Institute
and Faculty
of Actuaries

Climate Change

A call to action for actuaries working in defined contribution pensions

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Pathways to
Sustainability

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Limitations

The guide does not contain a detailed analysis of climate science, which would be outside the scope of this paper. However, the IFoA has produced an introduction to climate change for actuaries new to the topic.[1] Further practical guides to climate change have also been produced by the IFoA's Sustainability Board to support actuaries in incorporating this topic appropriately into their work.[2]

Please note this document does not have the status of non-mandatory guidance for regulatory purposes.[3]

[1] https://www.actuaries.org.uk/system/files/field/document/Climate-change-report-29072020.pdf

[2] https://www.actuaries.org.uk/practice-areas/sustainability/sustainability-practice-area-practical-guides

[3] See https://www.actuaries.org.uk/about-us/governance-and-structure/other-boards-and-committees/regulation-board

Executive summary – A call to action

In 2018 the IFoA released *Climate Risk: A Practical Guide for Actuaries working in DC Pensions.*[4] At that time, public and political awareness of climate change was much lower, climate risk was a new concept for many actuaries, and few schemes had made changes to investment strategies.

Things have changed. As the physical impacts of climate change have become more visible, public concern around sustainability and climate change has increased. Politicians globally are committing to net-zero policy objectives[5] to mitigate the physical risks and accelerate the global energy transition. For example, in June 2019 the UK became the first G7 economy to introduce legislation requiring the UK to reach net zero by 2050. The government has made further commitments since, such as bringing forward the ban on the sale of internal combustion vehicles,[6] increasing emission reduction targets[7] and restricting funding for fossil fuel projects.[8] The IFoA supports these policy objectives, recognising that a rapid move to net zero is the most cost-effective action that can be taken to mitigate the risks of climate change.

The physical and transition risks associated with climate change are now well recognised by UK policymakers and regulators as financially material, with new regulation having come into force and further regulation expected in the future. In the UK, these regulations mandate the management of the material financial risks associated with climate change. However, both physical climate change and a global energy transition at this pace and scale are unprecedented and therefore may not be captured by traditional risk models, reinforcing the need to understand how these risks may impact portfolios by undertaking climate-change scenario analysis.

Almost every nation globally has committed to limiting global warming to well under 2ºC and preferably 1.5ºC, compared to pre-industrial levels.[9] To achieve the goal of limiting global warming to 1.5ºC, it is necessary to balance global carbon emissions produced with those absorbed from the atmosphere by the middle of the century, commonly referred to as 'net zero'.

Given the increasing role and importance of DC pensions as asset owners, there is increasing recognition of the importance of pensions investments in supporting net zero, with several high-profile UK schemes now having committed to a net-zero target. These commitments are supported by a range of industry initiatives that provide implementation guidance to asset owners seeking to support these societal objectives.[10] Alongside this is the recognition that there will be investment opportunities arising from society's response to climate change.

Accordingly, this updated document is a call to action for those charged with governance responsibilities for DC pension schemes and the actuaries advising them. It recognises that failing to incorporate climate-change considerations into DC default investment strategies now risks poorer financial outcomes for members and legal action against those charged with governance of

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[4] DC Pensions Climate Risk_Practical Guide Updated.pdf (actuaries.org.uk)

[5] https://news.un.org/en/story/2020/12/1078612

[6] https://www.gov.uk/government/news/government-takes-historic-step-towards-net-zero-with-end-of-sale-of-new-petrol-and-diesel-cars-by-2030

[7] https://www.gov.uk/government/news/uk-enshrines-new-target-in-law-to-slash-emissions-by-78-by-2035

[8] https://www.gov.uk/government/news/pm-announces-the-uk-will-end-support-for-fossil-fuel-sector-overseas

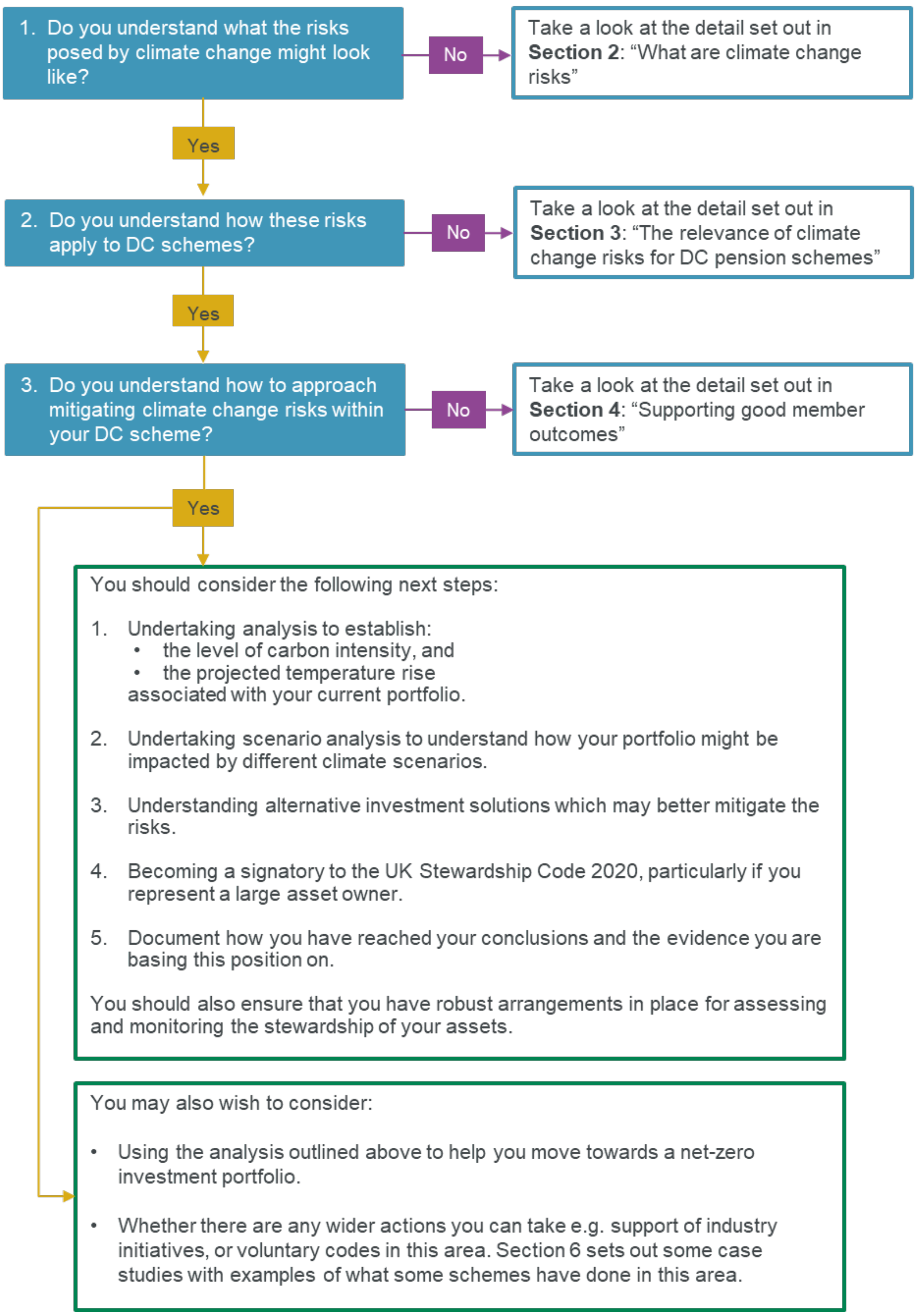
[9] https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

[10] eg Paris Aligned Investment Initiative – IIGCC

investment strategies. More importantly, this document also recognises the critical role that DC pension schemes have to play in supporting the transition to net zero, both in the UK and globally.

This guide has been produced to support actuaries advising UK defined contribution pension schemes (trust, contract and master trust) although some of the material may also be relevant for other advisers or jurisdictions, and those charged with governance, such as trustees and actuaries working in other areas of financial services.

Summary of considerations for managing climate risk in DC pensions



1. Introduction

In recent years there has been a significant rise in regulation and guidance on responsible-investment-related subjects, including climate change. Indeed, the IFoA issued an updated climate-change policy statement in 2021,[11] following the profession-wide risk alert issued in 2017,[12] to raise awareness of the financial risks posed by climate change and the need to incorporate these appropriately in actuarial advice. Another example of recent regulatory change is the introduction of regulations requiring both trust and contract-based workplace pensions to take account of financially material factors, including climate change, when developing their investment approach.

In line with the recommendations made by the Taskforce on Climate-Related Financial Disclosures (TCFD), additional governance and reporting requirements are due to come into force for larger pension schemes in the coming years, with the government indicating that these rules may be applied to smaller schemes in the future. This means actuaries must address climate risks and opportunities when providing advice. Put simply, doing nothing is no longer an acceptable position for those running pension schemes, or for actuaries in providing advice.

