2020 SURVEY

PASSIVE INVESTING 2020

Addressing climate change in investment portfolios

Foreword

DWS is pleased once again to sponsor this important research, and I personally wish to thank the authors for their steadfast efforts in getting this work completed as the world grappled with the lockdown stage of the Covid-19 pandemic. The report demonstrates the continuously rising relevance of passive strategies for pension funds, as well as the importance of sustainability.

The Covid-19 pandemic, and the economic fallout it has produced, is yet another reminder of how fragile our societies are, and how, on a global basis, we must build more resilient economies. Climate change is one important aspect of this, and it is heartening to see from this report how pension funds are reshaping their portfolios in recognition of the fact that climate-related investments and performance-driven asset management are not mutually exclusive, and that, in fact, they increasingly go hand-in-hand. It is also encouraging to see that the majority of pension funds intend to increase their passive climate-related allocations over the next three years.

This is no surprise to us here at DWS. We have long recognized the fundamental shift towards sustainable investment that is taking place now, and the responsibility asset managers have to be the conduits of positive change. We also recognize how important it is to align the interests of all stakeholders, linking our business interests as an asset manager, the fiduciary interests of our clients, and the interests of government and non-governmental organisations and wider society.

DWS was one of the early signatories to the United Nations-backed Principles for Responsible Investment (PRI) in 2008, and in recent years we have transformed our business to make it one of the world's leading providers of environmental, social and governance (ESG) asset management products and solutions.

One of my key aims as chief executive is to accelerate that transformation and to put sustainability at the heart of everything we do. To that end, we created a Group Sustainability Office to further drive our sustainability goals. It is vitally important to us that we help our clients achieve positive environmental and social contributions. This is part of our core values.

I hope you find this report illuminating. These are exceptional times, and the 2020s are shaping up to be the decade of zero interest rates, of algorithms, and of sustainability. The more knowledge we have now, the better prepared we will be for the challenges, and opportunities, that lie ahead.

Best wishes

Asoka Woehrmann
CEO, DWS

Acknowledgements

"Historically, pandemics have forced humans to break with the past and imagine their world anew. This one is no different. It is a portal, a gateway between one world and the next."

Arundhati Roy
Indian novelist and political activist
Financial Times, April 3rd, 2020

This 2020 global survey is part of an annual research programme by DWS and CREATE-Research. It is designed to highlight the forward trends in passive investing.

This year's survey looks at how pension investors are using passive funds to deal with opportunities and risks associated with global warming and how their approach will be affected by Covid-19.

On this occasion, I am deeply grateful to four groups of organisations and people who have made this report possible.

First, the 131 pension plans who participated in our global survey. Forty of them were also involved in our post-survey structured interviews, thereby adding the necessary depth, colour and nuance to our survey findings.

Their unstinting support over the years has helped us to develop an impartial research platform that highlights forward-looking asset allocation issues that pension plans and their managers have faced in an ever-changing market environment over time.

Second, DWS, who supported the publication of this report without influencing its findings in any way. Their impartial arms-length support over the past three years has enabled us to share valuable insights with all the players in the investment value chain in multiple pension jurisdictions.

Third, IPE, who helped carry out the annual survey in this programme and its editor, Liam Kennedy, for guidance and support over the years.

The final group comprises my immediate team: Lisa Terrett for conducting the survey, Anna Godden for desk research and Dr Elizabeth Goodhew for editorial support.

After all the help I have received, if there are any errors and omissions in this report, I am solely responsible.

Amin Rajan
Project Leader, CREATE-Research

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1

Executive summary

Introduction and aims

Covid-19 is a devastating reminder of the fragility of life on Planet Earth.

It will be a key defining force of our age, alongside global warming.

Recent TV footage of empty roads, cleaner air quality, animals coming closer to cities and people working from home has starkly revealed once again the unbalanced relationship between humans and nature.

Resilience is the new watchword worldwide. Unprecedented economic support from policy makers to protect lives and jobs has been timely. This has also turned the spotlight on the role of companies and their investors in tackling two side effects of today's turbo-charged capitalism: economic inequalities and environmental degradation.

A series of recent extreme weather events – from devasting bush fires in Australia, to hurricanes in the US, to heat waves in Europe and severe floods in Japan – has alerted the world to the damage caused by their rising frequency as well as severity.

Scientific studies attribute them to Anthropocene: a new epoch in which humans are a key factor in climate change. The World Economic Forum's 2020 annual report found that, for the first time in its 15-year history, the natural environment dominated today's top five risks.

For investors, global warming presents both risks and opportunities via three distinct channels: recurring extreme weather events; accelerating innovation in green energy; and growing societal pressures to divest from fossil fuel assets that have long imposed negative externalities.

Their current market prices do not fully reflect the environmental damage they cause. Rather, they inflict uncompensated costs on wider society via greenhouse gas emissions, rising sea levels, ocean acidification and so on.

Markets have hitherto been slow to fully price in the risks they pose to the financial viability of the global economy and social stability of individual nations.

Indeed, focusing on short-term returns would create "potentially catastrophic systemic risks" warned the leaders of three of the world's high-profile pension plans: Japan's Government Pension Investment Fund, the California State Teachers' Retirement System (CalSTRS) and the UK's USS Investment Management.

Issued on 13 March 2020, their joint statement had added poignancy, coinciding as it did with the fastest stock market falls in history as Covid-19 went global. The statement also confirmed that many pension plans have been future-proofing their assets by factoring risks and opportunities associated with climate change into their portfolios of passive as well as active funds ever since the 2015 Paris Agreement to limit global warming to 2°C above its pre-industrial level.

Hence, this study does a stock take on the current state of their allocation, focusing on climate-related passive funds.

Our last two pension surveys in this annual DWS–CREATE series have shown how passive investments are being integrated into core portfolios. This survey turns the spotlight on how climate change features in this foundational change by highlighting:

"You can never plan the future by the past."

Edmund Burke,
Irish statesman

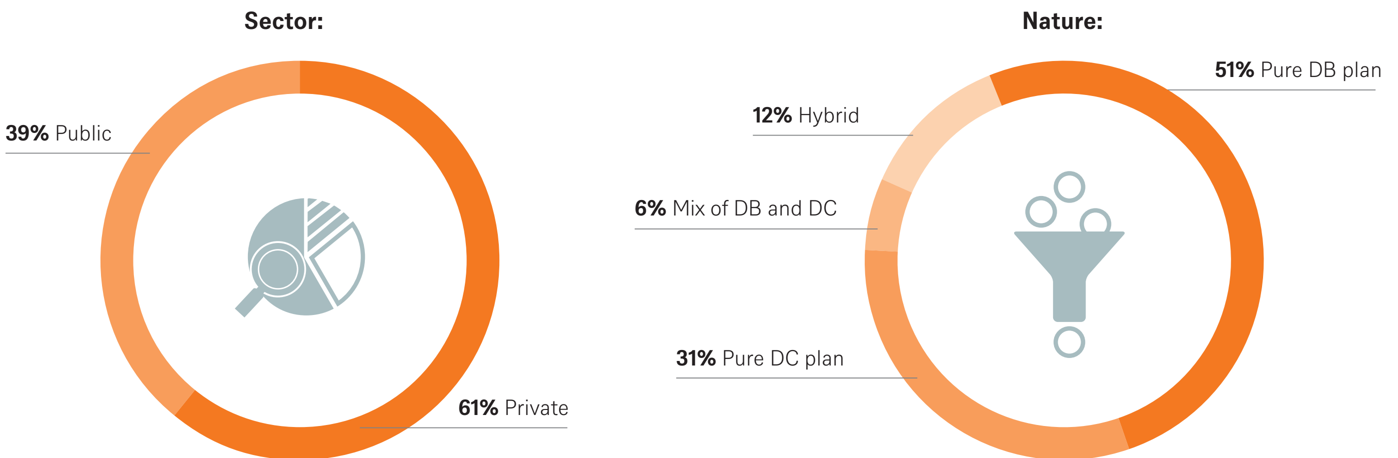
- the key drivers of investments into climate-related passive funds and the level of allocations so far
- the strategies being used in the process and how they are likely to change over the next three years
- the outcomes so far, the constraints that need to be overcome and the lessons that have been learnt.

These questions were pursued via a global survey of 131 pension plans in 20 jurisdictions with a combined AuM of €2.3 trillion. Their background details are given in Figure 1.0. The survey was followed up by 40 interviews with senior executives to assess the impact of the Covid-19 crisis on their asset allocation.

The rest of this section presents survey highlights and our four key findings.

FIGURE 1.0
Which sector does your pension plan cover, and what is the nature of your plan?

% of respondents



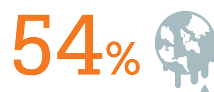
Source: CREATE–Research Survey 2020

Survey Highlights (% of pension plan respondents)

CLIMATE-RELATED PASSIVE FUNDS: ALLOCATION

26% Already have an allocation in excess of 15% in their total passive funds

21% Already have a mature portfolio of climate-related passive funds


54% Recognise that climate change is material to investment returns

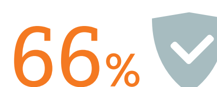
65% Expect to increase their allocations over the next three years

CLIMATE-RELATED PASSIVE FUNDS: IMPLEMENTATION

81% Target superior risk-adjusted long-term returns and negative fat-tailed risks

60% See data and definitional problems as a constraining factor

70% Select asset managers on the basis of their track record on 'green' agenda

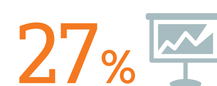

66% Expect their asset managers to have proven stewardship capabilities

PASSIVE FUNDS IN GENERAL: RECENT TRENDS

70% Treat traditional cap-weighted index funds as their favourite vehicle of choice

89% Treat equities as their favourite underlying asset class of choice

57% Expect their allocations to ESG funds to grow in excess of 5% per annum over the next 3 years


27% Expect their allocations to smart beta funds to grow in excess of 5% per annum over the next 3 years

Key findings

1. Climate-related funds target a double bottom-line

a) The current scorecard and its drivers

Three seminal events in 2015 heightened pension plans' interest in climate investing.

The first was Bank of England Governor Mark Carney's speech 'Breaking the tragedy of the horizon'. It warned that financial markets remained oblivious to the catastrophic long-term impact of climate change.

Soon after that, the United Nations adopted 17 Sustainable Development Goals. Climate change featured in at least three of them. Asset owners and asset managers are enjoined to be part of their delivery.

Finally, at the end of 2015 came the Paris climate change conference, COP21. Around 200 nations signed a landmark agreement to combat global warming by phasing out fossil fuels and investing in 'green' energy.

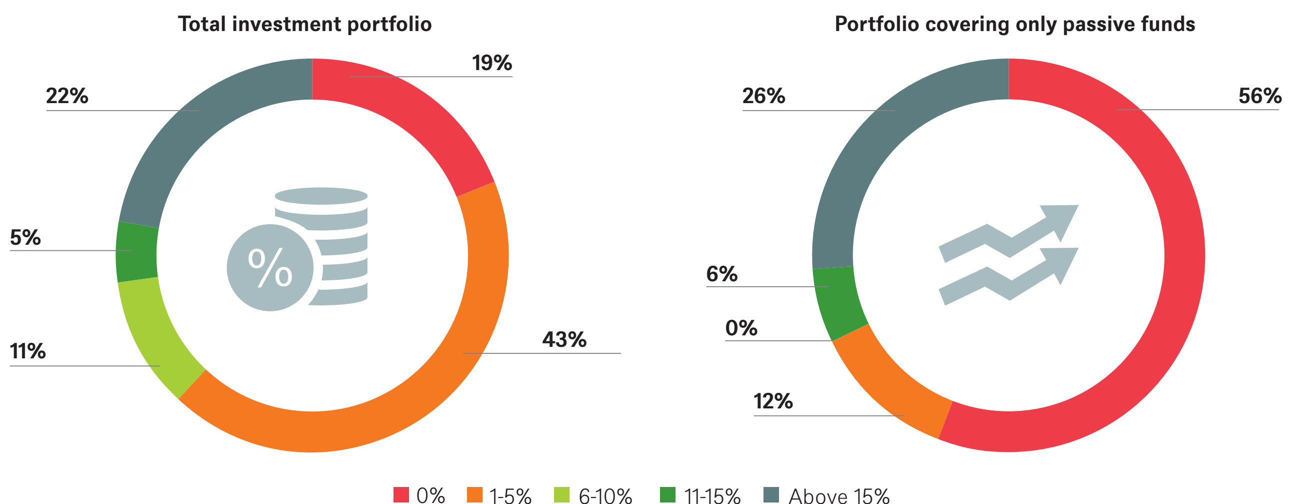
These developments have triggered regulatory action in many pension jurisdictions, as climate-related investing has become a foundational trend in institutional portfolios in two forms: as a key theme in portfolio construction; and as a key topic in shareholder engagement. This report focuses mainly on the former.

Starting with total investment portfolio (Figure 1.1, left chart), it is clear that 22% of our survey respondents have allocations in excess of 15% when it comes to all climate-related strategies. At the other extreme, 19% have no allocations at all currently. In between, 43% have allocations less than 5%; and 16% have between 6% and 15%.

