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Will Employees Benefit?

Protecting Corporate Pensions Against Climate Change

ShareAction»

Author

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Paul Britton was the primary researcher and main author of this report. He previously conducted ShareAction's 2018 survey on responsible investment and member communications and engagement across the UK's 10 largest auto-enrolment pension providers.

About ShareAction

ShareAction is a UK registered charity working globally to lay the tracks for responsible investment across the investment system. Its vision is a world where ordinary savers and institutional investors work together to ensure our communities and environment are safe and sustainable for all.

In particular, ShareAction encourages institutional investors to be active owners and responsible providers of financial capital to investee companies, while engaging meaningfully with the individual savers whose money they manage. Since 2005, ShareAction has ranked the largest UK asset owners and asset managers on their responsible investment performance.

ShareAction works with players across the investment chain to create a movement for responsible investment. This movement includes savers who all too often feel excluded from the investment system, to the institutional investors that operate within it and the policy-makers that regulate it.

Acknowledgements

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Contents

EXECUTIVE SUMMARY

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Climate change is a major systemic threat to global financial stability, posing both short and long-term risks. Pension savers, due to the long-term nature of their investments, are particularly exposed to these risks. This report details the findings from ShareAction's survey on the management of climate-related risks and opportunities within some of the UK's largest defined contribution (DC) corporate pension schemes. The purpose of this research was to determine where on the journey towards the integration of climate-related risks and opportunities each scheme resides. This will support ShareAction's programme to encourage and enable corporate pension schemes develop world-class approaches to managing climate-related risks and opportunities.

Of the 25 corporations approached, 15 participated (10 utilise employer-sponsored trusts and five utilise master trusts), representing approximately one million savers and £17.5bn assets under management.

FINDINGS

1

Finding 1: Four degrees of integration (page 21)

Participants' submissions were analysed and each scheme was categorised according to the level of development of their climate change strategy, as shown in Table 1. Schemes furthest along the journey towards the integration of climate-related risks explicitly address climate change through asset allocation and stewardship, and consider it as a systemic risk, while those at the business as usual stage may not have specifically considered climate-related risks.

TABLE 1: CLIMATE RISK JOURNEY

Leading	Implementing	Building	Business as usual
HSBC Bank (UK) Pension Scheme	Aviva Staff Pension Scheme	GSK Pension Scheme	British Airways Pension Plan (MT)
	The Barclays Bank UK Retirement Fund	Lloyds Your Tomorrow Pension Scheme	Diageo Pension Plan (MT)
	RBS Retirement Savings Plan	Rolls-Royce Retirement Savings Trust	National Grid YouPlan
	Tesco Retirement Savings Fund (MT)	Sainsbury's Retirement Savings Plan (MT)	Royal Mail Defined Contribution Plan
	Unilever UK Pension Fund DC Investing Plan	Your M&S Pension Savings Plan (MT)	

Non-respondents

Associated British Foods DC Pension Scheme	BAE Systems DC Retirement Plan	BP Defined Contribution 2010 Pension Plan	BT Retirement Savings Scheme	Centrica DC Scheme
Compass Retirement Income Savings Plan	2013 NEXT Group Pension Plan	Prudential Staff Pension Scheme	UK Shell Pension Plan	Whitbread Group Pension Fund

MT = corporation using a master trust

2

Finding 2: Business as usual in default funds (page 25)

Only two of the 15 schemes currently have default funds that have been explicitly constructed to reduce exposure to climate-related risks.

3

Finding 3: Increasing awareness across employer-sponsored trusts is not leading to action (page 26)

Eight of the 10 participating employer-sponsored trusts have discussed climate-related risks with their investment consultants, either specifically or as a part of ESG considerations. However, only two out of 10 employer-sponsored trusts have added climate-related risks to their scheme's risk register and just three out of 10 employer-sponsor trusts have conducted scenario analyses.

4

Finding 4: Employer-sponsored trusts take a passive approach to climate stewardship (page 27)

The majority of employer-sponsored trusts delegate stewardship activities to their asset managers with limited oversight of the effectiveness of climate risk management. Only two of the 10 employer-sponsored trusts stated they assess each asset manager's climate-related performance during the asset manager selection process.

5

Finding 5: Barriers to action (page 28)

The participating schemes identified a number of barriers which they perceive restrict actions in this space, including:

- The availability of products for a multi-asset portfolio being limited by fees and suitability.
- The lack of standard, widely used metrics to monitor, manage, and report climate-related investment risks.
- Challenges in agreeing risk and return metrics that can isolate the impact of ESG factor implementation, in order to satisfy trustees that the methodology adopted is having the desired impact.
- When transferring to a new master trust, alignment to and consistency with, the old DC scheme was prioritised.
- The quality and consistency of corporate data.

6

Finding 6: Corporate pension schemes lag behind corporate commitments (page 29)

13 of the 15 participating corporations are involved with or support low-carbon initiatives such as the Science-Based Targets Initiative and the Taskforce on Climate-related Financial Disclosures (TCFD). However, these commitments are only reflected in a small minority of DC corporate pension schemes across both asset allocation and engagement. As strategies relating to the management of climate-related risks and opportunities are further developed, schemes have an excellent opportunity to communicate the actions taken to address climate change with their members, building trust with savers and further showing how employer and employee values align.

CLIMATE RISK CHECKLIST

CLIMATE RISK CHECKLIST

In this section of the report, we suggest a number of actions for employer-sponsored trusts and corporations that utilise master trusts or group personal pensions (GPPs) to enhance their approach to climate change and its implications. These have been separated to reflect the differences in governance structures. We have also produced recommendations for policymakers and regulators to ensure the regulatory environment is supportive of this change.

FOR EMPLOYER-SPONSORED TRUSTS

Seize opportunities and mitigate risks

- Use the opportunity of the Department for Work and Pensions' (DWP) update to the Investment Regulations (in force from October 2019) to publicly commit to greater action on the management of climate-related risks and opportunities through asset allocation and stewardship practices.
- Climate-related risks should be added to each scheme's risk register, recognising that it poses a systemic risk that will impact beneficiaries' investments and quality of life in retirement.
- Conduct scenario analysis under multiple warming scenarios to evaluate their exposure to climate-related risks.
- Construct default funds which systemically integrate climate-related risks and opportunities into investment decisions across all asset classes.