This has the potential to put actuaries at risk of challenge in future. For example, actuaries could be asked to evidence how climate risks and opportunities were considered in formal advice and face disciplinary action, if the issues were not adequately considered. It is also essential that actuaries maintain their knowledge and understanding of relevant regulations and guidance in order to provide appropriate advice and support to their clients. There is now a wealth of guidance available, including this guide, which should help actuaries to understand how these matters may impact their advice.

This guide is structured as follows:

- *Section 2 – What are climate-change risks?*
  Contains background on what climate-change risks are and their characteristics
- *Section 3 – The relevance of climate-change risks for DC pension schemes*
  Describes relevance for DC schemes and outlines potential effects as climate risks occur
- *Section 4 – Supporting good member outcomes*
  Covers how those responsible for DC pension schemes can approach these risks to support good member outcomes
- *Section 5 – Practical steps for pension schemes to consider*
  Covers investment strategy, scenario analysis and stewardship.
- *Section 6 – Case studies*
  Example case studies of what some schemes have been doing to date.
- *Section 7 – Closing remarks*
  Reiterates the need for actuaries to take action now on this topic.
- *Appendix - UK-specific DC pension regulation and guidance relevant to climate risk.*

[11] Climate change statement | Institute and Faculty of Actuaries

[12] Risk Alert - Climate Change FINAL.pdf (actuaries.org.uk)

2. What are climate-change risks?

The IFoA recognises that the climate is changing globally at an unprecedented rate. This change, and society's reaction to it, presents ecological, social, economic and financial risks. The potential impacts of climate change include rising sea levels, more extreme weather, drought, crop failures, and involuntary mass migration, which if they occur could cause significant economic disruption globally.

We are a profession that specialises in risk management – and climate change is one of the greatest risks facing our world today. Mitigating this risk is urgent. The most cost-effective action society can take is to reduce our emissions today in order to avoid the irreversible consequences of unmitigated climate change tomorrow.[13] However, this transition to a low or zero-carbon society also presents material risks and opportunities of its own.

In this section we provide a summary of how climate risks can be classified into physical, transition and liability risks, before going on to look at how these risks may impact DC pension schemes.

2.1 Climate-change risks – key characteristics and definitions

The Financial Stability Board described three categories of risk arising from climate change:[14] physical, transition and liability risks. The categorisation of climate-change risks into these buckets is now broadly accepted (although some frameworks consider liability risks as a part of both physical and transition risks).

In April 2019 the Prudential Regulation Authority (PRA) published Supervisory Statement 3/19[15] that contained further information on climate-change risks and regulatory expectations. The following section repeats paragraph 2.5 of the supervisory statement regarding 'distinctive elements of the financial risks from climate change'. In this, the PRA states that these elements include:

- ***Far-reaching in breadth and magnitude***: the financial risks from physical and transition risk factors are relevant to multiple lines of business, sectors, and geographies. Their full impact on the financial system may therefore be larger than for other types of risks, and is potentially non-linear, correlated and irreversible.

- ***Uncertain with extended time horizons***: the time horizons over which financial risks may be realised are uncertain, and their full impact may crystallise outside of many current business planning horizons. Using past data may not be a good predictor of future risks.

- ***Foreseeable in nature***: while the exact outcome is uncertain, there is a high degree of certainty that financial risks from some combination of physical and transition risk factors will occur.

- ***Dependency on short term actions***: the magnitude of future impact will, at least in part, be determined by the actions taken today. This includes actions by governments, firms, and a range of other actors.

[13] Climate change statement | Institute and Faculty of Actuaries

[14] Financial Stability Board – "The implications of Climate Change for Financial Stability

[15] SS319 (bankofengland.co.uk)

Climate-change risks therefore have particular relevance for DC pension provision, given their potentially material impact on capital markets and the long-term investment horizons of most members. Accordingly, actuaries have an important role in the promotion of greater understanding and management of the associated risks and opportunities, as outlined in the IFoA's risk alert.[16]

2.1.1 Physical risk

Climate-change physical risks are risks that arise from changes to the climate. These are split into acute or short-term risks, such as extreme weather or wildfire events, and chronic or long-term risks, such as rising sea levels or changes to rainfall patterns affecting the local use of land for agriculture.[17]

An increased number and magnitude of extreme events may cause changes to the physical landscape, which could also lead to assets being devalued or destroyed. This may directly impact asset classes such as property, infrastructure or agricultural commodities, as well as the value of a company's equity and bonds if they own assets that are affected or if physical events impact their business model. In the longer term, more profound impacts are possible, such as certain regions of the Earth becoming uninhabitable, triggering involuntary mass migration.

Regardless of how rapidly the world decarbonises, we are locked into a warming trajectory until at least 2050 due to the current levels of greenhouse gases in the atmosphere and ongoing emissions. Therefore, the physical risk environment is likely to continue to deteriorate for the foreseeable future, requiring adaptation from societies and companies to remain resilient.

2.1.2 Transition risk

Transition risk is the risk caused by the transition to a low-carbon economy. Depending on the nature and speed of mitigation, and adaptation policies and requirements by governments and regulators, transition risks may pose varying levels of financial and reputational risk. These risks will affect insurers, pension funds and other institutional investors due to the potentially rapid reduction in the market value of, or income generated by, assets.

For example, the risk referred to as 'stranded assets' includes the inability of a company or industrial sector to extract value from its assets (eg plants, rights, land) due to restrictions placed on its activities or simply a collapse in the assets' economic value. In effect, the assets become 'stranded', resulting in a decline in the balance sheet reserves and the market value of the affected company or industry, meaning the value, or cash flows, is no longer able to materialise as expected.

Divestment trends and falling renewables costs increase the risk of fossil fuel assets being stranded. Stranded assets can unexpectedly lose their value due to changes in demand during the transition to a low-carbon economy. They can include fossil fuel reserves, coal plants or gas infrastructure.

The energy transition is now underway, with many companies, cities and countries committing to net zero, with important investor implications. The pace of the transition will be critical to temperature outcomes and hence physical impacts. The manner of the transition will be crucial to the scale of stranded assets and market volatility. Disruption tends not to be orderly, linear or to favour incumbents. Complicated narratives are unfolding across geographies and industries – plotting an informed path through this will be key for firms to successfully navigate the transition.

[16] IFoA warns on climate change financial risks | Institute and Faculty of Actuaries

[17] Recommendation of the Task Force on Climate-related Financial Disclosures – Final Report

2.1.3 Liability risk

Liability risk relates to the potential costs that arise when third parties seek compensation after having suffered damage or losses from the effects of climate change. A commonly cited example is that of the Pacific Island nations, whose territory may disappear as sea levels rise, seeking recompense from industrial nations.[18]

Liability risks could arise from either physical (eg legal claims to recover losses from physical damage) or transition (eg legal claims due to failure to adequately disclose climate risks) risk events.

[18] United Nations - Pacific Islands Forum's Contribution to the Report of the United Nations Secretary-General on the Sea-Level Rise and Its Impacts Open-Ended Informal Consultative Process on Oceans and the Law of the Sea

3. The relevance of climate-change risks for DC pension schemes

Although climate-change risk can be classified into three main categories, the potential impact may stem from a combination of multiple risk factors across different time periods. Effects are likely to be felt at both a macro- and micro-economic level, and will include opportunities as well as risks.

3.1 Climate-change opportunities – mitigation and adaptation

In 2020 Mark Carney called 'the transition to net zero the greatest commercial opportunity of our age', detailing the scale of opportunity presented in *Building a private finance system for net zero.*[19]

In this guide a number of points are made about the benefits of moving to a low-carbon pathway and the scale of investment needed, in particular:

- Shifting the global energy system towards a well-below 2°C pathway requires a significant redirection of global investment flows. The scale of the investment opportunity is significant, with commensurate returns.
- Over the next three decades, the total required investments in the energy sector alone will be $3.5 trillion per year (roughly equivalent to £2.5 trillion per year).
- Research and development of new technologies offer a prospect of high returns; doubling of investments in this area could generate returns of $20 billion per year (roughly equivalent to £14 million per year).

3.2 The impact of physical and transition risks

Significant analysis, including by the IFoA, has been carried out to investigate what might happen to both individual investments and global capital markets under different climate scenarios, that is to say different combinations of physical and transition risk. These show severe potential impacts on both individual companies that fail to adapt and also to the broader economy, with severe economic downside shocks in high physical-risk environments.[20]

Climate-change risks can therefore impact socio-economic conditions and capital markets, and hence DC pensions, in a variety of ways including:

3.2.1 Asset returns and market volatility

1. Impacts on investment returns due to changes in business models:
    - As we transition to a low-carbon economy, changes in the structural framework of the economy are giving rise to new opportunities for technological development and the

[19] Building a Private Finance System for Net Zero https://www.ukcop26.org/wp-content/uploads/2020/11/COP26-Private-Finance-Hub-Strategy_Nov-2020v4.1.pdf

[20] See for example: Climate scenario analysis for pension schemes - An illustration of potential long-term economic & financial market impacts.pdf (actuaries.org.uk) or Forecast Policy Scenario: macroeconomic results | Reports/Guides | PRI (unpri.org)

emergence of new business models. These may be accelerated by policy support;[21] for example, as part of their green finance strategy[22] the UK government has set incentives, accelerating the flow of capital into projects and technologies that will help to reduce emissions.