However, the picture looks somewhat different when the focus shifts to that part of the total portfolio that covers only passive funds (Figure 1.1, right

FIGURE 1.1
What is the approximate share of all climate-related funds in the following types of your pension plan's investment portfolios currently?

% of respondents



Source: CREATE-Research Survey 2020

"Investing in climate change is a fact of life and a matter of time."

Interview quote

chart). 26% of respondents have allocations in excess of 15% at one extreme, and 56% have no allocations at all at the other.

Thus, while the total investment portfolio has so far attracted 81% to climate-related investing, the corresponding passive portfolio has attracted 44%, implying a slow-motion inevitability.

The key reason behind the difference is that climate change remains an inexact science for investors. Hence, initially, they have preferred to invest with specialist active managers who have long developed an infrastructure of skills, technology and data to build up a good track record in theme investing. Besides, some of the underlying asset classes – like private equity and infrastructure – are in illiquid markets where indices remain a rarity.

Another reason is that, in the last decade, passive funds were especially favoured for riding the prolonged market momentum sparked by central banks' ultra-loose monetary policies. It is only in the last two years that their appeal as a vehicle for pursuing special themes – like environment – has become more evident for pension investors, especially as index providers have also shifted up a gear with improved offerings.

A number of drivers are behind changing investor perceptions.

Taking them in turn, as shown in Section 2 (Figure 2.1), 62% of our respondents now see climate change as delivering good risk-adjusted returns in the long run. 54% believe that climate change is increasingly becoming material to securities pricing and value creation – albeit from a low base – as our societies transition to a low-carbon future.

49% cite that physical risks from extreme weather conditions and transition risks from the disruptions to the existing fossil fuel business models are also presenting opportunities.

These drivers are further reinforced by regulatory pressures (43%) and technological advances towards 'green' energy and 'green' transport (51%). Regulators now regard climate awareness as vital to good corporate governance.

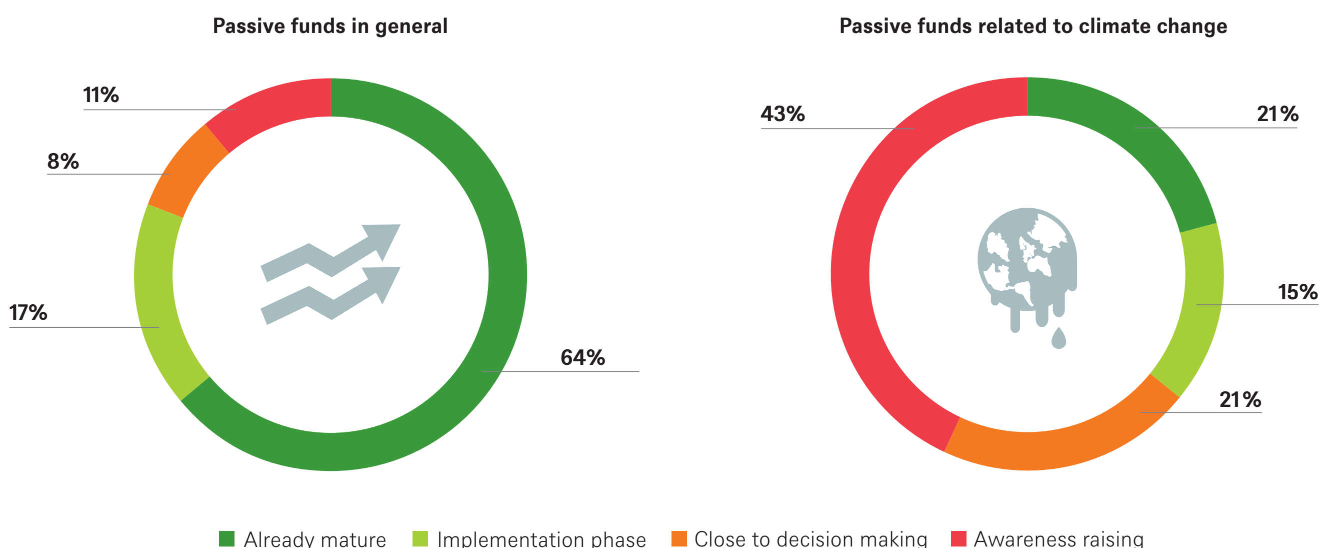
Underlying these numbers is a new imperative: as economies have grown and progressed, new forms of risk have emerged. Global warming is the most serious and pressing. Thus, in deference to rising societal concerns, pension plans are enjoined to go beyond a green 'do-gooder' reputation into the realm of long-term risk management to reflect the duration of their liabilities. In sum, investing in climate change is seen to be about achieving a double bottom line: doing well financially and doing good socially.

With such concerted forces, the ecosystem of financial markets is expected to pivot towards climate risks over time, even though the Covid-19 crisis will divert investor attention in the near term, as we shall see later.

"Financial markets are often slow to price in big outcomes until they are faced with them."

Interview quote

FIGURE 1.2
In which stage is your pension plan currently with respect to the following types of investment portfolios?



Source: CREATE-Research Survey 2020

b) The current evolution of passive investing

Pension plans' allocations to passive funds has been rising since 2005 and accelerating in the last decade, as active funds struggled to beat their benchmarks while central bank policies distorted market valuations. The rise has taken passives into investors' core buy-and-hold portfolios, covering assets in the deep, liquid and efficient markets of America and Europe.

Looking at the life cycle of adoption, 64% of our respondents currently have a 'mature' portfolio of passive funds in general, and a further 17% are in the 'implementation' phase. Only 11% are still in the 'awareness raising' phase (Figure 1.2, left chart).

In contrast, the adoption of passive funds directly related to climate change has been notably slower (Figure 1.2, right chart). Only 21% already have a 'mature' portfolio currently, with 15% in the 'implementation' phase, and a markedly higher 43% still at the 'awareness raising' phase.

The perception that passive funds merely follow a simple low-cost rules-based style that mimics its chosen broad indices remains ingrained in the investor psyche, especially in the US. This holds that such funds do not exercise their voice often enough to influence their investee companies' carbon footprint and lift the quality of their beta assets due to over-reliance on proxy-voting advisors. Perceptions aside, there are two other factors behind the slower implementation of climate-related passive funds, as shown in Figure 2.2, Section 2.

60% of our respondents cite the lack of a robust template with consistent definitions and reliable

"The 'passive' label implies a level of dormancy that does not reflect various active ways in which investors seek decent returns from their passive funds."

Interview quote

data as a key constraint. There are now over 150 major data vendors worldwide, using proprietary scoring systems often yielding a radically different assessment of the same company.

The company data they provide vary according to their approach. Some are mandatory and audited. Some are voluntary and self-reported, with no independent audits. The result is significant white-washing: companies only reporting when they have something favourable to say. Nor are these vendors subject to any regulatory oversight akin to the traditional credit rating agencies. In any event, so far it has proved hard to obtain data on three core concepts in climate-related investing: materiality, intentionality and additionality.

Respectively, they seek to assess how material climate change is to a company's financial performance: does the company intend to do anything about it; and will the company really act in a way that delivers a double bottom line – societal benefits in addition to financial benefits? Yet another major constraining factor centres on a cluster of three mutually reinforcing forces. Financial markets are slow to price in climate risks, according to 59% of survey respondents. As a result, there is a lack of investment opportunities, according to 41%. This means that climate-related investing has yet to develop a long-enough track record, according to 32%.

Hence, for our survey respondents, investing in climate change so far has been an adaptive journey up a steep learning curve, relying on learning-by-doing. This, in the belief that climate change will, before long, emerge as a compensated risk factor – like the traditional ones such as quality, value, low variance and momentum.

Currently, markets have already started to price risks in sectors such as power generation, where the economics of renewable energy is constantly improving. While climate change may be proxied by factors such as quality and value, it still brings an additional benefit: a more defensive portfolio by capturing negative fat-tail risks (Case study 1a).

Case study 1a: The elusive charm of quarterly capitalism

Markets are slow to price in climate risks due to today's 'quarterly capitalism': investors tend to value quarterly earnings to the detriment of long-term value creation. Thus, markets tend to focus on the shark closest to the boat.

For their part, in the name of prudence, investors tend to demand a long track record of returns before making allocations. In our experience, waiting for strategies to be tested by time or events means waving goodbye to all the upsides. Today's alpha is tomorrow's beta.

Those carbon producers unable to migrate to green energy risk ending up with stranded assets exposed to a significant loss in value well ahead of their economic life. On the upside, there are also new opportunities emerging with the rise of renewable energy.

We therefore look at risk in a forward-looking way by envisaging scenarios. Just as it is foolhardy to drive a car by looking in the rear-view mirror, it is wise to anticipate change and act on it. The challenge that investors face is how can capital markets amplify rather than undermine the goals of the Paris Agreement?

A Swedish pension plan

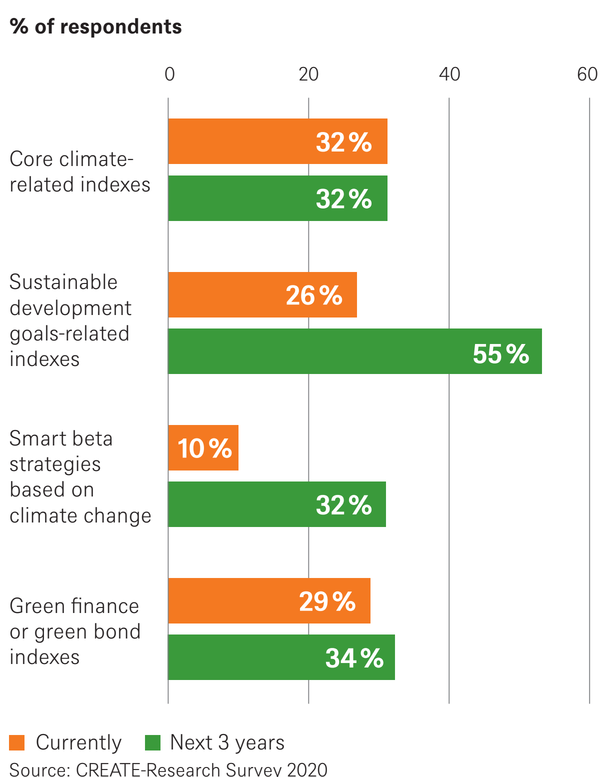
2. Climate-related passive funds follow a twin-track approach

Four vehicles underpin our respondents' current approach to climate-related passive funds. They have a modest tracking error range against their chosen parent indexes (Figure 1.3). They follow two distinct tracks: plain vanilla core funds and specialist high impact funds.

FIGURE 1.3

What are the main strategies used to invest in climate-related passive funds currently and which ones will be used over the next three years?

% of respondents



Source: CREATE-Research Survey 2020

The first and the simplest track aims to exclude high environmental polluters, such as fossil fuel producers and the power utilities that rely on them, in order to reduce the carbon footprint of the portfolio. Core climate-related indexes fall into this category.

The second track, in turn, relies on two overlapping approaches.

One of them takes a more holistic view of climate risks and opportunities. It aims to over-weight companies that are positively exposed to low-carbon transition and under-weight companies that are negatively exposed, while maintaining broad market exposure. This in the belief that successful investing is as much about avoiding losers as picking winners.

The second approach is based on the so-called Transition Pathway Initiative, created by asset owners and supported by asset managers worldwide. It aims to focus on companies with a high impact on climate change. It assesses them on the basis of how well prepared they are for the transition to a low-carbon world. The assessment relies on three criteria: companies' management of greenhouse gas emissions; the risks and opportunities related to their transition; and their carbon performance against international targets and national pledges made as part of the Paris Agreement.

Currently, all the identified approaches are employed by our survey respondents using climate-related passives (Figure 1.3): with 32% focusing on core funds, 29% on green finance indexes, 26% on SDG-related indexes and 10% on smart beta funds.

However, looking over the next three years, the bulk of the increased allocation is likely to be channelled into SDG-related indexes (55%), smart beta funds (32%) and green finance indexes (34%). This projected growth pattern reflects the growing demand for customisation and double bottom line benefits. These three portfolio strategies are deemed better suited to target positive externalities: such as reduced emissions, faster innovation in clean energy, lower energy costs and more efficient use of energy resources (Case study 1b).

Case study 1b: The rise of green bonds

The UN estimates that annual financing of $3-5 trillion will be needed to meet its Sustainable Development Goals by 2030. Given the scale, the bulk of the money will have to come from the private sector. We need to catch up on the years in which we procrastinated.

This has turned the spotlight on green bonds. Equity markets have started to play a role in reducing global warming. But bond markets have lagged behind in delivering the targeted financing, even though their growth has been exponential. From a base of zero in 2010, the global issuance is set to top $300 billion in 2020. So far, over half of the total has been issued by sovereigns and quasi sovereigns, with the rest by public utilities and financial services. The proceeds partially or fully finance projects with tangible environmental impacts – mostly in the transport and energy sectors.

Their early adopters have been mainly in Belgium, China, France, Germany and the Netherlands. But the coverage will likely broaden and deepen in Europe with the EU's commitment to enact the Paris Agreement into law.

We have a small allocation to green bonds in our passive portfolio, as a defensive move, since the underlying collateral is strong. We think this market will take off as the European Central Bank includes green bonds in its future quantitative easing programme.

A German pension plan

In the process, the passive funds in use will continue to be underpinned by three asset classes, as shown in Section 2 later in the report in Figure 2.3.

