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PPI

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The DC Future Book:

In association with
Columbia Threadneedle Investments

2020 Edition

The Pensions Policy Institute (PPI)

The PPI is an educational, independent research organisation with a charitable objective to inform the policy debate on pensions and retirement income provision. The PPI's aim is to improve information and understanding about pensions and retirement provision through research and analysis, discussion and publication. It does not lobby for any particular issue or reform solution but works to make the pensions and retirement policy debate better informed.

Pensions affect everyone. But too few people understand them and what is needed for the provision of an adequate retirement income. The PPI wants to change that. We believe that better information and understanding will lead to a better policy framework and a better provision of retirement income for all. The PPI aims to be an authoritative voice on policy on pensions and the provision of retirement income in the UK.

The PPI has specific objectives to:

- Provide relevant and accessible information on the extent and nature of retirement provision
- Contribute fact-based analysis and commentary to the policy-making process
- Extend and encourage research and debate on policy on pensions and retirement provision
- Be a helpful sounding board for providers, policy makers and opinion formers
- Inform the public debate on policy on pensions and retirement provision.

We believe that the PPI is unique in the study of pensions and retirement provision, as it is:

- Independent, with no political bias or vested interest
- Led by experts focused on pensions and retirement provision
- Considering the whole pension framework: state, private, and the interaction between them
- Pursuing both academically rigorous analysis and practical policy commentary
- Taking a long-term perspective on policy outcomes on pensions and retirement income
- Encouraging dialogue and debate with multiple constituencies

Lauren Wilkinson, Senior Policy Researcher

Lauren Wilkinson joined the PPI in September 2016 as a Policy Researcher. During her time at the PPI Lauren has produced research on a range of topics, including Defined Benefit, consumer engagement, pension freedoms and Collective Defined Contribution.

Lauren was promoted to Senior Policy Researcher in January 2019.

Prior to joining the PPI, Lauren achieved an undergraduate Masters in Politics and Philosophy at the University of Glasgow, followed by a Masters in Public Administration and Public Policy at the University of York.

Daniela Silcock, Head of Policy Research

Daniela is Head of Policy Research at the Pensions Policy Institute (PPI), and she leads the PPI Policy Research team. She has a wealth of experience in conducting quantitative and qualitative research into all aspects of state and private pensions policy, writing articles for journals and national press, and presenting to a variety of domestic and international audiences, including radio and television appearances.

Daniela originally joined the PPI in 2008 and took a short break in 2012 to work as a Committee Specialist for the Work and Pensions Select Committee.

Prior to working in research and policy Daniela was a social worker with vulnerable adults and children. Daniela has an MSc in Social Policy and Planning from the London School of Economics.

John Adams, Senior Policy Analyst

John has been the PPI's Senior Policy Analyst since 2008. In his time at the PPI John has worked in a lead role in the modelling of a wide range of projects including looking at public sector pensions and pension related tax-relief.

At the PPI, John is responsible for the PPI's Pension Facts and has authored briefing notes and reports on subjects such as how housing wealth can support retirement, tax policy on pension schemes, harnessing pension savings for debt alleviation, public sector pension reforms.

John joined the PPI in 2008 from Hewitt Associates. At Hewitt he worked primarily on modelling of standard and non-standard Defined Benefit pension scheme calculations for the consultants to present to the clients.

Prior to joining Hewitt John worked for the Government Actuary's Department for 8 years in the Occupational Pensions directorate, during which time he calculated public sector pension scheme valuations, bulk transfer values, and designed models for the use of other Government departments.

John has a BSc in Actuarial Mathematics and Statistics from Heriot Watt and a Post Graduate Diploma in Actuarial Management from Cass Business School.

A Research Report by Lauren Wilkinson, Daniela Silcock and John Adams

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The Future Book: unravelling workplace pensions

Foreword

Nick Ring
CEO, EMEA at Columbia Threadneedle Investments

Columbia Threadneedle has been a proud sponsor of the *DC Future Book* since its inaugural publication five years ago. Every year, the *DC Future Book* provides a snapshot of the UK Defined Contribution (DC) market along with insight into its future direction by tracking membership rates, contribution levels, pot sizes, auto-enrolment milestones, investment allocation trends and much more.

