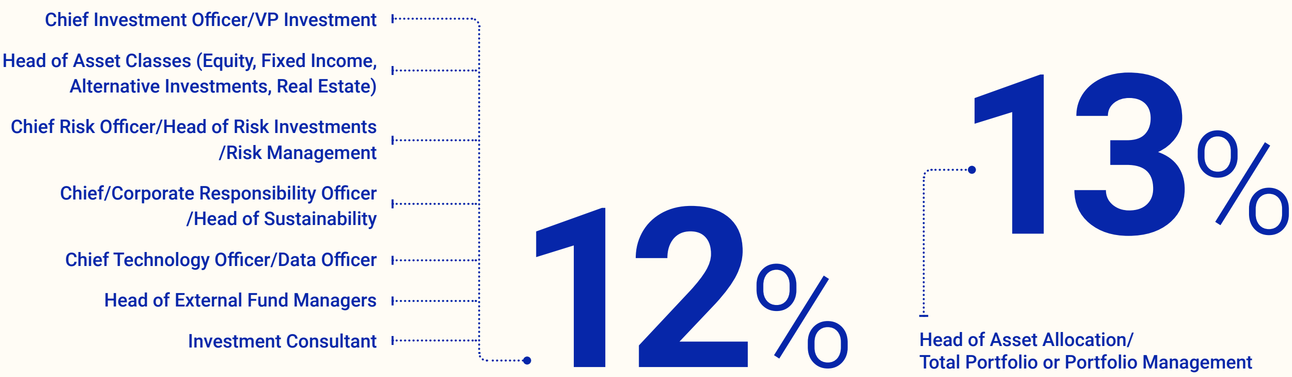
C.D. BAER PETTIT
President and Chief Operating Officer,
MSCI

About the survey and demographics

All quantitative data in this report was derived from a survey of 200 executives at 200 separate asset owners. The survey was conducted by phone in September 2020. Qualitative interviews and quotes came from a separate series of phone interviews.

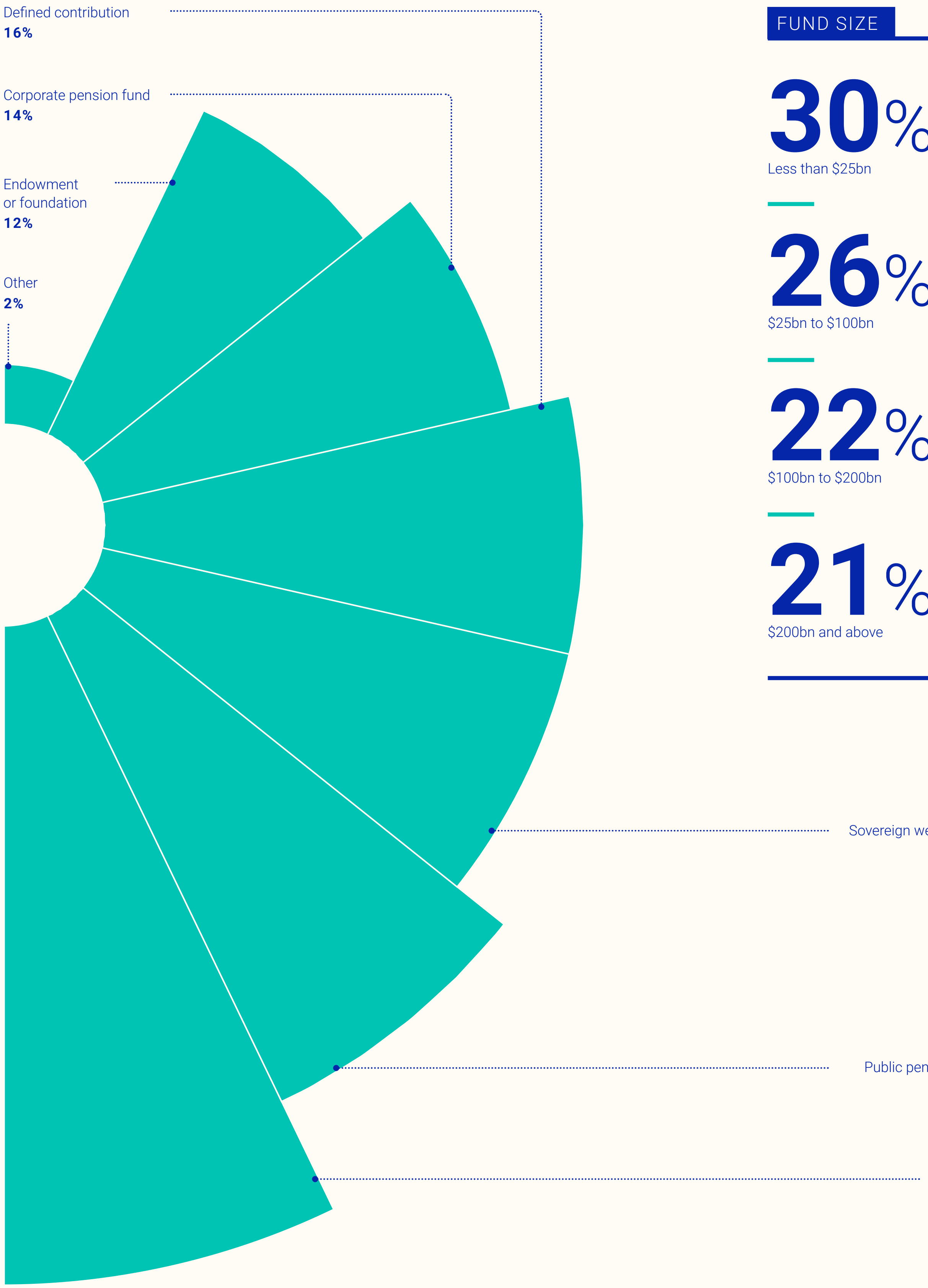


REGION



JOB TITLE

Note: Percentages may not sum to 100% due to rounding



FUND TYPE

FUND SIZE

30%
Less than $25bn

26%
$25bn to $100bn

22%
$100bn to $200bn

21%
$200bn and above

Contents

Executive summary

Survey outline

Some 200 executives at different asset owners were surveyed by phone in September 2020. The main categories were sovereign wealth funds, insurers, endowments/foundations and pension funds. Pension funds were divided between corporate, public and defined-contribution. Geographically, equal weight was given to the Americas; Europe, the Middle East and Africa (EMEA); and Asia-Pacific (APAC). Full survey details including a breakdown by job title are at the end of this report.

$18 trillion

approximate assets owned

ESG: the new normal

The move towards incorporating environmental, social and governance (ESG) considerations into investment decisions accelerated due to the pandemic, transitioning from a side-fund to a main-fund issue. 72% indicated that they believe companies with high ESG ratings had good continuity planning during the pandemic. As a result, more investors are putting greater emphasis on the "S" (social) in ESG. Progress on ESG is held back, though, by concerns over fiduciary duty, perceived issues with data, cost and manager inexperience.

73%

plan to increase ESG investment either significantly or moderately by the end of 2021

36%

see the 'social' aspect as a larger proportion of the mix by the end of 2021

Private assets: the shift continues

What would cause additional allocation to private assets?

Asked for three changes that would unlock more investment into private assets, lower fees topped the list. But institutional investors remained enthusiastic about private assets, with 57% saying getting the right balance between public and private assets was a key to investment excellence, now seen by them as more important than traditional asset allocation. There was only modest concern over returns. In contrast, returns were the number one issue deterring investment into real estate.

61%

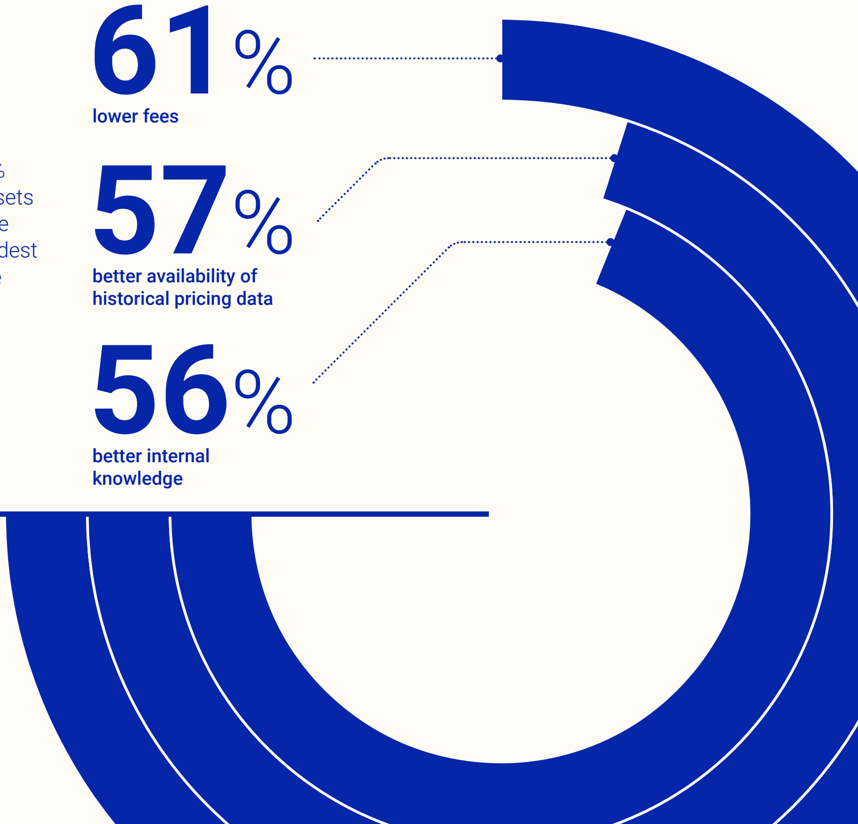
lower fees

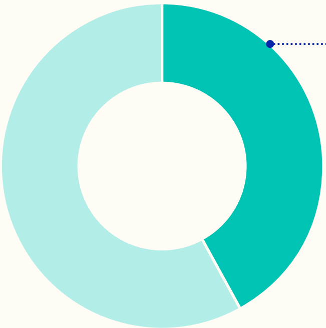
57%

better availability of historical pricing data

56%

better internal knowledge





42%

responded to the pandemic by cutting costs, such as reducing headcount

The pandemic: short-term cost-cutting

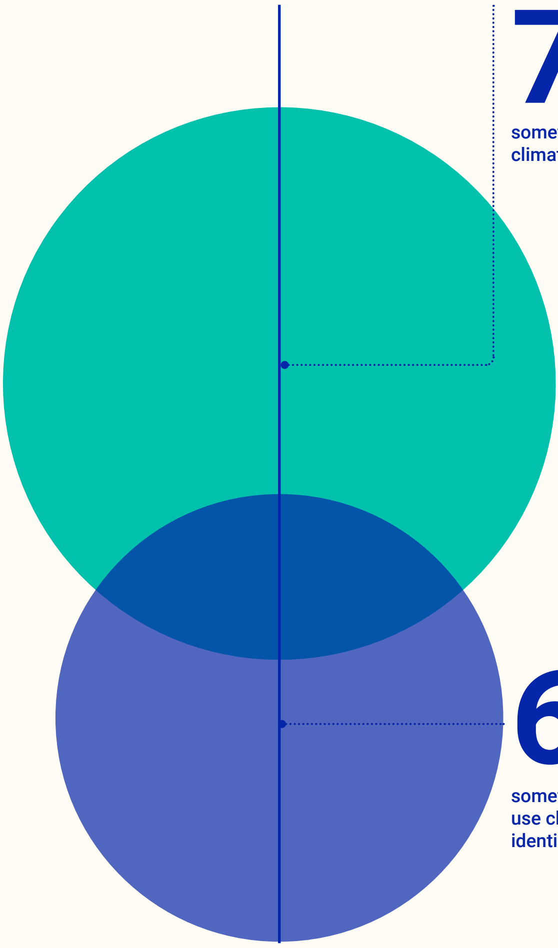
Mid-sized investors ($25 billion to $100 billion) moved fastest to reduce costs. Geographically, cuts have been most common in the U.S. and the U.K. Having taken these short-term measures, many are now planning to increase their staff. This may be a response to other trends outlined in the report, such as the shift to private assets and internal management of investments.

Climate data: at the center of a revolution

A revolution in data usage is seen as a solution to many problems, from regulation to increased public pressure for transparency. At the heart of this revolution is climate data, already widely used defensively to manage risk. Using climate data in an effort to boost returns is less common. As with many ESG issues, large investors lead the way: investors with $200 billion-plus are four times as likely to regularly use climate data to identify investment opportunities than those with less than $25 billion.

Organizational diversity: modest progress

Of the 200 executives surveyed, just one said internal staff diversity was unimportant. However, improvement is slow, with 86% agreeing that "more needs to be done" or "there's a long way to go." The viewpoint depends on where you sit: CIOs perceive significantly more progress than executives overseeing corporate responsibility. Sovereign wealth funds, public pension funds and insurers face the strongest pressure for change, endowments and corporate pension funds much less so.

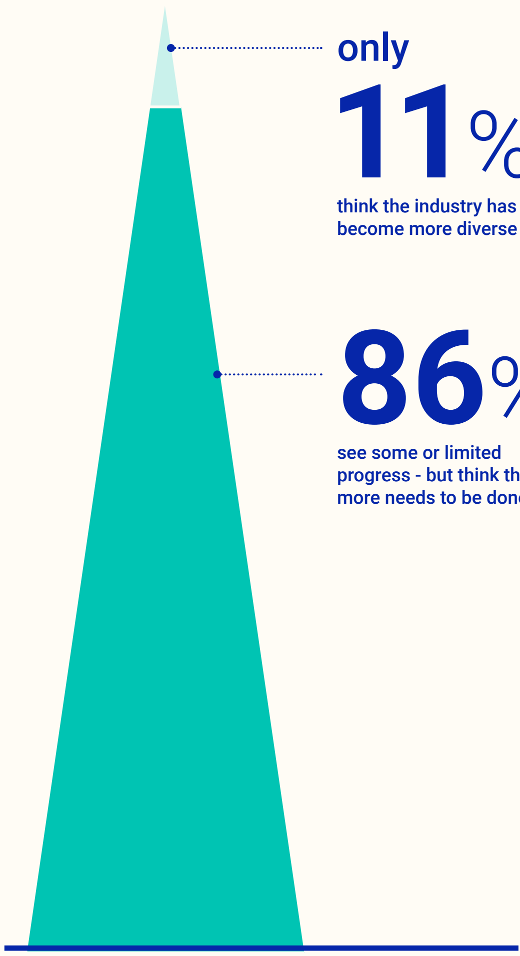


79%

sometimes or regularly use climate data to manage risk

64%

sometimes or regularly use climate data to identify opportunity



only 11%

think the industry has become more diverse

86%

see some or limited progress - but think that more needs to be done

In pursuit of investment excellence

Faced with multiple challenges, how do investors hope to deliver superior returns?

The survey highlights and quantifies how the pandemic has accelerated the paradigm shift on ESG. However, institutional investors also face other long-term trends that are critical to portfolio construction. Among the issues analyzed are the quiet evolution around the use of factors, risk management, the continuing shift to private assets and the debate on in-house/external management. (Questions of operational excellence are addressed in a later section.)

There are some regional trends. But for most issues, the size of an institution was more important in determining results than its home city. Local culture matters, but in general the headaches of a pension fund in Sydney may be very similar to those of pension funds in Singapore or San Francisco.

In addition to the high-level findings, we analyze two key subtrends. First, we review the key differences between the United States and the rest of the world, most clearly apparent in ESG but also clear in other areas.

Second, we review scale and the particular challenges of funds with less than $100 billion under management. While outsiders may think a $100 billion investor should have substantial resources, those inside such organizations attest otherwise. Challenges such as accessing private assets at a reasonable cost and managing risk and volatility are magnified for these investors. ■

> Investing is an ecosystem that can recover quickly from single events but can come under great stress when hit by many events at once
>
> **ALVISE MUNARI**
> Global Head of Client Coverage, MSCI

ESG: a transformation in just 12 months

Investors saw the value of ESG investing play out in front of their eyes in 2020. The survey quantifies the impact

36%

see the 'social' element of ESG as a greater priority by the end of 2021 as a response to the pandemic

78%

US investors increasing ESG investment as a response to COVID-19

Wildfires ripping through Australia and California, millions of hectares of Amazon rainforest cut down, exceptional warming in the Arctic – and then COVID-19. Recent climate- and health-related events have tested the resilience of governments and the human spirit to the limit.

The pandemic, and indeed 2020 as a whole, has built a powerful narrative around ESG investing. Sales of ESG funds reached record levels.

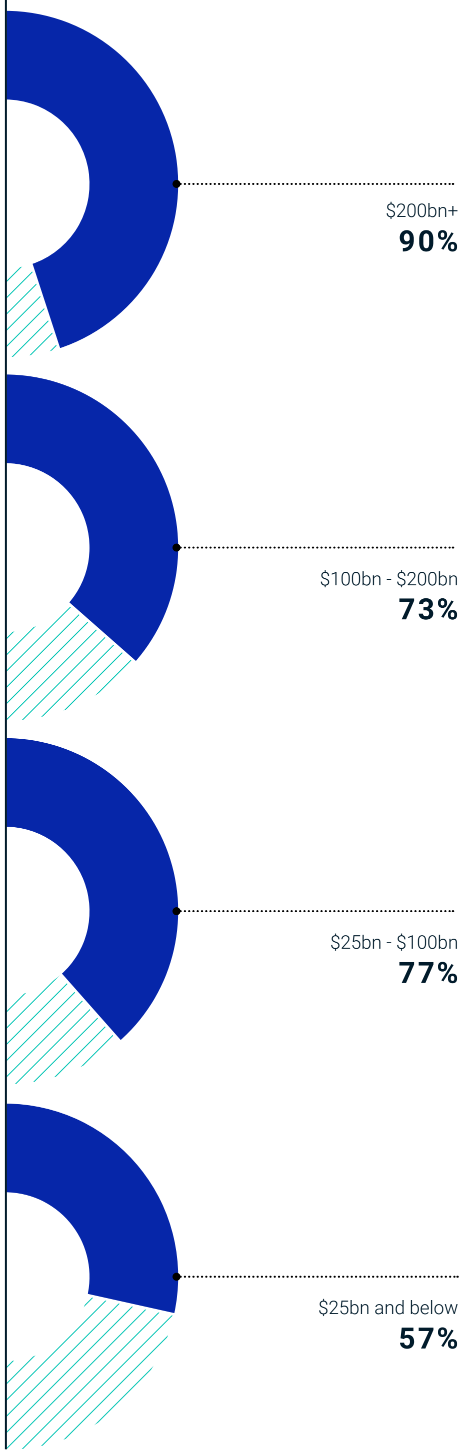
This survey provides a quantitative picture of how profound that impetus has been. Some 55% of investors with more than $200 billion said they were "significantly" increasing ESG investing, often through integration strategies. This figure rises to 90% if those making "moderate" changes are included, a profound shift in the way the largest asset owners invest. Smaller investors are also moving, albeit at a slower pace (see Exhibit 1).

"In the space of six or 12 months, investors have gone from thinking about ESG as a side issue to thinking about it as completely core to the future of their funds," comments Roger Urwin, an adviser to MSCI. "It is a big shift. And in my career, I haven't seen a shift quite like it."

Among the investors making the change is the New York State Common Retirement Fund, the U.S.'s third-largest public pension fund. It has pledged to shed any energy investments if they do not meet specific minimum standards as part of a pledge to move its portfolio to net-zero greenhouse gas emissions by 2040. It has been progressively shifting assets into sustainable investments, such as funds that track a low-emissions index.

This move highlights an important issue. While U.S. investors in general have been lukewarm about ESG investing - with some high-profile exceptions - 2020 has dramatically shifted their views closer to those of their international counterparts. Of U.S. respondents, 78% said they would increase ESG investment either significantly or moderately as a response to COVID-19, while in EMEA the proportion was 68%. The number in Asia-Pacific was 79%.

EXHIBIT 1:
Investors planning to increase ESG integration, significantly or moderately, as a response to COVID-19



We have always been an ESG-type investor, except that we maybe haven't labeled it previously

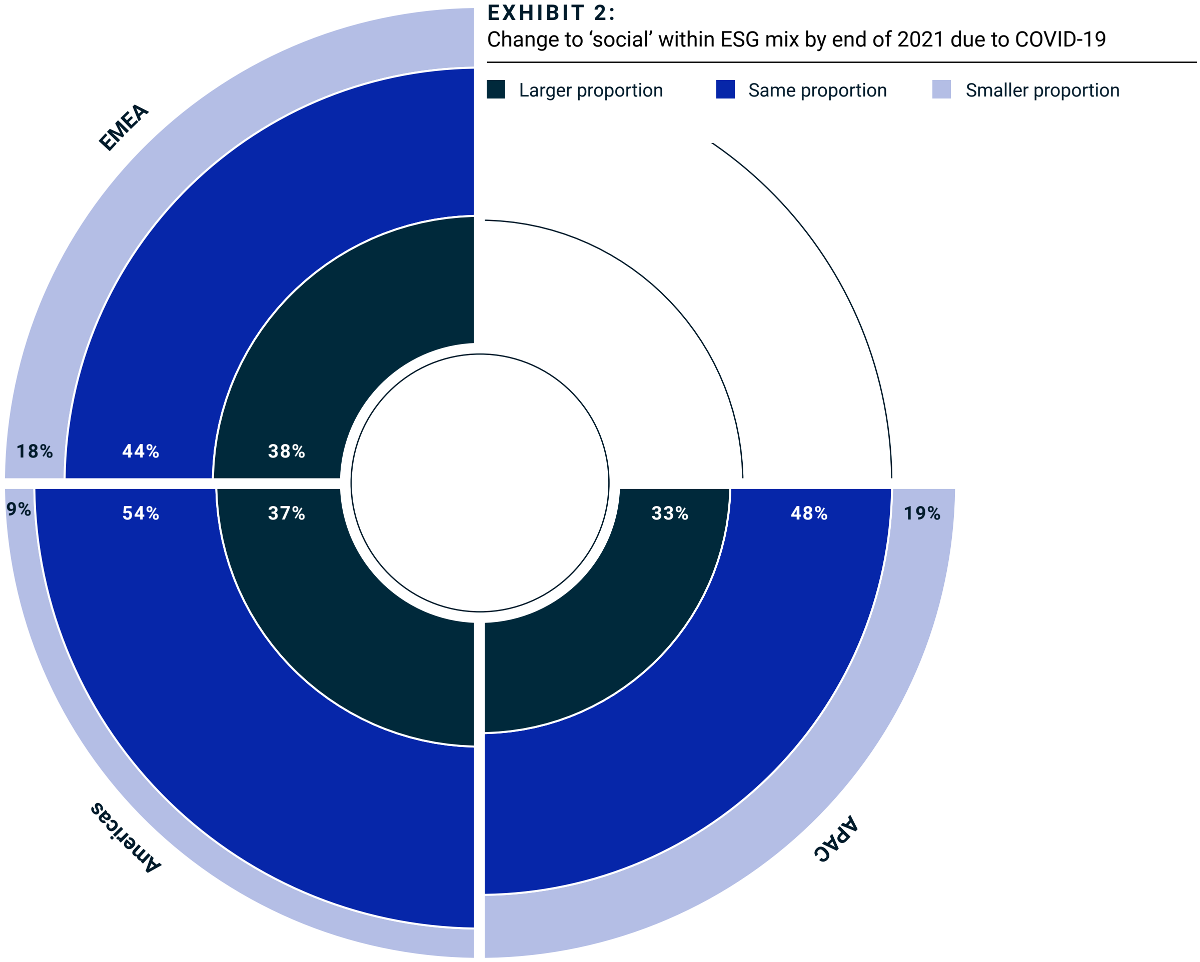
SENIOR EXECUTIVE
Major Asian investor

Investors say they have seen the value of ESG when watching their portfolios through the crisis. Some 76% of institutional investors said they believed companies with high ESG ratings had shown better continuity planning. In some countries, the perceived effect was even more pronounced: in the U.K., 89% of investors reckoned companies with high ESG ratings had shown better treatment of stakeholders, such as their supply chain vendors. In Australia, 81% of investors perceived these companies to have shown better resilience.