Promote enhanced engagement and accountability

- Schemes and their investment consultants should specifically incorporate strong engagement and voting activities into their investment management agreements with asset managers.
- Schemes should advocate for action at a policy level to address climate change via initiatives such as the Institutional Investors Group on Climate Change (IIGCC).

Educate and communicate

- Communicate the actions the scheme is taking to manage climate-related risks to beneficiaries, to engage savers with their pensions and build trust.
- DC corporate pension schemes should become signatories to the PRI.
- Where available, schemes should utilise climate change expertise from their corporate sponsor.
- Schemes should review and report on their management of climate-related risks in line with the Taskforce on Climate-related Financial Disclosures (TCFD) recommendations.

FOR EMPLOYERS UTILISING MASTER TRUSTS OR GROUP PERSONAL PENSIONS

Promote enhanced engagement and accountability

- Schemes should ensure their default funds explicitly address climate-related risks and opportunities through asset allocation.
- Corporations and their investment consultants should greater scrutinise the engagement and voting activities of their master trust or pension provider regarding climate-related risks.
- To monitor ongoing progress of their master trust or GPP, corporations, either individually or collaboratively with other employers in the same master trust or group personal pension, should set time bound targets on the response to climate change.
- If switching master trusts or GPP, corporations should include the approach to climate-related risks and opportunities as a key criterion.

Educate and communicate

- Schemes should communicate the actions taken to manage climate-related risks and opportunities to beneficiaries, to engage savers with their pensions and build trust.
- Where available, corporations should utilise in-house climate change expertise.

RECOMMENDATIONS FOR POLICYMAKERS AND REGULATORS

- Introduce mandatory reporting for schemes on climate-related risks in line with the TCFD recommendations.
- The Pensions Regulator should update the Trustee Toolkit and investment governance guidance to outline available options to address climate change as a systemic risk.
- The Financial Conduct Authority (FCA) should provide the same level of clarity as the DWP on the need to consider climate change and other environmental, social, and governance (ESG) factors as a material financial risk, and report on the management strategy. Parity in respect of stewardship policies should also be achieved.

INTRODUCTION & METHODOLOGY

The Rodney & Otamatea Times

WAITEMATA & KAIPARA GAZETTE.

PRICE—10s per annum in advance
WARKWORTH, WEDNESDAY, AUGUST 14, 1912.
3d per Copy.

Science Notes and News.

COAL CONSUMPTION AFFECTING CLIMATE.

The furnaces of the world are now burning about 2,000,000,000 tons of coal a year. When this is burned, uniting with oxygen, it adds about 7,000,000,000 tons of carbon dioxide to the atmosphere yearly. This tends to make the air a more effective blanket for the earth and to raise its temperature. The effect may be considerable in a few centuries.

Press clipping from The Rodney & Otamatea Times
taken from Sustainable Business Network Facebook account.

INTRODUCTION

This report details the findings from ShareAction's survey on the management of climate-related risks and opportunities within some of the UK's largest defined contribution (DC) corporate pension schemes. This research marks the start of a multi-year programme through which ShareAction aims to support corporate pension schemes in developing world-class approaches to managing climate-related risks, while benefitting from green growth opportunities and aiding a swift and orderly transition to the low-carbon economy.

This section outlines how climate change poses short and long-term risks, as well as outlining the regulatory environment and savers' views.

MANIFESTATIONS OF CLIMATE RISK

Climate change is a major systemic threat to global financial stability[1, 2,3]. To mitigate the most catastrophic impacts of climate change, urgent decarbonisation on a global scale is necessary to hold warming to no more than 1.5°C above pre-industrial levels. This requires investments of $2.4tn into clean energy each year through to 2025[5], and, according to the UN's Intergovernmental Panel on Climate Change (IPCC), "…rapid, far-reaching and unprecedented changes in all aspects of society"[6]. The potential impact on investments is severe. The Global Investor Statement (supported by investors a managing in excess of $32tn) outlined the possibility of financial impacts multiple times worse than the 2008 financial crash. Recent research also suggests global economic gains of approximately $17.5tn per year by 2100 will be lost in 4°C scenarios compared to 2°C scenarios[7,8].

Pension savers, due to the long-term nature of their investments, are particularly exposed to these risks[9].

Moreover, as the age profile of DC schemes is typically younger than defined benefit schemes, there is a heightened impetus for DC schemes to manage climate-related risks for these savers. A graduate born in 1997 joining the workforce today should expect to retire in the 2060s and be receiving their pension through to at least 2090[10].

The physical impacts of climate change are already present, for example, through the doubling of extreme weather events in the last 20 years. In this period, $2.2tn of damage is attributed to climate-related disasters[11]. The intensity of extreme weather events will further increase due to the time lag between greenhouse gas emissions and the resultant temperature change[12]. The transition to a low-carbon economy will lead to winners and losers, generating inevitable risks and opportunities as new technologies emerge and longstanding business models become obsolete.

> A graduate born in 1997 joining the workforce today should expect to retire in the 2060s and be receiving their pension through to at least 2090 .

REGULATORY LANDSCAPE

The regulatory landscape is shifting to embrace responsible investment and reflect climate-related risks. The DWP's update to the Investment Regulations in November 2018 goes some way to clarify trustees' fiduciary duties in law. Specifically, it requires, among other things, DC trustees to update their Statement of Investment Principles to show how they take into account climate change as a material financial risk[13]. This builds upon previous guidance from The Pensions Regulator, advising trustees to take into account material ESG factors[14]. The FCA, responsible for regulating GPPs, will consult on the introduction of similar rules for contract-based schemes in-line with a 2017 Law Commission report in Spring 2019[15]. At the European level, the European Insurance and Occupational Pensions Authority (EIOPA) will analyse European pension funds' exposure to low-carbon transition risks, in addition to an analysis of how funds incorporate ESG risks[16].

> 55% of people expected their pensions to avoid investing in fossil fuel projects that contribute to climate change.