So far, equities have been and remain the dominant asset class, cited by 86% of our respondents – a number that is likely to rise to 89% over the next three years. This pole position is influenced by the fact that the mandated transparency and liquidity of equity markets make them an ideal vehicle for pursuing newly emerging investment themes like climate change and other Sustainable Development Goals. Another advantage favouring equities is the opportunity they offer to exercise a stewardship role via AGM attendance, proxy voting and year-round conversations (including virtual) with investee companies.

In contrast, fixed income arguably does not offer the same degree of engagement opportunities beyond the initial screening stage, although recent guidance from the UN PRI is making a positive difference. Currently, 36% of our respondents rely on fixed income to pursue their climate-related agenda and the number is likely to rise to 39% over the next three years.

Finally, 50% of respondents rely on listed real assets when constructing their passive vehicles, a number that could fall to 46% over the next three years. The decline reflects the negative impact of the Covid-19 crisis on one key component of this asset class: real estate. 'Rent holidays' will be inevitable in large swathes of the retail and leisure sectors. The office sector may be hit, too, if remote working becomes the norm after the crisis.

"Specialist indices have longer-term focus and more variable performance; unlike core indices that mimic the parent index."

Interview quote

3. Climate-related passive funds sit in the buy-and-hold portfolio

A key feature of climate-related passive funds is that they essentially rest on a long-term perspective (Figure 1.4, left chart). 81% of our respondents invest in them to target good risk-adjusted long-term returns by investing in companies who are future-proofing their business models against climate risk. Additionally, 62% are targeting a more defensive portfolio with lower risks.

Behind these numbers lie three considerations: global warming is material to a company's business performance; the current generation of risk models is not suited to predicting negative fat-tail far-off risks that have no historical precedents; and markets are beginning to price these risks, especially since the recent collapse of the Pacific Gas & Electric Company after raging fires in California last year. It showed that valuation mirages can often conceal predictable risks until it is too late. So far, only the risks that are visible, especially visceral ones, have tended to attract attention.

This growing focus on the long term is becoming an important feature of passive portfolios in general. As Section 3 shows, the holding periods of various passive vehicles have been rising lately. For example, 86% of our respondents now hold traditional index funds for more than two years. The corresponding figures for smart beta is 73% and for ETFs is 60% (Figure 3.5). At least one in every five respondents expects these periods to rise over the next three years.

They prefer to remain invested in quality assets, so as to gain more by losing less and outperforming over a full market cycle. They are all too aware that valuation mirages can often occur, as evidence shows that capital markets do not recognise predictable risks until it's too late. Their risk measure is no longer the standard deviation of returns but a permanent impairment of capital. Their liquidity needs are no longer dictated by the need for periodic opportunism but by the time profile of their liabilities.

For now, the tracking error that is tolerated for just such an approach remains notably low (Figure 1.4, right chart). It shows that nearly three quarters of our respondents prefer a tracking error of less than 1%. At the other extreme, 6% are willing to accept a tracking error of above 5%, mainly for green bonds focused on energy and transport infrastructure. Examples of benchmark agnostic funds are few and far between – for now.

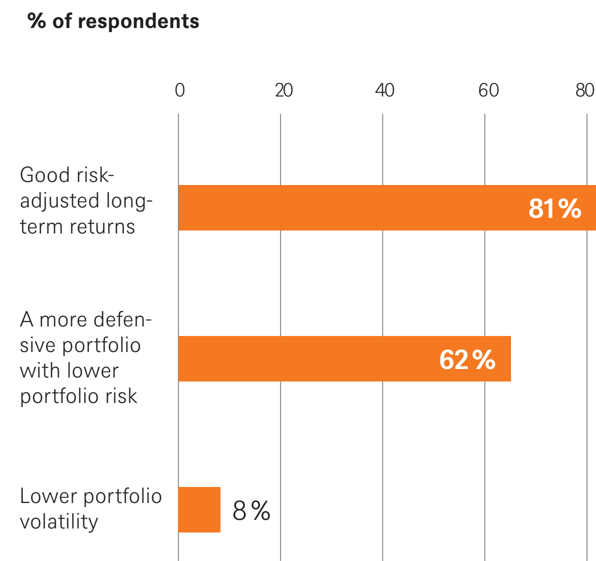
The implied caution primarily reflects the fact that, at this early stage, our respondents are dipping their toes in the water and raising their comfort level about what is, after all, a nascent phenomenon for them. Low carbon vehicles with low tracking errors that don't seek outperformance pretty well deliver as expected. But the reason behind caution is more nuanced, as we shall see below.

"'Time in' the market is more important than 'timing' the market."

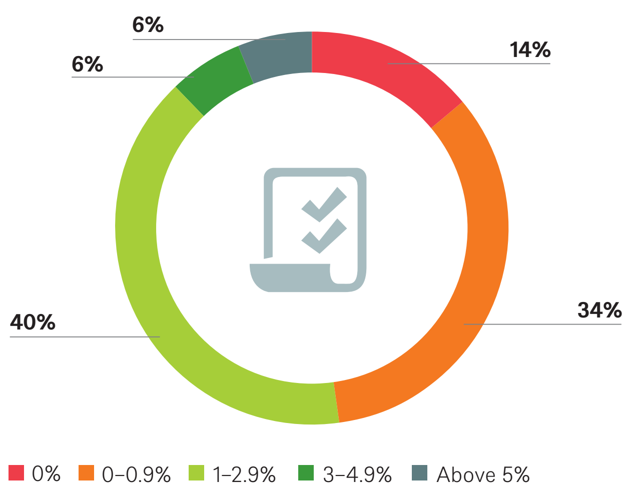
Interview quote

FIGURE 1.4

What benefits are targeted by your pension plan's climate-related investments in general?



What is the extent of the tracking error that your pension plan is willing to accept in your climate-related passive funds?



Source: CREATE-Research Survey 2020

4. It's too soon to judge the outcomes of climate-related passive funds

There is a paradox in the results from Figure 1.4. On the one hand, our respondents see climate investing as a long-term endeavour. On the other hand, they have low tolerance for a high tracking error.

The apparent contradiction is explained by the fact that they see low tracking error as only setting a baseline performance expectation in line with the chosen parent index. However, by reorienting their portfolio to include climate 'winners' and exclude climate 'sinners', our respondents expect to see some demonstrable upside, without sacrificing baseline outcomes. In other words, they are seeking a free option on carbon, which gives an upside as markets start to price in carbon risks and downside protection against capital loss if it does not.

The implication is that the index constructors have to be pretty smart in their choice of constituent companies, if they are to deliver added value on top of baseline benefits.

So, when asked to describe the outcomes of their investment in climate-related passive funds so far, 39% cited 'positive', 61% said 'too soon to say' and 0% cited 'negative' (Figure 1.5, left chart).

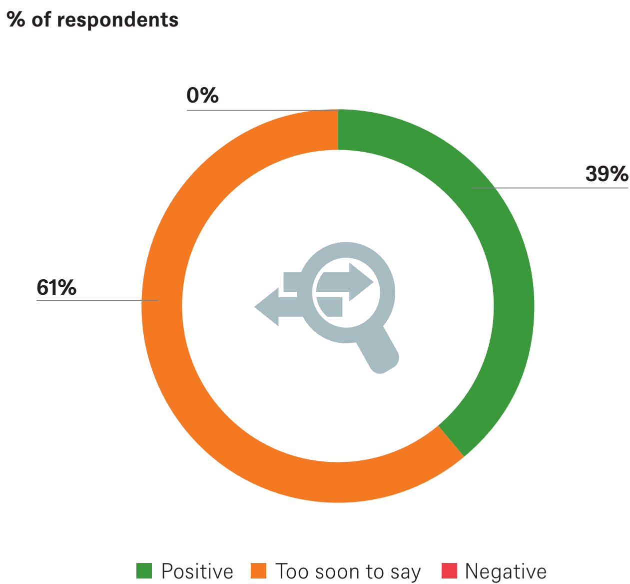
> "Cost is being replaced by stewardship capabilities as the key differentiator, when choosing an index manager."

Interview quote

FIGURE 1.5

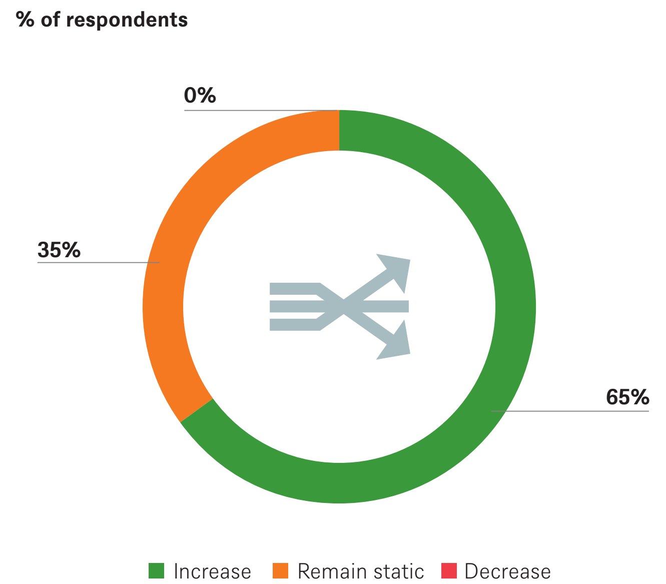
Which of the following best describes the outcomes of your pension plan's investment in climate-related funds so far?

% of respondents



How is this share of climate-related passive investments likely to change over the next 3 years?

% of respondents



Source: CREATE-Research Survey 2020

Those who cited 'positive' included early movers who enjoyed the upside that came from being ahead of the pack. Even after the market correction in March 2020, they were able to retain a part of the upside.

Those who cited 'too soon to say' had sustained drawdowns in their portfolio across the board but have nevertheless retained their allocations as long-term 'lock-aways' or as a device for uncovering portfolio blind spots. This in the belief that, as the global economy suffers an unprecedented recession of unknown duration due to Covid-19, investors will focus on selective themes that may emerge as isolated bright spots in the otherwise fluid investment landscape.

This is further corroborated by expectations of changes in the share of climate-related passive funds over the next three years (Figure 1.5, right chart). 65% expect it to 'increase', 35% to 'remain static' and 0% to 'decrease'.

The positive expectations are predicated on the view that the European Union's action plan on sustainable finance may be delayed, but not derailed, by the Covid-19 crisis. The EU's latest initiative on delivering two landmark benchmarks for equities and corporate bonds has been widely welcomed.

The first of these – called 'The Paris-Aligned Benchmark' – targets a 7% year-on-year reduction in carbon emissions plus a 1.5°C limit to global temperature rises by 2050. It excludes fossil fuel companies.

The second one – called 'The Climate Transition Benchmark' – has similar targets but permits fossil fuel investment as part of the transition process.

> "Companies that reduced carbon footprints the most have outperformed the laggards lately."

Interview quote

Notably, unlike previous benchmark models, these will be overseen by the regulators. They also go well beyond the existing climate benchmarks in one crucial sense: they not only have a carbon-reduction target, but they also have a long-term plan with a clear end goal. Major index providers are now exploring ways to onboard the EU's suggested benchmarks.

However, Covid-19 arrived just as the climate movement appeared to be gathering strong momentum. In 2019, both the UK and France agreed to net zero emissions targets. Greta Thunberg became a household name. Central bankers began to talk about 'climate stress tests' and 'green quantitative easing'. The European Commission promised to deliver a new Climate Law, committing Europe to net zero emissions by 2050. Hence, momentum is unlikely to diminish.

For their part, as shown in Section 2, our respondents are constantly refining their manager selection process by paying special attention to three criteria: managers' track record on the green agenda; their business culture; and their stewardship and voting track record – now a key point of competition (Case study 1c).

Collectively, they are seen as vital: first, in dealing with what is often described as the 'uncertainty of uncertainty' – not knowing how physical and transition risks will evolve to shape market dynamics as it prices climate risks; and second, in ensuring that finance has to give something back to society as well as make a profit.

Case study 1c: Going beyond box ticking and dry data

The question we wrestle with is how do you convert a company's carbon footprint into a simple neat metric, if the math behind it is unreliable?

Hence, we want our passive fund managers to take their stewardship role seriously. Since they cannot walk away from poorly performing companies, they are obliged to stick to what they hold.

So, we expect our managers to exercise an activist role via regular engagement with investee companies – to raise the quality of our beta investments by building up intellectual capital on how climate change is playing out on the ground.

Following the Global Reporting Initiative Standards, engagement needs to focus on narrative disclosure: the real-life stories of challenges, actions and outcomes that lie behind the dry numbers on carbon footprint. As investors, we need a vivid picture of the unfolding reality and progress on the ground with concrete examples.

Rampant greenwashing has shifted the burden of proof to our passive fund managers. They have to go from words to numbers and real-life examples behind them. Narratives can be a powerful influence on investment thinking.

A US pension plan

Suppressing the curve on greenhouse gas emissions

What are the key drivers and blockers?

Pension investors' forays into climate-related passive funds are driven mainly by the belief that global warming is material to a company's business performance as well as its exposure to stranded assets. Investing in companies that are adapting to climate change is likely to generate decent returns. Technological advances that create cost effective green energy and public policies that promote their adoption are also expected to turn climate change into a compensated risk factor over time.