Some 36% of investors said that as a result of COVID-19, they wanted the "S" (social) in ESG to comprise a larger proportion of the mix.

The countries with the biggest shifts on "social": the U.K. (50%), the U.S. (48%) and Japan (45%). In the first two, COVID-19 has coincided with a frank reassessment of inequality in society, especially due to race, creating extra

EXHIBIT 2:
Change to 'social' within ESG mix by end of 2021 due to COVID-19



impetus. In Japan there is a strong government focus on gender diversity, as explained in the relevant chapter later in this report.

INTEGRATING WITH THE MAIN FUND

ESG has gone from being a side issue to one that dominates the core fund in a remarkably short period of time. An additional data point highlights this trend. Investors were asked to what extent ESG analysis and decision-making will be incorporated into their main fund by the end of 2021: 26% said it would be done completely, and 34% to a large extent. Just one investor out of 200 polled said their main fund would have no ESG element by the end of the year.

The challenges thrown up by the pandemic have had a potentially profound impact on investment processes, in a way that could not have been foreseen in at the start of 2020.

Of course, this shift was underway long before the first case of COVID-19. And to some extent the move to ESG is, for some investors, giving a name and structure to a cultural and philosophical change that was already underway. One Asian investor said: "We have always been an ESG-type investor, except that we maybe haven't labeled it previously."

The proportion of investors who will reduce their ESG investments moderately was just 4%, and none said they would reduce ESG investment significantly because of the pandemic.

So is the accelerated shift to ESG a revolution? A rapid evolution? Or has it just brought forward changes that were already looming? Investors say that ESG - a fringe concept 20 years ago, a niche five years ago - is now a mainstream investing philosophy. The largest are leading the way, but the smaller ones are following rapidly.

Tomorrow's problems: the three to five-year view

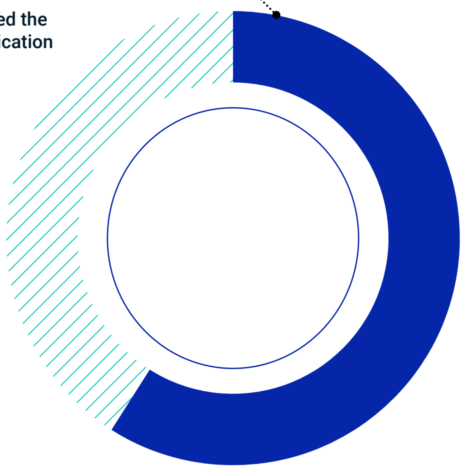
Institutional investors face myriad challenges. Regulation, disruptive technology and heightened volatility are all on the agenda

No matter where they are located, institutional investors face a long list of challenges over the medium- and long term. What makes it to the top of the agenda is very much driven by their size, location and long-term investing goals.

Yes, ESG is at the top of the list - or near it - for many investors. For example, when they were asked, "Which of the following trends do you think will have the greatest impact on the way your organization invests over the next three to five years?", 62% cited either climate change or the increasing complexity of ESG measurement as one of their choices.

59%

of US investors cited the increasing sophistication of ESG as a top 3 investing trend



However, dig into the data and the picture is more subtle. Opportunities and pain points vary.

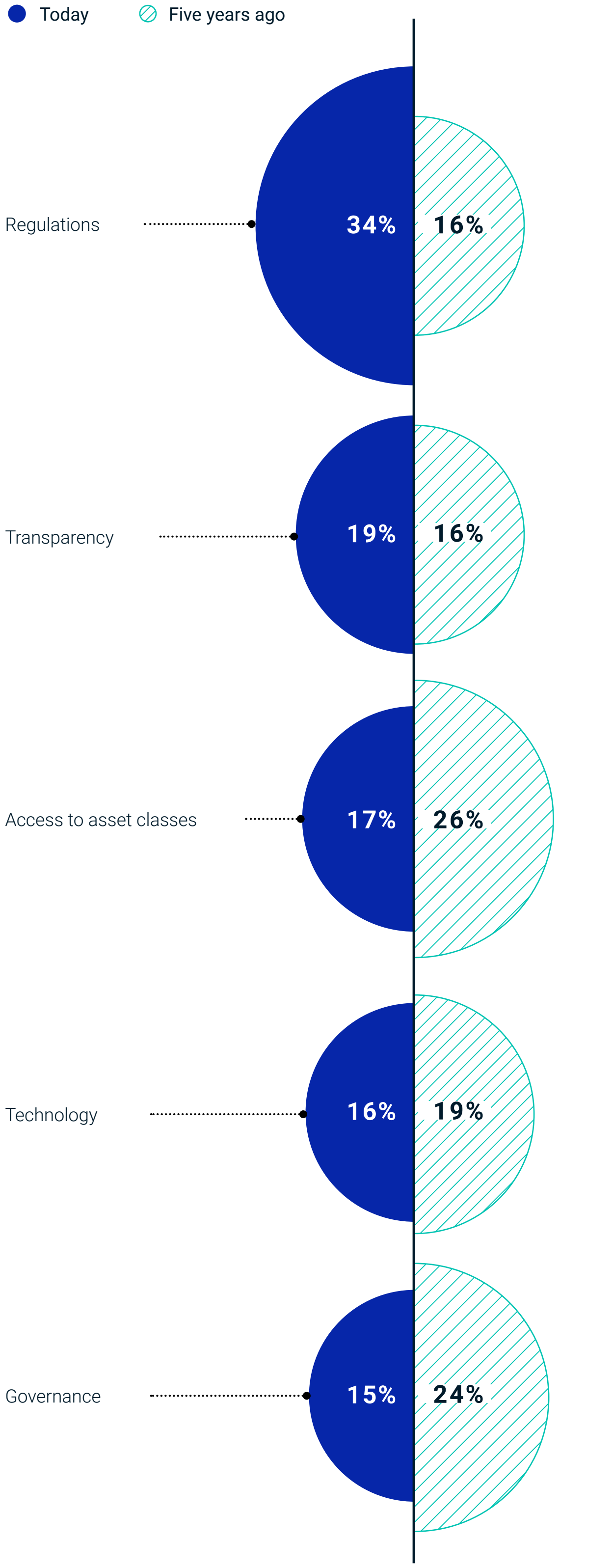
Size: The largest and smallest investors have very different ideas about the challenges ahead (see Exhibit 3). The survey grouped investors into four bands by size, with each naming a different trend as the most impactful. The largest investors, with over $200 billion of assets, focus on big-picture questions: climate change and the impact of disruptive technologies such as big data and artificial intelligence. Regulation and market volatility come much further down the list for them, perhaps because these are problems that can be partially solved with additional resources, whether this is by a high-powered legal team or a sophisticated derivatives strategy.

This class of large funds is in the vanguard on many issues, from ESG to factors to diversity. In part, this may be because their scale allows many staff to focus on these big-picture, complex issues, while smaller funds must wrestle with more day-to-day problems.

EXHIBIT 3:
Top trends impacting investments in the next 3 - 5 years

	$200bn+	$100bn - $200bn	$25bn - $100bn	$25bn and below
Increasing regulations: e.g., fees, reporting	7%	24%	13%	23%
Disruptive technologies: e.g., artificial intelligence, big data	19%	9%	15%	7%
Market volatility or uncertainty	12%	11%	17%	26%
Increasing complexity of investment options	5%	11%	8%	15%
Increasing sophistication of ESG measurements and management	14%	13%	19%	7%
Climate change or climate risk	31%	18%	13%	11%
The shift to index-based investing	2%	4%	2%	5%
Changing investor demands	5%	4%	8%	3%
Need to increase allocation to private assets for increased opportunity set	5%	4%	4%	3%

EXHIBIT 4:
The most constraining factors on investment as remembered from five years ago



Location: Investment may be an increasingly globalized activity for the largest funds, but local culture has an impact on thinking. This is underlined by the varied view of top trends analyzed by geography. For those based in the U.S., the top-ranked issue was the increasing sophistication of ESG measurement and management (26%), followed by disruptive technologies (22%), an issue on which U.S. investors have a strong focus. For the Americas as a whole, however, the priorities differed a little. Investors were most likely to cite climate change as their most important trend (24%), followed by the increased sophistication of ESG measurement and management (19%).

In EMEA, market volatility (20%) and regulation (17%) were top-ranked. This focus on regulation may be in part because the European Commission's European Green Deal is giving birth to a slew of financial regulation, such as enhanced transparency around climate investing. However, it is also an important issue in the Middle East and Africa, cited as the top issue by 26%.

Regulation tops the list for investors in Asia, cited as the number one trend by 25% of investors. (This was perhaps influenced by a high figure in Australia, where the regulation around superannuation schemes is in flux.)

Investment goals: Different types of investors face varying pressures and time horizons to manage. This is reflected in their varied assessments of the top trends. Climate change/risk was cited as the top trend by 22% of public and defined-contribution pension funds, but just 4% of those at endowments or foundations. The impact of disruptive technologies such as big data and AI was cited as the top trend by 16% of sovereign wealth funds (SWFs) and 14% of insurers, but just 8% of endowments.

Job title: While chief technology officers may be very focused on disruptive technology in their day-to-day jobs, they did not regard it as the most critical trend. Their biggest focus was regulation (28%), indicating how keeping regulators happy is increasingly a technological as well as a legal challenge. And executives in charge of external funds, although at the cutting edge of the shift to indexed investing, did not even put this trend in their top three.

The survey also looked at investing constraints, both today and as remembered from five years ago (see Exhibit 4). One striking result was how access to asset classes has eased, most notably in investors with between $25 billion and $200 billion that have the scale to handle private assets and real estate directly. Governance too is an issue that has moved down the agenda, particularly at SWFs, where it moved from being the most important constraint to the least.

+ MSCI VIEW:

THE INVESTMENT ECOSYSTEM UNDER STRESS

ALVISE MUNARI
Global Head
of Client Coverage, MSCI

Many challenges face institutional investors over the next five years, but perhaps the biggest is the fact that the challenges are interconnected. These interconnections generate both complexity and a need for additional urgency.

If it was a standalone issue, I think institutional investors would find it much easier to adapt. However, climate change links to a rapidly shifting social context that in turn drives changes to investor demands and a very dynamic regulatory environment.

These trends are both amplified and accelerated by technological innovation, adding significant cost and time pressure. Viewed like this, investing is a complex ecosystem. Like its counterparts in the natural world, it is an ecosystem that can recover quickly from single events, but can come under great stress when hit by many events at once.

All of this is playing out against the backdrop of a dearth of returns in traditional core asset classes, particularly for higher-rated government bonds. Bloomberg data in November 2020 showed negative-yielding debt at record levels of around $17 trillion. The consensus view is that this will increase before it falls. This low-return environment makes meeting the many other challenges yet more difficult.

To maintain consistent returns in an environment where the yields on safer asset classes have been squashed, investors are considering less-liquid categories of debt, more elaborate equity strategies and more private assets. For many investors managing pension assets in developed countries, they may have no choice: either invest in intrinsically riskier assets or fail to pay the pensions they have promised.

With portfolios more tilted to private assets, institutional investors will need to upgrade their expertise and tools. Those that invest directly will need to make substantial investments in specific in-house technology and risk-management tools and processes. Those using outside managers will still need to accelerate their data-driven manager oversight, as private assets take an increasingly important role in overall returns.

Equally, in public markets, and with an eye on costs and scale, institutional investors will continue to shift investment - equities and fixed income - into index-based strategies. However, to try and enhance returns and improve risk management, they will replace investments based on capitalization-weighted indexes with investments using factors, ESG and thematic portfolio construction technology. This will require better access to data, more sophisticated tools and newer investment technology that many still do not possess.

There are no silver bullets. This will require a profound transformation of how institutional investors operate in every aspect.

Looking across these changes, it is clear that institutional investing is increasingly an activity in which scale is vital. Larger investors can more easily invest in the data capabilities needed to oversee these more complex investment strategies. They should also be able to drive down costs, always particularly welcome in a low-return environment.

We have seen some moves toward investor consolidation. In the U.K., the central government pushed its 91 local authority pension funds into larger investment pools. In Australia, large mergers have taken place after a public inquiry by the Australian Prudential Regulation Authority into the nation's then AUS$2.9 trillion compulsory pension scheme found outsized fees being charged to workers.

It's difficult to predict how things will play out in other jurisdictions. Formal mergers are complex, but there is still scope for collaboration that can help cut costs and make it easier to deploy (and understand) cutting-edge tools in areas like climate change and risk management.

The investment ecosystem was evolving quickly even before the pandemic, and COVID-19 has given these changes still greater velocity. Rapid change is inevitable: the way ahead is to recognize this and embrace it.

US investors: myths vs reality

The myth that US investors are asleep on ESG has been laid to rest. Global trends are playing out in the world's biggest capital market, but with a local twist

The survey paints a very positive picture of the top tier of institutional investors based in the U.S., who emerge as agile, data-centric and moving rapidly to include ESG considerations in their portfolios.

Moving rapidly on ESG? Yes, really. Europeans may view themselves as carrying the torch here, but U.S. investors in the sample were up to global levels for using impact metrics, climate change metrics and active ownership - key tools that make ESG investing work.

A caveat: we surveyed the largest institutional investors, and this meant the U.S. sample was tilted towards endowments and public pension funds, many of which have signed up to charters such as the United Nations Principles for Responsible Investment. Few corporate schemes in the U.S. have taken such steps.

A second caveat: although U.S. corporate funds must contend with a recent Department of Labor rule that could crimp their move to ESG and sustainable investing, U.S. investors as a whole are not grappling with a load of new regulations, unlike those in Europe. This perhaps gives them more scope to focus on long-term issues.

44%

of US investors said disruptive technologies would have a big impact on investment strategy in the next 3 - 5 years

compared with

23%

of respondents in the rest of the world

> We are in a 50/50 country in the US. And ESG issues are right in the heart of the “Do we believe in A or B?”
>
> **INVESTMENT ADVISER**
> to US institutional investors

Agile: Investors in the U.S. have been quicker to trim operational costs. At the time of the survey, September 2020, nearly 59% of surveyed investors in the U.S. had reduced their workforce or otherwise clipped expenses, compared with 39% in the rest of the world. U.S. investors said they were now as likely to be adding staff or expenses as a result of the pandemic (perhaps to boost risk management) as to cut.

Tech- and data-centric: Asked for the top 3 trends likely to impact the way they invest in the next three to five years, 44% of surveyed U.S. investors cited disruptive technologies, nearly twice the level of the rest of the world. Although the U.S. market offers extensive investment tools and data, U.S. investors still want more and better: 26% cited technology as an investing constraint, nearly twice the level of the rest of the world.

Moving rapidly on ESG: Sustainable investing and climate change remain polarizing issues in U.S. society. An investment adviser to U.S.-based institutional investors commented: “We are in a 50/50 country in the U.S. And ESG issues are right in the heart of the ‘Do we believe in A or B?”

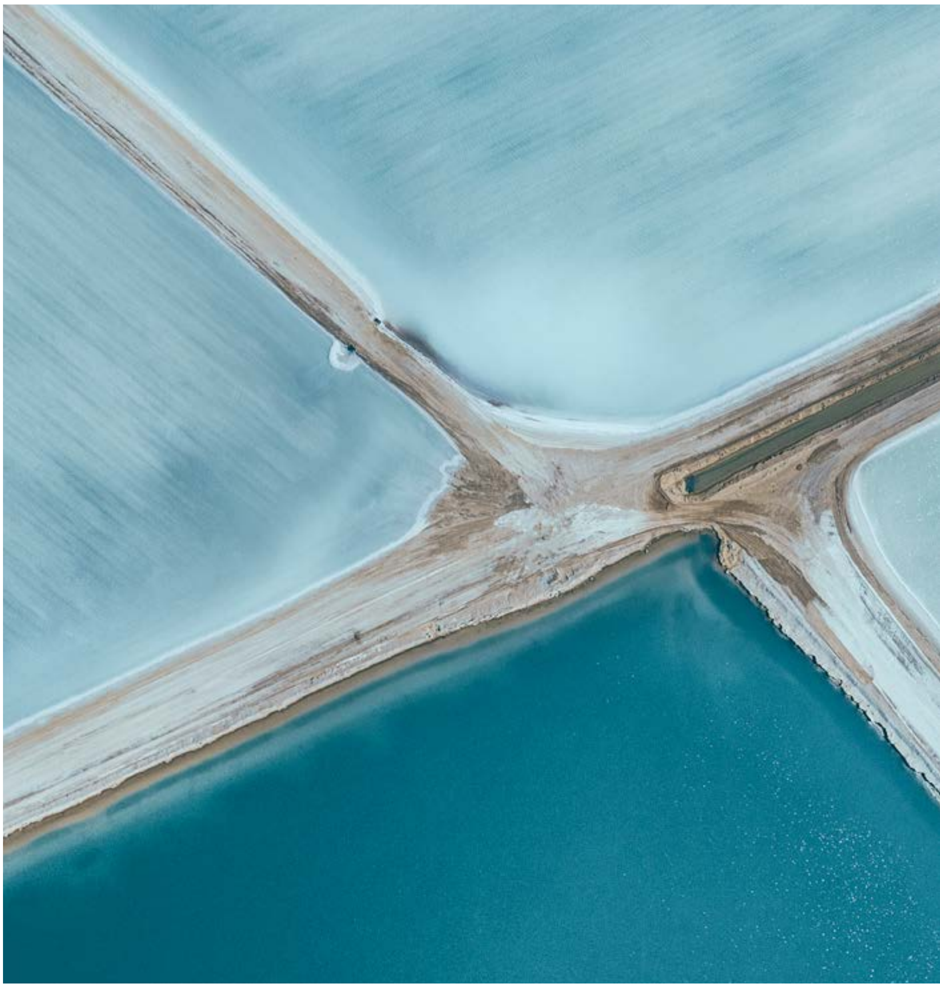
However, many top-tier U.S.investors have made a clear decision to move forward. Some 59% of our U.S. sample rank the increasing sophistication of ESG measurement and management as a top 3 trend for the next three to five years, versus 38% in the rest of the world.

There is some evidence that U.S. investors’ future approach to ESG may have a stronger emphasis on the “S” (social) in ESG. In light of their pandemic, experience as well as the spotlight on social issues like the Black Lives Matter and #MeToo movements, U.S. investors may be more inclined to put a bigger weight on the social aspect in the future, with 48% saying they will do so, versus 34% elsewhere.

Further differences emerged in the one-on-one interviews that supplemented the survey. European investors underscored their belief in the triple bottom line of, “people, profit, planet”. They think ESG will yield better long-term returns, but they also believe that asset owners have an ethical imperative to make the world a better place.

For U.S. investors, the second belief is much more controversial. This is particularly so for corporate pension funds. A consultant to such plans commented: “There is litigation risk. You have to decide what ESG means; if you hire ESG managers and they underperform you will get sued.”

The U.S. Department of Labor published a rule that came into effect on Jan. 12, 2021, that makes it more difficult for pension funds to adopt ESG considerations, mandating that they must not pursue “non-financial objectives.” It remains to be seen whether the Biden administration will change this approach and promote ESG investing.