SAVERS' VIEWS

There is a growing body of evidence to suggest that savers are concerned with the impacts of their investments. A 2018 survey by NEST (the UK's largest auto-enrolment pension provider by membership) found that 47% of savers said responsible investment matters a lot to them, with an additional 26% supporting responsible investment if it produces better returns. Moreover, a 2018 survey conducted by YouGov and Client Earth found that 55% of people expected their pensions to avoid investing in fossil fuel projects that contribute to climate change. Yet, understanding of pensions remains low, with over 60% of people unaware that their pensions can help fund fossil fuel projects[17]. This will contribute to the fact savers are wary of making investment decisions. Indeed, BlackRock's 2018 DC Pulse Survey found 77% did not feel confident enough to manage their savings themselves, with more than 80% trusting their employers to choose the right investments[18].

Pension funds may also face challenges through the courts by their members if they are seen to be failing to address climate-related risks. Ground-breaking litigation is taking place in Australia where a member of the Retail Employees Superannuation Trust (REST), a $50bn fund, believes trustees breached their duties by failing to factor climate change into investment decisions, for example, by not seeking information from investment managers on climate-related risks[19]. A decision on this case is due in mid-2019[20].

REMARKABLE WEATHER OF 1911

The Effect of the Combustion of Coal on the Climate — What Scientists Predict for the Future

By FRANCIS MOLENA

THE year 1911 will long be remembered for the violence of its weather. The spring opened mild and delightful, but in June a torrid wave of unparalleled severity swept over the country. The cities baked and gasped for breath, while the burning sun and hot winds withered the corn and cost the farmers a million dollars a day. A little later England was scorched and France and Germany sweltered. The mercury went above 100 deg. in western Canada, and whalers brought back reports from the Arctic regions of open water where always before there had been solid ice. The reports from Mexico and Central America would well describe the lower regions, but it is said that the summer in Iceland was enjoyable.

In August the elements took a different turn and the flood-gates of the heavens were opened. Kentucky and the South Atlantic states were deluged, and the Philippines were more thoroughly drowned than they had been before since the time of Noah. Alberta was visited by a killing frost which ruined hundreds of pioneer farmers. A cyclone devastated Costa Rica and a violent gale swept the South Atlantic coast, destroying a great number of vessels. During the later fall, the North Atlantic was tormented by a series of more violent storms than were known to the oldest sea captains. In November the southern states were visited by a killing frost, while December was remarkable for its high temperatures.

Aside from the extreme heat, the frosts of the far North and the sunny South, and the violent storms at sea, the year 1911 was still exceptional. The mean temperature of every month except November was above the average of that of the 40 years covered by the records of the United States Weather Bureau. The average daily excess was from four to six degrees.

With only one month out of twelve below normal, one may well ask if the climate is not changing and getting warmer. There is a general impression among older men that the good old-fashioned winters in which "the snow was fifteen feet deep and lasted six months" do not come any more. In spite of the fact that the year just past was above the average in temperature, there is no clear indication that there is any progressive change in the direction of a warmer climate. The average temperature of the year 1878 was as high as that of 1911. There seem to be moderate changes in a cycle of about 35 years, and it is suggested that this is related to the period of sun-spot activities, which is about one-third as long.

It has recently been found by archeologists from their studies in Asia Minor that, during the thousands of years these semiarid countries have been inhabited by civilized men, their populations have increased and decreased with a period of two or three hundred years. It is supposed that the epochs of greatest population were when there was more than the normal amount of rainfall, so that more people than ordinarily could be supported. When the oscillation in climate changed toward a dry period, so that food became scarce, the population necessarily decreased, though the changes might be ascribed in some instances to other causes. The cli-

Popular Mechanics Magazine, March 1912

METHODOLOGY

This section describes the research process during the data collection and analysis phase. A survey was utilised to identify where each scheme currently resides on the journey towards the integration of climate-related risks and opportunities, and identify leading practices and room for further development.

SURVEY DESIGN

The survey was divided into two sections:

1. Questions for employers that use an employer-sponsored trust for pension provision.
2. Questions for employers that enrolled their employees into a master trust or a GPP.

There were 18 questions relevant to employer-sponsored trusts and four questions relevant to master trusts and GPPs. This reflects where responsibility lies in the day-to-day operation of each scheme. In addition to original ShareAction questions, questions were sourced from, or inspired by:

- The Environmental Audit Committee's 2018 Green Finance Inquiry
- The 2018 Asset Owners Disclosure Project pension fund questionnaire
- The Principles for Responsible Investment (PRI) climate-related indicators.

The questions were also mapped to the TCFD core themes of:

Governance

Strategy

Risk Management

Metrics & Targets

The survey underwent numerous iterations following internal review and external consultation from industry experts prior to its distribution.

SCOPE

There is no public list of the largest DC corporate pension funds, and there is only incomplete public data on the UK's largest private employers. Therefore, it was necessary to estimate the largest DC schemes. The scope of possible schemes was limited to FTSE100 constituents. The target participants to include within the survey were then identified through a combination of:

- The March 2018 quarterly report from JTL Employee Benefits on The FTSE 100 and Their Pension Disclosures.
- The 2017 edition of Pension Funds and their Advisers.
- Company reporting e.g. annual reports.

We recognise that some companies may have multiple DC schemes. In these instances, only their largest scheme was considered to reduce the burden of participation.

RESEARCH PROCESS AND ANALYSIS

In September 2018, ShareAction invited 25 corporations to participate in the survey process by contacting the chief executives of each corporation and relevant individuals in the pension scheme, for example, the Chair of Trustees or pensions director. The survey was circulated to those that responded at the end of September, with a deadline for submission of mid-November 2018. Where no contact was made, ShareAction reached out to alternative contacts until the end of October. The submitted data was analysed qualitatively and quantitatively to identify leading practice and underlying trends, as well as determining the spread of actions currently undertaken to inform the grouping of schemes. Once data analysis had taken place, and the final report drafted, participants were able to review specific references to their actions. Clarifications and comments were reviewed and integrated.

The participating schemes and non-respondents are listed in Table 2 below. We are, of course, disappointed that such major employers did not engage with this research which aims to enhance their scheme beneficiaries' quality of life in retirement. Non-respondent companies did not participate for reasons including limited capacity to participate and because no contact was made.