So far, however, allocations to climate-related passive funds are modest in scale. The key barrier has been the lack of a robust template with consistent definitions and reliable data. Most of the available data on corporate carbon footprints are self-reported, raising questions about their reliability. This makes it hard to both spot good investment opportunities and build up a long-enough performance track record. As a result, capital markets have been slow in pricing in climate risks.

'Green' investments have been mainly confined to equities and, to a lesser extent, fixed income and real estate. Their coverage is expected to rise over the next three years, on the whole. Equities were the first asset class to have climate-related indices, when they first emerged thirty years ago and they have been subject to various refinements since then. Equity investing also offers two advantages that are valued by our respondents in their stewardship role: voting at the AGM and year-round engagement.

Three criteria are used in selecting asset managers: first, their capacity and track record in delivering the 'green' agenda of their clients; second, the alignment between managers' business culture and this agenda; and third, their stewardship and proxy voting track record. Greenwashing remains a big concern. The idea that passive funds are merely lazy owners of companies is no longer acceptable. Stewardship is seen as a key point of competition among index managers, as shown by our 2019 survey, *Passive investing: The rise of stewardship.*

1. Key drivers

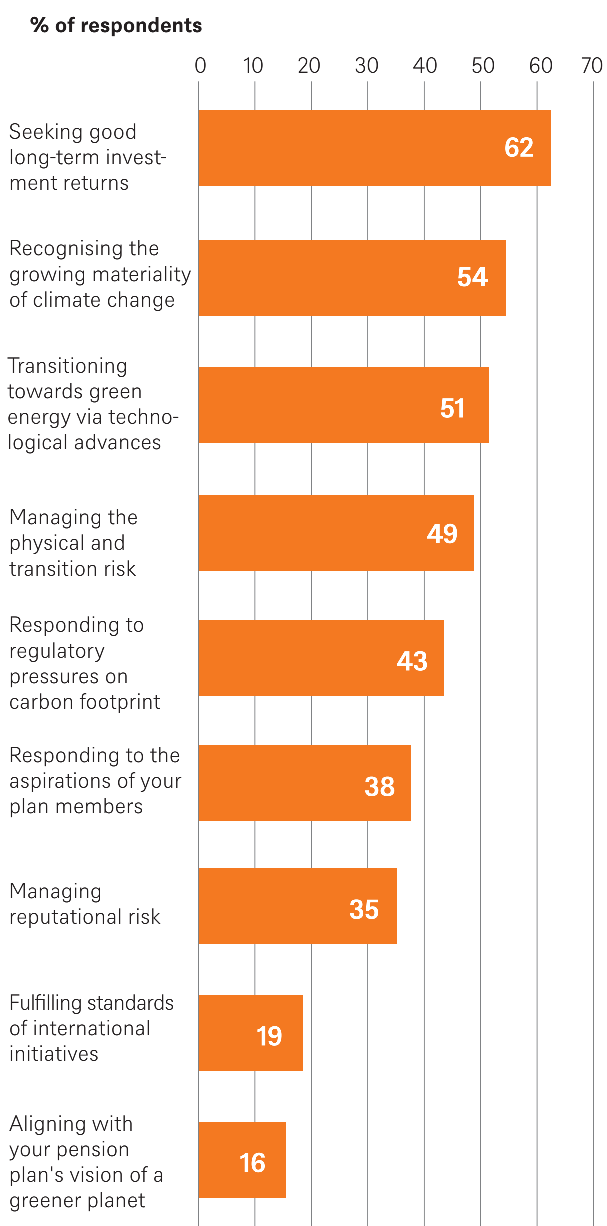
As shown in Figure 1.3 in the Executive Summary, climate-related passive funds come in various guises. They have a moderate range of tracking error to their parent indexes.

Against this background, our survey identified a number of drivers of pension plans' interest in investing in climate change (Figure 2.1). Seven of them stand out, being identified by at least one in every three respondents. Some of them overlap and thus fall into three distinct clusters, as described below.

a) Performance potential

62% of our respondents see climate change as delivering good investment returns in the long term. 54% believe that climate change is increasingly becoming material to how securities are priced

FIGURE 2.1
What is driving your pension plan's interest in investing in climate change?



Source: CREATE-Research Survey 2020

and their value creation. 49% believe that physical and transition risks are emerging and there is a pressing need to manage them. Physical risks arise from extreme weather conditions. Transition risks, in turn, arise from technological advances that will disrupt the business models of fossil fuel producers.

These respondents hold that the transition to a low-carbon world started in earnest following the Paris Agreement. This opens up opportunities to invest in businesses whose potential has yet to be recognised by the markets. As a result, they can expect to harvest good risk-adjusted returns through two avenues.

The first one is via the mispricing of assets, while markets are inching towards factoring in the carbon risk, as highlighted by this year's World Economic Forum in Davos. The assembled business and political leaders envisaged a world of runaway and unimaginable chaos due to extreme weather events, causing wildfires, flooding, hurricanes, typhoons, droughts and crop failures.

Their frequency and severity have increasingly made it difficult for the affected regions to have a V-shaped recovery, as happened in the past. Instead, the regions have been experiencing rising frequency and intensity in the last decade.

Hence, the wheels of change are evident in capital markets. Climate risk is now being priced in in sectors such as power generation where the economics of renewable energy are constantly improving with technological advances and regulatory push.

"Success in investing is often as much about avoiding losers as picking winners."

Interview quote

That leads us to the second avenue for harvesting good returns, as identified by our respondents: the gradual rise of climate change as a compensated risk factor.

Many of our respondents have long remodelled their portfolios by allocating assets to risk factors like quality, value, size, low variance and momentum; as popularised by the five-factor Fama–French Model. This in the belief that market-beating returns originate from simple systematic exposure – conscious or unconscious – to these or other factors.

It is now believed that climate change is emerging as a separate compensated risk factor in Europe; but not in the US or Asia Pacific – yet. The issue has not been clear cut. It has aroused debate, even though only 6% of our respondents believe that climate risk is captured by other risk factors, as shown later in Figure 2.2.

Even so, a pragmatic consensus is emerging: namely, even if factors like quality and low variance are good investible proxies for climate risk, the inclusion of the latter in a portfolio could still deliver a key side benefit: a more defensive portfolio (Case study 2a).

b) Regulatory push and innovations

Nearly 200 countries signed the Paris Agreement in 2015 to limit global warming to less than 2°C above the pre-industrial level: the ceiling beyond which irreversible damage and extreme weather events will kick in, according to most climate scientists. The signatory countries have submitted plans to reduce greenhouse gas emissions in so-called nationally determined contributions.

In hindsight, two measures enacted in 2016 have proved game changers: Article 173 in France's Energy Transition Law, requiring mandatory carbon reporting for companies as well as pension investors; and California's Insurance Commissioner's ruling that insurance companies doing business in his state have to divest from companies that derive 30% or more of their revenues from thermal coal holdings.

Case study 2a: The changing ecosystem of markets

The ecosystem of financial markets has traditionally been dominated by a raft of measurable metrics: P/E ratio, price-to-book, debt-to-equity, leverage and earnings.

However, such measurable indicators are now being burnished by observable factors – such as floods, droughts and wildfires – to show that markets' ecosystems can no longer ignore the harsh fact: that investment returns now crucially depend on sustainable economies and sustainable societies.

The abrupt bankruptcy of Pacific Gas & Electric Company after California's deadly fires last year was a salutary reminder.

In our portfolio, we use risk factors that have been tested by time and events. But with climate risk, we can't afford to wait for the performance data to emerge, even though it is correlated with the traditional quality factor.

The reason is that the traditional risk factors do not, in our view, capture long-horizon negative fat-tail risks. At the very least, the inclusion of climate risks gives us a more defensive portfolio. And in the process, their market values have been rising.

But we think it also ensures that our investee companies are repositioning themselves against extreme climate events or stranded assets, as we migrate towards a low-carbon future.

A French pension plan

"The European Union's 'Green Deal' is a potential game changer."

Interview quote

Since then, the European Union has delivered legislative proposals designed to promote green finance for investors and their asset managers.

At its core, this package seeks to embed environmental, social and governance factors into the investment process and risk models. It also aims to deliver full transparency around outcomes; along with a clear alignment of interests across the entire investment value chain.

Lately, the EU has gone a step further and proposed two landmark climate benchmarks for equities and corporate bonds, as described in the Executive Summary.

For its part, the Financial Stability Board – a transnational group of regulators – has assembled a task force to work on standards for climate reporting by companies. They have issued guidelines to companies and their investors to provide climate-related information in their annual filings, along with actions being taken to mitigate climate-related risks.

This dovetails with initiatives by the US Sustainability Accounting Standards Board; as pension regulators worldwide now seek to ensure that climate risks are factored into investment portfolios. Unsurprisingly, therefore, 43% of our survey respondents cite regulatory pressures as a driver in Figure 2.1.

In a chain reaction, such pressures are not only driving investor behaviours, they are also promoting technological advances towards fuel efficiency and alternative renewable sources of energy, according to 51% of survey respondents.

Such advances centre on renewable power and electric grids. They also focus on electric vehicles and the development of more efficient power storage batteries.

With such concerted efforts, it is hard to believe that the ecosystem of financial markets will not pivot decisively towards climate risks over time.

c) A new narrative for a new age

Finally, two other noteworthy drivers of climate-related investing in Figure 2.1 are: responding to the aspirations of plan members (38%) and managing reputational risk (35%). Both rest on the rise of a new societal value system.

Under it, public awareness of the role of human activity in global warming has been increasing and with that has come rising expectations of what people want from companies and their shareholders. Via a raft of global initiatives, pension plans are now enjoined to exercise a 'duty of care' in the whole sphere of climate change.

The media has been quick to turn the spotlight on abuses that tarnish the reputation of the companies concerned and their shareholders alike.

The latter are often painted in social media as financial bandits with no regard for their social responsibilities, as happened with two high-profile disasters in the US: BP's Deep Water Horizon oil spill in the Gulf of Mexico in 2010 and Volkswagen's emission cheating scandal in 2014. Both events served to underline an important point: even global brands can be exposed to existential risks and inflict reputational damage on their shareholders.

As societies have evolved and progressed, new forms of risk have emerged. Rising concern about climate change is the latest and most severe that modern societies face.

"Nuclear power is classified as 'clean' in France and 'risky' in neighbouring Germany."

Interview quote

> "Before 2025, governments may be forced to tax fossil fuels to the point where it is no longer economically viable to develop them."

Interview quote

That apart, as the post-war Baby Boomer generation enters its golden years, the membership of pension plans will be dominated by millennials who will be the largest employee group in all pension markets in this decade. Various research studies show that, to over 80% of them, what matters most is not investment returns today or tomorrow but those over their lifetime. These need sustainable societies as much as sustainable economies.

2. Key blockers

That the identified drivers have created strong tailwinds behind climate-related investing is not in doubt; however, the size of allocations has been moderated by a number of factors (Figure 2.2). Four of them were identified by at least one in every three survey respondents. They fall into two clusters.

a) Climate change remains an inexact science for investors

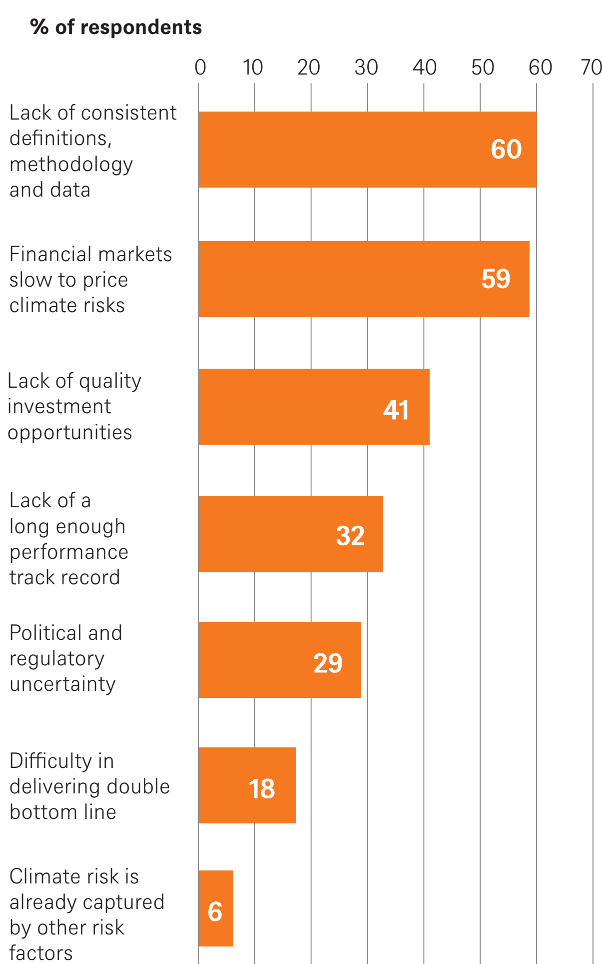
60% of our respondents cite the lack of a robust template with consistent definitions and reliable data as a major constraint.

To start with, there are now over 150 major data compilers worldwide, using proprietary scoring methods that often yield radically different assessments of the same company.