- This is leading to reallocations of capital across the economy and therefore will systematically impact investment returns. The valuations of companies, sectors and national economies could be materially impacted, as winners and losers emerge.

- Asset returns could also be affected by the results of liability risk events, where assets are invested in companies that are held liable, and required to make recompense, for losses attributable to climate change.

- DC members who are not exposed to the opportunities, or for whom the risks are not mitigated, may be at risk of worse outcomes.

2. Impacts on member outcomes due to increased market volatility:

    - Former Bank of England governor Mark Carney stressed the threat of a 'Climate Minsky moment'[23] where there is a sudden collapse of asset prices due to climate-related factors. These could include both physical risk events, such as extreme weather or sea level rise, and/or transition risk events, such as a sudden repricing of carbon heavy assets due to a policy shift, for instance the introduction of a carbon price.

    - Climate change may also increase the likelihood of inter-related adverse events, such as extreme weather events or changes in the physical climate leading to migration, which increases political unrest. Again, this could cause an economic shock and hence exacerbate market volatility.

    - High levels of market volatility may impact members both pre- and post-retirement, for example through lower contributions as a reaction to losses, by having to purchase an annuity with a lower than anticipated asset value, or through pound-cost averaging in drawdown.

3. Increased uncertainty around mortality and morbidity risk:[24]

    - Extreme weather events due to climate change may increase the spread of certain diseases, increase population migration, and cause disruption to the provision of healthcare services. This can increase the mortality or morbidity risk of members.

    - However, a successful transition to a lower-carbon economy and enhanced lifestyle factors, such as improved air quality and transportation, can lead to increased life expectancy.

    - While there is uncertainty around future mortality and morbidity, this can impact the rates at which members can purchase an annuity or other retirement income options.

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[21] https://www.unpri.org/sustainability-issues/climate-change/inevitable-policy-response

[22] UK Green Finance Strategy https://www.gov.uk/government/publications/green-finance-strategy

[23] https://www.bankofengland.co.uk/-/media/boe/files/speech/2018/a-transition-in-thinking-and-action-speech-by-mark-carney.pdf

[24] https://www.actuaries.org.uk/system/files/field/document/A%20Practical%20Guide%20to%20Climate%20Change%20%20for%20Life%20actuaries%20-%20Oct%20v7a.pdf

3.2.2 Importance of time horizon

For most DC schemes, time horizon is a key driver of the markets different types of member are exposed to. While the specific investment strategies for different schemes are driven by an assessment of members' needs in retirement, most follow a general pattern:

- Younger members, with the longest time horizons, predominantly invest in growth assets, eg equities
- Older members, with the shortest time horizons, invest across a range of asset classes eg equities, bonds and alternatives.

The following table sets out the potential impact of physical and transition risks on financial markets with regard to time horizon and success relative to global climate-related goals:

	Short to medium term (<2050)	Longer term (>2050)
Global temperature goals met	Transition risks are expected to materialise further in order to deliver a net-zero global economy by 2050. The physical risk environment will continue to deteriorate to 2050 due to the current levels of greenhouse gases (GHG) in the atmosphere, 'locking in' a certain amount of further warming.	The worst physical risk impacts are less likely to materialise, with a chance of stabilising global temperatures later this century. Transition opportunities may be rewarded as initial investment costs are repaid and the positive climate impact offsets overall costs at a macro level.
Global temperature goals missed	In the short term, transition risks may be realised to some degree, but lack of progress in delivering the goals means there may be a reduced impact. As the world identifies a lack of progress relative to the goals, more stringent measures are likely to be introduced leading to more significant impacts from transition risks over the medium term. The physical risk environment will continue to deteriorate to 2050 due to the current levels of GHG in the atmosphere, 'locking in' a certain amount of further warming. The pace and scale of this deterioration may be increased.	Physical risks are more likely to materialise since measures to combat their effects have not been fully successful. Some models show a significant global decrease in GDP post 2050 in high warming scenarios as the physical risk environment overwhelms society's ability to successfully adapt.[25] A lack of progress may lead to attractive investment opportunities for investors, with an increase in demand for climate adaptation opportunities.

[25] For example: Climate scenario analysis for pension schemes - An illustration of potential long-term economic & financial market impacts.pdf (actuaries.org.uk)

3.3 The impact of liability risks

Pension schemes could be subject to liability risk:

- From an event such as a class action by a group of DC pension scheme members seeking to recoup investment losses arising from climate risk, if they feel this has not been addressed within a default investment strategy.

  In 2018 a scheme member sued their Australian pension fund[26] for not adequately disclosing or assessing the impact of climate change on its investments. As part of the settlement, the scheme made commitments to align its portfolios with net zero by 2050 and adopted the Task Force on Climate-related Financial Disclosures (TCFD) framework.

Actuaries could be subject to litigation:

- From members and/or clients for not highlighting the potential financial risks arising from climate change in their advice. The potential for professional liability risks in this area has been highlighted in recent reports[27] by Client Earth. Although written for DB pensions, many of the risks highlighted may be even more pertinent to DC advisers, given the longer time horizon and direct impact on member outcomes.

Ensuring that the basis on which decisions are made is properly documented will be an important step in being able to demonstrate the context in which decisions were made.

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[26] Equity Generation Lawyers | McVeigh v Rest

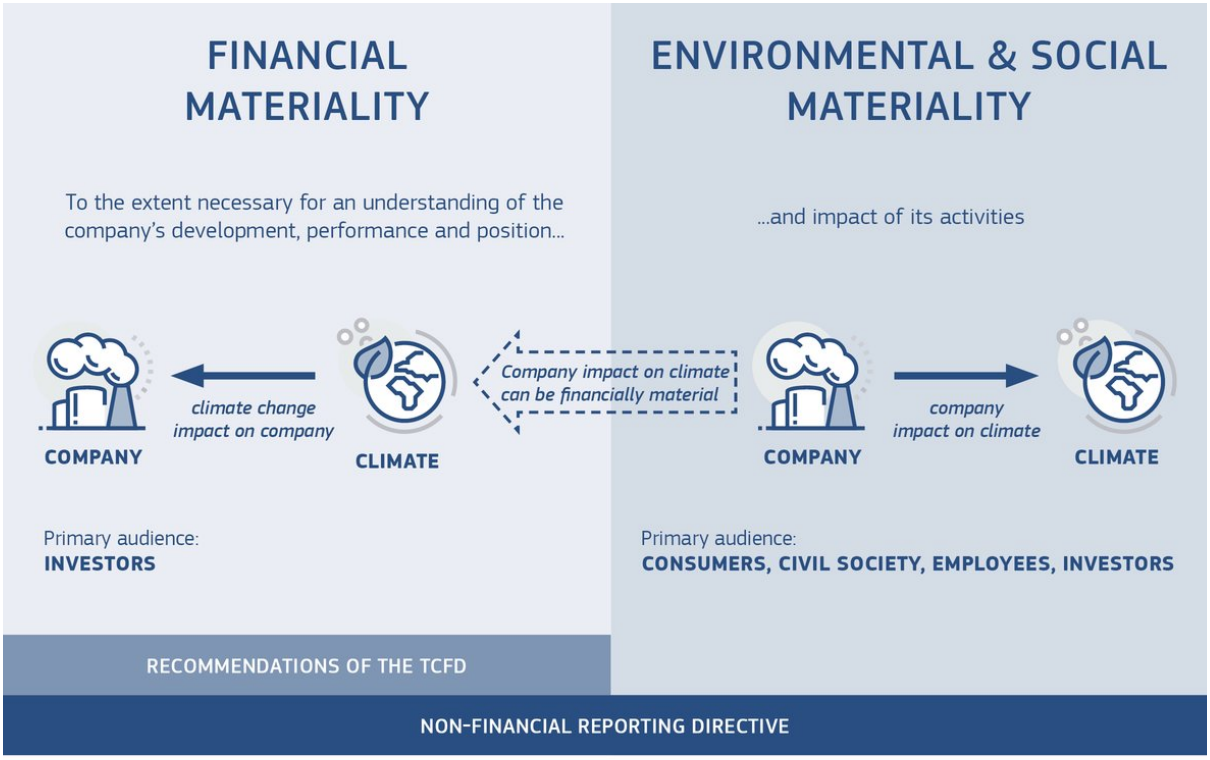
[27] Risky business: Climate Change and Professional Liability Risks for DB Investment Advisors
https://www.clientearth.org/new-reports-bring-light-climate-liability-risks-facing-pensions-advisers/

4. Supporting good member outcomes

4.1 What is the role of DC pension schemes in addressing climate-change risks?

Central to this debate is the concept of double materiality, introduced by the EU Commission in its Non-Financial Reporting Directive.[28] Although written for companies, the logic applies equally to schemes, and codifies the idea that while climate risks can impact companies, companies (or pension schemes) can impact climate outcomes. This is illustrated in the diagram below, and in a short video from Make My Money Matter,[29] a UK campaigning organisation whose objective is to encourage pensions investments to be aligned with societal goals.