To say that much has happened since last year's edition is an understatement. We have not seen anything like the global coronavirus pandemic in decades; it has been complex to understand and navigate and has come at considerable human and economic cost. The worldwide lockdowns and the heightened level of uncertainty and anxiety experienced by people around the world had a direct effect on economic activity. This in turn impacted investment markets and consequently the nest eggs of millions of pension savers in the UK and elsewhere.

Fast forward six months and we are not out of the woods yet. However, many investment markets have recovered from the troughs, not least due to the speed and coordination with which central banks and governments moved to provide stimulus and relief. Without doubt, however, COVID-19 will have a long-term impact.

This is a time of great change in people's behaviour, the way consumers interact with businesses and the nature of transactions. Over the next several years, companies will have to endure an extremely testing economic environment that not all will survive. For DC pension scheme trustees, the challenge *and* opportunity lie in working with those asset managers that can uncover the pandemic's long-term impacts and apply them to portfolios in order to manage risks and achieve sustainable long-term returns for their scheme members.

Such analysis would not be complete without responsible investment or environmental, social and governance (ESG) research, not least due to the social issues the pandemic has propelled into the spotlight. In fact, investors have been snapping up specifically labelled "social bonds" this year, which have seen a whopping 530% annual increase[1] as governments, supranational entities and corporates across the world rushed to raise funds aimed at alleviating the pandemic, including for health care support, education and job preservation. Interest in these types of bonds has been extremely strong with all issuances oversubscribed.

Allocating DC member assets to impact-oriented strategies that invest in social bonds is one way for trustees to integrate ESG into their portfolios. As Chapter Four of this year's *DC Future Book* shows, there are many other ways, such as engaging with investee companies to drive change or excluding certain sectors or industries from portfolios. Different approaches will suit different scheme types and sizes.

DC trustees will need to work ever closer together with their asset managers to identify opportunities, set approaches and expectations and understand practical constraints. Trustees must then continuously assess their managers' performance against those parameters. Ultimately, while integrating ESG considerations into investment strategies can be complex, all schemes regardless of size and set-up should be able to find a solution that best serves the long-term interests of their DC scheme members.

We hope you find this year's publication a valuable and interesting read.

Nick Ring,
CEO, EMEA at Columbia Threadneedle Investments

1. 12 months to 30 July 2020, Bloomberg

Introduction

Compared to previous generations of pensioners, current and future retirees will:

- Live longer on average,
- Receive their State Pension later,
- Be more likely to be dependent on Defined Contribution (DC) savings,
- Have no, or low, levels of Defined Benefit (DB) entitlement, and
- Flexibly access their DC savings.

These changes increase the risks borne by pension scheme members and the complexity of decisions people must make at and during retirement. It is important that a comprehensive compendium of DC statistics and data is available to allow observation of, and reaction to, developing trends.

The Pensions Policy Institute (PPI) is publishing the sixth edition of its annual DC compendium, "The DC Future Book: in association with Columbia Threadneedle Investments", setting out available data on the DC landscape alongside commentary, analysis and projections of future trends.

Chapter One outlines the state and private pension system in the UK and the main DC landscape changes over the past few years.

Chapter Two provides an overall picture of the current DC landscape.

Chapter Three uses PPI modelling to explore how the DC landscape might evolve in the future both for individuals and on an aggregate level.

Chapter Four explores the ESG investment approaches available to DC pension schemes, the impact these various approaches may have and their suitability for schemes of different type and size.

Chapter Five contains reflections on the policy themes highlighted by the report from leading thinkers and commentators in the pensions world.