Their ratings differ due to divergence in: the scope of the data they cover; the methods used to compile the data; and the weights accorded to different dimensions of the data. Nor are data vendors subject to the same regulatory scrutiny as the traditional rating agencies.

FIGURE 2.2

What are the factors currently constraining your pension plans from investing in climate-related funds?



Source: CREATE-Research Survey 2020

Furthermore, most of the data are self-reported by the companies covered, with no audits by independent assessors in many cases. Reporting is voluntary. The result is whitewashing: companies only reporting when they have something favourable to say. The problem is reportedly easing under regulatory pressure.

Data vendors are forced to rely on the 'big data' revolution to become less reliant on voluntary corporate disclosure to ensure that companies are doing what they say they are doing, duly recognising the 'noisy' nature of big data.

Finally, data vendors have yet to develop a robust methodology on three foundational concepts that lie at the heart of climate change investing: materiality, intentionality and additionality, as described in the Executive Summary.

Unfortunately, the challenges don't end there. There are other substantive difficulties to be overcome at the asset management end. These arise when creating mathematical models that aim to detect investment opportunities as well as risks in global warming in what is essentially a dynamic phenomenon with numerous moving parts.

At each stage of the exercise, asset managers have to make assumptions, which may or may not be correct. The underlying causal relationships they seek to detect may or may not remain stable. The resulting forecasts they seek to build on may or may not be robust. The whole process is like climbing a steep learning curve, relying mostly on learning-by-doing. But there are investors who are making a virtue of necessity (Case study 2b).

"In fixed income, issuers' disclosure on climate change remains very poor, apart from a few instances of excellence."

Interview quote

Case study 2b: Taking a contrarian stance

We take a pragmatic view that data problems are nothing more than disguised opportunities to deliver alpha by exploiting the resulting market inefficiencies.

Given our size and reach, we have three advantages: a deep talent pool, practical expertise in shareholder activism and membership of global initiatives such as Climate Action 100+ and the Carbon Disclosure Project.

We use these strengths to filter out noise from the available data and use them to construct climate-related customised indices in our passive portfolio, in partnership with our passive managers. We believe that such inefficiencies will be a key source of alpha for high-conviction investors like us that have long thrived on first mover advantage.

At the dawn of stock markets, the quality of corporate data was weak and sparse. But, over time, a new infrastructure of data, standards, expertise and metrics has evolved.

We expect a similar evolution around climate change investing.

However, it would be naïve to assume that better data will make life easier or enable managers to pick the right stocks. After all, despite stringent regulation around the authenticity of corporate financial data in all market jurisdictions, they still take contrary positions based on the same information about the same company.

A Dutch pension plan

b) Financial markets are slow to factor in climate risks

History shows that financial markets rarely price in big outcomes until they are faced with them.

59% of our survey respondents believe that markets are slow to price climate risk (Figure 2.2). 41% say that there is a lack of quality investment opportunities. And 32% state that the short history of climate-related investing has not built up a long-enough track record to inspire confidence. Behind these numbers lie three explanations that emerged from our post-survey interviews.

First, since the 2008 crisis, markets have been overly distorted by the central banks' quantitative easing programmes. These have suppressed volatility and effectively put a floor under asset values. The 24-hour news cycles have shortened investors' decision horizons, putting more emphasis on the here and now.

They have also undermined markets' historical role in channelling people's savings to enterprises that can create wealth, innovation, jobs and skills. Rising short-termism risks turning investing into a chase for the next rainbow.

The time-honoured notions of risk premia, time premia and mean reversion have been progressively sidelined. The market correction during the Covid-19 crisis is expected to reverse the trend, as investors have realised that investing is essentially a long-term game in which true value always triumphs. Artificial boosts to asset prices from monetary authorities have always ended in tears.

"Markets still underestimate the risks that extreme weather events pose."

Interview quote

The second point to emerge from our interviews is that, as fiduciaries, many pension trustee boards are enjoined to invest in strategies that have been tried and tested by time and events. Besides, many plans lack the governance structures and skill sets to exploit the prime mover advantage associated with climate risks.

The final point to emerge was the role of governments that were signatories to the Paris Agreement. They have been too slow to implement the required carbon pricing to a level that is high enough to slow down the pace of global warming.

The latest available data from the OECD shows that, at the current rate of progress, the prevailing prices will only cover the cost of carbon emissions by 2095. The current pace is simply not fast enough to accelerate innovations in renewable energy. In this context, the withdrawal of the US from the Paris Agreement is viewed as a major setback, even though some individual states in the union have decided to go it alone.

3. Key asset classes

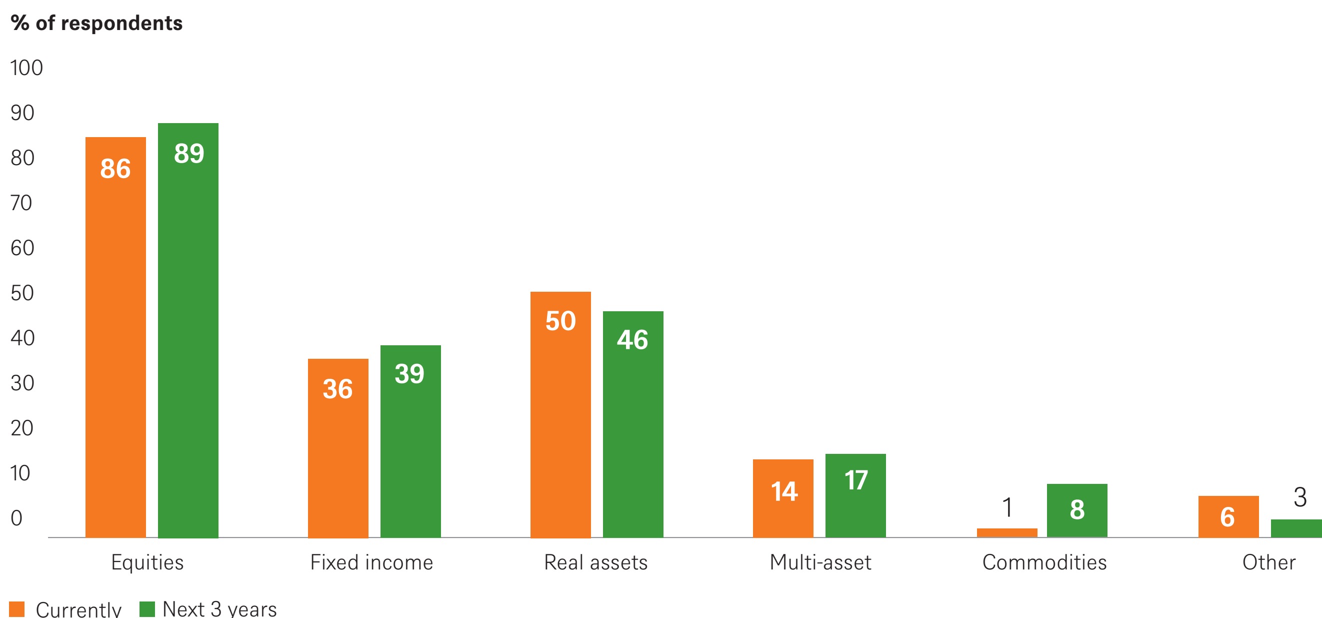
In light of the blockers identified in the last subsection, it is clear that climate-related investing remains a nascent phenomenon – for now. That is further corroborated by its asset class coverage (Figure 2.3).

So far, three asset classes have attracted notable levels of allocations among our survey respondents: equities, fixed income and real assets. Each is considered separately below.

a) Equities

Equities have been the most favoured asset classes, with 86% of respondents using them as a vehicle to invest in climate change. The figure is likely to rise to 89% over the next three years.

FIGURE 2.3
Which asset classes are currently covered by your plan's climate-related investments in general and which ones will be covered over the next three years?



Source: CREATE-Research Survey 2020

This pole position is owing to a number of factors.

To start with, the mandated transparency and liquidity of equity markets make them an ideal vehicle to pursue new investment themes. In the last decade, the asset allocation approaches of pension plans have undergone a fundamental change.

One of them has seen the rise of thematic investing to pursue selective growth points in the global economy, amid fears about secular stagnation due to rising global debt. Having capitalised on two previous themes in the past – emerging markets and technology – via equity investing, pension plans have a relatively high comfort level about pursuing climate change as their next theme.

Another factor favouring equities has been the advantages they offer investors who take their stewardship role seriously – proxy voting, attendance at the AGM and year-round conversations with investee companies, as we shall see later.

b) Fixed income

In contrast, fixed income investing does not offer the same opportunities. It relies on an overly quantitative process that centres on interest rates, inflation, credit quality and liquidity risks. These have made it harder to embed ESG criteria and engage with bond issuers compared with equity investing.

Beyond conversations with issuers at the initial screening stage, some pension plans are using proprietary sovereign credit models to identify latent climate risks which may or may not materialise over time. Others are using external sources such as credit rating agencies and international bodies like the World Bank and the International Monetary Fund to identify latent climate risks.

Unsurprisingly, therefore, 36% of our respondents rely on fixed income as a vehicle for climate-related investing. This is likely to rise to 39% over the next three years.

> "The biggest carbon emitters have the greatest capacity for improvement. It is vital to engage with them"

Interview quote

c) Real estate

Finally, 50% also use real assets as part of passive vehicles: a number that is likely to fall to 46% over the next three years. This modest decline owes to the negative impact of the Covid-19 crisis on one key component of this asset class: real estate. The crisis has hit the retail (non-food) and leisure sectors disproportionately. Both will require extended periods of 'rent holidays' if they are to survive. Some may not make it.

Additionally, with so many people being able to work from home during the crisis, many service sector industries are likely to review their need for office accommodation post-coronavirus.

4. Key manager selection criteria

Having identified the key drivers, key blockers and key asset classes, our survey respondents finally went on to identify the selection criteria they use to choose asset managers for their climate-related investments in passive funds (Figure 2.4, first chart).

a) Track record on green agenda

As we saw in subsection 2 above, for investors, climate change is an inexact science for two reasons.

Data challenge is one of them: sorting signal from noise remains more an art than a science. Although progress in this area has been exponential, such challenges are likely to persist in the short term because the task is huge.

The second reason is what is often described as the 'uncertainty of uncertainty': knowing how physical and transition risks will evolve to reshape market dynamics as it prices climate risks.

Hence, when asked the extent to which a manager's capacity and track record to deliver its clients' green agenda matters, 70% of our respondents cited a 'large' extent and a further 22% cited 'medium' extent. That is why the engagement track record of managers has become so important, as we shall see later on.

The underlying reason is simple. There have been widespread concerns about 'greenwashing': shortcuts taken by some asset managers by repurposing their old funds with an ESG label, without reorienting the underlying investment process. It is largely attributed to the data problems mentioned earlier. These are likely to ease over time, with concerted actions now in progress by data vendors, index providers, asset managers and listed companies. They aim to improve data quality and their definitional consistency within a widely accepted taxonomy. The tighter regulatory oversight – especially in Europe – is hastening the process.

b) Business culture

When asked to what extent geographical domicile and business culture matter in manager selection, the views were somewhat divided: 31% cited a 'large' extent, 26% cited 'medium', 23% cited 'small' and 20% cited 'not at all' (Figure 2.4, middle chart).

In our post-survey interviews, one point stood out: those citing 'large' or 'medium' extent were focused on business culture; on the other hand, those citing 'small' or 'not at all' were focused on geographical domicile.

They also underlined two points.

Investing in climate change requires a corporate DNA built on the belief that the old ways of investing that ignore negative externalities from

"Our index manager has made a public commitment to vote against boards of companies that are slow on decarbonisation."

Interview quote

climate change will soon lose relevance in a changing world, as global warming comes to dominate investors' and governments' agendas.