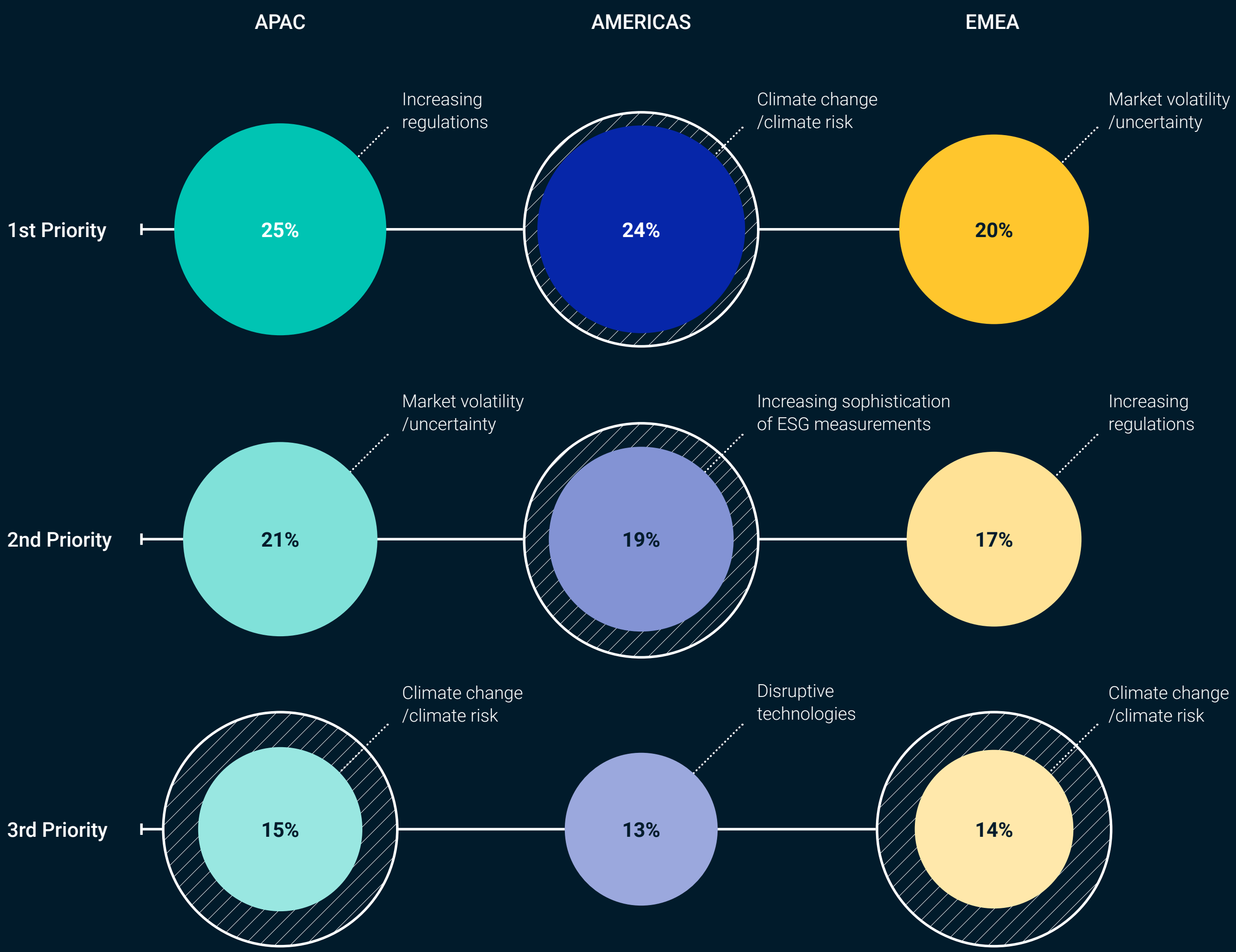


The state of play in ESG

ESG retains its importance in the eyes of investors. Once an issue for 'green funds' and niche investors, it is now firmly established as a high-priority concern globally

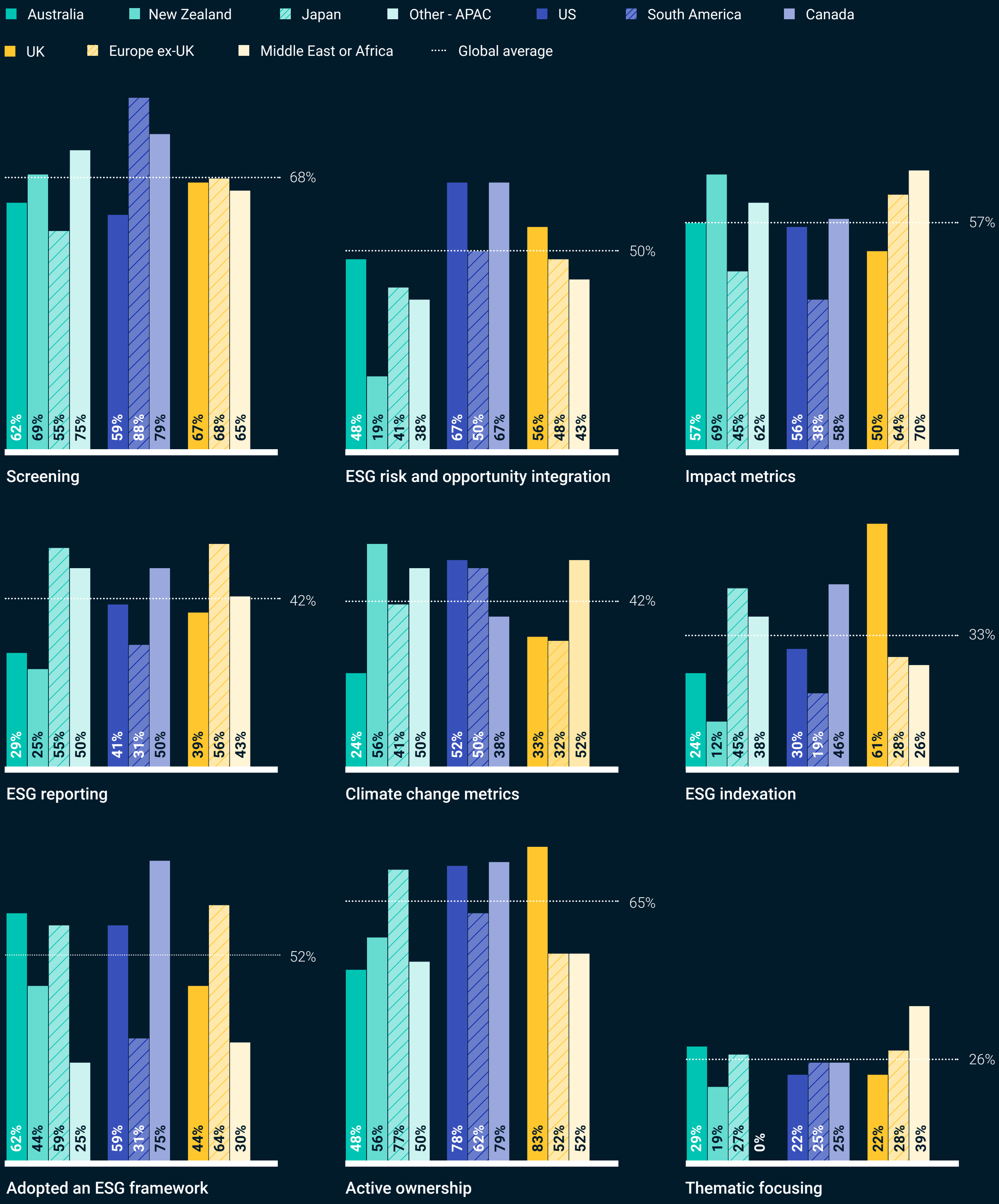
ESG and climate change are firmly established as top priorities for funds all over the world

EXHIBIT 5:
Top three most impactful trends on the way organizations will invest over the next 3 - 5 years



The focus of ESG activities varies by region. Screening is most popular in the Americas, while those in EMEA are most likely to favor impact metrics

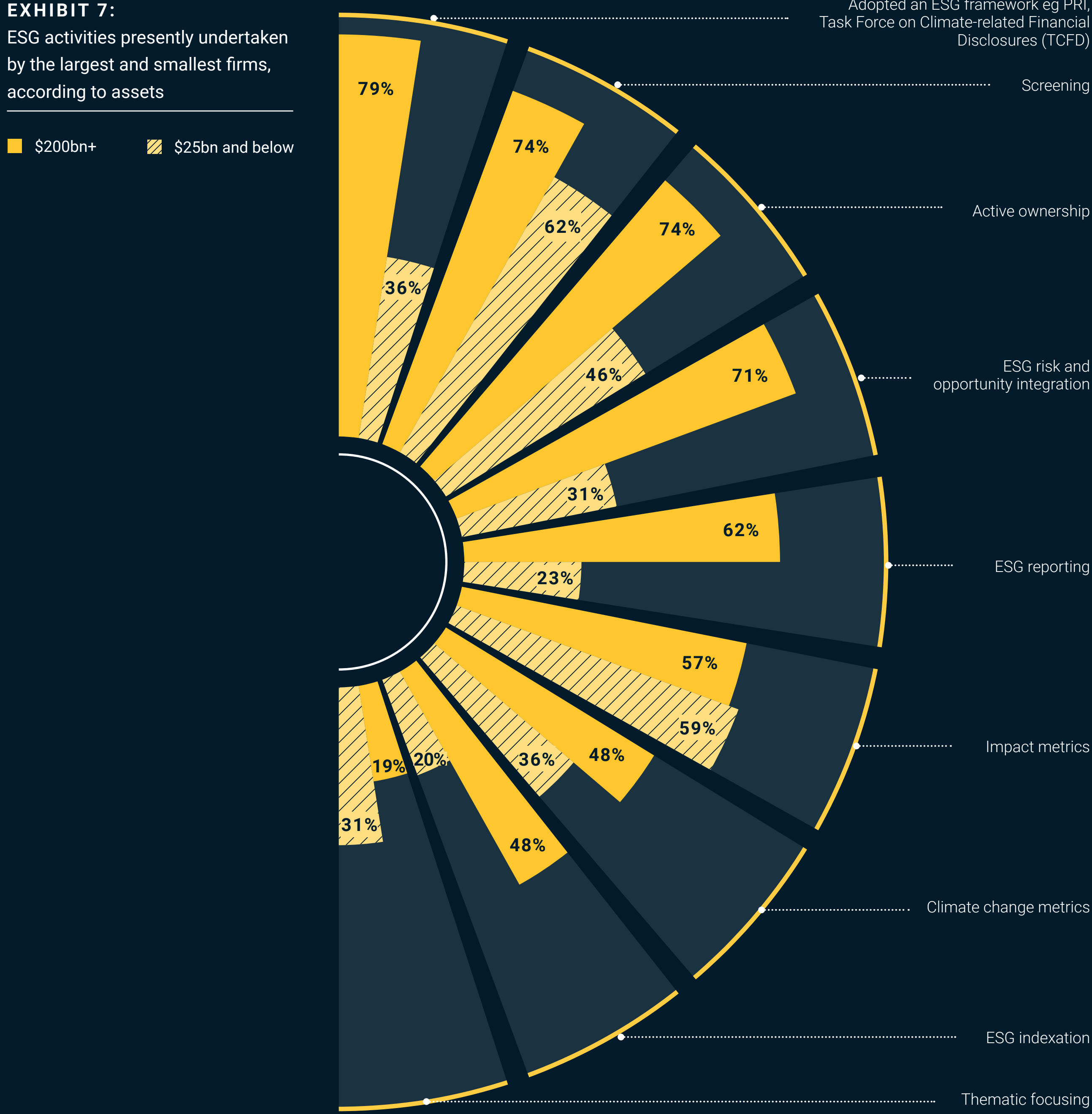
EXHIBIT 6:
Current ESG activities according to world regions



> In the space of six or 12 months, investors have gone from thinking about ESG as a side issue to thinking about it as completely core to the future of their funds
>
> **ROGER URWIN**
> Adviser to MSCI

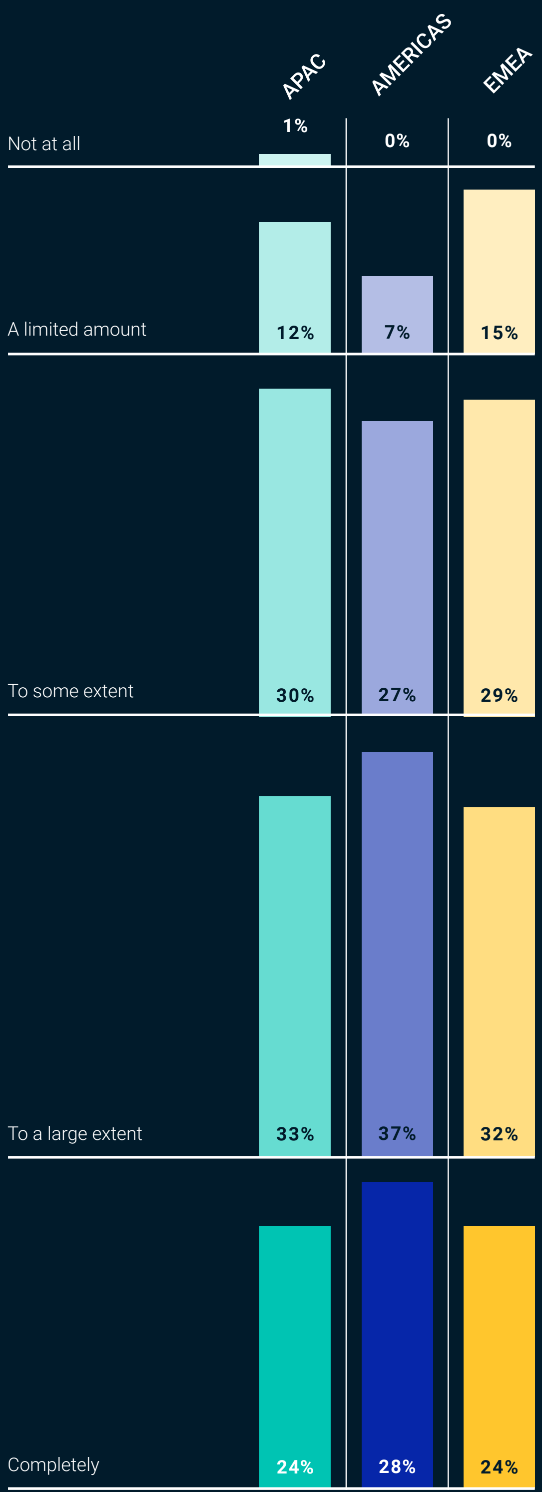
Larger investors are ahead in the majority of ESG activities, largely due to the resources needed to pursue multiple ESG strategies

EXHIBIT 7:
ESG activities presently undertaken by the largest and smallest firms, according to assets



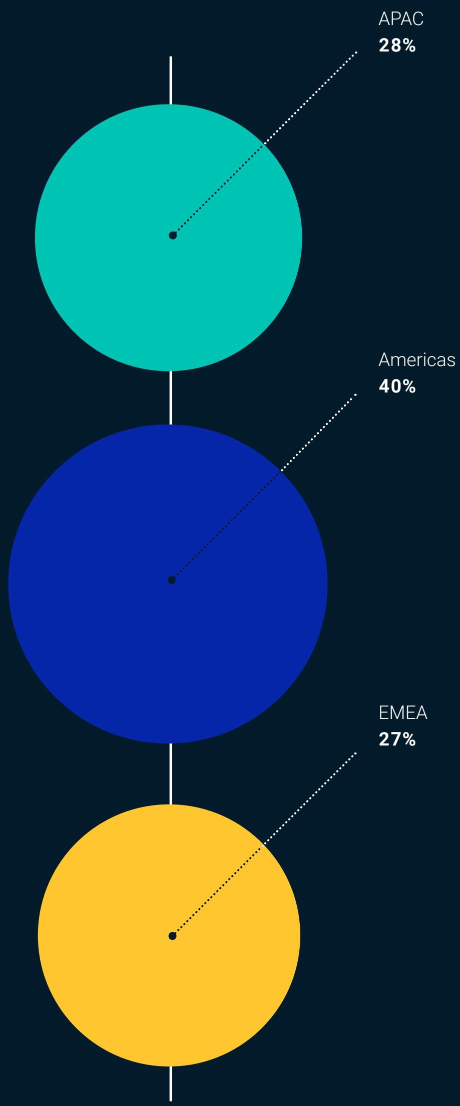
The appetite for ESG shows no signs of decreasing, with the majority of investors planning to incorporate ESG into their main fund in the near future

EXHIBIT 8:
Extent to which ESG issues will be incorporated into investment analysis and decision-making processes in main fund by the end of 2021



Note: Percentages may not sum to 100% due to rounding

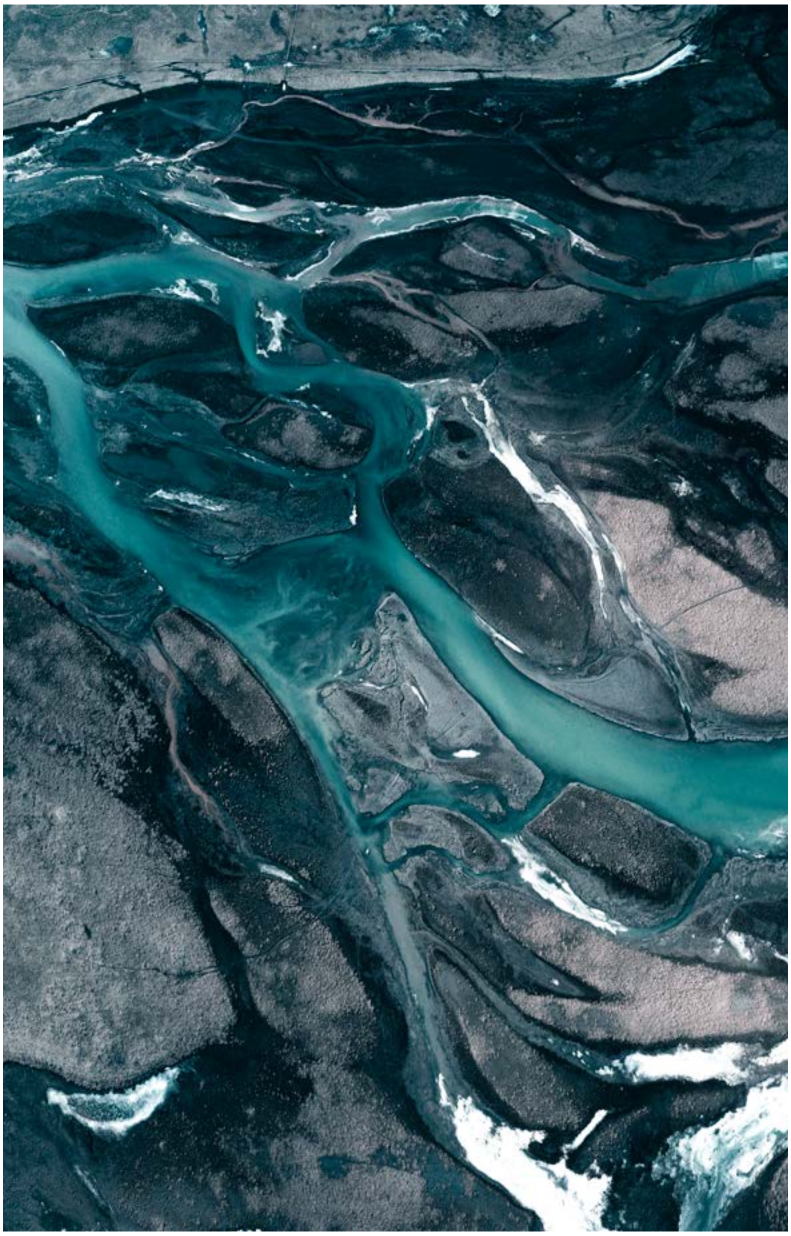
EXHIBIT 9:
Investors expecting a significant increase in ESG investing and integration by the end of 2021



73%
of investors said the pandemic has made them increase their ESG investment significantly or moderately

ESG frameworks: a sign of the times

Investors signed up to ESG frameworks and charters such as UN PRI have a more upbeat view of the value of ESG during the pandemic



"What gets measured gets managed" is an oft-quoted phrase in management textbooks. Roughly half of the survey investors have put it into practice by signing up to an ESG- or climate-related framework.

Their aims and scope vary, and details can be complex. But the idea is simple: Investors make a pledge on how they will manage or report on their portfolios. Not only does it demonstrate accountability to stakeholders, but the exercise may help investors think more broadly about risk management, developing their ESG strategy and driving internal cultural change.

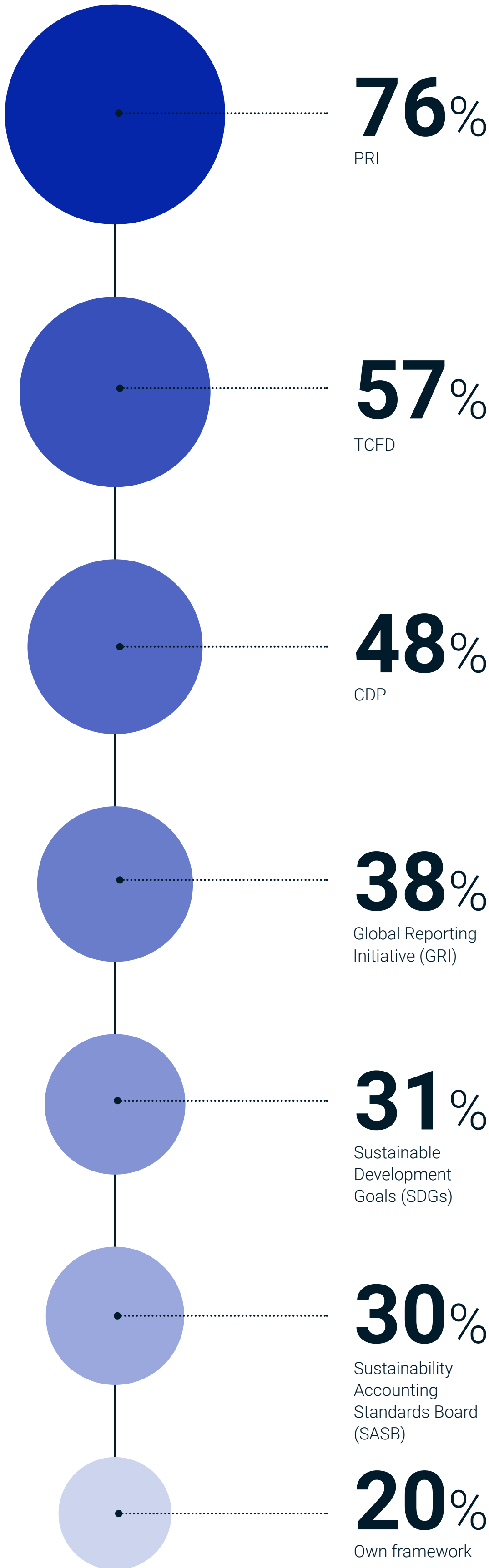
For the investment community, the United Nations-backed Principles for Responsible Investment (PRI) is particularly relevant. Some 52% of surveyed investors said their organization had signed up to at least one of these frameworks, with PRI the most popular, adopted by 76% of signed-up organizations, as shown in Exhibit 10.