The double materiality perspective of the Non-Financial Reporting Directive in the context of reporting climate-related information[30]



* *Financial materiality is used here in the broad sense of affecting the value of the company, not just in the sense of affecting financial measures recognised in the financial statements.*

[28] EUR-Lex - 52019XC0620(01) - EN - EUR-Lex (europa.eu)

[29] No Nasty Surprises - Make My Money Matter

[30] EU: Guidelines on non-financial reporting: Supplement on reporting climate-related information

4.1.1 Consensus view

A now largely undisputed view is that climate change will create some significant financial risks, as outlined in Section 3.

In the narrowest interpretation of what should be expected of DC pension scheme trustees and providers, member outcomes are viewed in purely financial terms. But even here, schemes do not look to maximise returns at any risk, but rather to maximise returns within an acceptable degree of risk.

As a minimum therefore, those responsible for decision-making in DC schemes should look to understand how climate-change risks might affect investment portfolios, and what actions might be appropriate to manage, or mitigate, these risks.

Where climate-change risks are viewed as financially material they must be taken into account. However, there may be risks that are not financially material but are of concern to members. These may still be taken into account by the trustees or provider if members have expressed a preference supporting the approach. This applies to wider ESG risks and ethical views, as well as climate-change risks.

4.1.2 A range of views

There is a range of views within the industry as to the role DC pension schemes should have in allowing for climate change and the shift towards a net-zero economy.

On one hand, the primary purpose of today's DC pension arrangements is to grow a member's savings for their retirement. It is reasonable to question whether members will be grateful for a lower overall pension pot as a result of taking a moral position which that member may or may not agree with. One view therefore is that pension providers should focus on maximising member outcomes in a purely financial sense, regardless of any other nuances.

Another view is that there is little point saving for retirement if, in the process of doing so – for example, by the investment choices made – providers accelerate the destruction of the climate, meaning members face a very different retirement, in a practical sense, to what they might have wished. From this perspective, there is little point maximising the financial returns, as a much more basic requirement for good member outcomes is being compromised.

In this case it follows that DC pension schemes have an obligation to support and work to accelerate the move towards a net-zero economy, as this is the best tool available to schemes to help protect member outcomes at retirement. The combined weight of DC pension provision in the UK could apply pressure and lend momentum to the move to net zero in a significant way.

At the other end of the spectrum, some people wish to see their pension scheme adding value in a broader sense: by doing good to society and/or the environment, over and above purely considering outcomes for members.[31] Although this should not be the sole focus for DC schemes, the needs and expectations of different groups of members should be understood and addressed through advice and decision-making.

The legal position is clear: DC pension schemes must take into account all financially material considerations and, where appropriate, may take into account non-financially material considerations.

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[31] Three in ten would invest in climate-friendly funds even if this meant lower returns, higher risk or higher cost. DC Investment Forum: Key to unlocking member engagement (July 2020).

4.1.3 Document your board/committee’s beliefs

Given the range of legitimate views on this subject, it is important for trustees and those responsible for DC pension schemes to consider their own views and to determine where they sit on this spectrum. By setting out the board/committee’s beliefs for what should and should not be taken into consideration, those responsible for pension schemes can then have clarity on what sort of actions are appropriate (or not) within that context.

4.2 How can DC pensions help address climate-change risks?

With DC pensions becoming the primary approach to pension provision in the UK, it is important actuaries engage with climate change and understand its impact across the value chain of DC pension provision.

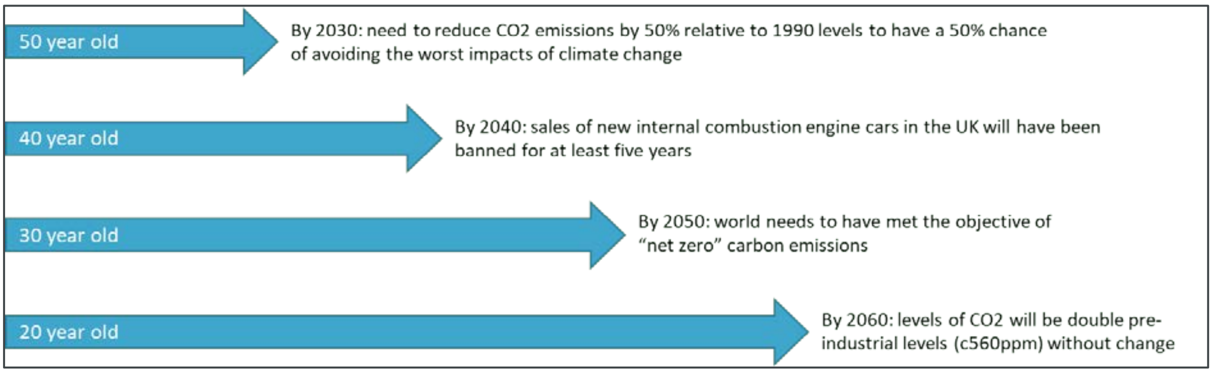
DC member outcomes are driven by a number of well recognised factors:

1. Pot size – contributions and investment returns net of charges
2. Customer choice – how and when pension savings are accessed
3. Investment strategy – the balance of assets in investment portfolios, and their performance over time.

An important consideration is that DC member *utility* in retirement is broader and will be influenced by wider factors including health, inflation, longevity and broader societal conditions, including the state of the planet.

Given that the investment time horizons of DC scheme members may stretch over a period of many decades, the impact of climate change could be significant on both outcomes and utility, reinforcing the need for appropriate consideration by those charged with scheme and investment governance.

The following graphic illustrates some of the upcoming climate-related goals, for different DC members in 2020:[32]



During this time, members’ assets will be fully exposed to investment markets and the climate-related risks described in the previous sections.

A key method for reducing the potential impact on both outcomes and utility is supporting the move towards a net-zero economy.

[32] DCClimateGuide.pdf (hymans.co.uk)

4.3 Working towards net zero

Industry initiatives – 2050 net-zero target

NEST

The £12bn master trust detailed their plans to move the default pension strategy towards a net zero investment portfolio by 2050. The objectives adopted by NEST include:

- Full disinvestment from thermal coal, oil sands and arctic drilling by 2025, unless companies have committed to a full phase-out by 2030
- Reducing carbon emissions within the defined contribution section by 50% by 2030
- Continue engaging with companies and shareholder votes, with stricter emphasis on reporting (e.g. TCFD compliance)

Aviva

The insurer has also set out its commitment to progress towards the 2050 net zero target, in alignment with the Paris Agreement and the UK Government's target. The insurer's initial plans involve integrating climate-transition strategies across its default funds over the next 18 months, which includes investing more than £5bn into low-carbon equities.

4.4 Managing the impact on outcomes

Aside from supporting the move towards net zero, DC pension schemes also need to look at how climate-change risks – and opportunities – will impact their arrangement.

In order to provide effective guidance and advice to trustees and governance committees, actuaries should consider the potential impacts from climate-change risks with regard to:

- Time horizon
- Potential impact on investments
- Engagement with members
- Value for members.

4.4.1 Time horizon

The graphic on page 15 shows that climate change has the potential to impact all DC members, regardless of their age and time horizon. The precise impact on member outcomes will depend on the extent to which the physical and transition risks described in the previous section materialise.

For both trust and contract-based schemes, there are now regulatory requirements to consider material ESG risks over an appropriate time horizon when making investment decisions. This should be reflected in the advice that actuaries provide in this area, eg when reviewing the investment strategies for DC schemes.

For example, if the world meets an objective to achieve net-zero carbon emissions by 2050, a 30-year-old is likely to be:

- Impacted by the full extent of transition risks over the next 30 years, ie to age 60
- Protected, to some degree, from the worst physical impacts although the risk will not be removed.

The impact on this member of a lack of progress relative to the global goal by 2050 is likely to be:

- A reduction in the impact of transition risks in the short to medium term, but more significant impacts longer term as the world introduces more stringent measures to achieve the goal
- Greater risk of physical impacts materialising.

When formulating advice, actuaries should consider the potential physical and transition impacts on financial markets, having regard to time horizon. Actuaries should also consider the potential impacts on specific markets to which members are exposed through the investment approach.