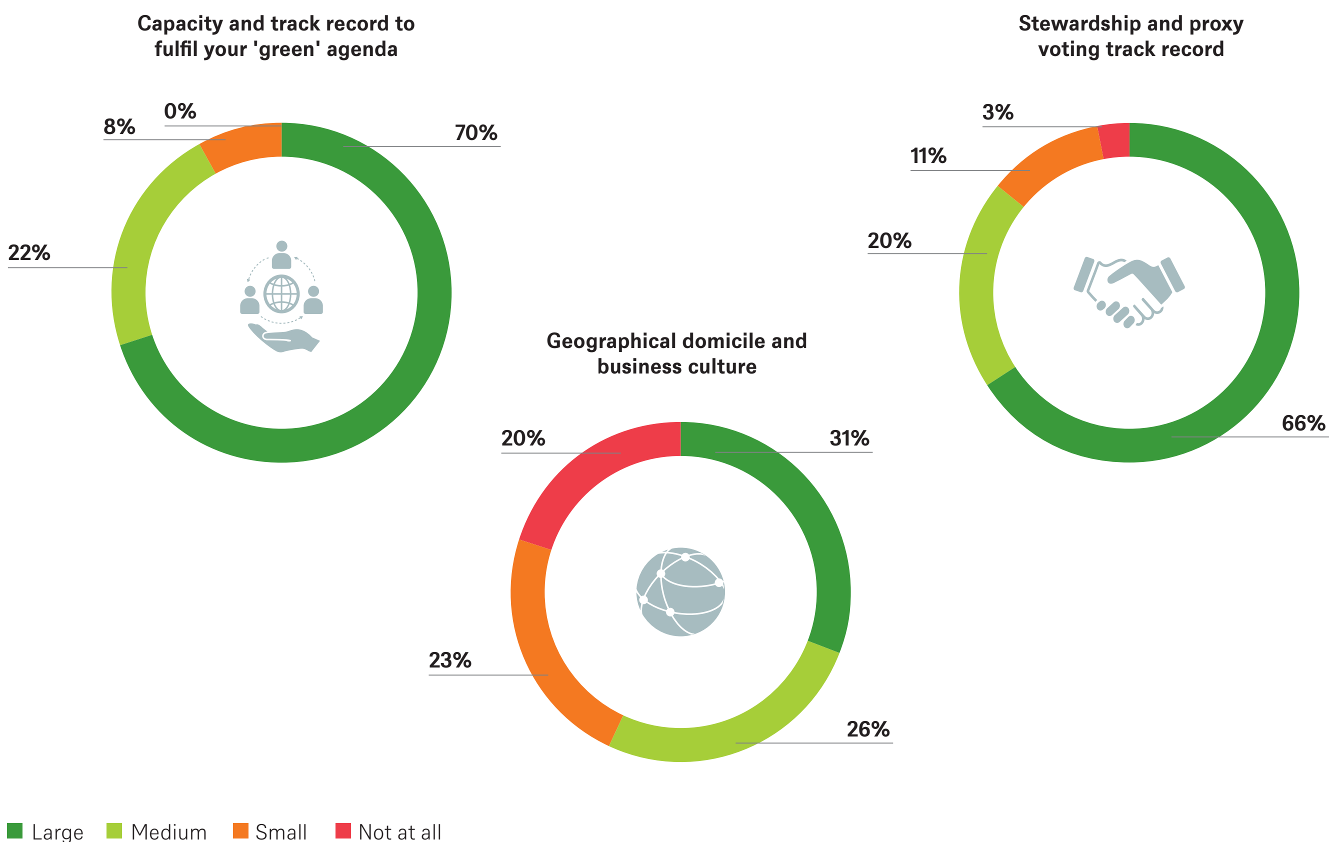
It is also based on the belief that the requisite business values, investment processes and skill sets required by climate-related investing need to be in place, so that asset managers are equipped to deliver what they promise. Good stewardship practices backed by regular reporting are also vital.

Thus, the value proposition of climate-related investing needs to be embedded in the cultural fabric of asset managers' business models. It should reflect the fact that finance has to give something back to society as well as making a profit.

FIGURE 2.4

When choosing your asset manager for investing in climate change, to what extent do you take into account the following aspects?

% of respondents



Source: CREATE-Research Survey 2020

c) Narrative disclosures via stewardship

In the past, providers of passive funds were seen as either putting their assets on auto-pilot and merely focusing on financial returns, or 'robo-voting' by automatically following the recommendations of proxy advisers on how to vote on various issues from executive pay to director re-elections at the AGM.

However, with the rise of interest in ESG issues, passive fund providers are increasingly enjoined by their pension clients to take a more activist stance. This much is clear from last year's DWS–CREATE survey report Passive investing 2019: the rise of stewardship. It is also corroborated by this year's survey (Figure 2.4, third chart).

It shows that the quality of stewardship and in particular engagement and proxy voting track record are now taken into account in manager selection: 66% of our survey respondents cited that it was to a 'large' extent and 20% was to a 'medium' extent. Investors are demanding narratives behind the dry numbers, as shown in Case study 1c in the Executive Summary.

The Task force on Climate-related Financial Disclosures (TCFD) has created a framework for best practice standards to help companies to identify, disclose and manage climate-related risks that are material to their business, and report this information regularly to their shareholders.

Our survey respondents now want their asset managers providing passive as well as active funds to vote against management that was not making acceptable progress on climate change using the TCFD template. But they want real life narratives on progress on the ground, as shown in Case study 1c in Executive Summary.

"The future is no longer what it used to be."

Interview quote

3

Passives remain anchored in the core portfolio

How will the market dislocation affect passive funds?

The Covid-19 pandemic has plunged the global economy into deep recession at a record pace. Its depth, severity and duration are impossible to predict while pension investors remain caught in the eye of the financial storm. Despite shrinking portfolios, four structural aspects of passive funds do not appear to be heavily affected, at least, not so far: coverage, breadth, depth and growth.

First, the average share of passive funds in pension portfolios has held up, at around 31% among our survey respondents – marginally down from the past two years. That said, the market falls so far appear to have hit traditional index funds disproportionately, while ETFs, smart beta and segregated accounts have seen their shares rise as the overall size of the portfolios has shrunk.

Second, the base of passive funds is getting broader, suggesting discernible compositional shifts. Traditional index funds still retain their pole position as the most-favoured passive vehicle for the third year running. However, growth dynamics continue to favour smart beta, ESG strategies and other thematic strategies – albeit from a low base – with equities remaining the favourite underpinning asset class.

Third, this broader base is getting deeper, as asset holding periods continue to be extended over longer time horizons. This in the belief that 'time in' the market matters more than 'timing' the market. Thus, passive funds are becoming part of a broadly diversified portfolio – alongside active funds – that continues to rely on buy-and-hold investing and mean reversion. The long-established shift towards passives will continue once the worst of the current volatility is over.

1. The Covid-19 crisis

The speed, ferocity and scale of the market downturn in March 2020 was unprecedented. Indiscriminately, like a tsunami, it hit every asset class, every market, every geography and every client segment. Over five years of capital gains were wiped out in less than three weeks. Passive funds were no exception.

At this stage, it is difficult to know how they will fare in the end, while markets remain buffeted by unusual volatility. The near-term outlook remains shrouded in mystery.

Before the crisis, critics of passive funds had contended that the reality of their relentless rise in the last decade would be best judged not by the inflows when markets were rising, but by their resilience when the inevitable correction came.

However, the sheer speed of the market fall in March made it hard to make major portfolio adjustments. By the time most pension plans had realised its enormity, it was too late to sell and too early to buy.

Indeed, the crisis hit pension finances with a double whammy: tumbling asset values from falling markets and ballooning liabilities from falling interest rates.

"You have to treat the current turmoil in the markets like 'permanent white water': you are partly in control but you have to be skilled at navigating the rapids and going with the flow."

Interview quote

Against this backdrop, two related points emerged from our post-survey interviews with respondents regarding their approach to passive investing. They reveal pragmatism as much as caution.

First, constructing a portfolio is not a binary active-passive choice for most pension investors. Nor is it wise to lionise either just because it is riding high at any time, as was done with passives by the media before the current crisis. There is no single investment style that holds in every market environment.

Second, for their part, prudent investors have been seeking to combine the respective strengths of the two styles while compensating for each other's limitations, as was highlighted in our 2018 survey report, *Passive investing: reshaping the global investment landscape.*

It showed that passive investing is increasingly becoming part of the core portfolio and actively managed funds are becoming strategic satellites. Under this model, some asset classes are typically – but not always – accessed via low-cost passives, while others have the potential for excess returns and are best suited to active management.

For example, actives make sense in highly inefficient markets where managerial skills are essential. Passives make sense for highly efficient asset classes where systematic strategies work better. Ultimately, the optimum combination depends upon the problems that need to be solved.

"In the deep liquid markets of America and Europe, alpha opportunities will always remain rare."

Interview quote

Against this background, the rest of this section presents the results of our 2020 survey. Where possible, it also offers a comparison with comparable data from our 2018 and 2019 surveys to discern the underlying patterns of change since this DWS–CREATE series of annual surveys first started. Where possible, the analysis distinguishes between two sources of change: those due to secular shifts and those due to the latest market falls.

2. Expanding scope in a shrinking overall base

The survey data reveal three differential patterns: some passive vehicles have become more popular than others, some have seen reductions in their portfolio share, and some have waxed and waned in terms of their asset class coverage. These patterns are considered separately below.

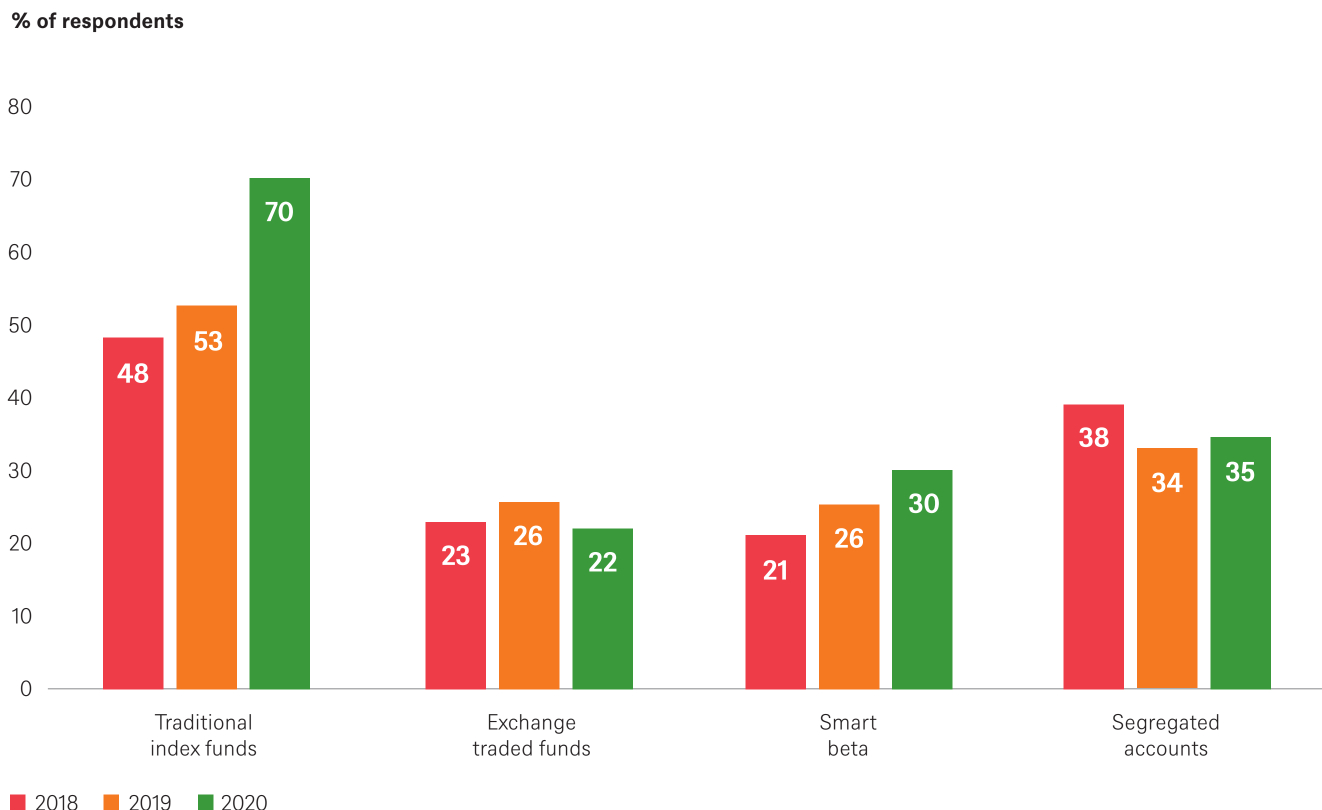
a) Changing popularity

Currently, cap-weighted traditional index funds remain, far and away, the most popular vehicle in passive investing (Figure 3.1).

Their popularity rose over the past two years when financial markets were experiencing strong upward momentum; especially in 2019, when the US Federal Reserve started cutting rates after the major market dislocation in 2018 Q4.

Three factors have long underpinned their popularity: simplicity, convenience and costs. Indeed, pensions plans have been increasing their allocations since 2005, and accelerating them in the last decade.

FIGURE 3.1
If your pension plan already invests in passive funds in general, what is your preferred vehicle?



Source: CREATE-Research Survey 2020

Another strategy gaining popularity is smart beta, cited by 21% of respondents in 2018, rising to 30% in 2020. Essentially, it is viewed as a device to squeeze more juice out of existing assets, as will be explained later on.

Finally, two other vehicles show no discernible trend: ETFs and segregated accounts.

Taking them in turn, ETFs are viewed as an easy route into an asset class without having to pick individual securities on the part of investors. They are also seen as a cash equitisation tool that parks excess money that would otherwise languish in a near-zero interest rate bank account. Above all, they are seen as the perfect vehicle for executing risk-on/risk-off trades as and when the prevailing volatility regime changes.

Finally, segregated accounts have been favoured mainly by large pension plans who want their investments tailored to specific guidelines in terms of asset classes and their risk profiles within a ‘discretionary mandate’. As such, their appeal is confined to large plans, especially those exposed to insurance-type regulatory regimes, which require a valuation approach different from the familiar mark-to-market rules.

b) Changing shares

Over the period 2018-20, the share of passive funds in the overall portfolio has mildly fluctuated just north of 30% (Figure 3.2). The changes reflect two considerations: both the entire pension portfolios and their constituents have taken an indiscriminate hit in the market turmoil at the time of writing this

report in April 2020. As for individual components of passive funds, the story is more nuanced.

With equity markets bearing the brunt of the recent hit, it is unsurprising that the share of traditional index funds – which also happen to have a large equity component – has stopped rising from previous years at 24%. In part it also reflects the fact that 2019 was a banner year for equities worldwide.