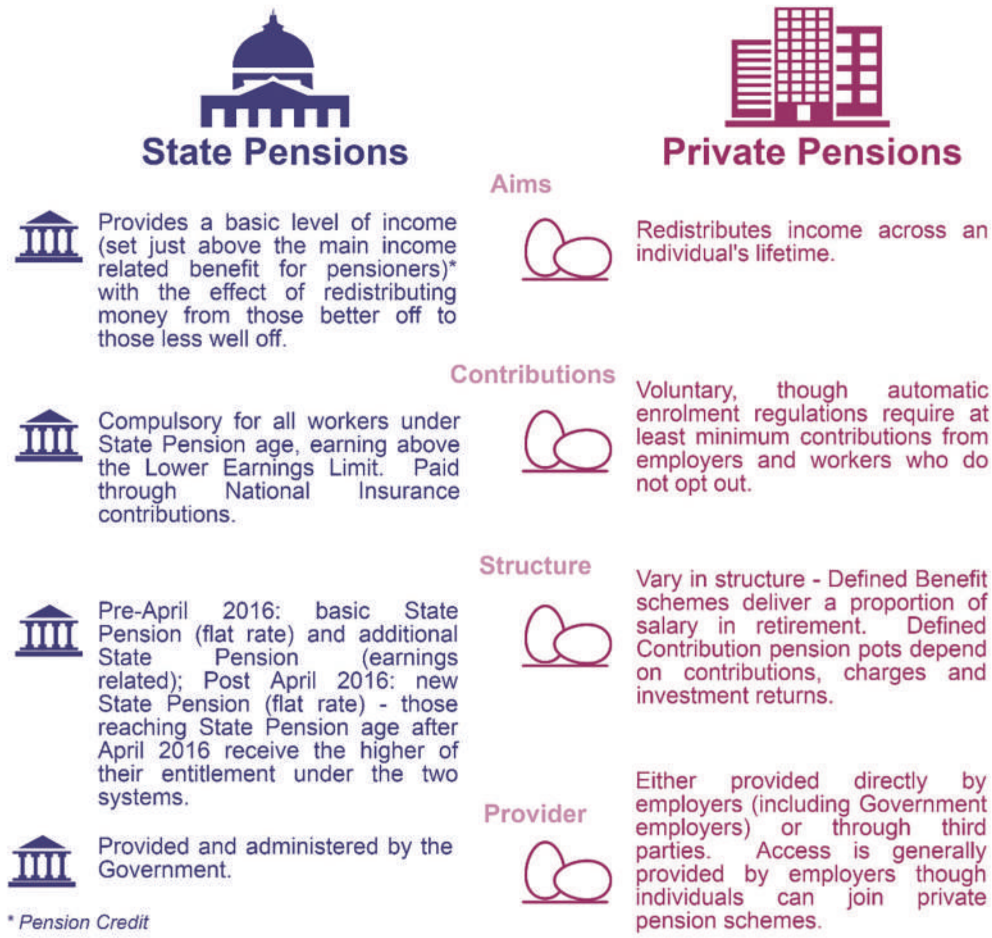
Chapter One: What is the DC landscape?

This chapter outlines the state and private pension system in the UK and the main Defined Contribution (DC) landscape changes over the past few years.

There are two main tiers to the state and private pension system (Box 1.1)

- A compulsory, redistributive state tier; and,
- A voluntary, private tier[2]

Box 1.1: The state and private pension system



Pensions in the private tier can be either workplace (provided through employer) or personal (set up by the individual who has a direct contract with the provider). While workplace pension saving is more prevalent than personal accounts, the market for non-workplace pensions is relatively large, especially in terms of assets under management (AUM). As of 2019, there were 12.7 million non-workplace accounts, accounting for 20% of the AUM in the UK pensions sector. [3]

2. For further detail regarding the UK pension system, see PPI's Pension Primer (2020)
3. FCA (2019a)

There are benefits associated with saving in private pensions over other types of saving

Private pension savings (along with other savings and assets) are used to top up State Pension income and improve people's standard of living in retirement. Private pensions provide benefits over other forms of saving:

- Eligible employees enrolled in workplace pensions receive employer contributions.
- Pension contributions and investment returns are given tax relief (subject to certain limits).
- The long-term nature of pension saving allows for compound interest to accrue over time, which can substantially increase fund sizes.