4.4.2 Impact on investments

Actuaries and asset owners should assess the financial risk posed by climate-change risks by assessing their portfolio allocation. There are a number of approaches that can be taken so as to gain a greater understanding of the climate impact on a portfolio, for example:

1. Asking investment managers for reporting on relevant metrics – for example TCFD proposes reporting against measures that are believed to be useful for decision-making. The following are common metrics:
    - Weighted average carbon intensity
    - Total carbon emissions
    - Carbon footprint
    - Carbon intensity
    - Exposure to carbon-related assets
2. Understanding what future climate temperature rises your current portfolio is aligned with, through the use of tools.[33]
3. Undertaking climate-change scenario analysis. This involves modelling the likely impact on an investment portfolio over different time horizons of some of the key potential future paths for the climate. For example:
    - If temperature rises are kept in line with the Paris Agreement of a 2ºC target
    - If temperature rises stay in line with previous trends, resulting in a 4ºC increase
    - If temperature rises are successfully curtailed at a 1.5ºC increase.

Increasingly, DC schemes are investing in more complex asset classes, such as alternative credit and illiquid assets. While the potential impact of climate risks on these assets may be less well understood, such assets can serve to finance the transition to a lower-carbon economy and so present investment opportunities for DC schemes.

[33] Examples: Transition Pathway Initiative, PACTA , Financial institutions - Science Based Targets and many commercial providers of climate modelling solutions

Industry initiative

Across the industry, providers are developing new tools to help support asset owners in understanding the climate impact of their portfolios, with many solutions now available. For example, one asset management company designed a transition modelling tool to assess the financial effects of global warming.[34] The model assesses the financial effects on companies arising from changes in response to climate change (regulatory, societal changes, etc) and evaluates transition risks.

All the portfolio managers at the asset management company have been given access to the tool, enabling them to integrate climate-change scenarios within their existing financial models. Information derived from the model will be used when engaging with companies and to inform shareholder votes.

4.4.3 Member engagement and contributions

The success of DC schemes and individual member outcomes relative to long-term goals are not just influenced by financial outcomes, but also levels of engagement, with contribution levels also having a significant influence. There have been numerous studies of member-engagement levels, with several focusing on responsible investment.[35]

In July 2020 the Defined Contribution Investment Forum published its findings from a survey of representative DC members across the UK in their report titled *The key to unlocking member engagement.*[36] It suggests that the vast majority of DC members are likely to engage more with their pension if they understand that it is invested in a responsible way. Of members considered, half stated that they would increase contributions as a result. Just under one third said that they wanted their pension invested in a climate-friendly manner and would sacrifice returns, accept higher risk or pay higher charges to achieve this.

Ideally, actuaries would be in a position to consider responses from a survey of membership for the scheme in question when formulating their advice. However, it is not always possible to undertake a membership survey at a sufficient level or for it to be suitably representative of response to be relied upon. When providing advice in relation to the default arrangement and self-select range, actuaries should consider the impact of the investment approach on member engagement, having regard to recent industry studies in the absence of scheme-specific information. Specifically, the impact of anticipated changes in the level of engagement from members on their long-term outcomes should be considered in advice. As summarised above, such studies currently indicate the potential for a responsible investment approach to improve member outcomes through better engagement.

Emerging technology is also connecting members with their pensions in new and innovative ways, providing scope to improve engagement and understanding of how their money is invested. For example, some schemes are now progressing with the help of fintech partners and expanding the use of tech-driven initiatives to improve member engagement.[37]

The thinking behind this is that if a pension represents a better future for individuals (in which there is some retirement income) then surely that pension should also be actively making the future better, by

[34] Example: LGIM announces climate solutions capability powered by risk and alignment framework co-developed with Baringa Partners : Legal & General

[35] Example: Responsible Investment in Defined Contribution Pensions.pdf (lcp.uk.com)

[36] https://dcif.co.uk/wp-content/uploads/2020/07/the_key_to_unlocking_member_engagement.pdf

[37] Example: LGIM launches double tech projects to boost member engagement : Legal & General (legalandgeneralgroup.com)

engaging constructively with investee companies. By doing this, and communicating engagingly with members, is there an opportunity to redefine how people think of their pension?

4.5 Value for money

Proper understanding of climate-change risks, their implications, and implementing changes to mitigate these risks will all lead to higher running costs for DC schemes in the short term. For example, climate-aware strategies typically have higher investment management costs than standard index-tracking strategies.

It is important to consider the overall value for money of such investments when compared with alternatives that carry lower management and administrative costs. Pension schemes and their advisers will need to weigh any higher costs against the value provided to members through mitigating future risks.

In doing so, it should be remembered that to date there is very little evidence that climate-aware strategies lead to lower returns; in fact, the majority of studies indicate the opposite is the case.[38] However, as climate transition takes hold actuaries should be wary of comparing the performance of climate-aware strategies with more traditional approaches. If climate transition is successful, the performance of traditional approaches will not be indicative of the returns that would have been achieved if climate transition were not successful.

[38] Research Highlights | NYU Stern Center for Sustainable Business - NYU Stern

5. Practical steps for DC schemes – investment strategy and stewardship

This section contains a high-level overview of practical steps for DC schemes and their advisers to take, recognising that in practical terms the primary tool available to manage climate risk for DC scheme members is by incorporating appropriate changes to the default investment strategy.

5.1 Understanding risk – portfolio risk assessment through scenario analysis

Actuaries and asset owners should assess the financial risk posed by climate-change risks by assessing their portfolio allocation. The quality and availability of tools to assess both climate risk and climate alignment/net zero is increasing rapidly, with a number of guides now available to support these assessments.[39]

In order to meet their regulatory requirements, DC schemes must be able to assess the level of climate risk in their portfolios. To do this, schemes should work towards formally incorporating climate change into investment governance. This can be achieved by:

- Exposure analysis – requesting analysis of climate-change risk exposure from their asset manager or consultant, leveraging ESG data, with the potential inclusion of both financial and non-financial metrics
- Scenario analysis – to understand how the portfolio might be impacted by different climate scenarios
- Climate alignment/net zero analysis – to understand to what extent the portfolio is aligned with the Paris Agreement, ie, is it contributing to meeting global temperature goals or not?

5.2 Incorporating climate change into investment strategies

The chart below illustrates the different approaches that investors in pooled investment funds might realistically take.

[39] For example https://www.iigcc.org/resource/navigating-climate-scenario-analysis-a-guide-for-institutional-investors/

Mitigating climate change risks within your pooled fund investments

1. Understand the different approaches

Traditional approach

Market cap index	Active management
e.g. Traditional passive equities and bonds.	e.g. Traditional active equities / bonds or traditional diversified growth funds.
Typically lowest cost.	Active mandate fees.
Makes no account of climate change risks.	Financially material factors, including climate-change risks, should be taken into account by manager.

Approaches which allow explicitly for climate change risks

Tilted index Climate/ESG factor approaches	Active management with specific climate or ESG considerations
New types of index-tracking funds are available which allow for climate change risks by tilting holdings away from market cap. In particular, equity funds are now available which allow for climate change risks: • by excluding carbon-intensive companies, or tilting away from high carbon emitters towards low carbon emitters; • by tilting towards companies that are expected to benefit from the transition to a low carbon economy; • holistic strategies which aim to cover both the points above, or, for example, follow a Paris-aligned benchmark; • as part of a wider ESG tilt; • through a climate-change or wider ESG factor investing approach.	Funds are available which mandate the manager to take a responsible or sustainable approach to managing climate change risks. This could be either climate change risks specifically or as part of a wider ESG focus. These options are available for investments in bonds and other assets, not just equities. Impact investing funds are also available, which seek to support some form of societal good, potentially at the expense of financial returns. These are likely to be suitable for DC schemes only in very specific circumstances, for example as a self-select choice where a scheme's membership has expressed a desire for this option.
May often be more expensive than market cap, though cheaper funds are being marketed.	Active mandate fees.
Makes some allowance for climate change risks, but retains significant exposure to market beta.	Climate-change risks taken into account by manager in line with mandate.

2. Consider which of the options above are most suitable for your scheme

Action

In particular you should consider:

a) the impact on your management charge and governance budget;
b) the balance between your active and index-tracking investing;
c) the options available for each different asset class;
d) whether an investment is for a default strategy or as a member option;
e) whether the membership has expressed a preference on any particular investment issue.

Note that where it is appropriate to maintain a traditional approach for all or part of the assets, it may still be possible to reduce climate risks by either increasing the level of active management or by adjusting the underlying allocation. For example, in a passive market cap equity investing approach, moving away from a high allocation to UK equities may reduce the carbon intensity of the investments, owing to the level of carbon emissions inherent within the UK equity index.

5.3 Stewardship

The UK Stewardship Code 2020 (the 2020 Code) redefines stewardship as:

> *The responsible allocation, management and oversight of capital to create long-term value for clients and beneficiaries leading to sustainable benefits for the economy, the environment and society.*[40]

The 2020 Code introduces a range of new considerations:

- It assigns specific responsibilities to asset owners, including DC pension schemes, and prohibits them from delegating these
- It covers all asset classes, extending beyond listed equity
- It concentrates on engagement activity and outcomes
- It requires environmental, social and governance (ESG) criteria to be embedded within investment decision-making
- It demands candid, fair and balanced reporting on an 'apply and explain' basis.