TABLE 2: CORPORATE PENSION SCHEMES INVITED TO PARTICIPATE

Respondents	Non-respondents
Aviva Staff Pension Scheme	Associated British Foods DC Pension Scheme
The Barclays Bank UK Retirement Fund	BAE Systems DC Retirement Plan
British Airways Pension Plan (MT)	BP Defined Contribution 2010 Pension Plan
Diageo Pension Plan (MT)	BT Retirement Savings Scheme
GSK Pension Scheme	Centrica DC Scheme
HSBC Bank (UK) Pension Scheme	Compass RetirementIncome Savings Plan
Lloyds Your Tomorrow Pension Scheme	2013 NEXT Group Pension Plan
National Grid YouPlan	Prudential Staff Pension Plan
RBS Retirement Savings Plan	UK Shell Pension Plan
Rolls-Royce Retirement Savings Trust	Whitbread Group Pension Fund
Royal Mail Defined Contribution Plan	
Sainsbury's Retirement Savings Plan (MT)	
Tesco Retirement Savings Plan (MT)	
Unilever UK Pension Fund - DC Investing Plan	
Your M&S Pension Savings Plan (MT)	

KEY FINDINGS

KEY FINDINGS

This section explores the key themes that emerged from the survey responses following analysis.

OVERVIEW

15 of the 25 approached schemes participated. These schemes represent approximately one million savers with assets under management of approximately £17.5bn. Of the 15 participating schemes, 10 are employer-sponsored trusts and five are corporations utilising master trusts.

1

FINDING 1: FOUR DEGREES OF INTEGRATION

Table 3 shows a snapshot of where each scheme is on their journey towards the integration of climate change and its implications into governance procedures and the investment process. These groupings have been determined by the spread of actions identified within the survey responses, and are outlined on pages 23 and 24. There is, of course, divergence within each group and the typical actions are not universally attributable to each scheme. It is also important to note that this is not a ranking; schemes are listed alphabetically within each group.

TABLE 3: CLIMATE RISK JOURNEY

Leading	Implementing	Building	Business as usual
HSBC Bank (UK) Pension Scheme	Aviva Staff Pension Scheme	GSK Pension Scheme	British Airways Pension Plan (MT)
	The Barclays Bank UK Retirement Fund	Lloyds Your Tomorrow Pension Scheme	Diageo Pension Plan (MT)
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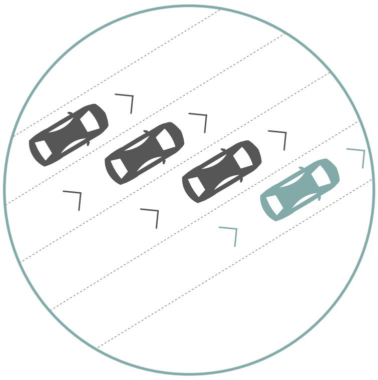
	Tesco Retirement Savings Fund (MT)	Sainsbury's Retirement Savings Plan (MT)	Royal Mail Defined Contribution Plan
	Unilever UK Pension Fund DC Investing Plan	Your M&S Pension Savings Plan (MT)	

Non-respondents

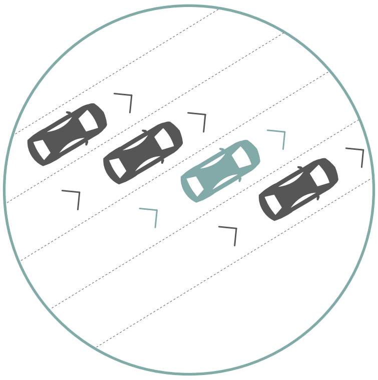
- Associated British Foods DC Pension Scheme
- BAE Systems DC Retirement Plan
- BP Defined Contribution 2010 Pension Plan
- BT Retirement Savings Scheme
- Centrica DC Scheme
- Compass Retirement Income Savings Plan
- 2013 NEXT Group Pension Plan
- Prudential Staff Pension Scheme
- UK Shell Pension Plan
- Whitbread Group Pension Fund

MT = corporation using a master trust



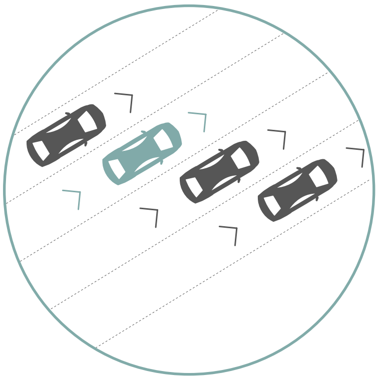
LEADING

A leading scheme will have already explicitly incorporated climate-related risks and opportunities into default fund equities. This will be combined with strong stewardship on the scheme's behalf, for example, with time-bound targets and the threat of divestment from companies that are not ensuring the long-term sustainability of their business. Robust internal governance will have enabled this, including the presence of climate change on the scheme's risk register, advocating for action on climate at a policy level to support climate risk mitigation, and plans for TCFD-aligned reporting in the next reporting cycle.



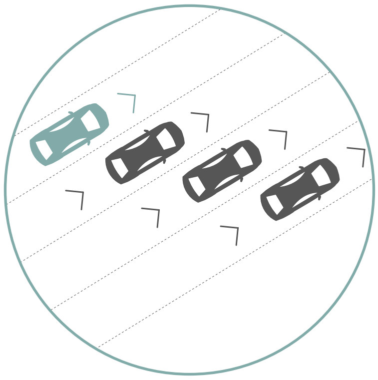
IMPLEMENTING

A typical implementing scheme is one that recognises climate-related risks as systemic, has conducted scenario analyses, and has implemented, or is looking to implement, an asset allocation policy to account for these risks in their default fund. Corporations that utilise master trusts or a GPP will have additional layers of governance able to review stewardship relating to climate change, and are in the process of reviewing their default fund investment strategy with their investment consultants and master trust or GPP.