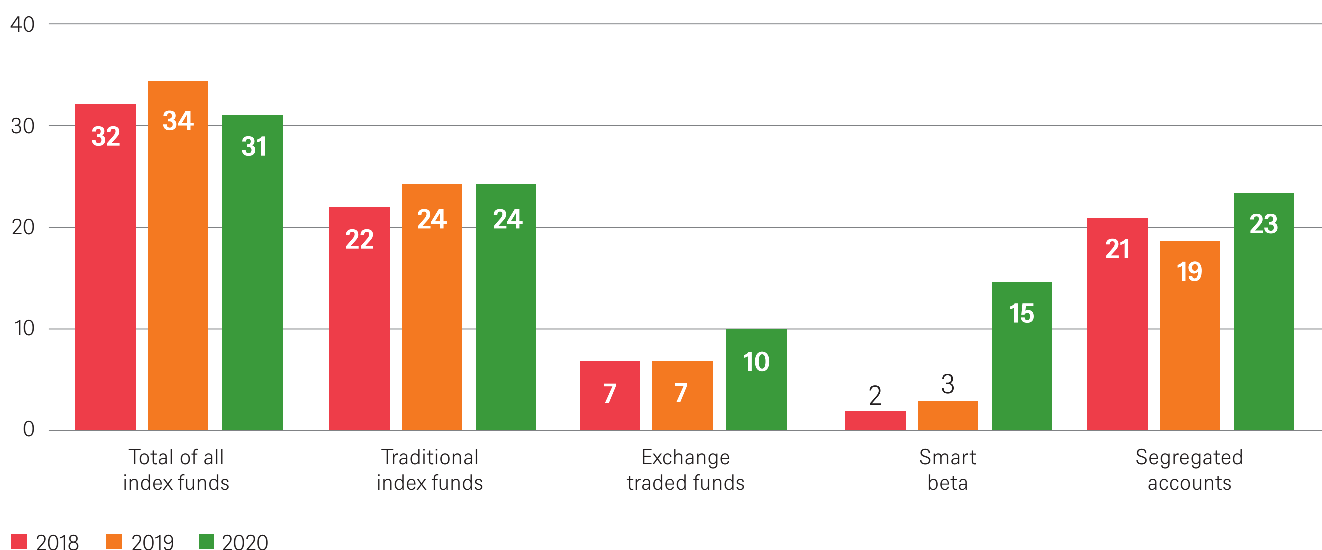
With the share of traditional index funds falling, the share of other vehicles has experienced a rise, partly because of the compositional effect and partly from a secular increase in allocations. The separate effects proved hard to quantify.

ETFs are a case in point. The pension plans' allocation has seen an increase in 2020 to 10%. They are deemed to concentrate on narrow market segments. Also, they are deemed more suitable for short-term investors with high trading activity. On the plus side, they are also seen as the perfect vehicle for executing risk-on/risk-off trade in this prolonged era of volatility.

Smart beta funds are another case in point. They are being favoured by those pension plans who worry that cap-weighted indices invariably become bloated because, by their very nature, they overweight expensive companies to the detriment of inexpensive companies that are not in the indices.

FIGURE 3.2
What is the approximate percentage share of your passive allocation in your pension plan's total portfolio currently?

% of respondents



Source: CREATE-Research Survey 2020

"Markets are cyclical. It is unwise to project the here and now into the future."

Interview quote

"Timing the market is a fool's errand. We don't have the nimbleness and skill sets to engage in it."

Interview quote

In contrast, smart beta seeks to harvest risk premia such as quality, value, low variance and momentum. By controlling factor exposures, smart beta aims to improve risk-weighted returns. By beating the cap-weighted indices, they also seek to deliver alpha. On the flipside, their periodic rebalancing can drive returns, but it can also be costly and erode returns (Case study 3a).

c) Changing asset class pattern

Figure 3.3 presents the changing asset composition of passive funds over the period 2018-20. A number of points are noteworthy.

First, and foremost, equities have been the dominant asset class that passives have come to rely on, but this reliance has crept up each year: from 82% in 2018 to 89% in 2020. The main reason is that equity markets have become progressively more informationally efficient over the years.

Since 1960, the number of asset managers with highly qualified staff has increased exponentially; creating an overcrowded field in which everyone has to run faster just to stand still. Whatever its size at any time, alpha has to be shared between a growing number of players.

The proliferation of technology has caused an information explosion ensuring that all the players get the same information in real time. Beating the indices has proved ever harder in the deep liquid markets of America and Europe.

Another noteworthy point applies to fixed income. First, its coverage is notably lower than that of equities. The reason is that, unlike active equities, active bond funds have historically outperformed their medium passive peers, as confirmed by Morningstar data. The reason is simple: around 50% of the global fixed income market is dominated by central banks, commercial banks and insurance companies.

Case study 3a: Smart beta as a defensive play

Smart beta has been one of the bright spots, notching up compound annual growth in AuM of around 20% in our portfolio in the last five years.

Under traditional index funds, stocks that might not be bought solely on their own merits are lifted by package buying. On occasions, this meant that the index premium rose simply because markets became overvalued and overcrowded, not because of rising intrinsic value.

Nevertheless, the performance of smart beta has yet to exceed that of the broader market. Underlying risk factors such as value and quality have underperformed in the past five years.

One reason is that by attracting a new wall of money, the factor premia has eroded and diluted the returns. Besides, a broader index like the S&P 500 has been largely driven by a narrow club of superstar stocks in the last decade, especially the tech giants like FAANG.

The more fundamental reason, however, is that these factors have a beta of less than one and tend to underperform in a bull market and outperform in a bear market.

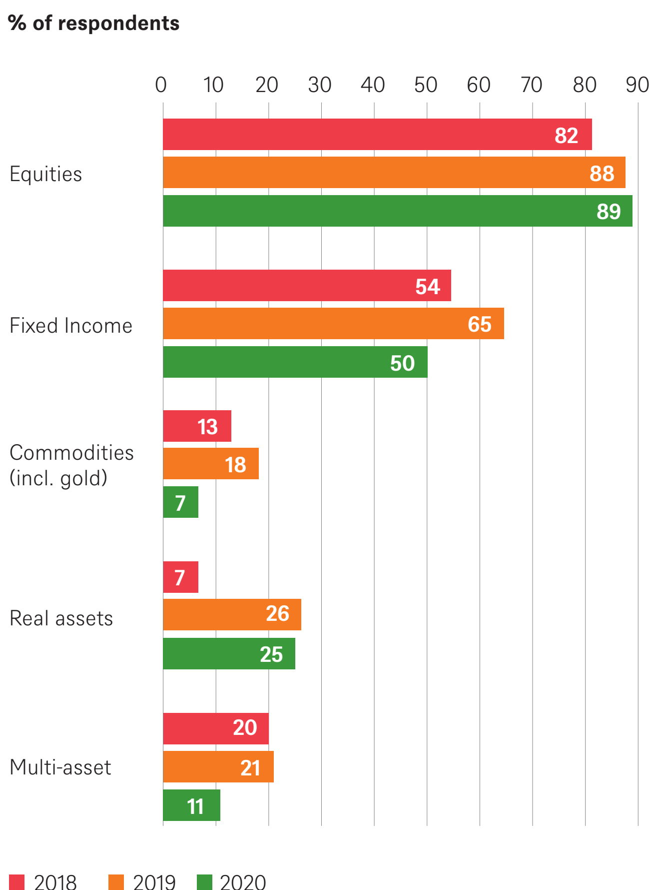
For a long-term investor like us, this is vital. We need to have a mix of strategies that perform at different market phases. For us, smart beta is essentially a defensive play, offering time-based diversification.

A UK pension plan

FIGURE 3.3

Which asset classes are currently covered by your plan's investment in passive funds?

% of respondents



Source: CREATE-Research Survey 2020

They are subject to various accounting and regulatory rules regarding their holding periods and the quality of their paper. That makes them forced sellers of 'fallen angels' resulting from the periodic downgrading by rating agencies and forced buyers of quality high-coupon bonds. This creates opportunities for active managers.

Another point about fixed income is that its coverage has fallen to 50% in 2020 because of fears about liquidity risk during the current market dislocation, in response to new regulation such as the 'Volcker' Rule and Mifid II, in the wake of the 2008 crisis.

By disallowing investment banks to engage in proprietary trading in fixed income, these measures can potentially hit liquidity if the current crisis spreads to credit markets via large-scale defaults inflicted by a severe recession.

The final noteworthy point applies to real assets. After a step increase in 2019, coverage tailed off to 25% in 2020. The main reason centres on the uncertainty around the short-term impact of the crisis on real estate in the retail and office sectors.

Looking ahead over the next three years, therefore, only two asset classes are likely to experience an increase in their coverage: equities and real assets (Figure 3.4).

Equities are likely to benefit from a long-established trend under which markets are becoming informationally efficient.

In turn, real assets are likely to benefit as ever more pension jurisdictions allow defined contribution plans to allocate to real assets in their portfolios – via passive as well as active funds.

d) Rising holding periods

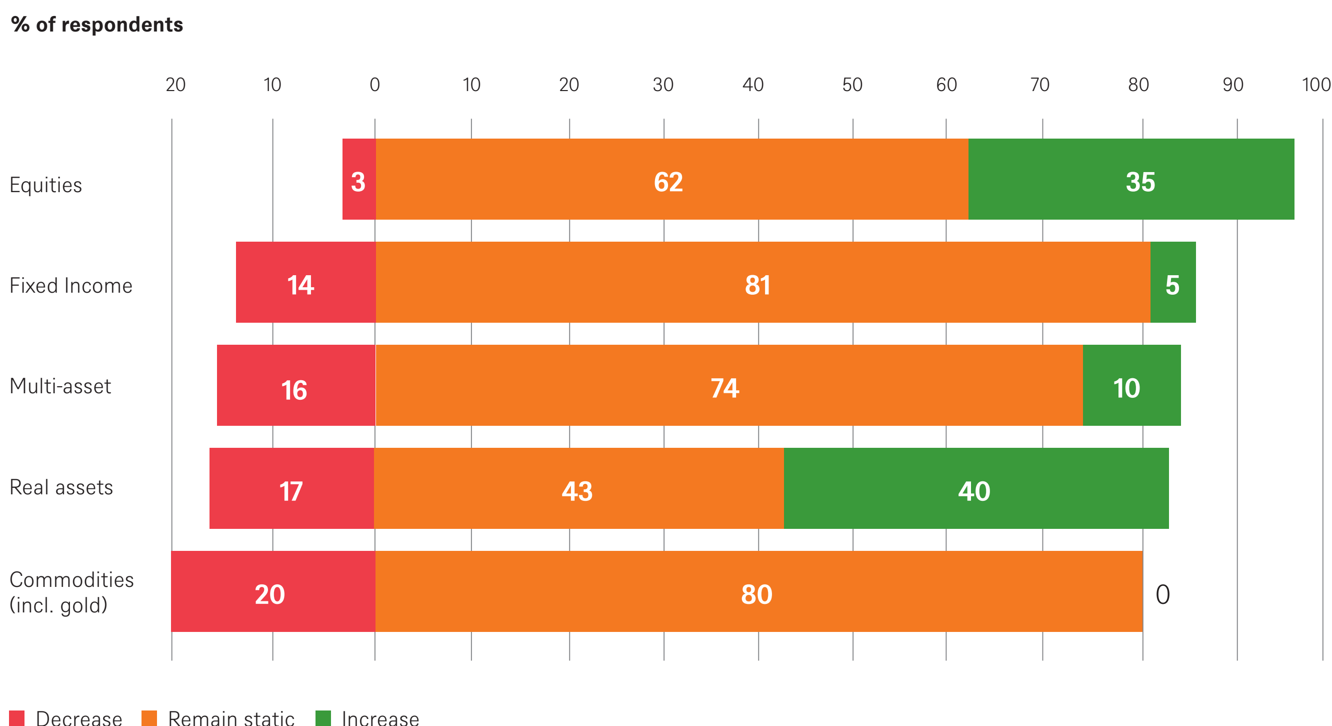
In today's digital age, some pension investors can get too preoccupied with the here and now, while losing the wider perspective.

To stay focused, therefore, they continue to operate on three guiding principles.

To start with, volatility will be the norm. The Covid-19 crisis is deeper, darker and scarier than anyone imagined. However, timing the market is difficult: it requires nimble governance and deeper skill sets than most plans currently have.

Furthermore, it is essential to identify new risks and hedge them via a broad palette of assets. Diversification must remain the cornerstone of investing – especially one based on risk factors, not asset classes.

FIGURE 3.4
How is the coverage of the below-mentioned asset classes likely to change over the next three years?



Source: CREATE-Research Survey 2020

Finally, and most importantly, investment returns will remain volatile, unpredictable and time varying. Hence, it pays to extend the holding periods to allow risk premia to materialise. Mean reversion will continue to apply to both markets and asset classes. Longer holding periods can also confer two extra benefits: reduce transaction costs and enhance total returns by allowing compounding to work on dividends.

Against this background, our 2020 survey identified the current pattern of holding periods (Figure 3.5, upper panel).

It shows that while the pattern varies across the four vehicles, in each case, the dominant time horizon is greater than two years. This mirrors the results in the previous two years too.