As DC pension schemes continue to grow in materiality, so their collective importance as an asset owner increases, with important responsibilities both in the allocation of capital and in the area of active and responsible ownership. For example, the DC market is predicted to grow from around £400bn to well over £1tn in assets over the course of this decade.[41] In addition, the long time horizon of most DC members leads to investment approaches in most schemes that are heavily equity-focused. DC schemes therefore have a significant ability to influence the decision-making of companies in which they invest on behalf of members.

The case studies in the following section illustrate some of the practical steps that pension schemes and providers might take on stewardship.

[40] The UK Stewardship Code 2020

https://www.frc.org.uk/document-library/corporate-governance/2019/2020-corporate-stewardship-code-(1)

[41] Source: Hymans Robertson.

6. Case studies

Guardian Lifestyle Plan (Targeting carbon divestment)

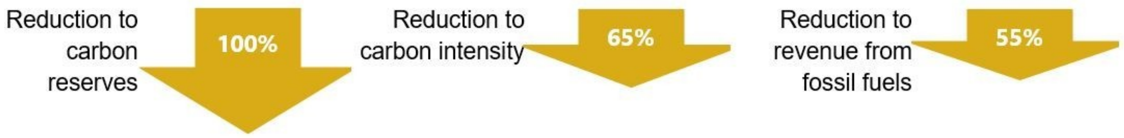
The trustees of the Guardian Lifestyle Plan, together with their plan sponsor, were keen to manage the transition to a world run on clean energy and to remove companies they viewed as polluting the planet from the pension scheme's equity investments. In particular, they were aware that some members of the scheme had ceased to contribute to the pension scheme on account of the strength of their beliefs over this issue. They therefore sought to get behind the fossil fuel disinvestment movement and move their pension scheme assets out of oil, coal and gas companies.

Together with their advisers, the trustees looked at options for reducing the carbon exposure in the scheme's equity investments. The passively managed options immediately available for DC schemes did not meet the trustees' beliefs and objectives on this subject, so instead they looked further afield. They selected the Northern Trust Green Transitions Fund, which had been seeded by the Guardian Media Group in 2019, and worked with the investment manager to create a version for DC schemes, which their scheme would seed.

The index construction process starts with the MSCI World index and involves three key stages.

- An ESG screen is applied removing exposure to conventional weapons, civilian firearms, tobacco, and severe violators of the UN Global Compact.
- A fossil fuels screen is applied, removing all companies with energy-related carbon reserves and the top 10% of carbon emitters. This stage also removes exposure to companies heavily involved with uranium mining and nuclear power.
- A 'green tilt' is applied, prioritising companies benefiting from the low-carbon energy transition. These companies have clear strategies in place to navigate the transition to a green economy and/or generate revenues arising from alternative energy sources, improving energy efficiency and green buildings.

The trustees consider that this will allow their scheme to address the transition risk as well as the physical risk associated with climate change, and expect to achieve significant reductions in the carbon exposure of these investments:



The fund has now been added to the self-select range available to members.

The People's Pension (Climate Change Policy)

The trustees of The People's Pension have accepted that climate change is likely to be the most financially material of the ESG issues as it will affect every business sector and geographical area. They support the current objective set by the experts of trying to keep warming below 1.5°C, compared to pre-industrial levels (thought to require net-zero emissions by 2050), and have published a separate climate-change policy[42] structured with this target and the associated emissions pathways in mind.

Through member surveys, The People's Pension also found that the majority of respondents chose climate change in their top three issues to take into consideration when making investment decisions.

Therefore, they have set out in their climate-change policy how, as trustees, they intend to meet the challenge posed by climate-change risks in their investments, including:

- Their process for responsible investment involves three primary tools: Invest, Exclude, Engage – investing if an approach can add value, excluding companies that do not meet minimum standards and are immaterial, and engaging with companies that are within the portfolio.
- Their ESG approach is supported by related research, which is prioritised based on financial materiality and expert opinion that climate change poses a material financial risk to the value of members' savings. Additionally, government policy, as well as an increasing awareness from industry, indicates that a green transition will be occurring over the next 10 – 40 years.
- Should The People's Pension's growth continue as currently then total contributions will amount to around £40bn by 2030 and around £100bn by 2050. The earlier the trustees are able to invest in a portfolio aligned with net-zero emissions, the fewer legacy assets they will have that are potentially exposed to climate risks.
- They have taken initial steps to reduce fossil fuel reserves and carbon intensive companies by investing in a multifactor fund that screens out higher exposures to these stocks. This achieves at least a 50% reduction in both compared to the parent index.
- More widely, the trustees will:
    - Research the risks and opportunities highlighted by better data
    - Engage with investee companies and exchanges to ensure their data requirements are met
    - Progressively make low-carbon investments: firstly, by focusing on directing incoming contributions into a net-zero emissions portfolio, and secondly, by dealing with legacy high-carbon assets in the portfolio.
- The trustees undertake to review their climate-change policy as expert opinion is updated or their own research produces results, and at least every three years.

Finally, they acknowledge that there is a current lack of disclosure of appropriate climate-related metrics in financial filings and encourage disclosure becoming mandatory for all issuers of investment products. As a result, they have become a signatory to the Principles for Responsible Investment (PRI) and have been responding to government consultations on improving climate-risk disclosure through TCFD recommendations becoming statutory.

[42] https://thepeoplespension.co.uk/resource/climate-change-policy/

The Tesco Retirement Savings Plan (Member Engagement Exercise)

In conjunction with a specialist, the Tesco Retirement Savings Plan has undertaken an extensive engagement exercise to understand its members' responsible investment priorities. Supported by a series of face-to-face workshops, the exercise engaged more than 1,200 individuals and translated key responsible investment themes into member-friendly language. This process identified key themes that were shared by more than 80% of members:

- Protecting people's rights
- Working towards a better society
- Protecting the planet.

The Governance Committee has translated members' priorities into a core responsible investment policy that is being used to drive the development of the investment strategy, alongside an objective to improve future outcomes. The Governance Committee recognises that communication and ongoing engagement with members can be as important as the financial implications. With this in mind, the Governance Committee is developing its communications strategy to engage members in their savings, using the key themes identified from the engagement exercise.

The Tesco Retirement Savings Plan has also taken part in a pilot exercise using technology to connect its members with information about their pensions and empower them to share their views.

The Governance Committee continues to develop its approach, in line with the core themes identified by members.

Scottish Widows (ESG Risk Management and Stewardship)

Scottish Widows is a large provider of workplace pensions, providing DC workplace pension solutions for over 43,000 companies, with approximately £64 billion invested in workplace pensions. In 2019 Scottish Widows published a 'Responsible investment and stewardship framework', articulating its ambition 'to be the leading UK pension provider that offers our customers sustainable investment choices and challenges companies we invest in to behave more sustainably and responsibly.' This framework guides decisions on asset allocation, manager selection, fund research and engagement activity.[43]

As well as Scottish Widows' Stewardship Commitments, the framework has six principles for responsible investment. A number of these principles are directly relevant to climate change including:

- Protecting investments from material ESG-related risks
- Implementing exclusions through funds managed by Scottish Widows
- Aiming to reduce the carbon intensity of equity exposure over time
- Extending the principles into all asset classes
- Working with policymakers and industry participants to promote direct investment opportunities to transition to a low-carbon economy.

The framework further describes the company's approach to stewardship, committing to being responsible stewards of assets, striving to influence investee companies to engender positive change and insisting on strong ESG governance when selecting investment managers.

In order to implement this framework Scottish Widows has incepted a Responsible Investment Committee, published a stewardship policy and created a Responsible Investment team, building internal capacity to drive activity across three areas:

1. Investments – what Scottish Widows chooses to invest in and the manner in which it invests to achieve better long-term returns for its customers as well as positive real-world outcomes
2. Active ownership – striving to influence investee companies to engender positive change
3. Collaboration – driving change across the industry by actively contributing to collaborative sustainable finance initiatives

What do its customers think?

Scottish Widows has undertaken customer research which found that:

- Customers consider it to be the responsibility of the pension provider to make the right investment decisions to protect and grow their pension
- Customers expect their provider to be looking ahead in order to meet this mandate over the long term
- People struggle to evaluate the financial impact that responsible investments have, which fuels uncertainty around them
- Customers display a preference for clean energy and a low carbon transition as their top sustainability theme

[43] https://adviser.scottishwidows.co.uk/assets/literature/docs/60161.pdf

- Over half of the customers surveyed believe that they would be more interested in their pension investments if sustainability funds that align to their preferences were available.