BUILDING

A typical building scheme is one that views climate-related risks through a broad ESG lens, offers self-select options with asset allocations that consider climate or ESG risks, and is considering policy developments regarding the approach to climate-related risks. So far, however, limited steps have been taken to understand how climate-related risks may impact their default fund portfolio. When selecting and reviewing their master trusts or pension providers, the approach to climate change is one of the considerations, and self-select options that consider climate change are offered.



BUSINESS AS USUAL

A typical business as usual scheme is at the start of the journey towards the integration of climate-related risks. They are cognisant of ESG risks, but may not have considered climate-related risks specifically. They are considering providing, or already do provide, self-select options that consider ESG risks in the asset allocation policy.

A notable trend that emerges from these groupings is that the pension schemes of corporations in the financial services sector are further along the journey towards the integration of climate-related risks. This may be coincidental, linked to the financial risk focus of their sponsor corporations, or driven by the leadership shown by the HSBC Scheme which may have motivated competitors to act.

2

FINDING 2: BUSINESS AS USUAL IN DEFAULT FUNDS

According to The Pensions Regulator, 92% of savers in trust-based schemes are invested in the scheme's default strategy[21]. However, only two of the 15 participant schemes currently have, or utilise, default funds that have been explicitly constructed to reduce exposure to climate-related risks. This is a particular concern due to the high allocation to the Oil and Gas and Utilities sectors in typical default funds, and the short-term risks climate change poses[22,23]. There are, however, promising signs of change as six schemes are considering developments in their low-carbon asset allocation policies.

EXAMPLES OF LEADING PRACTICE WITHIN DEFAULT FUNDS ARE:

- The HSBC Scheme invests equities via the LGIM Future World Fund, a carbon-tilted fund resulting in approximately a 70% reduction in exposure to carbon reserves, 30% lower carbon emissions, and 100% more in green revenues.
- The RBS DC Plan is currently implementing an ESG tilt to its passive equities which will act to reduce exposure to carbon.

ShareAction Challenge

The response to climate change and its implications should not be a lottery based on your scheme, or be a benefit for the small minority of savers that choose not to be in the default fund. Additionally, savers that choose alternative fund options to address climate-related risks should not be penalised by the fact they do not fall under the charge cap. ShareAction hopes to see climate-related risks and opportunities incorporated into the management of equities in the default fund. Schemes already implementing this action should consider extending this to other asset classes.

3

FINDING 3: INCREASING AWARENESS ACROSS EMPLOYER-SPONSORED TRUSTS IS NOT LEADING TO ACTION

Trustees are cognisant of climate change as an investment risk. Indeed, seven out of 10 employer-sponsored trusts have introduced educational programmes on climate risk as a standalone theme or more broadly within ESG training. A further eight out of 10 have discussed climate-related risks with their investment consultants, either specifically or as a part of ESG considerations. However, this awareness has not, as yet, translated into specific actions to address climate-related risks and opportunities:

- Just two of the 10 employer-sponsored trusts have added climate risks to their scheme's risk register.
- Just three of the 10 employer-sponsored trusts have undertaken portfolio carbon footprint exercises.
- Just three of the 10 employer-sponsored trusts have conducted scenario analyses

FACILITATING ACTION:

The HSBC Scheme and Aviva Staff Pension Scheme have both added climate-related risks to their risk registers, and have benefitted from internal expertise on climate change. The HSBC Scheme trustee board has two members with considerable knowledge in this area: one who has been on the TCFD taskforce, and another who works in sustainability. The Aviva Staff Pension Scheme has utilised expertise from their sponsor in meeting their Global Head of Responsible Investment and Group Head of Sustainability.

4

FINDING 4: EMPLOYER-SPONSORED TRUSTS TAKE A PASSIVE APPROACH TO CLIMATE STEWARDSHIP

Engagement is one of the key tools to manage climate-related risks, ensuring investee companies are adequately preparing for and supporting the transition to the low-carbon economy.

As expected, employer-sponsored trusts delegate engagement activities to their asset managers. However, this appears to be taking place with limited oversight of the effectiveness climate risk management: only two of the 10 employer-sponsored trusts stated they assess each asset manager's climate-related performance during the asset manager selection process, for example, how they voted in climate change resolutions.

Additionally, a low bar is set during the asset manager monitoring process, with the employer-sponsored trusts often expecting asset managers to be PRI signatories and or comply with the UK Stewardship Code only. The RBS DC Plan and the HSBC Scheme are more ambitious. The RBS DC Plan seeks to utilise its client status to direct voting, while the HSBC Scheme helped design the engagement process for its equity allocation in the LGIM Future World Fund. In this fund, engagement is backed up with the threat of divestment from companies that are not developing plans to ensure the long-term sustainability of their business.

Of the corporations utilising master trusts, the Tesco, Marks and Spencer, and Sainsbury's Schemes are currently satisfied by their master trust's stewardship approach, which includes time-bound targets, and therefore have not seen it necessary to influence the approach to engagement. Additionally, Tesco has worked collaboratively with their master trust on climate change, receiving enhanced reporting in the form of updates from both the master trust board and directly from the master trust's ESG and Climate Change team.

CLIMATE COLLABORATION BY EMPLOYER-SPONSORED TRUSTS

The HSBC Scheme, Barclays Scheme, and Aviva Staff Pension Scheme are directly involved in responsible investment or climate-related collaborative engagement initiatives, or industry associations. The Aviva Staff Pension Scheme and Barclays Scheme are PRI signatories, while the HSBC Scheme joined the IIGCC. The HSBC Scheme, upon reviewing high emissions scenarios in which "all returns are horrible", viewed this as a fiduciary justification to join the IIGCC and advocate at a policy level. The Unilever Scheme, through the Univest Company (Unilever's in-house investment services company), is also a PRI signatory and member of the IIGCC.

5

FINDING 5: BARRIERS TO ACTION

The participating schemes identified a number of barriers that they perceive to limit action in this space, including:

- The availability of products for a multi-asset portfolio being limited by fees and suitability.
- The lack of standard, widely used metrics to monitor, manage and report climate-related investment risks against.
- Challenges in agreeing risk and return metrics that can isolate the impact of ESG factor implementation, in order to satisfy trustees that the methodology adopted is having the desired impact.
- When transferring to a new master trust, alignment to and consistency with, the old DC scheme was prioritised.
- The quality and consistency of corporate data.