The countries or regions where respondents were most likely to have adopted at least one framework were Canada (where 75% had signed one or more frameworks), Europe ex-U.K. (64%), Australia (62%) and the U.S. (59%).

52%

of investors said they have adopted an ESG framework

EXHIBIT 10:
For investors who are using ESG frameworks, which have they chosen?



There is an important link with size. Some 79% of surveyed investors with more than $200 billion of assets signed up to at least one framework, compared with 36% of investors with less than $25 billion. This helps explain the geographical pattern: the regions with the biggest investors were also those with the highest sign-up percentage.

For sure, numbers will rise. Many jurisdictions are moving to mandatory reporting under the Task Force on Climate-related Financial Disclosures (TCFD) framework for at least some listed companies, including the U.K. and Hong Kong. The investment industry is a logical next step; indeed, the U.K. government's "TCFD roadmap" envisages a progressive rollout to pension schemes and life insurers over the coming years.

INVESTING OPPORTUNITIES FROM DATA

It was clear that investors using frameworks had in many cases moved beyond seeing climate change as a risk factor to seeing it as an investment opportunity. The data also showed that climate indexes were seen as a way to implement this view on a practical level. Some 38% said they regularly use climate indexes to identify opportunities, versus 8% for those not using a framework, potentially indicating a difference in data culture.

Institutions signed up to a framework also:

- Have a rosier view of the impact of ESG during the COVID-19 crisis. Some 68% believed that companies with a high ESG rating were more resilient, versus 53% for those not using a framework.
- Are more likely to be increasing their focus on the S ("social") in ESG due to the pandemic.
- Are in the vanguard in using ESG for private assets, with 54% saying climate risk was very or somewhat significant to their strategy for this asset class, versus 36% of investors who were not using a framework.
- Place a greater focus on disruptive technologies, with 17% saying it was the trend with the biggest impact on investment over the next three to five years, versus 6% of investors not signed up to a framework. They were also less concerned with regulation.

It would be wrong, though, to assume that those who said they were not using an ESG framework are asleep on ESG issues. Some 64% of those not signed up said they were doing ESG screening, for instance, only a little behind the 70% who are.

Factors: the quiet revolution

Factors have achieved great success in public markets, but connecting them to ESG and private assets is more of a challenge

Factor investing's growth is driven by the expectation that such portfolios can beat capitalization-weighted indexes, with fees a fraction of those associated with traditional active management. No surprise, then, that the survey showed a profound switch to their use.

It has been a quiet revolution, without the controversy of the shift to ESG or the visibility of the move to private assets. Yet every one of the 200 institutional investors in the survey said their organization is using factors in some way.

The CIO of a U.K. pension fund explained: "Skeptics might believe the rising popularity of factors is a trend that will subside, but it's difficult to argue against the data that helps underpin the concept."

He said evidence is "compelling" that factors offer persistent risk reduction and return enhancement relative to investments based on capitalization-weighted indexes.

The survey provides a unique, detailed snapshot of how factors have penetrated deep into the investment process.

Risk management was the first function to be won over to factors, with some 67% of surveyed investors using factors extensively in this area. Another 24% said they use factors in risk management, but in a less extensive way. Using factors as a top-down allocation tool is less common, with 41% taking this approach.

Among asset classes, factor investing is more common in equities, with 53% using factors in their equity portfolio construction. In fixed income, that figure was 32%.

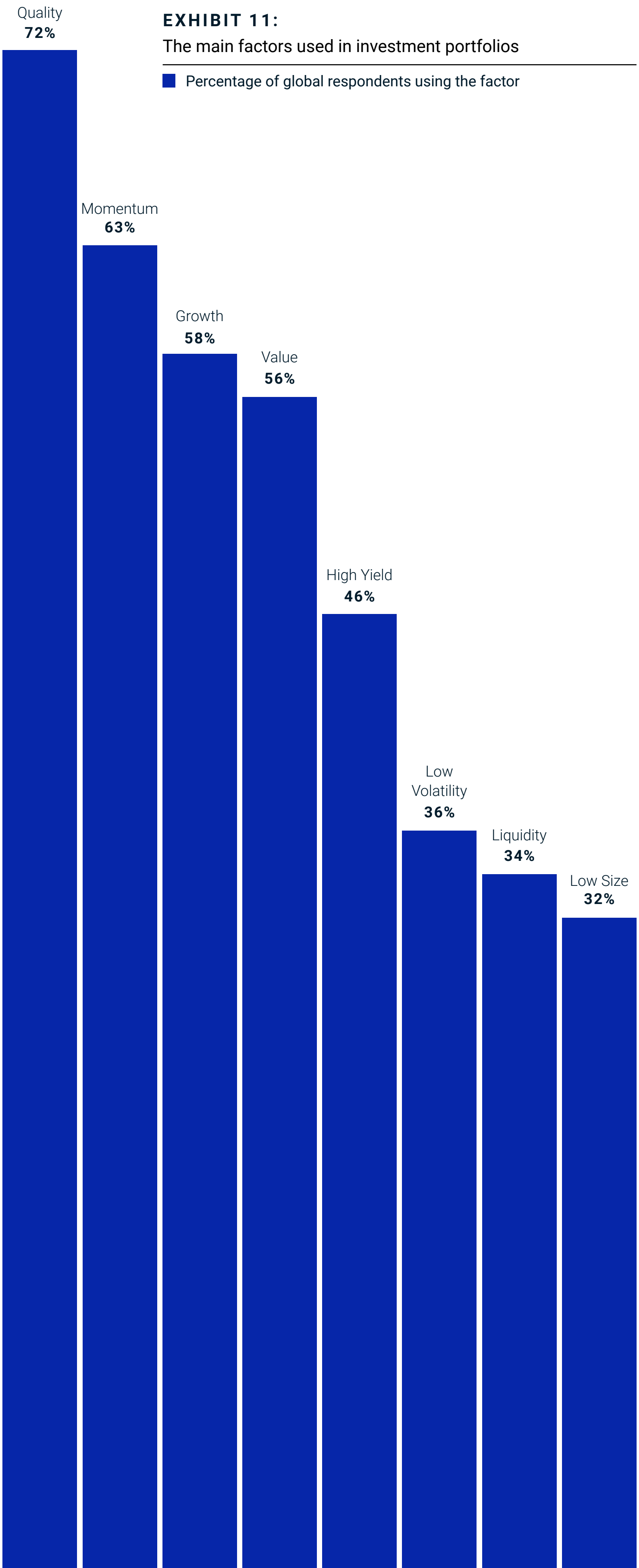
Factors have no geographical "home"; their use is relatively even across different regions. But it is the largest investors who have been most enthusiastic. Some 62% of institutions with more than $200 billion of assets have put factors at the heart of asset allocation; for those managing less than $25 billion, that figure is 39%. Other data underlines that small investors have yet to fully embrace factor investing , still largely using it for risk management and looking for tactical opportunities.

Almost

1 in 2

investors say factors are 'completely central' to asset allocation

EXHIBIT 11:
The main factors used in investment portfolios



67%

of investors 'extensively consider' factors for risk management

"Factor portfolio data is critical," said a senior executive at an Asian institutional investor. "In terms of monitoring external managers, we use factor-based shadow benchmarks to assess how they perform. Clearly, for a fundamental manager where you're paying active fees, you want them to add value beyond factor exposures that you can access relatively cheaply."

As of September 2020, when the survey was carried out, quality - which targets companies with stable earnings and a strong balance sheet - was the most popular factor (see Exhibit 11). This should be no surprise; at the time of the survey there was no endgame in sight for the pandemic, and the U.S. presidential election was casting a long shadow of uncertainty.

The challenge for many investors is connecting factors to two other important developments: the shift to private markets and ESG.

An executive at a major Canadian pension fund with a large private assets portfolio put it bluntly: For private assets, he believes "factors do not work." For that investor, this results in a two-track strategy: Factors are for the low-cost management of public assets, while expensive human ingenuity focuses on the superior returns potentially available from private investments.

In ESG, the picture is nuanced. Some investors said they are using ESG ratings as a new type of factor, alongside the traditional ones that came out of academic research. However, their backtesting is of a different nature to that of conventional factors. Climate change is, arguably, a once-in-a-civilization event that is slowly unfolding. In contrast, traditional factors were back-tested through multiple economic cycles before being accepted by investors.

The CIO of a U.K. pension fund said there is an intellectual case for ESG factors, in that both factor investing and ESG can generate returns through market distortions and imperfections. However, he acknowledged that the statistical basis for their use was not the same

"I get the distinction between them," he said. "Factors are cyclical so can be back-tested. There isn't the same opportunity with events that happen once," he said.

+ MSCI VIEW:

DYNAMISM AND INNOVATION IN FACTOR INVESTING

DIMITRIS MELAS
Global Head of Core Equity Research, MSCI

Factor investing as a discipline is now a few decades old. But it has not stopped developing: indeed, the pace of innovation, in my opinion, has accelerated.

There are three pillars of innovation in factors.

The first is what you might describe as traditional, ongoing development of factor strategies and factor models, guided by academic theory and based on empirical evidence. This is the kind of research that created factors as an investment tool, and it is very worthwhile to continue it.

For instance, there is work to understand the historical underperformance of value strategies and how they could be improved.

The next pillar is what you might describe as innovation. It is important to take advantage of new tools and techniques, such as those that allow us to extract insights from unstructured data like news reports, online consumer reviews and transcripts of earnings calls. This kind of data is now all around us, although it is not very clean and not well-structured. However, after processing with tools such as machine learning and natural language processing, it can yield data about sentiment or signals that relate to governance and sustainability.

For example, MSCI researched a "remote operating capability" factor to find companies that could thrive amid workplace disruption; we found they outperformed the MSCI USA Investable Market Index in the first half of 2020. The research highlights the potential for creative investors to use factors to identify and then invest in new themes that may emerge out of the disruption caused by COVID-19 and beyond.

The third and final pillar of innovation is an acceleration of the innovation process itself. To give an example, in the past a researcher would do their research, write a paper and publish it. In time, others could read it, test the conclusions, and build on them in an iterative process. However, that iteration has now significantly increased in speed. Instead of publishing a paper as a PDF, we can publish source data and even code. Other researchers can quickly pick up the ideas, try and improve them or apply them to different markets (or try to find mistakes). Because of new ways of collaborating and sharing ideas, the pace of innovation itself has accelerated.

This will be welcome news to the investors who are using factors in a bid to reduce risk and boost returns. The survey underlines how entrenched their use has become: 67% of surveyed investors now use factors extensively to guide their risk management, for instance.

However, only 53% said they use factors to build equity portfolios, dropping to 32% for those using factors to build fixed-income portfolios

The research showed that only 47% of institutional investors consider factors to be "completely central" to their asset allocation. Large investors managing more than $200 billion lead the way, with some 62% placing factors at the center of their asset allocation, compared with 39% among investors managing less than $25 billion.

This difference is understandable. It's one thing to recognize that your exposure to factors like momentum, quality, volatility or size are sources of risk and that you need to measure and manage them. It takes another level of knowledge, expertise and investment insight to have active investment views on those factors. Larger investors have the resources to more quickly rewire their investment processes to include factors throughout; smaller investors face challenges, including access to specialist knowledge and tools.

The extent to which investors further adopt factors into their investment workflow is a matter for each to decide. However, it may be helpful to remind them that factor investing is not predicated on academic research from the 1990s, but is a discipline in constant evolution that aims to solve many of the problems they face today. ■

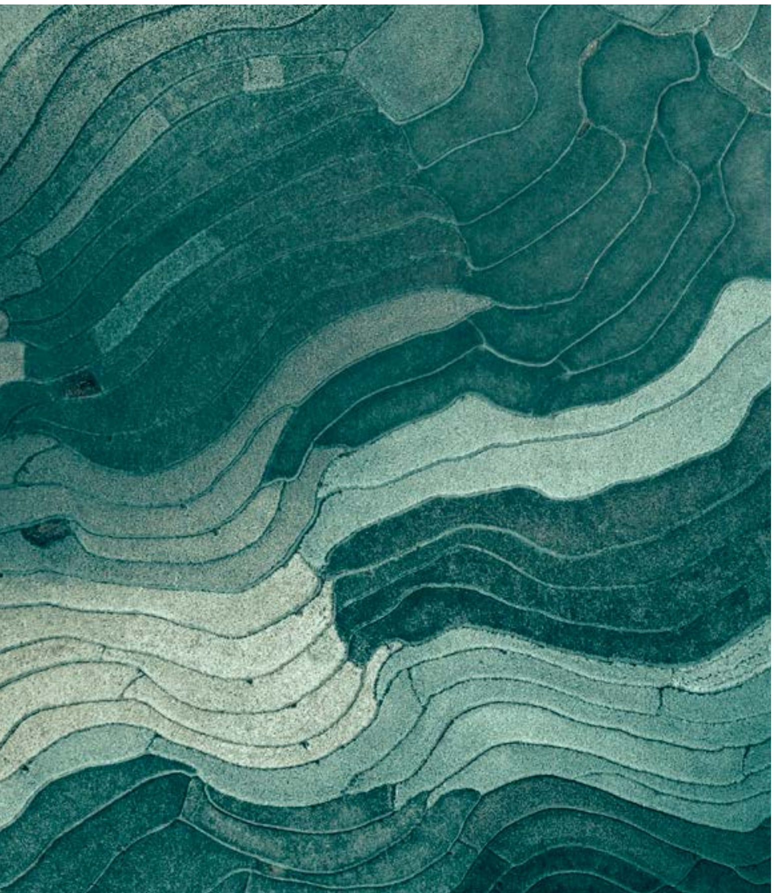
Private assets: **still hungry for more**

Despite complaints about transparency and valuations, the shift to real estate and other private assets is gaining impetus

Many investors believe private assets, such as real estate and private equity, were vital in boosting returns in the last period of low rates. Now rates are back on the floor, it should be no surprise that their enthusiasm for these assets is high.

This is despite complaints about the lack of transparency, high fees and the need for specialized knowledge.

Asked for the three most important drivers of investment excellence, the top-ranked reply was getting the right balance between public and private assets, mentioned by 57% of all investors. This choice was narrowly ahead of diversified risk sources, a closely related concept mentioned by 54%.



Some investors complain that these less-liquid markets are becoming crowded; in some cases, prices are being bid up by too many investors chasing too few opportunities. But there are plenty of investors, particularly smaller ones, who have not yet moved into this kind of asset.

Although 78% of investors in the survey said they invest in private markets, for those with $25 billion or less this figure fell to 51%.

For real estate, 88% of investors said they were invested in this asset class. For those with $25 billion or less, however, this figure was 74%.

Investors were asked about changes that would to a large extent persuade or dissuade them from investing in real estate or private markets.

CRITICAL FACTORS TO UNLOCK INVESTMENT

For real estate, the single change that would drive more investment is higher returns. Some 64% of surveyed investors said confidence here would to a large extent lead them to increase their allocation over the next year. The only other issue cited by more than half of surveyed investors was improved ease of diversification, cited by 56%. The responses indicate that real estate investing is viewed as "solved" from a practical investing viewpoint, with issues like liquidity, risk management and availability of historical pricing data viewed as low-importance.

For other private markets, such as private equity and infrastructure, though, the picture was reversed. Strong returns were a much lesser concern, cited by 36%. The focus was on practicalities, with lower fees cited by 61%, followed by the 57% who wanted better historical pricing data. This suggests some private markets are an "unsolved" investment vehicle in the eyes of some investors.

Investors managing under $25 billion are much more concerned about high fees for private markets investments than those managing more than $200 billion, perhaps due to their weakened bargaining power when trying to get access to top-performing private equity managers. For the larger funds, pricing transparency and the level of expertise within their ranks are more pressing issues when it comes to investing in private assets.

The opacity of private markets remains a pressing issue, perhaps becoming more so in the future. As MSCI's Will Robson and Peter Shepard comment elsewhere in this report: "As these assets become a larger part of the portfolio, investors may want them to become more transparent ... Private assets will always have some unique characteristics, but investors may increasingly demand some public markets' transparency to be imported."

With most large funds looking for opportunities in these illiquid markets, there is some concern that it is a matter of time before the excess returns from private assets shrink. An executive at a large Canadian pension fund with a significant private assets portfolio said he believed the strong flow of funds into private assets is making it hard to find investments at fair prices.

"Ten or twenty years ago, if you were buying infrastructure investments there were only a handful of investors. Now there is a wall of money," he said.

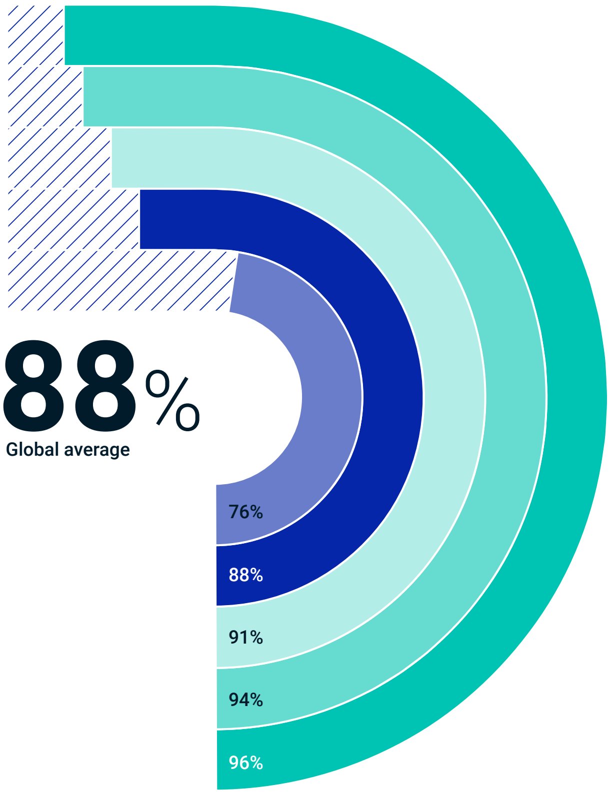
In his view, this is leading to a "fundamental change" in private asset investing. "Previously, [private assets were] bought for long-term yield, now [they are being] bought to sell on at higher valuation," he said.

> Ten or twenty years ago, if you were buying infrastructure investments there were only a handful of investors. Now there is a wall of money
>
> **SENIOR EXECUTIVE**
> Canadian pension fund

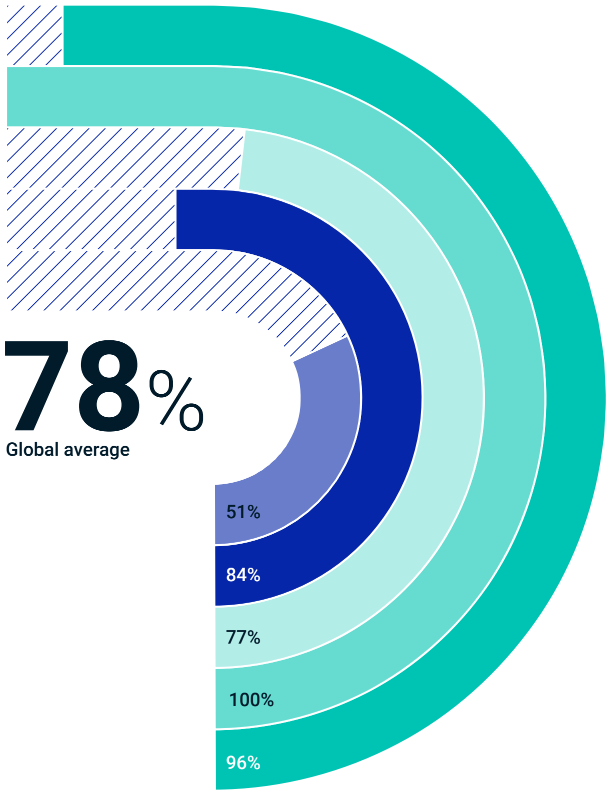
EXHIBIT 12:
The proportion of institutional investors in the survey that own ...

US | UK | Japan | Europe ex-UK | Australia/New Zealand

REAL ESTATE



PRIVATE ASSETS (OTHER THAN REAL ESTATE)



+ MSCI VIEW:

THE NEXT STAGE FOR PRIVATE ASSETS

WILL ROBSON
Global Head
of Real Estate Solutions
Research, MSCI

PETER SHEPARD
Head of Fixed Income,
Multi-Asset Class and Private
Asset Research, MSCI

The move away from public markets is likely to continue as investors search for yield and uncorrelated returns. But by the end of 2021, real estate and private assets may look very different from how they did before the pandemic.

Let's start with real estate. Changes to living and working patterns during COVID-19 mean the evolution already underway in some parts of the market has quickly accelerated. The cultural evolution accelerated by the pandemic means a whole new approach to managing real estate, notably office and retail space, is needed, which will likely affect where it sits in the asset allocation spectrum.

Many tenants want to lease smaller offices to accommodate a more flexible workforce and potentially seek shorter lease terms amid uncertainty about the global economy and future digital working practices.

In response to those shifts, asset owners will need to be more proactive in property management and offer innovations and upgrades to the workspace. Simultaneously, the market has seen a rise in demand for senior living facilities and data centers, which require a more tailored and active approach to meet tenants' unique requirements.

At present, real estate is often managed as a buy-and-hold, long-term investment, akin to a long-duration bond. In the future, real estate assets may more resemble a direct private equity investment, in which the owner is actively involved in the business operation and returns are driven more by management skill.

For those investors managing their own portfolio, this may require extra skills and potentially extra people. It will be interesting to see whether this will slow the drive to in-house management. Some 80% of surveyed investors with more than $200 billion of assets have an in-house team managing all or part of their real estate portfolio, the survey showed. This trend is now moving to smaller investors: among those with less than $25 billion, 25% said they wanted to bring more real estate investment in-house within three to five years. Will they have the appetite to build their own active property management operation? Smaller investors may feel their in-house team will struggle to retain the experienced real estate professionals needed to add value in the new, high-touch era.

Turning to private assets such as private equity, investor enthusiasm is undimmed, despite occasional worries about the market being overcrowded. After all, with fixed-income rates back to zero in many markets, there are few options for reliable, long-term income.