Investments

Scottish Widows has developed its customer proposition by launching a number of sustainable fund offerings on its platform. Recognising that for many customers the default investment strategy is likely to be where the bulk of funds are invested, Scottish Widows also made changes to the default investment strategy, seeding a new Climate Transition Fund with Blackrock with £2 billion of assets, or around 10% of the default investment strategy funds. This fund has emissions that are 50% lower than a fund invested across the FTSE 100 and also manages climate risks.[44]

Active ownership

Scottish Widows has defined its stewardship priorities as Climate and Carbon and Cognitive Diversity on Boards, recognising that it is clear that catastrophic impacts could occur if climate change is not mitigated, and that good governance of both financial and ESG issues requires boards to have a diversity of perspectives.

As both an asset owner and an asset manager, Scottish Widows undertakes stewardship directly, as well as engaging with asset managers that provide asset management services. Scottish Widows investment mandates include a requirement for these asset managers to provide services in a way that is consistent with the UN Principles for Responsible Investment (PRI), of which it is a signatory.

Examples of this are provided by Scottish Widows' engagement with oil majors BP and Shell, where Widows has engaged both collaboratively and individually with both companies to encourage them to be more transparent in the way in which they are approaching climate change and to link executive pay to carbon reduction targets.

Scottish Widows aims to become a signatory to the FRC's Stewardship Code (2020) and published its first Stewardship report in April 2021 to meet the requirements of the new code for asset owners.

Collaboration

A key pillar of Scottish Widows' stewardship approach is collaboration. As well as being a PRI signatory, Scottish Widows has played an active role in:

- Institutional Investors Group on Climate Change – developing the Net Zero Investor Framework and leading collaborative shareholder engagement initiatives
- Scottish Responsible Asset Owners Group – founder member of this group, with objective to raise standards across the Asset Owner community
- British Standards Institute – sponsor and contributor to new British standards around sustainable finance and responsible investment

[44] https://adviser.scottishwidows.co.uk/assets/literature/docs/60406.pdf

7. Closing remarks

This guide has been produced to support actuaries advising UK defined contribution pension schemes (trust, contract and master trust) to understand the potential risks and opportunities presented by climate change, their impacts and how these can be considered in advice.

Climate-change risks and opportunities can have a material impact on the long-term outcomes of individual DC members. It is crucial that climate risks and opportunities are properly understood, so that appropriate action can be taken to protect members' interests. In this guide we have shared many ways in which you can influence the long-term outcomes of DC savers through advice, supported by our example case studies.

Our primary call to action is simple and unwavering: All actuaries must consider the impact of climate risks and opportunities in their advice. Failing to do so could have a detrimental impact on members' long-term outcomes.

Appendix A: UK-specific DC pension regulation and guidance which is relevant to climate risk (as of 31 March 2021)

Financial Reporting Council's Technical Actuarial Standards[45]

- Compliance with all relevant Technical Actuarial Standards (TASs) is compulsory for Actuaries in scope.
- The Technical Actuarial Standards require that actuaries use assumptions and models that are fit for purpose and communicate material risks and uncertainties to clients.

FCA requirements – COBS[46] and PRIN[47]

- The FCA requirements apply to contract-based schemes and the providers of contract-based schemes.
- The FCA's Principles of Business, in particular PRIN 6:
  A firm must pay due regard to the interests of its customers and treat them fairly.
  - The FCA's Conduct of Business Sourcebook, in particular COBS 19.5.5 (2) (a) (i) and (b):
  - COBS 19.5.5 (2) (a):
    whether default investment strategies within those schemes:
    (i) are designed and executed in the interests of relevant policyholders;
  - COBS 19.5.5 (2) (b):
    whether the characteristics and net performance of investment strategies are regularly reviewed by the firm to ensure alignment with the interests of relevant policyholders and that the firm takes action to make any necessary changes.
  - COBS 19.5.5 (2B):
    where a firm has an investment strategy or makes investment decisions which could have a material impact on the relevant policyholders' or pathways investors' investment returns, the IGC will consider and report on:

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[45] https://www.frc.org.uk/actuaries/actuarial-policy/technical-actuarial-standards

[46] https://www.handbook.fca.org.uk/handbook/COBS/

[47] https://www.handbook.fca.org.uk/handbook/PRIN/

- *(a) the adequacy and quality of the firm's policy (if any) in relation to ESG financial considerations;*
- *(b) the adequacy and quality of the firm's policy (if any) in relation to non-financial matters; and*
- *(c) how the considerations or matters in (a) and (b) are taken into account in the firm's investment strategy or investment decision making; and*
- *(d) the adequacy and quality of the firm's policy (if any) in relation to stewardship;*

- FG16/8, the FCA's Finalised Guidance on Fair treatment of long-standing customers in the life insurance sector. While the guidance is aimed at closed book customers it does provide clarity on FCA expectations, in particular emphasising the relationship between Principle 6 and product terms and conditions in guidance relating to sub-outcome 1.1:
  We expect a firm to take proper account of fair customer outcomes and apply T&Cs in conjunction with the Principles. Firms should not, therefore, just rely on T&Cs to defend outcomes which are unfair under Principle 6.

The Occupational Pension Scheme Investment Regulations 2005[48]

- The Occupational Pension Schemes Investment Regulations 2005 apply to Trust based schemes.
- In particular, paragraph 2A requires that a Statement of Investment Principles is prepared for the default DC investment:
  - 2A (1) The trustees or managers of a relevant scheme must prepare a statement of the investment principles governing decisions about investments for the purposes of the default arrangement, and that statement must be in writing and must cover at least the following matters:
  - (a) the aims and objectives of the trustees or managers in respect of such investments;
  - (b) their policies in relation to the matters mentioned in regulation 2(3)(b) in respect of the default arrangement; and
  - (c) an explanation of how the aims and objectives mentioned in sub-paragraph (a) and the policies mentioned in sub-paragraph (b) (together "the default strategy") are intended to ensure that assets are invested in the best interests of the group of persons consisting of relevant members and relevant beneficiaries.

Occupational Pension Schemes (Investment and Disclosure) (Amendment and Modification) Regulations 2018

- The Occupational Pension Schemes (Investment) Regulations 2005 are amended as follows:

  2(3) A statement of investment principles must be in writing and must cover at least the following matters—
  (b) their policies in relation to—

[48] http://www.legislation.gov.uk/uksi/2005/3378/contents/made

vi) financially material considerations over the appropriate time horizon of the investments, including how those considerations are taken into account in the selection, retention and realisation of investments; and

(vii) the extent (if at all) to which non-financial matters are taken into account in the selection, retention and realisation of investments;

(c)their policy in relation to—

(i)the exercise of the rights (including voting rights) attaching to the investments; and

(ii)undertaking engagement activities in respect of the investments (including the methods by which, and the circumstances under which, trustees would monitor and engage with relevant persons about relevant matters)

For the purposes of this regulation—

"financially material considerations" includes (but is not limited to) environmental, social and governance considerations (including but not limited to climate change)..

Occupational Pension Schemes (Investment and Disclosure) (Amendment) Regulations 2019

- Following the adoption of Shareholder Rights Directive, the Occupational Pension Schemes (Investment) Regulations 2005 was further amended to include the following:

2(3) A statement of investment principles must be in writing and must cover at least the following matters—

(d) their policy in relation to the trustees' arrangement with any asset manager, setting out the following matters or explaining the reasons why any of the following matters are not set out—

(i) *how the arrangement with the asset manager incentivises the asset manager to align its investment strategy and decisions with the trustees' policies mentioned in sub-paragraph (b);*

(ii) *how that arrangement incentivises the asset manager to make decisions based on assessments about medium to long-term financial and non-financial performance of an issuer of debt or equity and to engage with issuers of debt or equity in order to improve their performance in the medium to long-term;*

(iii) *how the method (and time horizon) of the evaluation of the asset manager's performance and the remuneration for asset management services are in line with the trustees' policies mentioned in sub-paragraph (b);*

(iv) *how the trustees monitor portfolio turnover costs incurred by the asset manager, and how they define and monitor targeted portfolio turnover or turnover range; and*

(v) *the duration of the arrangement with the asset manager*

The Pensions Regulator's Guide to Investment Governance[49]

- TPR has produced a series of guides to support trustee boards in meeting the standards set out in their DC code, which sets out the standards TPR expects trustees to meet when complying with the law.

- The TPR provides the following guidance to comply with the amendment outlined above in the Occupational Pension Schemes (Investment) Regulations 2005

  - *Trustees must make their Statement of Investment Principles (SIP) - a scheme's investment strategy - available free of charge on a website from October 2019.*

  - *From October 2020 trustees must produce an implementation report which explains how trustees have followed and acted on the investment policies outlined in the SIP. The SIP must include the trustees' policies on:*

    - *financially material considerations including environmental, social and governance matters such as climate change*

    - *stewardship of investments, such as exercising rights (including voting rights) and engaging with activities in respect to the investments*

    - *the extent to which members' views, including ethical, social and environmental, are considered when planning investments arrangements with asset managers*

  - The 'Guide to Investment Governance' is a DC-specific document, prepared to help trustee boards with implementing appropriate investment governance.