There are risks associated with saving in and accessing private pensions

The most significant pension-related risk is the risk of not saving enough to achieve an adequate standard of living in retirement.[4] Other significant risks are (Figure 1.1):

Figure 1.1[5]

There are other risks associated with saving in and accessing private pensions including (but not limited to):

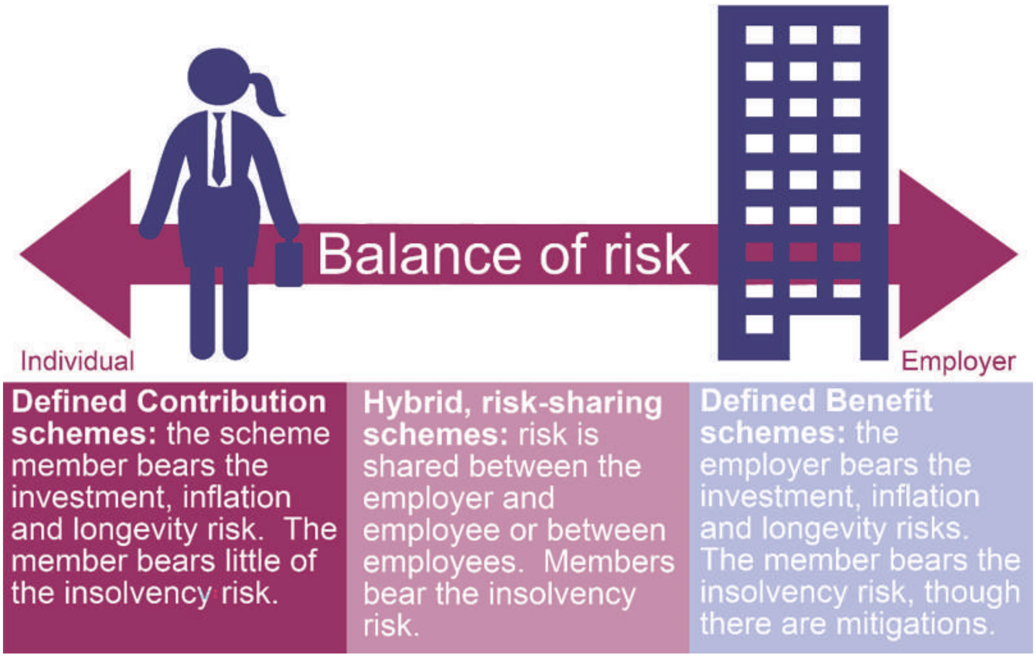
- Making sub-optimal decisions about how to access retirement savings,[6]
- Poor understanding of the income level required for an adequate standard of living,
- Excessive product charges,
- Poor annuity rates,
- Poor investment strategies,
- Market turbulence,
- Becoming a victim of fraudulent schemes, and
- The risk of needs in retirement changing unexpectedly, for example, as a result of developing health and social care needs.[7]

The type of private pension that people save in has implications for the level of risk they face. Members of DC pensions face more individual risk than members of DB pensions (Figure 1.2).

4. Redwood *et. al.* [PPI] (2013)
5. The Pension Protection Fund protects Defined Benefit scheme members whose sponsoring employer becomes insolvent. For members of Defined Contribution schemes, members can be compensated up to 100% of the value of their pot if your pension provider can't pay you and is authorised by the Financial Conduct Authority (FCA).
6. This risk has become much greater following the introduction of pension flexibilities. Drawdown investment pathways will help to somewhat mitigate this risk for drawdown customers, but those accessing DC pensions may need further protection in the form of advice, guidance and structured choice architecture.
7. Blake & Harrison (2014)

Scheme type has implications for the balance of risk:

Figure 1.2



The risks that people face will be mitigated if they have only a small amount of DC savings and have other, larger, sources of income in retirement from, for example, DB pensions. However, those with very low incomes may experience significant changes to standards of living from small amounts of DC savings if they can use them to supplement a small income or use them up front to pay off mortgages or to make house repairs, which could reduce living costs in later retirement.

The pensions landscape has changed over the last few decades as a result of demographic, market, policy and regulatory shifts (Box 1.2-1.5).

Box 1.2: Demographic shifts[8]

Increases in life expectancy and shifts in the old age dependency ratio affect the ability of people to support their own retirements and taxpayers to fund State Pensions and pensioner benefits. Increases in healthy life expectancy affect the length of time people are capable of staying in work before they retire. These shifts provide part of the Government's rationale for rises to State Pension age (SPa), although increases to SPa have been lower than increases in life expectancy meaning that State Pension costs have continued to increase despite SPa changes.