ShareAction Challenge

Investment consultants have in the past been criticised for their failure to incorporate ESG issues in their investment practice[24]. It is therefore positive to see these discussions are taking place. However, it is concerning that so few employer-sponsored trusts have conducted scenario analyses. With the recent clarification of trustees' fiduciary duties, we challenge investment consultants to seize the opportunity and drive climate-related risks up trustees' and asset managers' agendas, and encourage further innovation.

6

FINDING 6: CORPORATE PENSION SCHEMES LAG BEHIND CORPORATE COMMITMENTS

13 of the 15 participating corporations are involved with, or support, low-carbon initiatives such as the Science-Based Targets Initiative and the TCFD. This is an example of their corporate commitments, highlighting their concerns regarding climate change, and aligning them with the prevailing attitude of the British population and thus their employees[25].

However, 13 of the 15 DC pension schemes have not yet constructed, or do not currently utilise, default funds that explicitly address climate-related risks in both asset allocation and engagement. A dissonance therefore exists between corporate commitments and corporate pension schemes. With new regulations and product innovation, schemes are provided an excellent opportunity to adapt default funds and communicate these actions to members. This will ensure employer and employee values align, and build savers' trust. Indeed, Tesco are currently developing a project to understand how climate change, and responsible investment more generally, can feed into innovative member engagement.

BEYOND EQUITIES

Actions to integrate climate-related risks and opportunities are taking place nearly exclusively through equities, with other asset classes seldom referenced within submissions. However, the HSBC Scheme has discussed how climate-related risks could be included within credit assessments with their fixed income managers, and physical climate risks with their commercial property managers. The Barclays Scheme recently reported its core UK property portfolio under the Global Real Estate Sustainability Benchmark.

117

Courtesy The Carnegie Institution

Temple of the Warriors at Chichen-Itza, Yucatan, Excavated and Restored by the Carnegie Institution; It Is Evidence of a Civilization That May Have Perished Because the Climate Became Too Humid

By CHARLES FITZHUGH TALMAN, c/o The Pictogram Box 840 Washington D.C.

THE OBSERVING and recording of weather has been described as "the biggest scientific job." It is performed at the present time by an army of more than 35,000 men and women, who take observations once, twice or oftener every day. In recent times, individual observations have amounted to upward of 10,000,000 a year, and the total number taken since weather observing began runs far up into the hundreds of millions. The results of these millions of observations are used in a form of long-distance forecasting.

For example, the weather bureau publishes charts showing the average dates of the last "killing" frost in spring and the first in autumn in all parts of the United States. These charts are not based on theoretical considerations but are merely a record of what has happened in past years. They are interesting as historical documents, but the great cost of compiling and publishing them certainly would not be justified if they did not enable farmers and fruit growers to know approximately when, in any locality, frosts are due in years to come.

The bureau receives quantities of letters from merchants and manufacturers inquiring when, in certain foreign countries, certain kinds of weather are likely to prevail. The exporter of electric fans wants to know when periods of great heat may be expected in different parts of the world. The exporter of umbrellas needs similar information about rainy seasons. The inquirer does not say to the bureau, "please give me a forecast of the weather in such and such a country for the coming year," but he asks for a record of the climate, which amounts to the same thing.

When, toward the close of the last cen-

Popular Mechanics Magazine, May 1930

GLOBAL
CASE STUDIES

OUTSIDE THE FTSE100: CASE STUDIES OF LEADING CLIMATE-RELATED RISK MANAGEMENT

This section outlines the actions pension funds worldwide are taking to develop their own strategies to manage climate-related risks and opportunities, providing guidance and inspiration in the process. In this section, we share leading practice identified in previous work by ShareAction. Further examples are available in the 2018 auto-enrolment survey and Winning Climate Strategies report

NATIONAL EMPLOYMENT SAVINGS TRUST (NEST)

NEST is the UK's largest auto-enrolment pension provider with over six million members, and placed first for its approach to responsible investment in ShareAction's 2018 auto-enrolment survey. NEST allocates 30% of their global developed equities within their default fund to the UBS Life Climate Aware World Equity Fund. The allocation is increased for their youngest savers. This fund uses tilting to adjust exposure to companies either supporting or unaligned with the low-carbon transition, alongside time-bound engagement strategies[26,27].

NEST also addresses climate-related risks in their commodity holdings, in which they screen out companies presenting significant carbon risk, for example, coal producers[28].

ENVIRONMENT AGENCY PENSION FUND (EAPF)

The EAPF, part of the Brunel Pension Partnership, commits to operating under a 2°C target (its climate strategy also pre-dates the Paris Agreement). The fund has followed a value-driven investment approach to embedding low-carbon into every asset class and has invested over £1.1bn in social and sustainable investments. The EAPF has set an ambitious target of investing 15% of the fund in low-carbon, energy efficiency, and other climate-mitigation opportunities by 2020, under the broader goal of investing 25% of the fund in clean and sustainable companies and funds across all asset classes.

PENSIOENFONDS ZORG EN WEILZIJN (PFZW)

PFZW, from the Netherlands, has set the ambitious targets of reducing the carbon footprint of its entire fund by 50%, and quadrupling its investments in sustainable development solutions to €20bn by 2020. These targets are aimed at changing the 'real' economy and have helped drive its low-carbon investment initiatives and engagement across high carbon-risk sectors (where PFZW prefers to engage to drive positive change in favour of divesting).

NEW YORK STATE COMMON RETIREMENT FUND (NYSCRF)

In early 2018, the NYSCRF doubled its investments in its 'Low Emissions Index' (LEI) to $4bn. The index, developed in collaboration with Goldman Sachs Asset Management and launched in 2015, underweights the worst greenhouse gas emitters and increases investments in companies with lower emissions. The LEI reports to have a carbon footprint 75% lower than its benchmark.