However, as these assets become a larger part of the portfolio, investors may want them to become more transparent. Could there be a better way to benchmark which managers add value through skill versus financial engineering? Could there be improved liquidity? Private assets will always have some unique characteristics, but investors may increasingly demand some public markets' transparency to be imported.

Two themes will affect both real estate and private assets. The first is the economy: These assets may offer an escape from short-term volatility and daily valuations, but they live in the same economy as public companies. They won't escape a further downturn.

The second theme is the drive to ESG. Investors are more comfortable with these principles thanks to the growing use of ESG indexes in public markets, and the feeling is spilling over to private investments. Even the most hardened climate skeptic does not want to be left holding an illiquid, "stranded" asset.

But ESG is also an opportunity, particularly in real estate. While limited partners in private equity funds can only plead with the general partner to become more ESG-aware, direct investors in real estate (or those with a segregated mandate) have the power in their hands to take immediate action. Upgrades like improving energy efficiency are a short-term investment that can potentially boost income and satisfy broader ESG objectives. ■

Risk management: new challenges ahead

Risk management is a high-priority process but needs updating to reflect the new investment environment

> Classical risk management is quite established and quantitative. For things like climate risks, it's newer and much further out in the time horizon
>
> **SENIOR EXECUTIVE**
> Canadian pension fund

The most significant investment trends - ESG, factors, the shift to private assets and more - are having an impact on risk management.

Today "risk is much, much more than headline measures of risk," said a risk analyst at an Australian pension fund.

"There is scenario analysis, stress testing - including different types of stress testing, historical risks and emerging risks that haven't happened yet. And there's liquidity risks, counterparty risks ... the list goes on."

Asked for their thoughts on investment excellence (see Exhibit 13), investors provided risk-related responses as two of the top three answers. The focus on risk was particularly strong among corporate pension funds and insurers.

The survey data supports the thesis that analyzing and comprehending risk is an increasingly fundamental part of how institutional investors operate daily. It is striking that risk was perceived as more important than traditional asset allocation, which academic research has generally said to be the most important source of long-term returns. This may be reflective of investment psychology in the immediate aftermath of a crisis, where the downside seems much more real than the upside.

The prominence of risk management in investment processes appears to be equally important regardless of an investor's size, too. Investors in each size bracket believed diversity of risk sources was more relevant than asset allocation in achieving investment excellence.

Use of factors is already embedded within the risk function. As outlined elsewhere in this report, 67% of investors said they consider factors extensively in risk management, with 24% using them to a lesser extent.

Using climate data to help manage risk is becoming important for larger investors, but smaller ones are still at an early stage. Some 50% of investors with more than $200 billion said they are regularly using climate data to manage risk, compared with just 16% of those with less than $25 billion. Similar numbers emerged for the use of climate indexes.

Although the largest investors are deploying the data to manage risk, in interviews some indicated they felt it was still an emerging discipline.

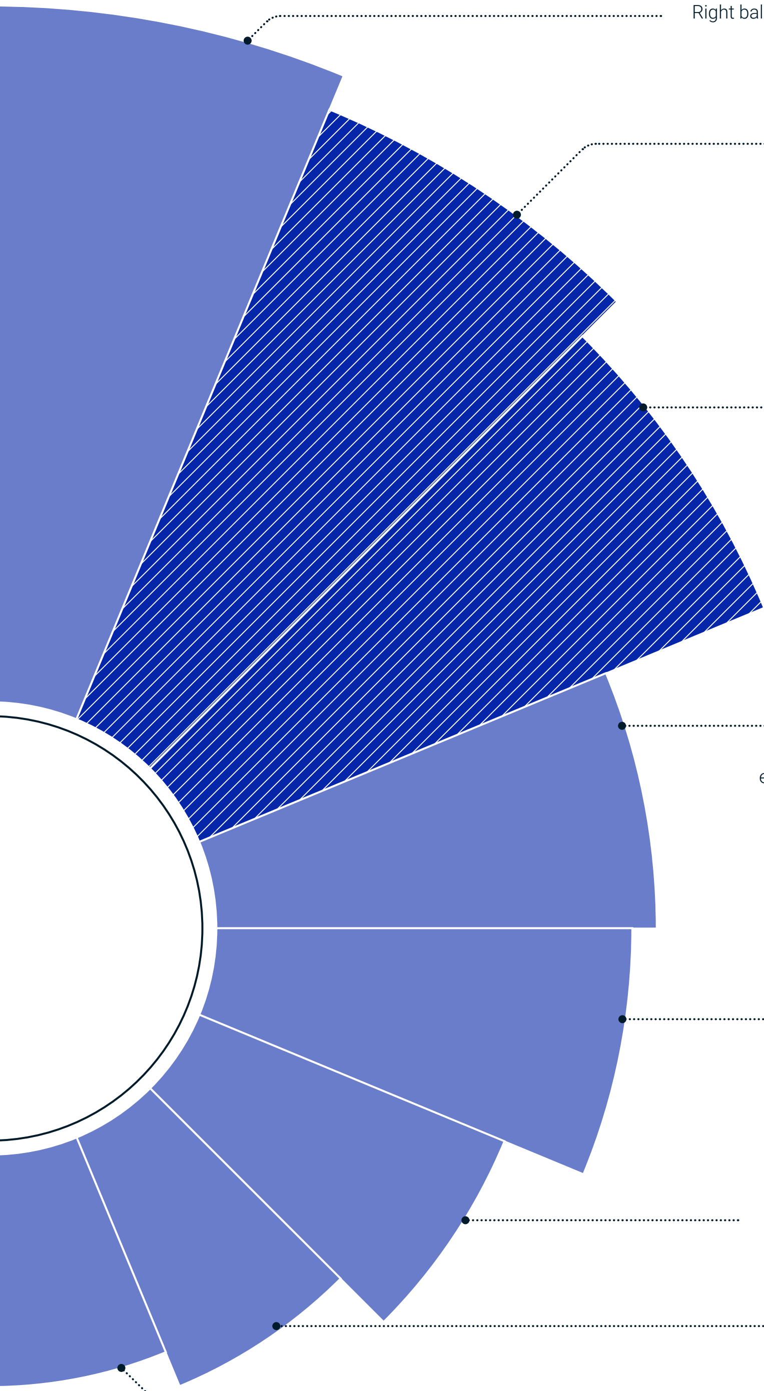
"Classical risk management is quite established and quantitative," said a senior executive at a large Canadian pension fund. "For things like climate risks, it's newer and much further out in the time horizon, and there's no settlement on standard metrics or definitions.

"It's at a much earlier stage and harder to come down to a quantitative number."

Some of the most climate-aware institutional investors are augmenting traditional risk management with annual scenario planning, taking the investment team offsite and running "what if?" exercises. This kind of planning is advocated by the Financial Stability Board's Task Force on Climate-related Financial Disclosures.

Risk is near the top of the investment agenda

EXHIBIT 13:
Most common responses when asked for the top 3 aspects of investment excellence the for next 3 - 5 years



These exercises can be challenging for all but the largest funds, involving consultants plus a substantial drain on in-house resources. One Australian investor said joint exercises with others could make them more practicable, especially as sophistication is increasing annually.

Risk management is also facing challenges from the shift to private market investments, where valuation is sometimes challenging. Some 24% of investors said they need better data about this asset class to help manage risk.

Institutional investors say they increasingly want to create top-down risk allocation based on factors. Connecting this to a portfolio of stakes in private companies, infrastructure, or other private assets is complex, but can be done. One Australian risk specialist said their organization had built bottom-up risk models for three out of its four main unlisted asset classes, and was making good progress on the fourth, helped by an in-house data warehouse.

One consultant to U.S. institutional investors warned, however, that there needed to be a clear workflow that turned the output of such cross-portfolio risk analysis into action.

"If you have all the elements it can be a tremendously successful process," he said. "The danger is the middle ground. If you don't have the data, and teams of data cleaners, and teams of technology and deep understanding of the technology [specialists], you can end up getting big thick reports of numbers that nobody opens." ■

63%

of corporate pension funds cited effective risk management as a top-three element of investment excellence

64%

of insurers think that 'diversity of risk sources' is a crucial element of investment excellence

The squeeze on size

Investment is more than ever becoming a process where scale counts. Even those with $100 billion face tough choices

Institutional investors are being asked to make multiple, complex changes to their investment processes simultaneously, amid deep economic uncertainty. For those outside the top tier in terms of assets, the challenges are compounded.

These mid- and small-sized investors are nevertheless subject to the same demands as large funds, such as switching to ESG, becoming data-centric and delivering strong returns in an era of historically low interest rates. However, they don't have the hundreds of staff retained by the biggest U.S. public pension funds or Asian sovereign wealth funds.

Larger investors can focus on big-picture issues, as Exhibit 14 shows. They can think hard about asset allocation and technology, while smaller investors prioritize managing risk and other day-to-day issues.

The squeeze on regulation, for instance, is most challenging in the middle: 38% of investors with $25 billion to $100 billion said regulation was a top constraint on their investment, against 26% of investors with $200 billion or more. Some 37% of investors in this bracket cited market volatility as a top 3 factor in terms of greatest impact on their investment over the next three to five years, against 21% for the $200-billion-plus investors.

Among surveyed investors with less than $100 billion, 16% said they did not invest in real estate and 36% said they did not invest in private markets. This could be a choice. But it could be a choice forced upon them by difficulties building in-house knowledge or problems accessing the best managers.

A senior investment executive at a very large sovereign wealth fund commented: "For smaller investors, getting good allocation into private equity funds is difficult." In contrast, the largest investors not only get the first call when the high-profile funds are being launched; they can increase their weighting through co-investment, or even running their own portfolios.

Surveyed investors with $25 billion to $100 billion were least likely to internalize equities management over the next three to five years, although they were keen to manage their own fixed-income portfolio.

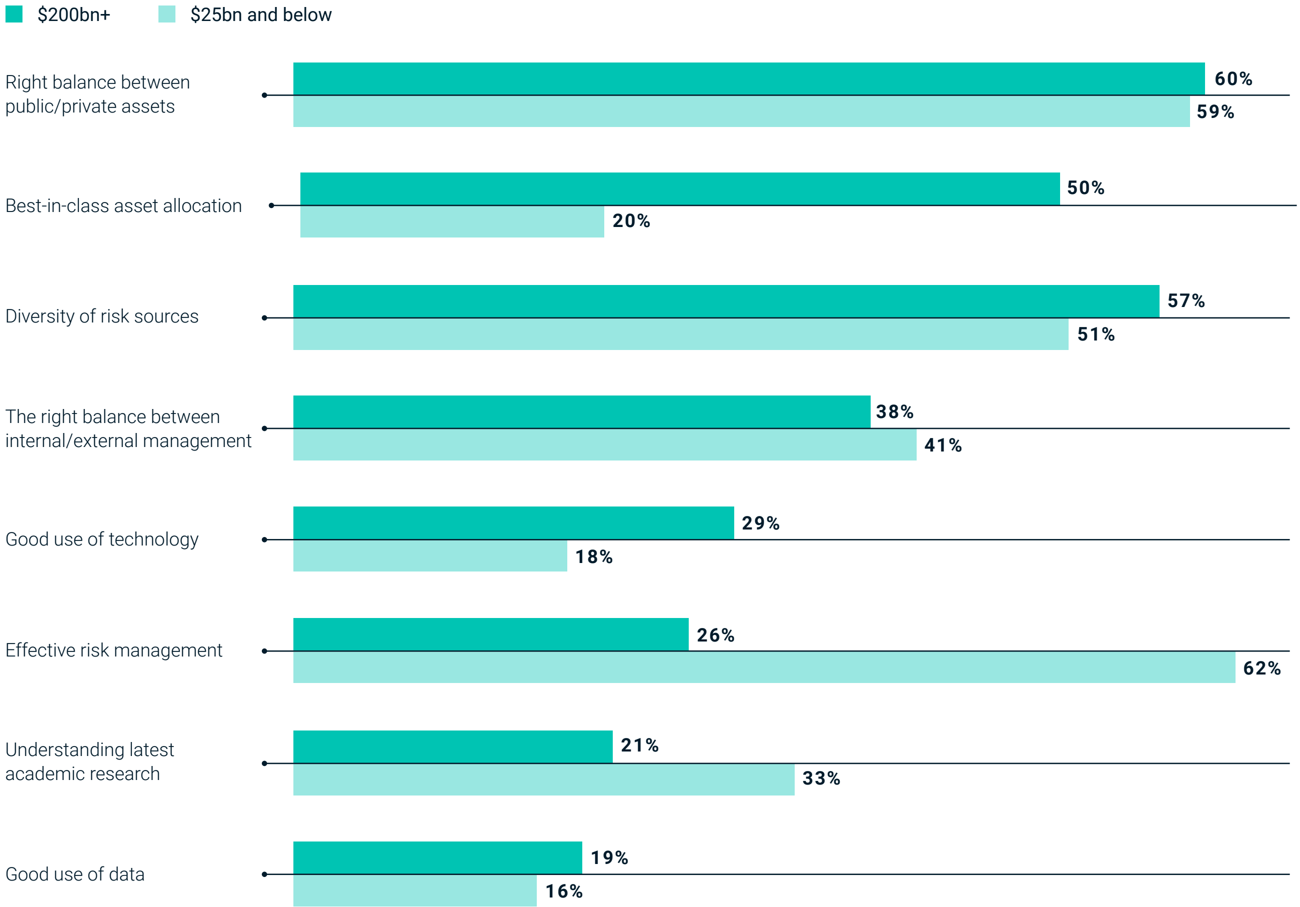
A consultant to U.S. institutional investors said: "One of the ways those firms at the top end of the investment scale have secured investment excellence is internalization of resources.

"They have built teams in-house. You need financial firepower to be able to do that and the vast majority of institutional investors in the U.S. do not have that capability."

> For smaller investors, getting good allocation into private equity funds is difficult

INVESTMENT EXECUTIVE
Large sovereign wealth fund

EXHIBIT 14:
Elements of investment excellence, ranked as first, second or third-most important by investors



The survey suggested that the $100 billion is an important threshold, below which this kind of internalization of management becomes more challenging.

One route to scale is to merge. However, the CIO of one mid-sized U.S. pension fund said that a strong impetus from outside would be needed before his fund could merge. He cited both practical, financial problems, and political ones such as the location of the new investment team.

In the U.S., the outsourced CIO model is increasingly seen as an option, contracting out the full investment management process to an organization that can build greater scale. However, the question of customization remains real, and has risen up the agenda in parallel with ESG. The executive at a sovereign wealth fund said: "ESG can never be fully outsourced, every investor is different."

The reality for mid-sized investors, however, is that they may be unable to have it all. A benchmark 50 basis point management fee on assets of $25 billion yields about $12 million a year. Must-pay fees such as currency and transaction costs take a big bite; what is left will not fund a market-beating in-house investment team across all asset classes that incorporates premium risk control and custom ESG portfolio construction. Compromises will have to be made.

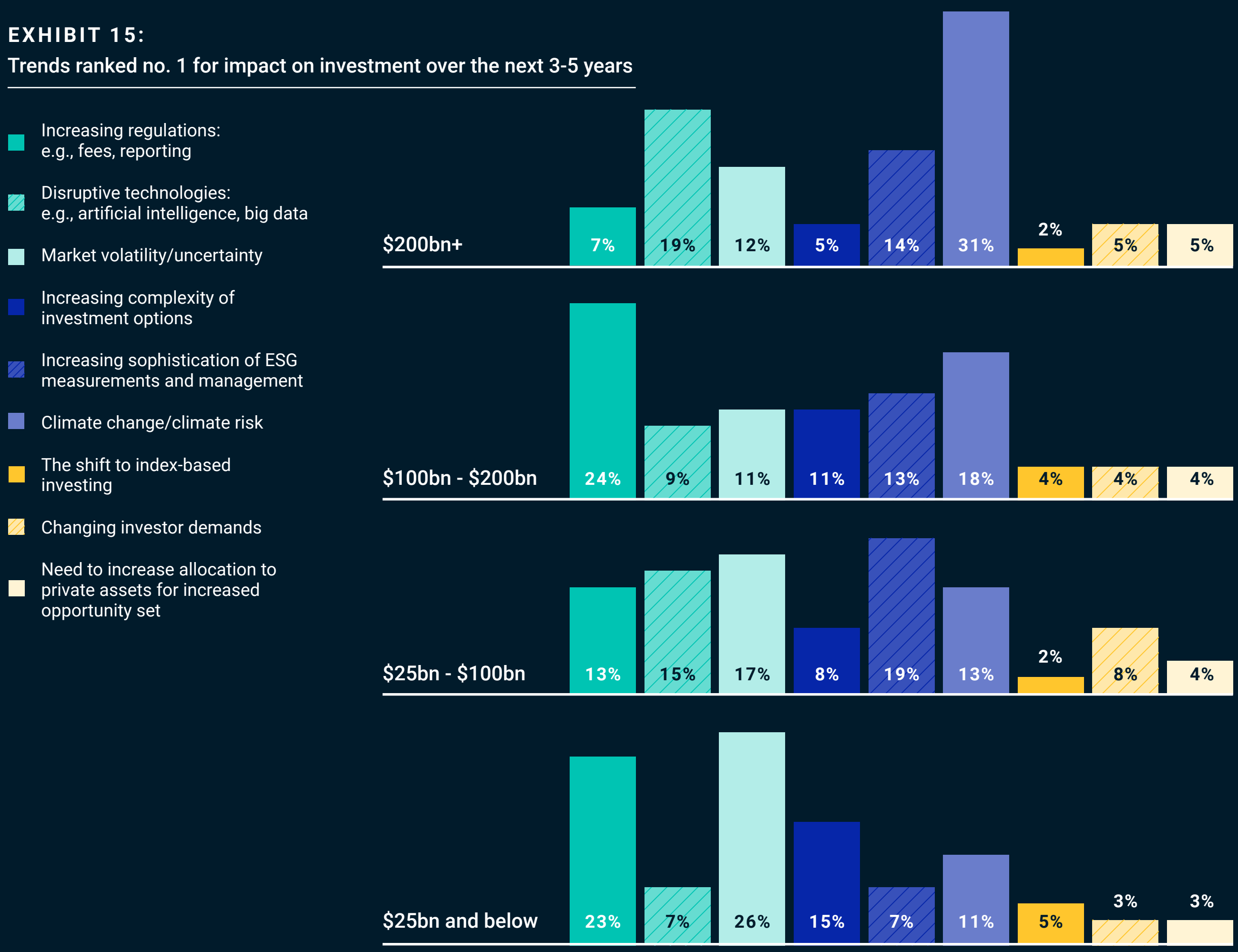
> One of the ways those firms at the top end of the investment scale have secured investment excellence is internalization of resources
>
> **INVESTMENT ADVISER**
> to US institutional investors

How scale makes a difference

The largest firms have the resources to lead the industry on major issues like ESG. Smaller ones are under pressure to keep up

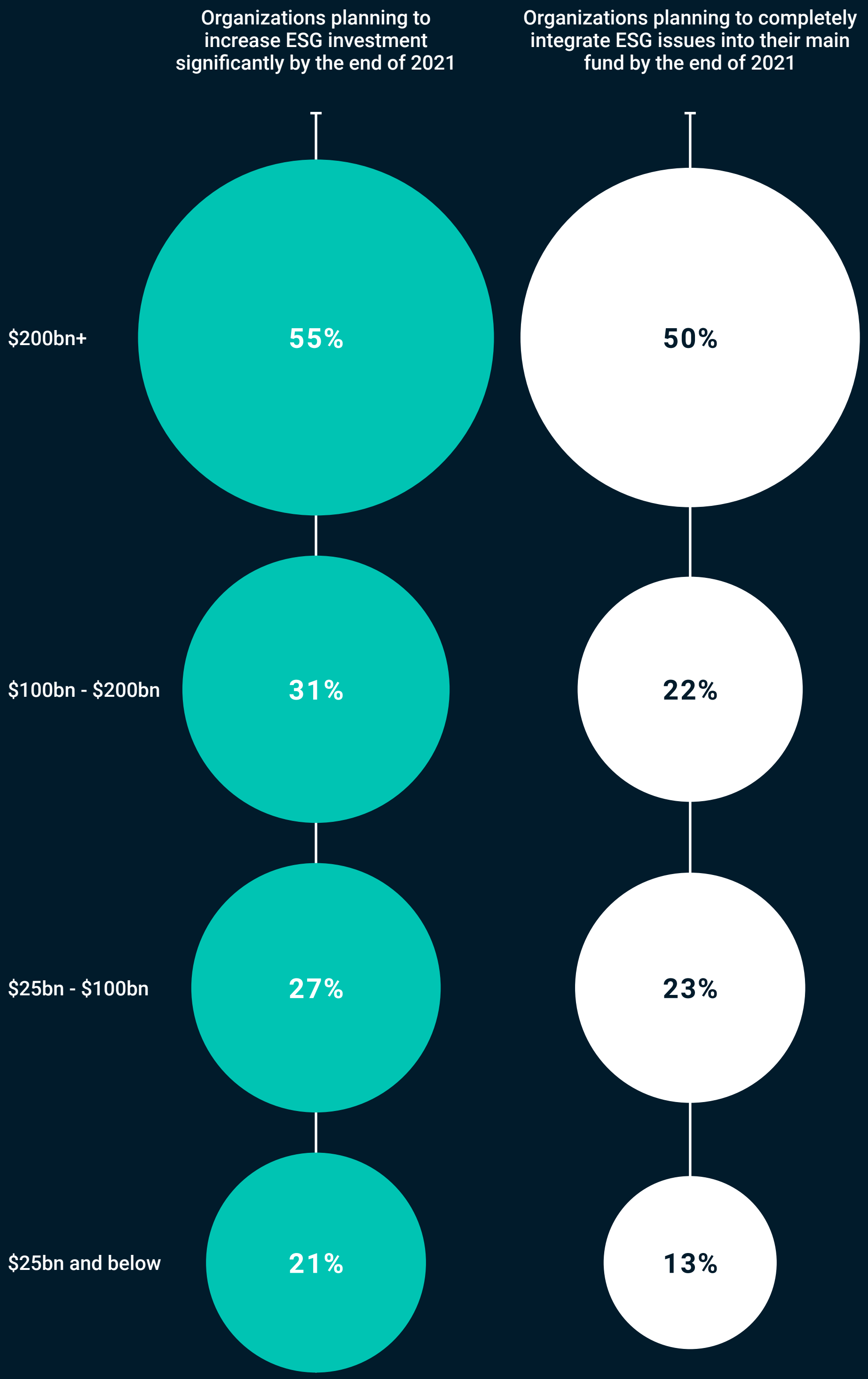
▸ Larger funds can focus on long-term trends such as climate change. Smaller ones zero in on more immediate investing issues