  - The **Pensions Regulator**'s Investment Governance[50] Guidance notes:

    "It is important to understand the implications of the systemic risk of climate change on investment decisions in the context of your scheme when developing your SIP. In doing so, you should consider talking to your advisers and asset managers (unless you have the relevant in-house expertise and capacity) about how climate change risk (including both long term risk presented by raising global temperatures and potential short-term risks associated with transitioning toward a low carbon economy) is currently built into their recommendations and what, if any, measures are taken to reflect it within portfolios. As climate change is a systemic, macro-economic risk, you should also consider how engagement could be used to mitigate these risks by engaging with investee companies, policymakers and collaborative industry initiatives.

- In addition to the summary of the Law Commission guidance quoted above, the guide states on Sustainability:

  You should bear in mind that most investments in DC schemes are long term and are therefore exposed to the longer-term financial risks. These potentially include risks relating to factors such as climate change, unsustainable business practices, unsound corporate governance etc.

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[49] http://www.thepensionsregulator.gov.uk/docs/dc-investment-guide.pdf

[50] TPR's Investment Governance Guidance to support the their Code of practice 13: Governance and administration of occupational trust based schemes providing money purchase benefits ('the DC code')

These risks could be financially significant, both over the short and longer term. You should therefore decide how relevant these factors are as part of your investment risk assessment.

The Investment Consultancy and Fiduciary Management Market Investigation Order 2019

- Following the CMA review, the orders require trustees to set and monitor strategic objectives for providers of investment consultancy services.

- **Part 7: Investment Consultancy Services - objective setting order states:**

  - *Pension Scheme Trustees must not enter into a contract with an Investment Consultancy Provider for the provision of Investment Consultancy Services or continue to obtain Investment Consultancy Services from an Investment Consultancy Provider unless the Pension Scheme Trustees have set Strategic Objectives for the Investment Consultancy Provider.*
  - *'Investment Consultancy Services' means the provision to Pension Scheme Trustees of services where the provider advises the Pension Scheme Trustees in relation to one or more of the following:*
    - *investments that may be made or retained by or on behalf of the Pension Scheme Trustees;*
    - *any matters in respect of which the Pension Scheme Trustees are required by law to seek advice in relation to the preparation or revision of the statement of investment principles;*
    - *strategic asset allocation;*
    - *manager selection.*

- **The Pensions Regulator's 'A trustee guide to: Setting objectives for providers of investment consultancy services'** produced a draft guidance for trustee boards with practical information and key matters to consider when setting and monitoring the objectives.

The Occupational Pension Schemes (Governance) Regulations 2018 (Amendment)

- These amendments to the regulation implement the requirements relating to the EU IORP II Directive on the activities and supervision of institutions for occupational retirement provision.

- Came into force in the UK on January 2019.

- The amendment:

  - *"imposes a duty on the trustees or managers of an occupational pension scheme to establish and operate an effective system of governance including internal controls."*

  - *"sets out the matters to be included in the code of practice which the Pensions Regulator issues" in relation to the duties imposed. A sub-section is stated below:*

    The trustees or managers of an occupational pension scheme must establish and operate an effective system of governance including internal controls

    (8) The carrying out and documentation of an own-risk assessment of the system of governance by the trustees or managers of the occupational pension scheme, including—

    (h) where environmental, social and governance factors are considered in investment decisions, how the trustees or managers assess new or emerging risks, including—

(i)risks relating to climate change, the use of resources and the environment;

(ii)social risks; and

(iii)risks relating to the depreciation of assets as a result of regulatory change;

(i)the timing of the documentation of the occupational pension scheme's first own-risk assessment, which must be prepared—

(i)within 12 months beginning with the last day of the first scheme year that begins after the Regulator has issued a code of practice referred to in paragraph (1); or

(ii)if later—

(aa)within 15 months beginning with the date on which the trustees or managers of the occupational pension scheme are next required to obtain an actuarial valuation in accordance with section 224 (actuarial valuations and reports) of the Act; or

(bb)by the date on which the trustees or managers of the occupational pension scheme are next required to prepare an annual statement in accordance with regulation 23 (annual statement regarding governance) of the Occupational Pension Schemes (Scheme Administration) Regulations 1996(7);

(j)the timing for subsequent own-risk assessments, which must be prepared at intervals of not more than three years.

EU Commission Delegated Regulation - amending Delegated Regulation - the integration of sustainability factors, risks and preferences for investment firms

- This Regulation covers the following amendments:

  Article 1 aims at clarifying that investment firms providing financial advice and portfolio management should carry out a mandatory assessment of sustainability preferences of their clients. These investment firms should take these sustainability preferences into account in the selection process of the financial products that are offered to these clients. Further, it requires investment firms to prepare a report to the client that explains how the recommendation to this client meets his investment objectives, risk profile, capacity for loss bearing and sustainability preferences (ex-post information disclosure).

House of Commons Library - Briefing paper - Pension fund investments: climate change risk (Number 8950, 2 July 2020)

- This briefing paper provide context for provisions in clause 124 of the Pension Schemes Bill 2019/21 that would "*require occupational pension schemes to manage the effects of climate change effectively as a financial risk to their investments and to report publicly on how they have done so.*"

- The following is stated in the briefing paper:

  In March 2020, Pensions Minister Guy Opperman launched a consultation on non statutory guidance regarding aligning your pension scheme with the Taskforce on Climate-related Financial Disclosures (TCFD) recommendations and explained that the Government was proposing to take powers in the Pension Schemes Bill to require climate change risk governance and TCFD reporting.

Voluntary Requirement for Trustees of pension schemes which is relevant to ESG and climate risk.

UK Stewardship Code 2020 - Financial Reporting Council

- *The FRC updated code of stewardship which took effect from 1 January 2020, sets substantially higher expectations for investor stewardship policy and consideration of climate related risk. In particular, principle 4 require signatories to report on "how they have identified and responded to market-wide and systemic risks including climate change". Principle 7 require signatories to "systematically integrate stewardship and investment, including material environmental, social and governance issues, and climate change, to fulfil their responsibilities*."

- Principle 4 (Promoting well-functioning markets) requires signatories to explain:

    - *how they have identified and responded to market-wide and systemic risk(s), as appropriate;*

    - *how they have worked with other stakeholders to promote continued improvement of the functioning of financial markets;*

    - *the role they played in any relevant industry initiatives in which they have participated, the extent of their contribution and an assessment of their effectiveness, with examples; and*

    - *how they have aligned their investments accordingly.*

    Systemic risks are those that may lead to the collapse of an industry, financial market or economy and include but are not limited to climate change...

- Principle 7 (Stewardship, investment and ESG integration) requires signatories to explain:

    - *how integration of stewardship and investment has differed for funds, asset classes and geographies;*

    - *how they have ensured: -*

        - *tenders have included a requirement to integrate stewardship and investment, including material ESG issues; and*

        - *the design and award of mandates include requirements to integrate stewardship and investment to align with the investment time horizons of clients and beneficiaries;*

- *OR*

    - *the processes they have used to:*

        - *integrate stewardship and investment, including material ESG issues, to align with the investment time horizons of clients and/or beneficiaries; and*

        - *ensure service providers have received clear and actionable criteria to support integration of stewardship and investment, including material ESG issues.*

- To become a signatory, Trustee much produce a "*Policy and Practice Statement*" and an annual "*Activities and Outcomes Report*" explaining how they have applied the Code in the previous 12 months.

United Nations Principles for Responsible Investment

- Launched in 2006, the United Nations Principles for Responsible Investment, set out 6 principles for signatories to promote the incorporation of environmental, social, and corporate governance factors (ESG) into investment decision-making.
- The 6 principles signatory must consider:
  - **Principle 1**: We will incorporate ESG issues into investment analysis and decision-making processes.
  - **Principle 2:** We will be active owners and incorporate ESG issues into our ownership policies and practices.
  - **Principle 3:** We will seek appropriate disclosure on ESG issues by the entities in which we invest.
  - **Principle 4:** We will promote acceptance and implementation of the Principles within the investment industry.
  - **Principle 5:** We will work together to enhance our effectiveness in implementing the Principles.
  - **Principle 6:** We will each report on our activities and progress towards implementing the Principles.

Climate-related Financial Disclosures (TCFD)

- In 2017, the international industry-led Task Force on Climate-related Financial Disclosures (TCFD) publishes number of recommendations for signatories regarding how climate risk is identified, assessed and disclosure. Although as at August 2020 this is a voluntary requirement, the DWP has launched a consultation for the proposal to embed TCFD requirement into the pension Schemes Bill 2019-21.
- The recommendations focus on four key areas:
  1. **Governance**: The organization's governance around climate-related risks and opportunities
  2. **Strategy**: The actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.
  3. **Risk Management**: The processes used by the organization to assess and manage climate-related risks.
  4. **Metrics and Targets**: The metrics and targets used to assess and manage relevant climate-related risks and opportunities.

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