CONCLUDING REMARKS

CONCLUDING REMARKS

As the UN reports, we have less than 12 years to prevent the most severe impacts of climate change. Whether we successfully transition to a low-carbon economy or fail and face the unprecedented climate chaos of 3°C and 4°C worlds, pension funds will be impacted. As a systemic risk, climate change will undermine global growth prospects, suppressing returns and profoundly impacting society. We feel business as usual is in direct opposition to scheme beneficiaries' best interests. Fiduciary duty therefore dictates schemes must act to address climate change and its implications.

With the DWP's update to Investment Regulations, trust-based schemes must report on how they address material financial risks, including climate change. This is the perfect opportunity for all schemes to further develop their approach to the management of climate-related risks and opportunities. As identified throughout this report, and highlighted in our climate risk checklist, there is no shortage of options for how schemes can act. Pension schemes and their investment consultants can ensure default strategies address climate change through asset allocation, and ensure their asset managers and pension providers conduct strong engagement to ensure the business models of their portfolio holdings align with the Paris Agreement. The most forward thinking schemes can press for action at a policy level that will contribute to the mitigation of the most severe impacts of climate change, for example, through advocating for change via the IIGCC.

DC scheme beneficiaries will need retirement income throughout the 21st century. The impact of climate change on their savings and the stability of society into which they retire is dependent on action taken today. Pension schemes must rise to the challenge.

Gas meter dials can be seen through periscope in house wall so reader needs not enter the building

Meter readers are enabled to read the gas or electric meter without entering the home, by means of a periscope mounted permanently outside the house. The outer sleeve of the instrument is adjustable so readings can be taken in a standing position, and there is an opening at the bottom to permit use of a flashlight to illuminate the meter dials.

9 1469

Coal Dust Speeds Melting of Ice by Absorbing Sun's Heat

You couldn't burn enough coal to melt ice and snow from the highways, but spread coal dust over the ice and it would aid in melting it. Prof. H. Landsberg of Pennsylvania State College found in an experiment that ice blocks covered with coal dust melted in four hours, while only fifteen per cent of the ice blocks uncovered by coal were melted in the same time. The explanation is simply that black coal dust absorbs solar heat while snow and ice reflect it. If this use of dust could be applied on a large scale, he pointed out, it might change climates and even help free Antarctica from its ice sheath. The supposedly vast coal deposits beneath the Antarctic ice could be spread each summer to hasten

544 Science Service
12/21/39

Popular Mechanics Magazine, April 1940

APPENDIX

APPENDIX

QUESTIONS FOR EMPLOYER-SPONSORED TRUSTS

<table>
<tr><th>TCFD THEME</th><th>CODE</th><th>QUESTION</th><th>ANSWER OPTIONS</th></tr>
<tr><td rowspan="20">Governance</td><td rowspan="4">G1</td><td rowspan="4">Do the trustees accept the Taskforce on Climate-related Financial Disclosures conclusion that pension funds are potentially exposed to financial risks through climate change?</td><td>Yes. We have added climate-related risks to our risk register.</td></tr>
<tr><td>Yes</td></tr>
<tr><td>No</td></tr>
<tr><td>Other (please state)</td></tr>
<tr><td rowspan="3">G2</td><td rowspan="3">Has the pension scheme formally considered climate-related risks separately from other ESG issues at trustee level?</td><td>Yes</td></tr>
<tr><td>No</td></tr>
<tr><td>Other (please state)</td></tr>
<tr><td rowspan="4">G3</td><td rowspan="4">Has the pension scheme assigned one or more trustees responsibility for climate-related issues?</td><td>Yes, at least one trustee has oversight for climate-related risks. Please provide further details of this in the comment box.</td></tr>
<tr><td>No. However, member(s) of a sub-committee are accountable for climate-related risks.</td></tr>
<tr><td>We delegate the oversight of climate-related risks to our asset managers.</td></tr>
<tr><td>Other (please state)</td></tr>
<tr><td rowspan="4">G4</td><td rowspan="4">Has the pension scheme introduced structured educational/awareness programmes for trustees on the potential impact of climate-related risks?</td><td>Yes</td></tr>
<tr><td>No</td></tr>
<tr><td>Other (please state)</td></tr>
<tr><td></td></tr>
<tr><td rowspan="4">G5</td><td rowspan="4">Has the pension scheme taken steps to engage members on how it's responding to climate change and its implications?</td><td>Yes (please describe)</td></tr>
<tr><td>No</td></tr>
<tr><td>Other (please state)</td></tr>
<tr><td></td></tr>
</table>

TCFD THEME	CODE	QUESTION	ANSWER OPTIONS
Governance (cont.)	G6	Is the pension scheme planning to adopt the Taskforce on Climate-related Financial Disclosures (TCFD) recommendations in the scheme's reporting?	The scheme already reports according to TCFD recommendations.
			The scheme plans to report according TCFD recommendations in the next reporting cycle.
			The scheme plans to report according to TCFD recommendations, but reporting timelines are not finalised.
			The scheme has no plans to report according to TCFD recommendations.
			Other (please state)
Strategy	S1	In light of the Risk Alert that the Institute and Faculty of Actuaries issued to its members in May 2017, has the pension scheme discussed climate change with its actuarial advisers?	Management of climate-related risks is incorporated into our contracts with our actuarial advisers.
			Discussions have taken place with our actuarial advisers.
			We have not discussed climate change with our actuarial advisers.
			Other (please state)

APPENDIX

QUESTIONS FOR EMPLOYER-SPONSORED TRUSTS

TCFD THEME	CODE	QUESTION	ANSWER OPTIONS
Strategy	S1	In light of the Risk Alert that the Institute and Faculty of Actuaries issued to its members in May 2017, has the pension scheme discussed climate change with its actuarial advisers?	Management of climate-related risks is incorporated into our contracts with our actuarial advisers.
			Discussions have taken place with our actuarial advisers.
			We have not discussed climate change with our actuarial advisers.
			Other (please state)
	S2	Have the trustees discussed climate-related risks with the scheme's investment consultants?	Management of climate-related risks is incorporated into our contracts with our investment consultants.
			Discussions have taken place with our investment consultants.
			We have not discussed climate change with our investment consultants.
			Other (please state)
	S3	For assets managed externally, how are climate-related risks factored into the asset manager selection process? Please select all that apply.	We review each asset managers' climate-related policies (please detail).
			We look for asset managers with a strong offering of low-carbon or climate-tilted products.