EXHIBIT 15:
Trends ranked no. 1 for impact on investment over the next 3-5 years



Larger organizations will continue to lead the way in ESG investment

EXHIBIT 16:
Plans for ESG investing based on assets owned



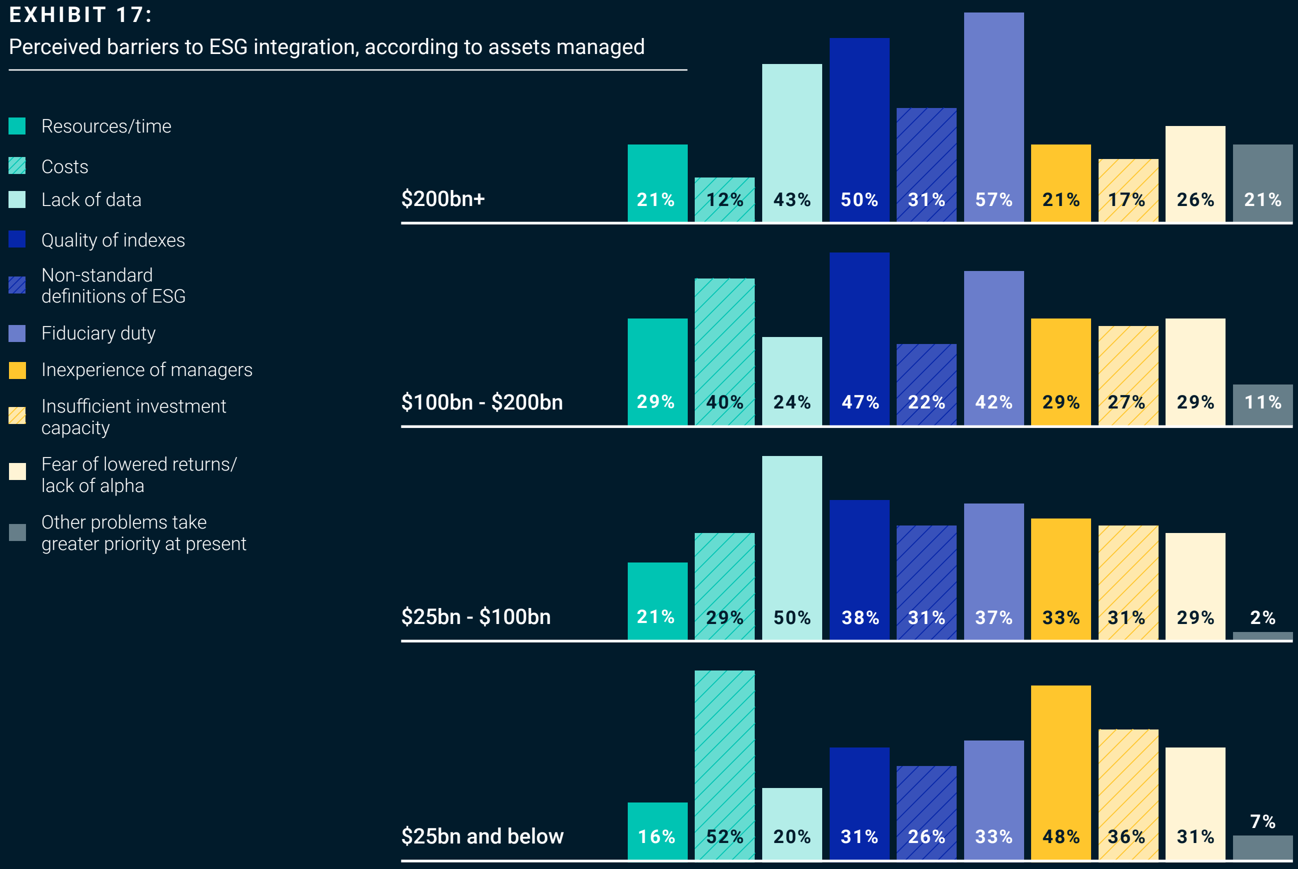
79%
of organizations with $200bn+ have adopted an ESG policy framework

compared with only

36%
of organizations with less than $25bn

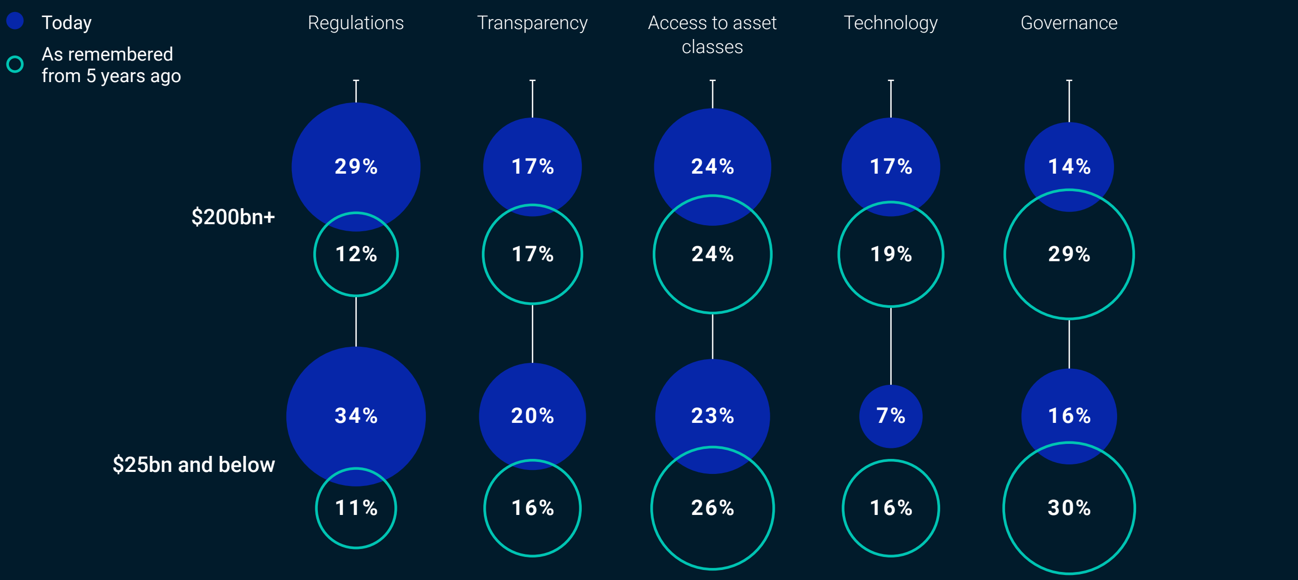
Smaller organizations are more impacted by costs and skills shortages

EXHIBIT 17:
Perceived barriers to ESG integration, according to assets managed



Investment constraints are very different for large and small investors

EXHIBIT 18:
Constraints on investment strategies over time



In pursuit of operational excellence

Innovation and efficiency are needed to drive superior investment returns. Both people and technology matter

In a low-rates environment, all expenses come under tight scrutiny as they eat a higher proportion of investment returns. Operational excellence is needed to keep costs under control.

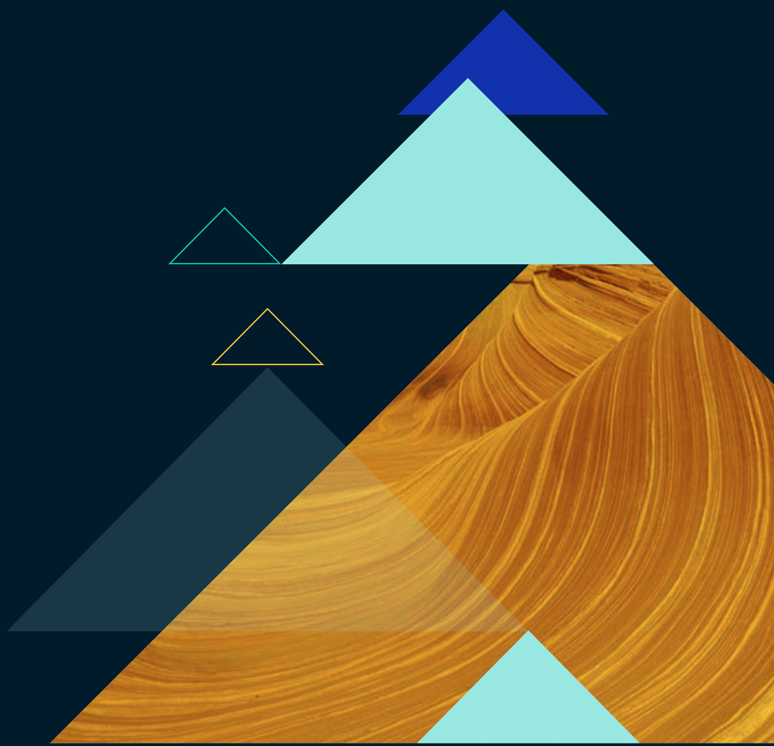
But there is an increasing understanding that operational excellence is a platform for investing excellence, too. Strong returns are facilitated by a data-centric organization, with the right balance between internal and external management and with a strong culture of diversity,

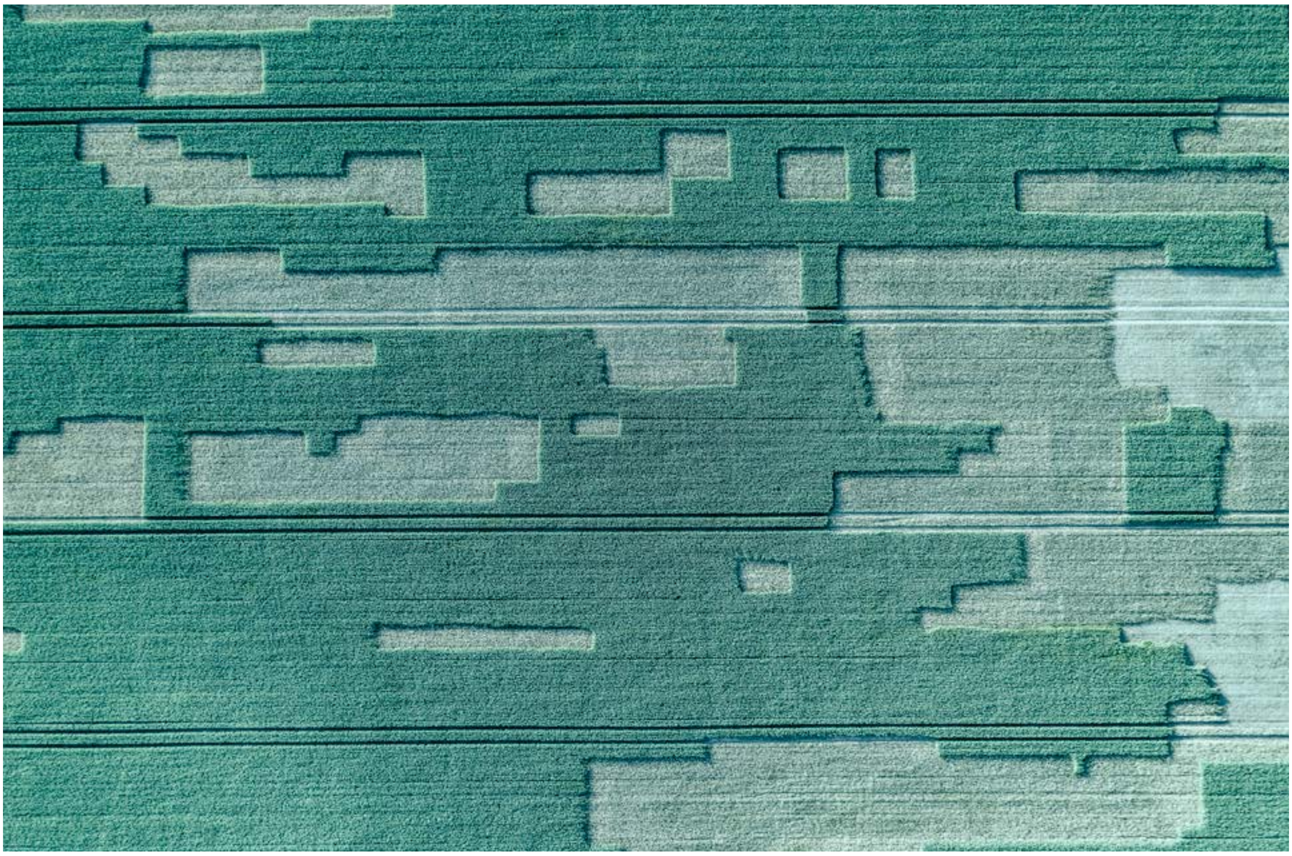
Better use of data is seen as a solution to institutional investors' many problems, not least the shift to ESG. To be sure, investment management has been a data-centric profession for decades. But the pace of change has quickened, with one European pension manager describing it as a "revolution."

However, the human side of investing matters too, more than ever. Organizational diversity has risen quickly as a top agenda item for many good reasons, not least because diverse organizations find it easier to recruit and retain the talented staff they need to deliver highly challenging investment goals.

Excellence with technology, excellence with people: both are needed for operational excellence. ■

> The data challenge is not just technical; it is cultural. Institutional investors that want to become data-centric need to take a whole-organization approach
>
> **GUIDO GIESE AND LINDA-ELING LEE**
> MSCI





Short-term pain: cost-cutting and the pandemic

Investors have cut spending as a response to the pandemic, but internal investment is needed over the long term

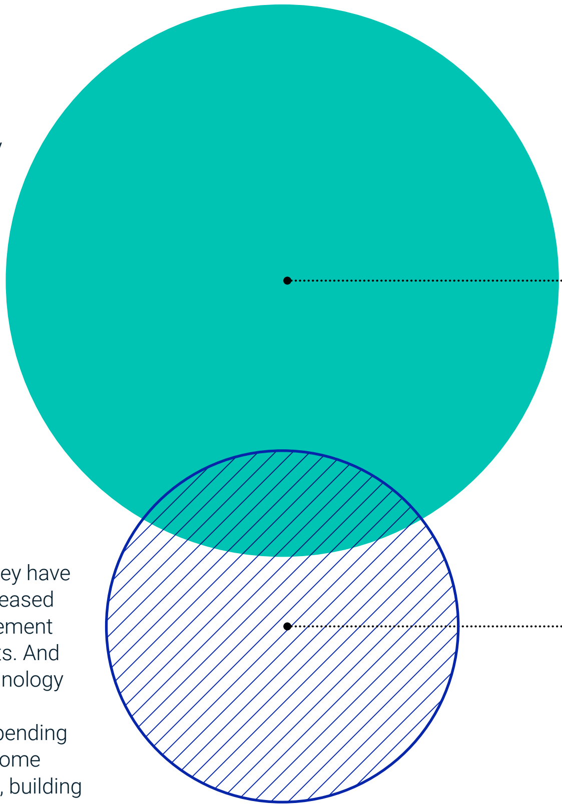
The day-to-day impact of COVID-19 is clear. Remote working is now part of the daily rhythm of managing assets, potentially creating some savings.

But a reduced bill for office space is unlikely to be enough to meet cost expectations in the new low-rates environment, where every basis point matters - and every basis point eaten by central costs is one less for returns.

Roger Urwin, an adviser to MSCI, says some investors face additional challenges. For instance, pension funds must also wrestle with harsher solvency tests, due to lower bond yields, weaker corporate sponsors and unhelpful demographics in some developed countries.

“This is a toxic combination for many in the industry,” he said.

The survey showed an intricate pattern in terms of cost-cutting. Institutional investors that outsource all investment management can be very slim organizations, yet some 42% of respondents across all fund sizes have cut their headcounts or otherwise reduced costs. The geographical pattern was highly uneven,



42%

of respondents globally have cut headcount or other costs

yet

17%

said the pandemic has meant hiring staff or increasing costs

28% **of investors plan to increase operational expenditure in the near term as a pandemic response: e.g., headcount**

however. 57% of investors in the Americas - the U.S., Canada and South America - responded that they had cut costs. In contrast, only 19% of investors in Australia and New Zealand had done so.

As of September 2020, when the survey was carried out, 28% of investors said further reductions in headcount or costs were still in the pipeline for the short term. This figure was highest in Europe (40%) and Canada (38%) and lowest in Australia and the U.S. (both 19%).

INVESTMENT DATA

The challenge for investors is that they have a long to-do list that includes an increased focus on ESG, improved risk management and enhanced reporting requirements. And then there are rising bills for the technology and data that power all those other improvements. Some of this extra spending has been precipitated by the crisis; some represents long-term cost pressures, building over the years.

As one investment adviser to some major U.S. institutional investors put it: “There are two drivers [for investment returns]: technology and people. And both are expensive and complicated.”

The survey showed that while some roles are being cut to respond to the pandemic, new ones are being created. Indeed 17% said they had increased headcount or spending. Some 17% of investors said they had increased headcount as a response to the pandemic, with a further 28% saying they would do so in the near term.

Spending increases are not just centered on the big funds. Those investing less than $25 billion and those with more than $200 billion are roughly equally likely to be hiring, although the scale of the hiring may be very different.

The pandemic aside, the need to invest in data and technology is evident. In some cases, such as systems that provide additional reporting demanded by regulators, it is a “must-spend.” However, for discretionary spending, one data specialist at a North American investor said that conducting a cost-benefit analysis, particularly on data purchases, was becoming increasingly difficult as data is deployed in more sophisticated ways.

“It’s very difficult to associate usage of that data with actual returns and revenue generation,” he said.

There are also very substantial costs associated with the shift to ESG investing. For example, while major investors measure the tracking error incurred by policy decisions like removing thermal coal from a portfolio, measuring the impact on internal costs is more challenging.

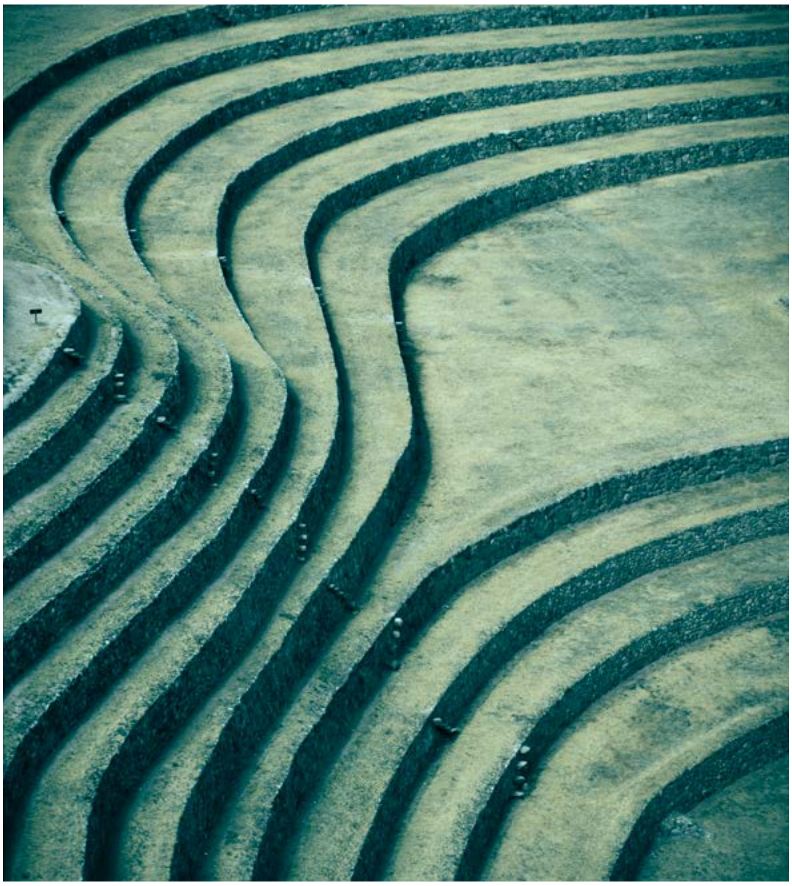
“You might have new pressure from the board to produce ESG reporting,” says Mr. Urwin. “You could outsource it, but this feels like the sort of thing you need to do yourself.”

For those with a long history of sustainable investing, additional costs may not appear significant. For example, an executive at a European pension fund that was an early mover on ESG said the impact on costs is “very, very limited.” Those playing catch-up, however, may find that increased costs are very visible.

One Asian investor talked about the cost of annual ESG scenario planning; this added significant value to investment thinking, but required help from outside consultants. They suggested that funds could reduce ESG costs by improved coordination. Some investors in Europe have taken steps in this direction: The 2019 Dutch Pension Funds Agreement on Responsible Investment includes a provision on knowledge-sharing to help smaller funds learn from larger ones. ■

Putting data to work

Investors want to solve problems with data but will need both technical and cultural change to get the best from the new tools



This report outlines institutional investors' multiple challenges and opportunities, from low interest rates to the paradigm shift of ESG. They are increasingly hopeful that a single medicine can cure them all. That medicine is data.

Both the survey and interviews showed how investors are ingesting more and better data, storing it in vast "data lakes" and processing it in innovative ways to drive returns and reduce risks. Side-trends such as the shift to private assets and the internalization of the investment process are helping accelerate this. Then there is the demand for improved reporting, from regulators seeking real-time data to stakeholders demanding transparency on climate action.

Not only is the volume of data used increasing, but it is changing in nature. For those managing their own investments, the use of unstructured data is growing; managers seeking an investment edge may want access to data as diverse as satellite imagery and information collected from wearable fitness devices.

The manager of a large pension fund in Northern Europe commented: "We are going through a transformation. Everything is about digitalization, about transparency. To do our job, we need data, our clients and the regulator need data from us. It's a data-driven world we live in today."