Just as importantly, that dominant time horizon has been rising since 2018 (Figure 3.5, lower panel) – for at least three out of four vehicles covered here. The exception is segregated accounts, where there is no discernible trend in either direction.

“Fixed income markets have not been as efficient as equity markets. Active managers tend to perform better there.”

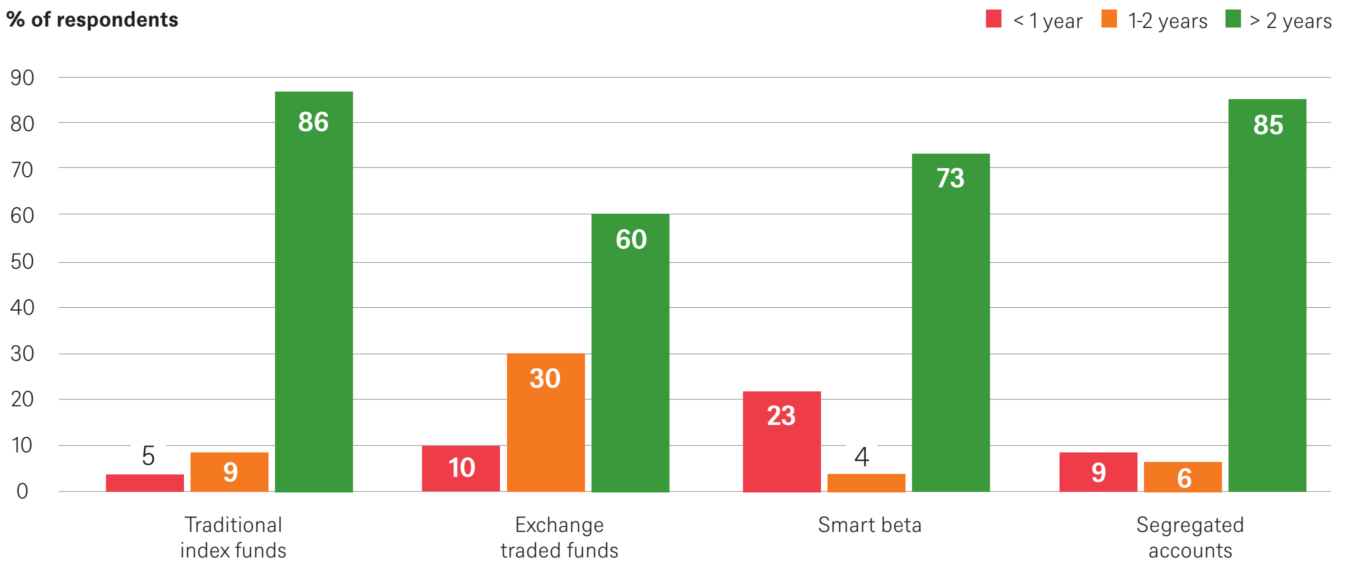
Interview quote

> “It is prudent to position your portfolio to the true time horizon that matches your pension liabilities profile, not some arbitrary market benchmarks.”

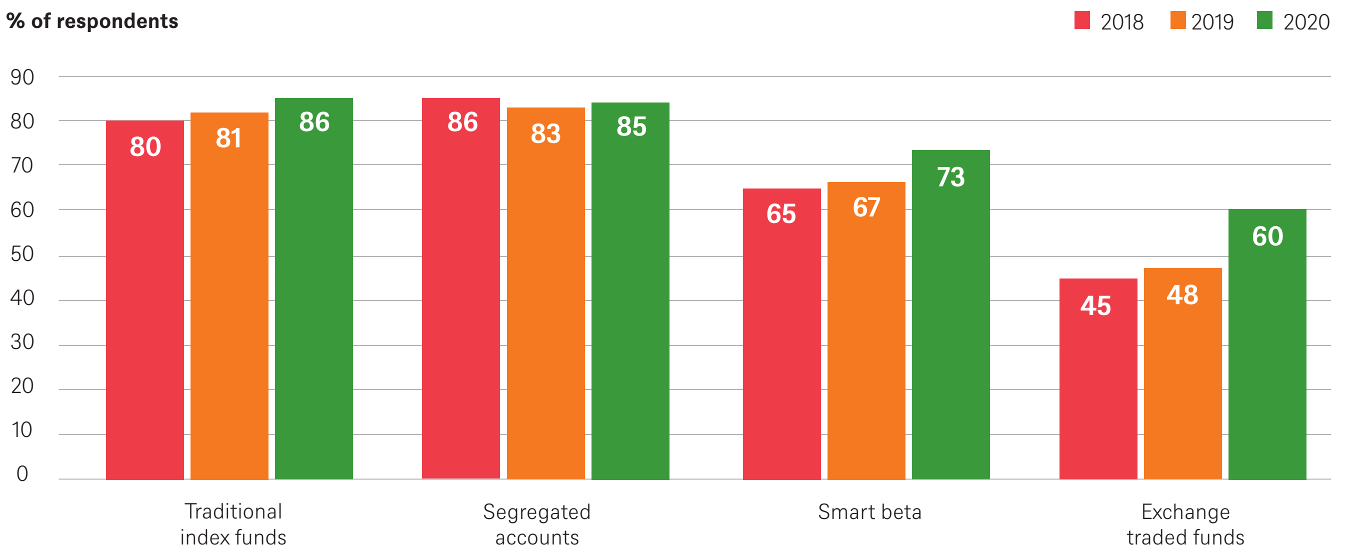
Interview quote

FIGURE 3.5

What is currently the approximate holding period of the four categories of passive strategies?



Respondents with holding periods longer than 2 years



Source: CREATE-Research Survey 2020

This pattern is likely to continue over the next three years. At least one in every five respondents expects an increase in the holding periods for ETFs, smart beta and segregated accounts.

The trend confirms the age-old truism: pension investors are not short-term investors who put trading above investing. The emphasis is on remaining invested in quality assets so as to gain more by losing less and outperforming over a full cycle.

However, this does not rule out opportunism from time to time. After all, asset prices tend to go up in steps and come down in escalators. Rebalancing is often essential (Case study 3b).

3. Passive investing is set to grow

Having identified some of the key structural features of passive investing in the recent past, our survey finally focused on future prospects over the next three years (Figure 3.6).

At headline level, the compositional shifts observed over the period 2018-20 are unlikely to change notably.

In particular, with high market penetration already, traditional index funds are likely to grow more slowly: indeed 20% of our respondents expect negative growth.

Case study 3b: Buy and hold investing gaining currency

Pension investors have multi-decade liabilities. Yet they can easily succumb to the march of technology and the 24-hour news cycle that causes investor mood swings and herd mentality, giving rise to out-size reactions and timing miscalculations.

The result has been shorter time horizons, unrealistic expectations,more momentum trading, higher velocity of trades and a constant search for 'hot' products.

For long, the bedrock of investing –buy-and-hold culture – has been weakening. Notions of time premium and risk premium are also weakening, as are the concepts of mean reversion and broad diversification that have long characterised investment wisdom.

This is duly evidenced by the changing role of mutual funds. They are rotating fast – some are turning over 80% of their portfolios each year – since they are simply judged on a monthly or quarterly basis.

Since the 2008 crisis, we have stepped back from this world. Our assets are benchmarked against our long-duration liabilities. We do not slavishly follow market benchmarks.

Furthermore, our risk measure is no longer the standard deviation of returns but a permanent impairment of capital: a huge mindset shift for us.

Finally, our investments seek to tune out much that is day-to-day noise in the markets and focus on fundamentals.

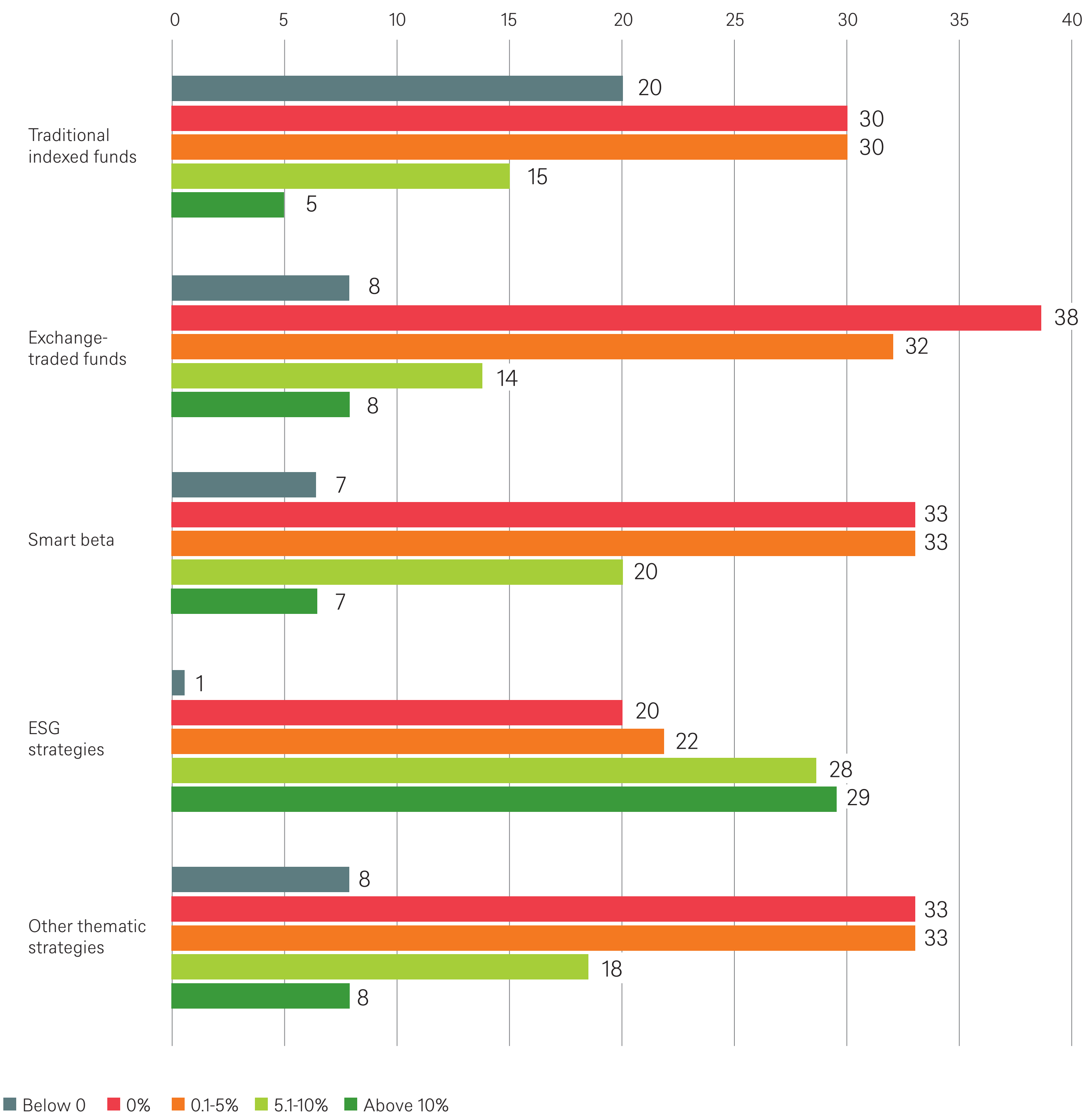
A Canadian pension plan

"Passive funds will suffer in the market turmoil. The pendulum may swing against them, but not too far. Their rise is pivotal."

Interview quote

FIGURE 3.6
What will be the approximate annual growth in your pension plan's investment in passive strategies over the next 3 years?

% of respondents



Source: CREATE-Research Survey 2020

At the other end of the spectrum, ESG strategies, other thematic strategies and smart beta will experience faster growth, given their relatively low penetration rates currently.

The upshot is clear. The next wave of growth in passives will be increasingly oriented towards pursuing specific investment themes.

As the global economy suffers an unprecedented recession of unknown duration, pension investors expect to re-orient their investments towards what appear to be selective growth points in the investment universe. Theme investing will gain traction.

But the big question still remains on the table: namely, beyond a certain limit, will the continuing rise of passive investing be self-defeating because it undermines markets' price discovery role, using the familiar Laffer curve analogy? It argues that, by raising the tax rate beyond a certain point, tax revenue actually shrinks by reducing the incentive to work.

Opinions remain divided among our survey respondents.

Some believed that the threshold would be crossed when the global share of passives exceeded 60%, from the current level of 33%. That is projected to happen by the end of this decade.

Others took the view that the longer the current market turbulence lasts, the greater the likelihood of the pendulum swinging towards active funds, which are well positioned to capitalise on the resulting dislocation.

Yet others took the view that price discovery will always happen, so long as there are at least some active managers trading in the market. After all, it is the marginal buyer that sets the price.

The debate will no doubt intensify as passive funds continue to advance into the core portfolios of pension plans where the separation between alpha and beta is as clear as day and night.

Whether Covid-19 will reverse this strong tide is hard to judge. Much will depend upon two questions: whether markets will remain directionless for extended periods with frequent volatility spikes, and whether active managers have the skills to profit from it. Only time will tell.

After all, history tells us that times of high risks are also times of big opportunities.

"Theme investing is about pursuing selective growth points in the global economy."

Interview quote

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