TCFD THEME	CODE	QUESTION	ANSWER OPTIONS
Strategy cont.	S3 cont.		We assess each asset manager's climate-related performance, for example, how they voted in climate change resolutions (please describe).
			We consider their involvement in collective engagement initiatives, for example, Climate Action 100+.
			We do not consider each asset manager's approach to climate-related risks when selecting passive funds.
			Not applicable (all assets are managed internally).
			Other (please state)
	S4	For members that are able to self-select investments, are any climate-related funds being offered or are under development?	Default fund has been constructed to reduce exposure to climate-related risks (please describe below).
			Low-carbon fund
			Sustainable or ESG fund
			Impact or Sustainable Development Goal fund
			Ethical fund addressing climate change
			Not applicable (we do not offer self-selection options)

TCFD THEME	CODE	QUESTION	ANSWER OPTIONS
Strategy cont.	S4 cont.		No self-select options explicitly address climate change.
			Other (please state)

TCFD THEME	CODE	QUESTION	ANSWER OPTIONS
Risk Management	RM1	Which climate-related risks are the trustees most concerned about?	Free text
	RM2	Please describe the pension scheme's risk management processes for identifying, assessing, and managing climate-related risks, with particular regard to the default fund option.	Free text
	RM3	How does the pension scheme exercise its ownership rights during company engagement to address climate-related issues?	The scheme conducts engagement with investee companies through an in-house engagement team.
			The scheme delegates engagement activities to its asset managers, but seeks to direct voting and engagement priorities through a specific policy on ESG issues.
			The scheme's assets are held in pooled funds, but we seek to use our client status to direct voting and engagement priorities through a specific policy on ESG issues.
			The scheme delegates engagement activities to our engagement services provider.
			The scheme delegates engagement activities to its asset managers.
			Other (please state)

TCFD THEME	CODE	QUESTION	ANSWER OPTIONS
Risk Management cont.	RM3 cont.	Please select the collaborative engagement initiatives and industry associations the scheme participates in either directly, through an engagement services provider, or major asset manager. Please bold the relevant option(s) below the programme name.	Principles for Responsible Investment (PRI) Direct/Engagement services provider/asset manager
			CDP Investor program Direct/Engagement services provider/asset manager
			Climate Bonds Initiative Direct/Engagement services provider/asset manager
			Climate Action 100+ Direct/Engagement services provider/asset manager
			United Nations Environmental Program Finance Initiative (UNEP FI) Direct/Engagement services provider/asset manager
			Montreal Pledge Direct/Engagement services provider/asset manager
			Institutional Investors Group on Climate Change (IIGCC) Direct/Engagement services provider/asset manager
			Other (please state)

TCFD THEME	CODE	QUESTION	ANSWER OPTIONS
Metrics & Targets	M&T1	Do trustees integrate climate-related risks into ongoing asset manager assessment?	Yes (please describe)
			No
			Other (please state)
	M&T2	Please indicate which of the following the pension scheme or its asset managers use to assess and manage climate-related risks and opportunities. Please select all that apply.	Scenario analysis (please state the scenarios considered).
			Climate-related targets (please describe).
			Encourage internal and/or external portfolio managers to monitor climate-related risks.
			Climate-related risk monitoring and reporting are formalised into contracts when appointing managers.
			Portfolio carbon footprint.
			Exposure to carbon-related assets (please describe).
			Adviser analysis e.g. Mercer TRIP modelling (please describe).
			Other (please state)
	M&T3	Has the pension scheme introduced, or is planning to introduce, a target or an asset allocation policy on low-carbon assets?	Yes, within the default fund (please describe).
			Yes, within alternative fund options (please describe).
			We have introduced a target for divestment from certain greenhouse gas emissions intensive sectors (please describe).

TCFD THEME	CODE	QUESTION	ANSWER OPTIONS
Risk Management cont.	RM3 cont.		No, but we are considering policy developments in this area (please describe).
			We delegate asset allocation decisions to our portfolio managers.
			We have no plans to plans to introduce a low-carbon target or policy.
			Other (please state)
	RM4	Please outline any issues/barriers in increasing capital allocation to low-carbon assets.	Free text

APPENDIX

QUESTIONS FOR CORPORATIONS THAT UTILISE MASTER TRUSTS OR GROUP PERSONAL PENSIONS

TCFD THEME	CODE	QUESTION	ANSWER OPTIONS
Governance	G1 (GPP)	When selecting the group personal pension provider or master trust for employees, did the employer consider how the provider addresses responsible investment, including climate change, in the default fund? If yes, please provide details. For example, advice from investment/ employee benefits consultants.	Yes (please provide more details)
			No
			Other
	G2 (GPP)	Does the employer have members of staff responsible for ongoing oversight of the pension provider's approach to climate-related risks?	Yes (please provide more details)
			No
			Other
Strategy	S1 (GPP)	For members that are able to self-select investments, are any climate-related funds being offered or are under development?	Default fund with built in climate protection
			Low-carbon fund
			Sustainable or ESG fund
			Impact or SDG fund
			Ethical fund addressing climate change
			Other (please state)
			Not applicable (we do not offer self-selection options)

TCFD THEME	CODE	QUESTION	ANSWER OPTIONS
Risk Management	RM1 (GPP)	Has the employer taken any action to influence the group personal pension provider or master trust on their approach to climate-related risk? For example, encouraging innovation in new products or stronger engagement practices.	Free text
Miscellaneous		Please share with us any other information you think may be relevant.	Free text

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THE SMALL PRINT

The Air Around Us
How It Is Changing

Once local, air pollution has gone global; it may now be changing us and our world

By Clifford B. Hicks

OPOSSUMS, once seldom seen above the Mason-Dixon Line, now are a common nuisance as back-yard garbage can upsetters in many parts of Canada. Mocking birds, cardinals and other birds, considered "Southerners" a generation or so ago, are spilling over throughout New England. Temperatures in Northern New England have climbed an average of 3½ degrees during the past 60 years, which of course is the thing that makes those

Popular Mechanics Magazine, August 1964

Find out more:
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