The drivers vary by asset class and illustrate the scale of the challenge (see graphic). For equities, institutional investors told us that the biggest reason for improving data is regulatory changes, cited by 41%, followed by pressure from the board and the need to internalize management. For fixed income, however, the move to ESG was the driving force, cited by 30%, underlining how fixed-income workflows are being rewired as investors apply ESG principles to this asset class.

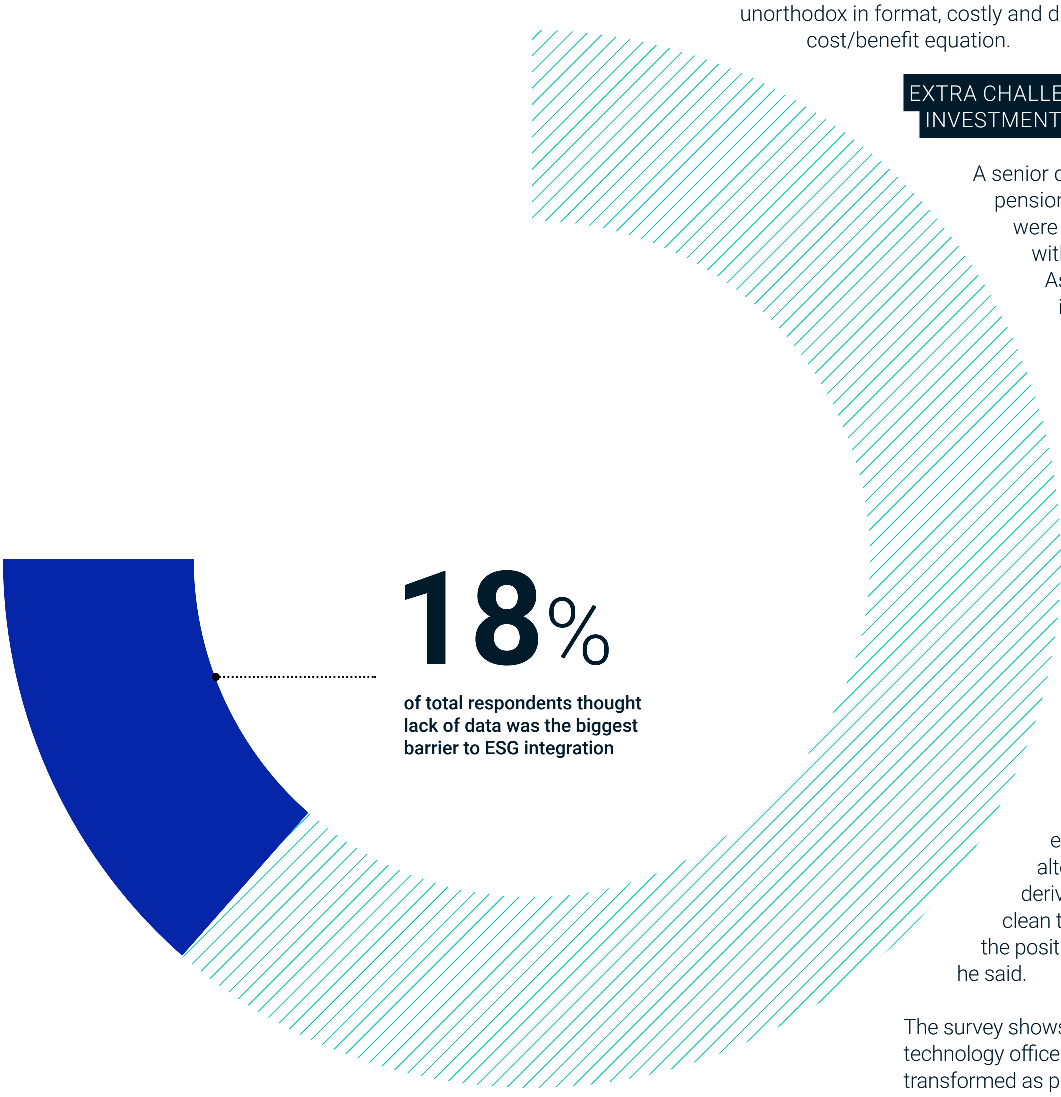
We are going through a transformation. Everything is about digitalization, about transparency

SENIOR MANAGER
Large European pension fund

Transparency is also a key issue in improving data around real estate, where data is being enhanced to meet pressure from the board or other oversight bodies. This reason was cited by 23%. However, in the U.S., where nearly half our sample was endowments or public pensions funds, the strongest pressure to improve real estate data came from a need for transparency to the public, cited by 26%.

For private markets, investors gave equal weight to two driving forces: Data is being improved both to enhance risk management and because investment management is being brought in-house.

The issue for institutional investors is that each driving force needs different data and different processing. One data manager remembered quieter times when the main requirement was to ingest transaction data, which has a scientific precision and is organized by vendors for easy processing. In contrast, an in-house private equity team contemplating the purchase of a chain of fitness centers may want to analyze long-term fitness trends, demographics and even the rate at which expensive fitness equipment will need to be replaced, datasets that can be unorthodox in format, costly and difficult to assess in terms of the cost/benefit equation.



18%

of total respondents thought lack of data was the biggest barrier to ESG integration

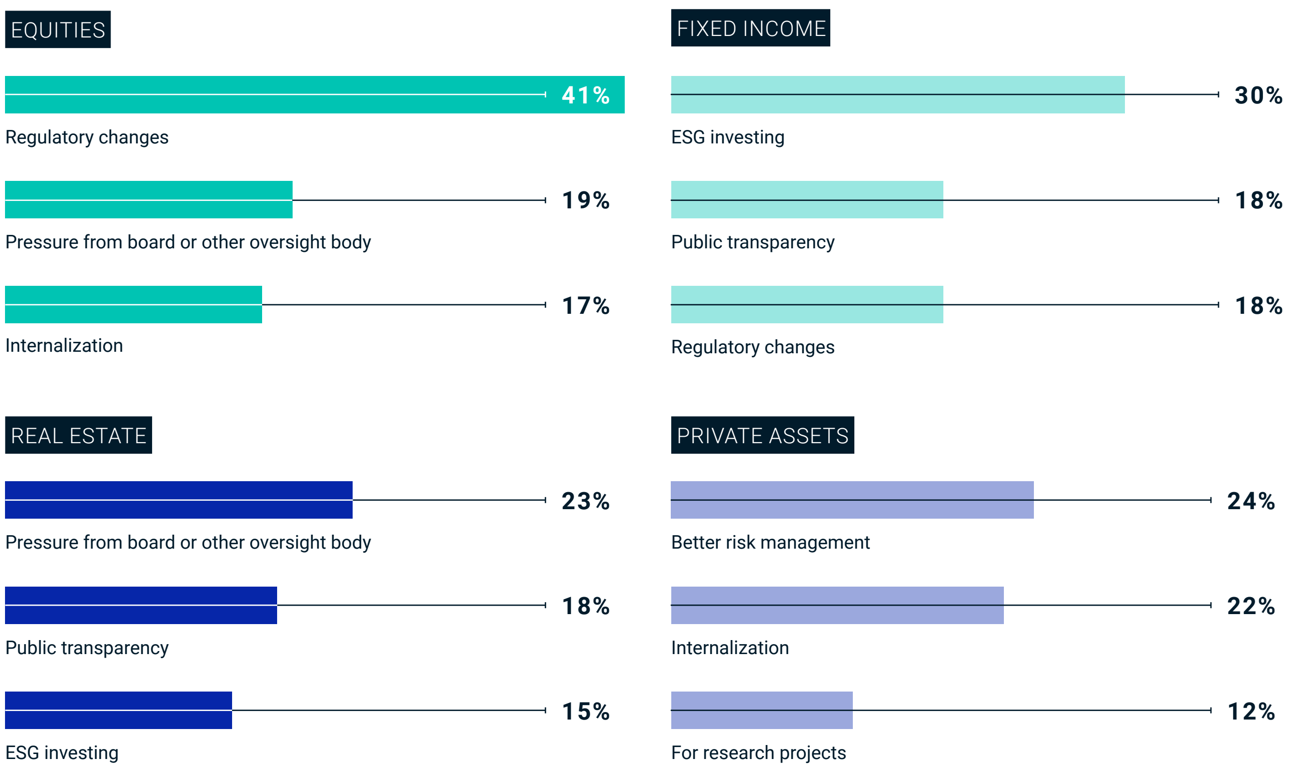
EXTRA CHALLENGES FROM ALTERNATIVE INVESTMENTS

A senior data manager at a large public pension fund said that data issues were also becoming more pressing with funds managed externally. As the fund had increased its exposure to alternatives such as hedge funds and complex derivatives, it became increasingly challenging to process the data needed in the absence of standardized data formats. This was compounded in funds-of-funds investments where the data may have to travel through multiple layers of managers, with cleaning (and hence delays) at each step.

The data manager of a North American investor said the biggest problem was indirect investments, particularly external managers using alternative strategies and complex derivatives. “If it takes us a week to clean the data and confirm it is correct, the position may have changed already,” he said.

The survey shows that roles like chief technology officer or chief data officer have been transformed as part of a broader cultural shift.

EXHIBIT 19:
Top drivers for improved data quality for each asset class



Yes, tech teams are delivering complex systems to process data. But they have become tightly integrated with investment functions. Some 12.5% of our survey sample had tech- or data-focused job titles; their answers on topics like factor investing were in line with the responses given by chief investment officers, indicating these technologists are close to the investment process.

For many institutional investors, the sharpest challenge is around ESG data broadly and climate data in particular. As ESG moves from being a niche investment style to a philosophy for the whole institution, the uses for this data are increasing. We asked investors whether they were using climate change to manage risk: 98% said they were using it to at least a limited extent. We also asked them whether they were using it to identify opportunities: 90% said they were to at least some extent. However, only 22% said they rely on this data and use it regularly. A further 42% said they use it sometimes and 26% said their use of it was “to a limited extent.”

There was similar, near-universal use of climate indexes for the same tasks: 94% use climate indexes to manage risk, and 88% use them to identify opportunity. Again, the intensity of usage was variable, with just 24% saying they regularly use climate indexes to identify opportunities and rely on it.

These figures indicate that institutional investors have moved beyond their concerns over ESG data quality, which emerged elsewhere in the survey. The manager of a Northern European pension fund quoted above, which uses climate data extensively when managing its domestic equities portfolio, acknowledged that theorists could debate at length about the purity of some aspects of climate data, but the pragmatic case for usage was overwhelming: “Climate change doesn’t care what your excuses were. We as institutional investors need to arm ourselves as well as possible.”

+ MSCI VIEW:

GETTING REAL WITH ESG DATA

LINDA-ELING LEE
Head of ESG Research, MSCI

GUIDO GIESE
Executive Director, Core Equity Research, MSCI

The data challenge is not just technical; it is cultural. Institutional investors that want to become data-centric need to take a whole-organization approach, starting with the board or C-suite, and embracing the entire investment value chain.

This is doubly so with investors who are trying to intensify their move to ESG investing. These organizations need to ensure that organization-wide perceptions of ESG data and indexes match today's reality. If the whole organization is to swing behind ESG as a concept, it needs to understand why the data powering that transformation is trustworthy. This understanding should not be confined only to the investment teams that use this data.

For the record, MSCI does not build our ESG ratings purely on questionnaires filled in by companies; the data landscape is far more extensive than corporate disclosure. We augment and cross-check with an ever-expanding range of data from other sources, including media reports (fact-checked to avoid false news), modeling (which can highlight data discrepancies that merit further investigation) and an increasing range of alternative data sources, ranging from patent filings to pollution fines.

Our ability to know what companies are doing (and not doing) in far-flung places worldwide has greatly improved through using these additional data sources. This data diversity also helps eliminate the "large company effect," a syndrome from the early years of ESG assessment where large companies got better ratings because they had staff skilled in greenwashing their responses. Those days are long gone.

It is also essential for the whole organization to understand how indexes are built on top of ESG data, for instance that many of MSCI's ESG indexes are close to sector-neutral. A knee-jerk reaction to the relative outperformance of many ESG indexes during the early stage of the pandemic was: "Oh, it's because they don't have oil stocks." In fact, these indexes overweight oil stocks with good ESG ratings and underweight those with weak ESG ratings.

This underlines that ESG data isn't about judging companies to be "good" or "bad." It's about measuring whether the company manages its environmental, social and governance risks. Some are making significant progress in some areas and almost none in others.

Understanding this nuance brings additional benefits; ESG data and indexes can be a platform for further innovation, building blocks that allow investors to take a proprietary view. For instance, in the United States, issues around diversity and inequality are at the forefront of many investors' minds. Our tools can help them reflect these concerns in their portfolio.

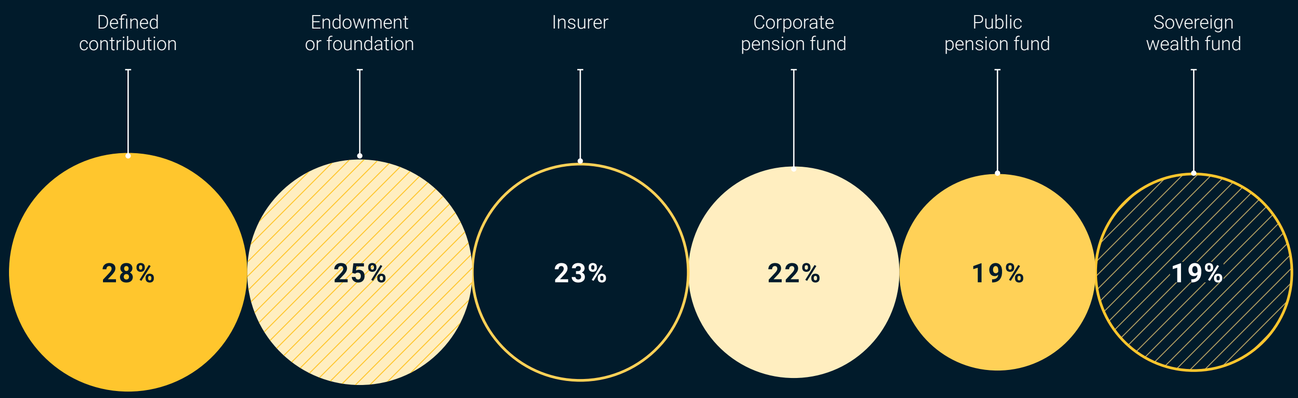
Getting to grips with the complexities of ESG data and indexes is a pressing priority because investors have seen during the pandemic crisis that ESG adds real value to the investment process. We analyzed equity performance in the first quarter of 2020 and found a large part of the outperformance of four global ESG indexes was attributable to these indexes' systematic tilt toward higher ESG-rated stocks. It was a real-world demonstration of what we had shown in research in 2019, that companies with high MSCI ESG Ratings were less exposed to systematic risks and therefore were more resilient to shocks. ■

The data-driven investor

Robust, high-quality data is essential for all areas of investment decision-making

Investors recognize the increasing importance of data to stay ahead of the curve

EXHIBIT 20:
Investors who ranked 'use of data' as a top aspect of investment excellence



Where data on climate is available, investors are using it to make crucial decisions

EXHIBIT 21:
Investors' current use of data and indexes around climate change

98%
of global respondents use climate data to manage risk

and

90%
use climate data to identify investment opportunities

94%
of global respondents use climate indexes to manage risk

and

88%
use climate indexes to identify investment opportunities

> More people are talking about unstructured data and AI and machine learning and that sort of stuff. I haven't seen it come through to the investment process yet

CHIEF INVESTMENT OFFICER
UK pension Fund

Larger organizations are more likely to regularly use climate data

EXHIBIT 22:
Organizations' use of climate data, by assets

Large extent - regularly utilize and rely on climate data
Some extent - sometimes use climate data
Limited extent - rarely use climate data

To manage risk

Assets	Large extent	Some extent	Limited extent
$200bn+	50%	40%	10%
$100bn - $200bn	29%	49%	22%
$25bn - $100bn	31%	50%	15%
$25bn and below	16%	54%	26%

To identify new investment opportunities

Assets	Large extent	Some extent	Limited extent
$200bn+	45%	45%	10%
$100bn - $200bn	22%	53%	20%
$25bn - $100bn	19%	42%	27%
$25bn and below	10%	31%	39%

20% of investors with $25bn or less stated that they did not use climate data at all

Note: Percentages may not sum to 100% due to rounding

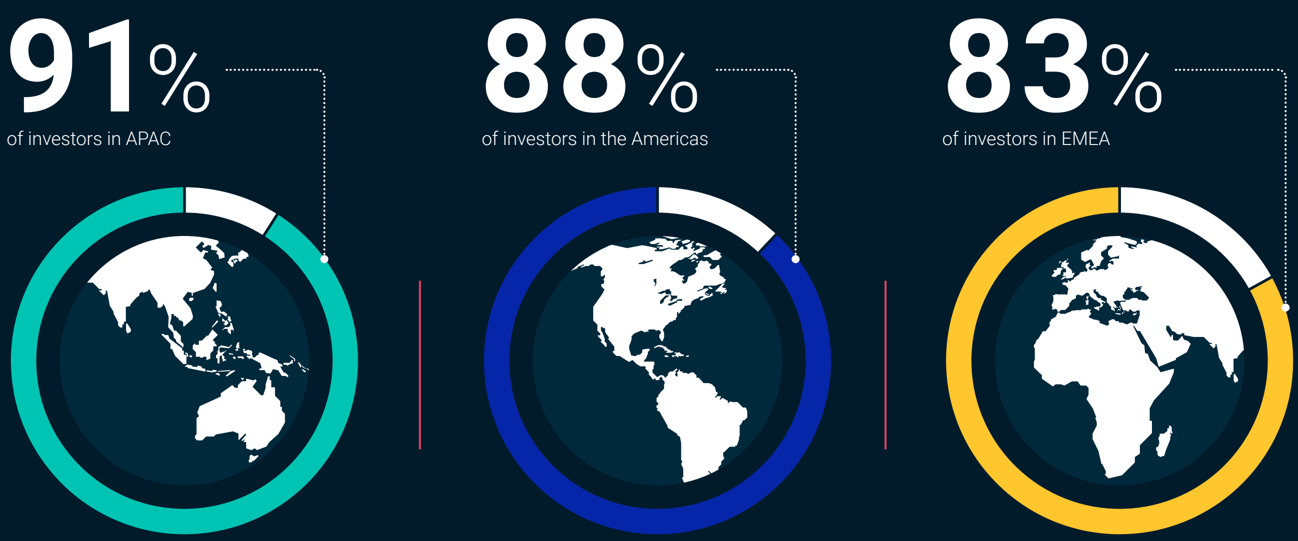
Investors are face from different sources to improve data quality

EXHIBIT 23:
The most important factors driving improvements in data quality

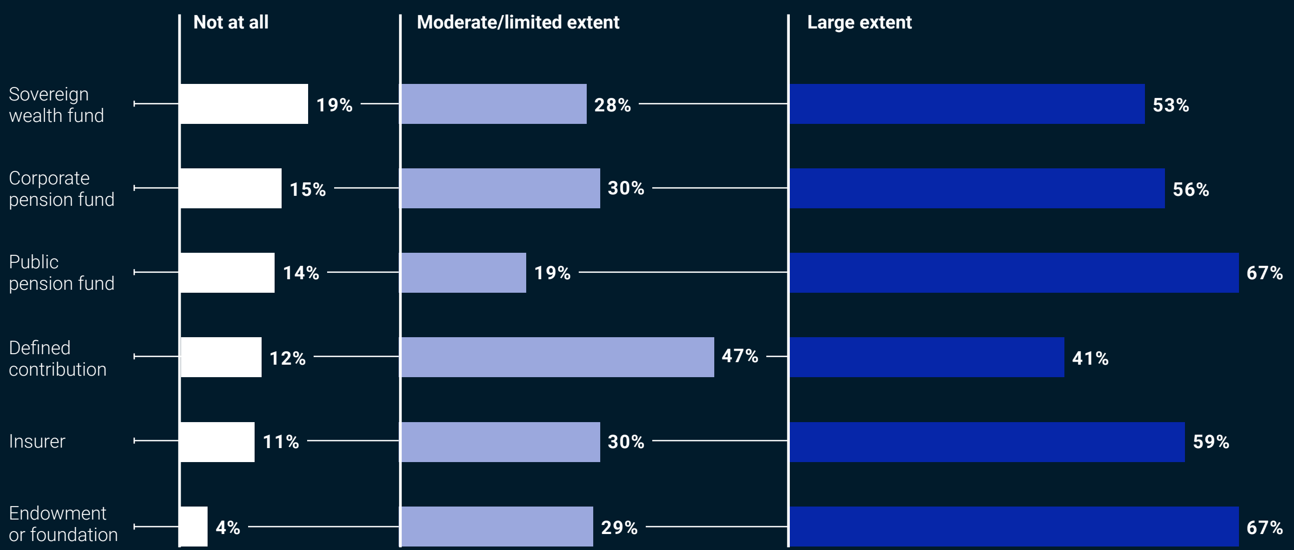
Asset class	Main driver of improved data quality
Equities	Regulation
Fixed income	ESG investing
Real estate	Pressure from board or oversight body
Private assets	Better risk management

Better availability of data will affect the asset allocation strategies of investors globally ...

EXHIBIT 24:
Investors who agreed that availability of historic pricing data would persuade them to invest in private assets in the next year



... and across a wide range of organizations



Note: Percentages may not sum to 100% due to rounding

Inside or outside?
The management debate

Manage internally, or use an external manager?
Investors in the survey say there's no perfect answer

The last decade has seen a strong trend toward institutional investors internalizing asset management, from Canadian funds setting up global private equity operations to European and American investors creating offshoots to manage their real estate portfolio. The data in the survey gives a more nuanced picture.

Yes, there are plenty of investors, particularly the largest, who want to bring assets in-house to manage. A senior executive at an Asian investor commented: "Fees are one element, but also we get greater control, greater influence, greater ability to develop the strategies that suit our portfolio the best."

Some of it is about costs. Most institutional investors are accumulating assets; with external managers linking fees in most cases to assets managed, this creates an unwelcome annual tilt towards increased costs. Smart negotiators can weaken this link, but by moving management in-house, it can be severed.

This goal has to be tempered by practical problems such as attracting and retaining a team that can deliver outperformance. Particularly for illiquid assets, where skills are in high demand elsewhere, this can be challenging.

1 in 4

investors at $200bn+ funds said getting the right balance between internal/external management is the most important factor in investment excellence

Some 26% of surveyed investors at investors with more than $200 billion - those with the greatest number of options - said getting the right balance between internal and external management is the most important factor in achieving investment excellence, second only to asset allocation.

The shift to ESG complicates the picture. In interviews, some investors said their internal teams did not have enough expertise at present. Assets were being sent externally for ESG management, with the aim of bringing them back in-house when the investment team had the right skills.

This complex picture is shown by the data for equities. Some 40% of investors use a mix of both internal and external management. Some 79% said they would bring some or all of their management inhouse over the next three to five years. Yet 61% also said that over the same time period some internal assets would be sent outside to manage. This may be placed with managers with special skills, for instance in ESG or specific geographies.

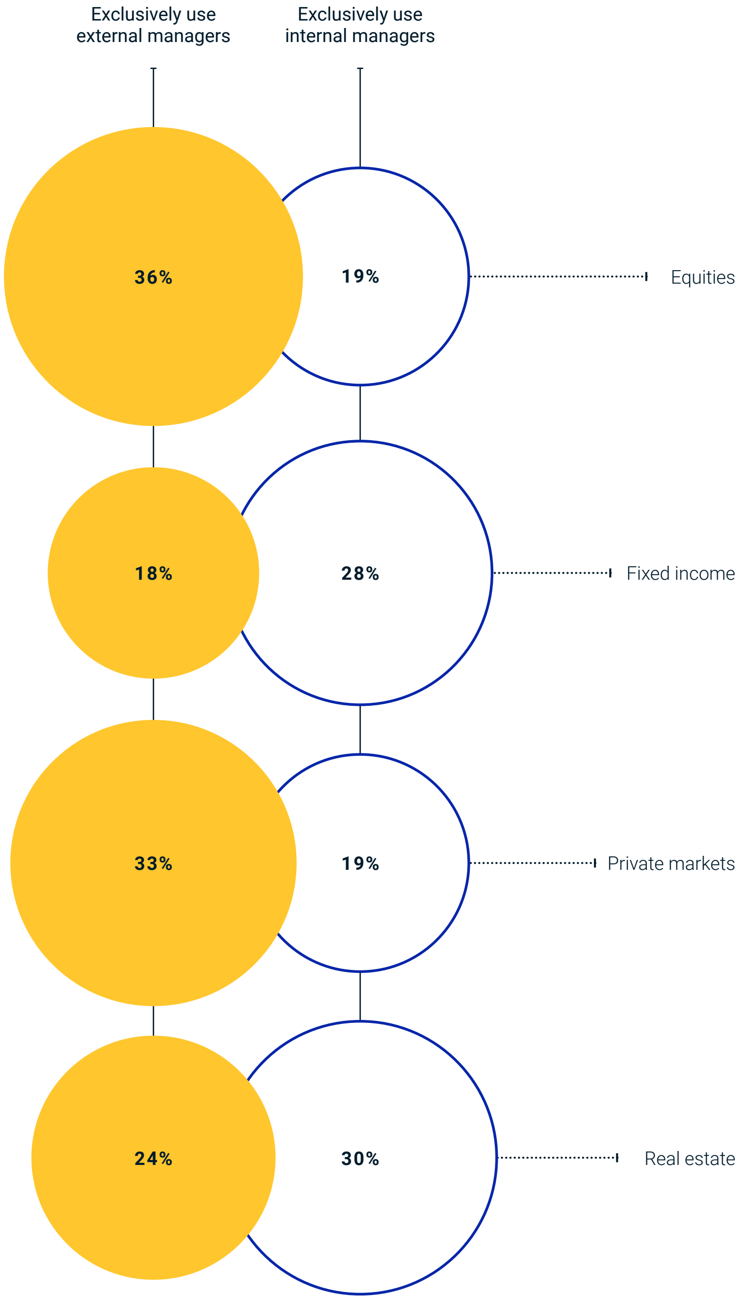
This blended approach is on display at Norway's oil fund, formally known as the Government Pension Fund Global, which has the equivalent of $1.3 trillion and employs extensive (and high-performing) internal management. Jon Nicolaisen, who at the time oversaw the fund, announced in November 2020 that more assets would be sent to external managers, with a focus on emerging-market investments to diversify risk, noting: "We get back much more from external asset managers than we have paid for their services."

A number of investors in the survey echoed this idea that external managers add greatest value in overseas markets. "We know our local market well so we think we have an edge," said one executive at a European pension fund that manages its own ESG-aligned domestic equities portfolio but uses external managers for other asset types.

Looking at the data for private assets, the link between asset size and the ability to bring management in-house is clear. Some 43% of surveyed investors with over $200 billion said they manage all their property portfolio. For those with $25 billion or less, this falls to 23%.

While large investors can make the internal/external choices that best fit the goals of the moment, smaller ones felt they were choosing between imperfect solutions. A CIO of a pension fund with more than $10 billion said he had neither the budget to build in-house teams nor the allocation to access the best-performing managers of private assets.

EXHIBIT 25:
Institutional investors' use of external managers

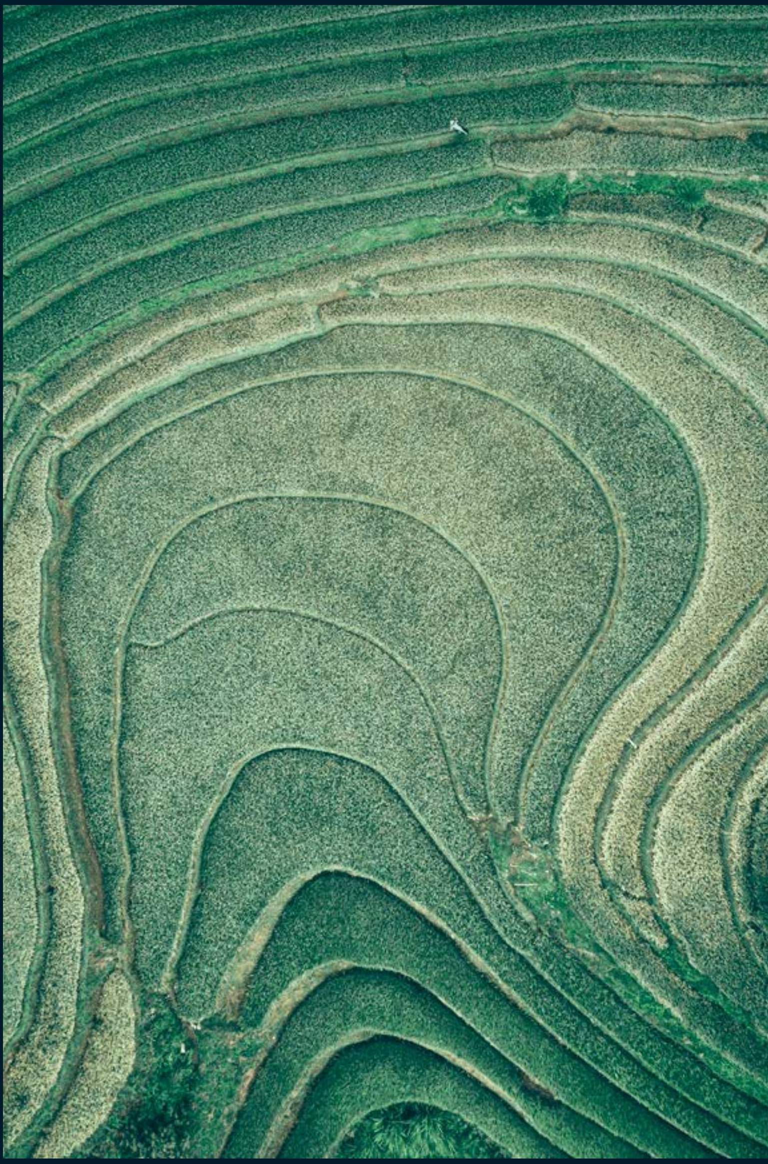


We know our local market well so we think we have an edge

SENIOR MANAGER
Large European pension fund

Diversity: much to do

Pressure for investors to become more organizationally diverse is uneven, as is the verdict on whether progress is being made



As institutional investors increasingly pass judgement on the governance of their portfolio companies, their own track record naturally comes into sharper focus. The survey paints a mixed picture.

Some 63% of surveyed investors said they were under pressure to improve diversity among their own employees, in areas such as gender, race or ethnicity. Although some pressure is being felt across all types of investors, the intensity of the pressure is very uneven. Sovereign wealth funds, public pension funds and insurers were much more likely to cite pressure on diversity “to a large extent” than corporate pension funds, defined contribution schemes or endowments (see Exhibit 26).

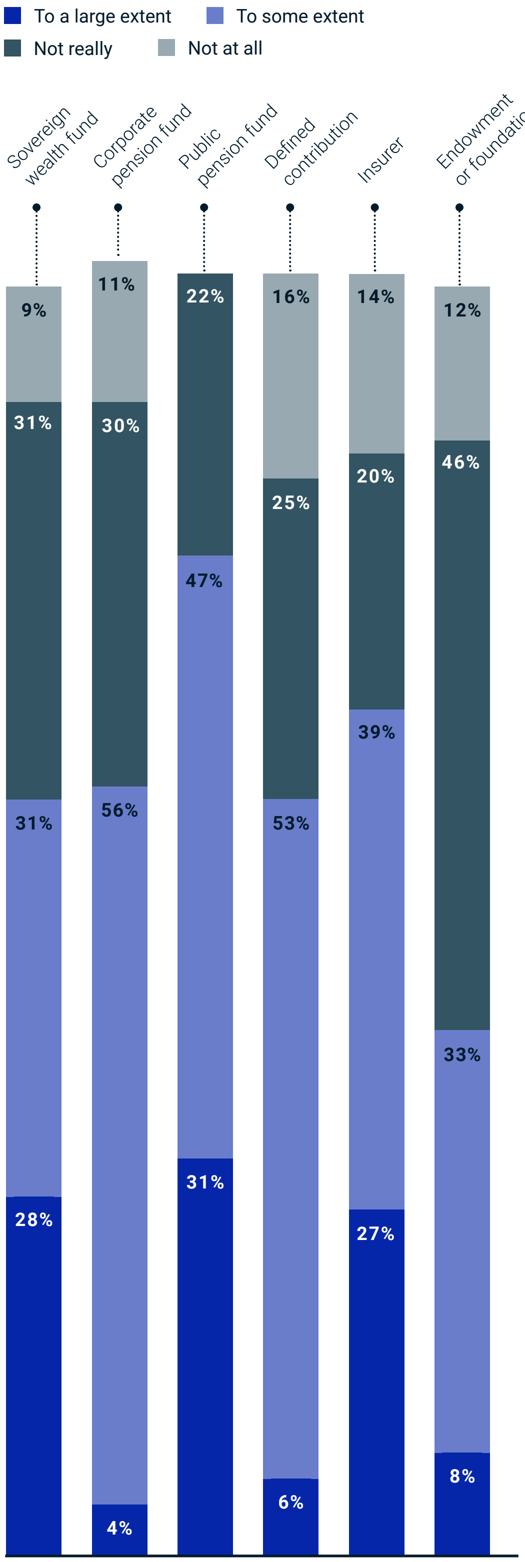
The issue seems to be a low priority for endowments in particular. Asked whether they were under pressure on diversity, 46% said “not really” and 12% said “not at all.”

However, executives at endowments are not oblivious to the broader trends. Asked for their personal assessment of diversity in the investment industry, their answers were in line with those of other investors, with “there’s a long way to go” the most common response, chosen by 50%. This was also the most common response for all investors, selected by 48%.

> We think you get much better outcomes if you have a good diversity of people in the team
>
> **CHIEF INVESTMENT OFFICER**
> UK pension Fund

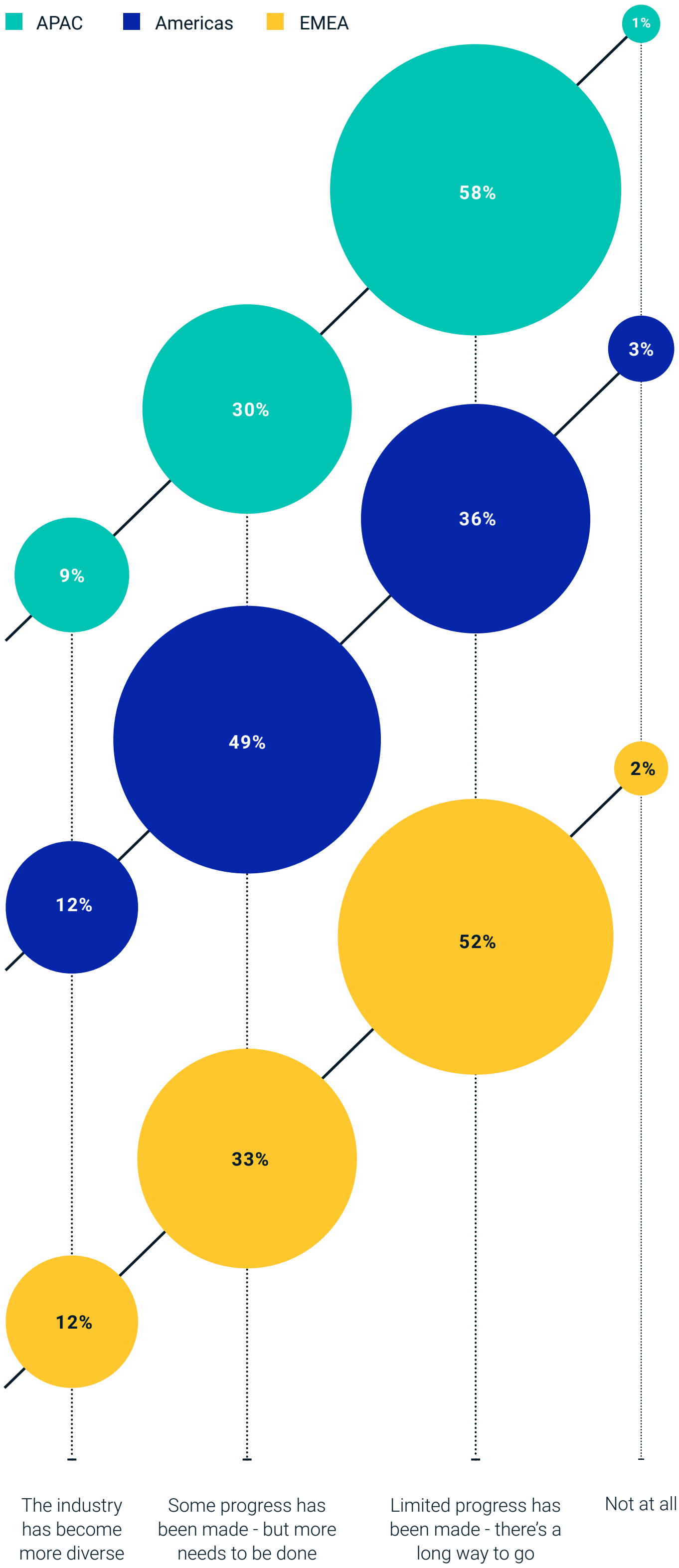
Organizations are under pressure to focus on workforce diversity

EXHIBIT 26:
Extent to which different fund types feel the pressure to diversify



Note: Percentages may not sum to 100% due to rounding

EXHIBIT 27:
Progress made to date in terms of diversifying investment workforces



Increasing diversity is a process that requires a long-term strategy, tenacity and consistency. "Our HR department has identified this issue many years ago. But it is not something you can turn around in a short time," according to an executive at a European pension fund.

The data shows some correlation between responses to diversity and whether their organization uses an ESG framework, such as the United Nations Principles for Responsible Investment, with executives at signed-up organizations less likely to be satisfied with the rate of progress.

External pressure for change appears to be growing. In the United States, Rep. Emanuel Cleaver and former Rep. Joe Kennedy III have been pushing university and college endowments to improve the representation of women and minorities in both their external and in-house management teams. More broadly, the Securities and Exchange Commission has tried to focus the country's asset management industry on diversity and inclusion, hosting a public meeting of experts on the topic in July 2020.

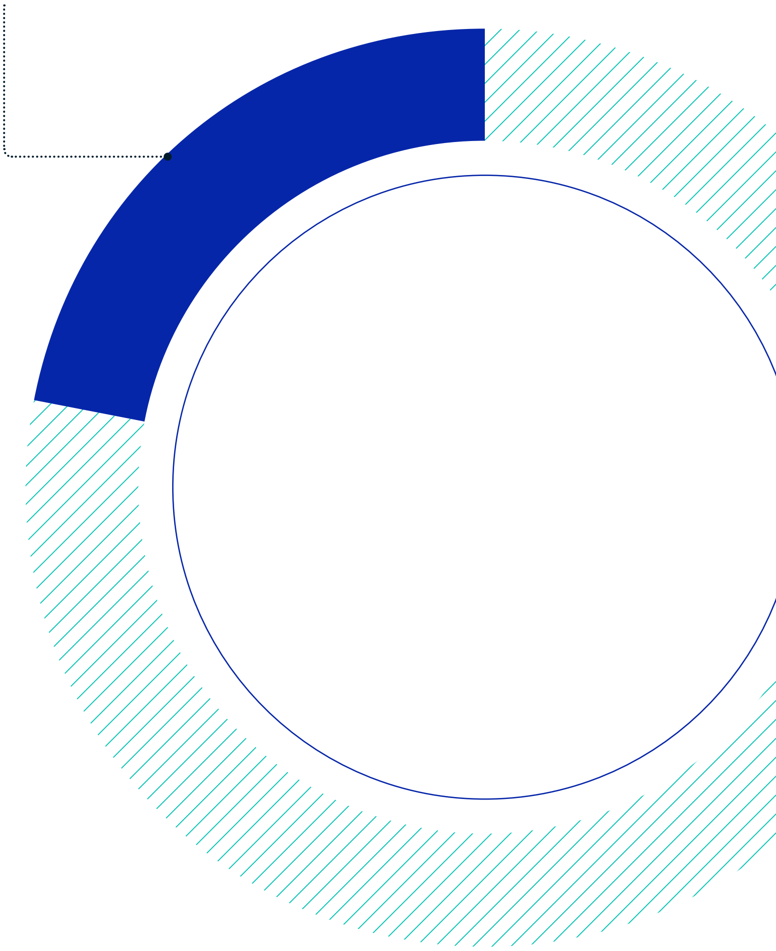
It would be wrong, though, to think of diversity as an issue unique to the United States. Asked about pressure to diversify, investors in the U.S. were broadly in line with the global average. There is a strong drive for gender diversity in Japan, where 55% of investors report that pressure on diversity is "strong", compared with 22% in the U.S. and a global figure of 19%.

Personal assessments of industry progress can differ widely, depending on job title and responsibilities. In the survey, not one of the 25 Chief Responsibility Officers - arguably those best-placed to assess progress - agree with the upbeat verdict that "the industry has become more diverse," whereas 28% of chief investment officers picked this response.

Yet there are many CIOs who are pushing for more diversity for very practical reasons. The CIO of a U.K. pension fund commented: "We think you get much better outcomes if you have a good diversity of people in the team." ■

22%

of total respondents in the US think that the industry has become more diverse



0%

of Chief Responsibility Officers felt the investment industry has made progress in diversifying its workforces

+ MSCI VIEW:

THE INVESTMENT BENEFITS OF DIVERSITY

DIANA TIDD
Head of Index and
Chief Responsibility
Officer, MSCI

The debate around diversity is entering a new phase. Institutional investors are moving from talking about policies and metrics to wanting results, both in portfolio companies and in their own organization.

The case for diversity leading to better returns is moving forward. At MSCI, we previously spent a lot of time explaining to clients how our research indicated a link between diversity on boards and positive financial metrics. Today, the discussion includes how diversity contributes to a portfolio company's innovation potential, how it can help attract talent in a highly competitive market, and how diverse thinking can reduce risk for both the company and its investors.

But we should not be oblivious to the fact that the pace of change is slow. One sign is the most recent MSCI Women on Boards report, which analyses female boardroom participation in the MSCI ACWI constituents, more than 3,000 companies across 23 developed and 27 emerging markets. The survey data has been produced annually since 2009 and has shown a sustained, if measured, increase in female representation in the boardroom. The 2020 study, however, reported a noticeable slowdown in the rate of increase. Based on the current four-year trend, the 30% level would only be reached in 2029. Gender parity would take until 2045.

How can institutional investors increase momentum? By identifying organizations, companies and asset owners that take action and have the market power to bring about change - and by following those models.

We now regularly see institutional investors send ESG- and diversity-related questionnaires to their portfolio companies and their own supply chains. They are increasingly issuing public statements of voting policies, putting portfolio companies on notice that they will vote against non-diverse boards. They are repeatedly raising the bar: A major U.K. investor, for instance, has long voted against boards that lack gender diversity but has now declared that starting in 2022, it will vote against boards that fall short on ethnic diversity, too.

The drive for diversity should not only occur in portfolio companies, however. Institutional investors also need to capture the benefits themselves.

Our survey shows that many are trying to do so. Some 62% of executives at investors said their organization was under some pressure to increase diversity, with 19% saying the pressure was felt "to a large extent." The data also suggests that public asset owners are setting an example: public pension funds reported the most pressure to improve diversity, with sovereign wealth funds also saying they were under substantial pressure.

To see the impact, look at the data on Japan, where 55% of institutional investors reported a large amount of pressure for change, against 22% in the United States. Japan legislated to promote female advancement in the workplace in 2016. The Government Pension Investment Fund for Japan integrated this concept by adopting the MSCI Japan Empowering Women Index in 2017.

Institutional investors are also catalyzing broader change. When investors look for outside managers, diversity is being increasingly baked-in to the RFP process, and investors want to see outcomes, not targets. This places real pressure throughout the investment industry.

The survey asked whether institutional investors felt under external pressure on diversity. But it is no longer necessary for the board, the HR department or other forces outside the investment function to nag; chief investment officers and other senior executives are recognizing the benefits. And they are not only setting policies and metrics; they are also looking for results. ■

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