Health expectancy: Babies born between 2016 and 2018 will spend on average 63.1 years (boys) and 63.6 years (girls) in good health, compared to 60.7 (boys) and 62.4 (girls) born in 2002-2004. This means that younger generations should be capable of working longer, on average, than older generations.

Dependency ratio: In 2019 there were 288 people over State Pension age for every 1,000 people of working age. This is projected to grow to 361 for every 1,000 by 2050.

Life expectancy: In 2020, a 65 year old man can expect to live on average to age 86.7 and a 65 year old woman to age 89.1. When the contributory State Pension was introduced in 1925, a 65 year old man could expect to live to around age 76.

8. Cohort life expectancy: ONS, 2016-based projections; Dependency ratio: ONS, 2016-based, Table A1-1, Principal projection - UK summary; Healthy life expectancy projections: ONS 2016-based projections, Estimates for 2000-02 are simulations based on original survey data.

Box 1.3: Market changes

Defined Benefit (DB) pension schemes historically dominated private sector pension provision and continue to be the main source of provision within the public sector. In 1967 there were around 8 million active members in private sector DB.[9] Private sector DB membership had declined to around 1.1 million active members by 2019 and 89% of private sector schemes were closed to new members, but 44% are open to new accruals by existing members.[10] Scheme closures can be attributed to several factors, including:

Labour-market shifts that have led to fewer people spending most of their working life in a single job may have also diluted the rationale for offering private sector DB schemes. As DB schemes became more problematic for private sector employers, the less risky and less expensive DC model became more attractive. As a result of this, and the introduction of automatic enrolment in 2012, the number of active savers in DC schemes has increased rapidly and has overtaken the number of active DB savers. In 2020 there were around 14.6 million active members in DC schemes compared to around 6.7 million active members in DB schemes, including the public sector.[11] Many public sector DB schemes are pay-as-you-go, rather than being backed by assets in the same way that private sector DB schemes are, with some exceptions, including, for example, the Universities Superannuation Scheme (USS).

9. Carrera *et.al* [PPI] (2012)
10. TPR (2020a)
11. PPI Aggregate Model

Box 1.4: Policy changes[12]

Automatic enrolment: automatic enrolment requires employers to enrol eligible employees into a qualifying workplace pension scheme. Employees can opt out. For those who stay in, employers are required to make minimum contributions on a band of earnings (£6,240 - £50,000 2020/21). Over 10 million people have been automatically enrolled.

New State Pension: from April 2016 the basic and additional State Pensions were replaced with a single-tier, flat-rate pension set above Pension Credit (£173.75pw) at £175.20pw for a single person in 2020/21.

Increases to State Pension age (SPa): the SPa rose for women from age 60 in 2010 to age 65 in 2018. SPa for both men and women will rise to age 66 by 2020, age 67 by 2028 and age 68 by 2039.

Freedom and choice: since April 2015, people have had greater flexibility when they come to access DC pension savings at or after age 55. Prior to these changes, people with DC savings who could not demonstrate a minimum level of secure income were required to use an annuity or capped drawdown in order to access DC savings.

12. The rationale for setting the new State Pension at a level just above Pension Credit is to ensure that people who save in a private pension do not lose out through eligibility for means-tested benefits as a result. Therefore, the level of the new State Pension is intended to provide an incentive to save in a workplace pension.

Box 1.5: Regulatory changes

- Charge Cap: In 2015 the Government introduced a charge cap on default strategies in automatic enrolment qualifying schemes equivalent to 0.75% of funds under management per year. The cap applies to all investment and administration charges. Transaction costs (third-party costs generated when shares are bought and sold on the market) and costs incurred as a result of holding property, are excluded from the charge cap.[13] Between June and August 2020 (with a Government response expected by the end of 2020), the Government consulted on the charge cap, seeking evidence on:
  - The level and scope of the charge cap applicable to the default arrangement within certain Defined Contribution pension schemes used for automatic enrolment.
  - The appropriateness of permitted charging structures and the extent to which they should be limited.
  - Options to assess take-up and widen the use of standardised cost disclosure templates.[14]
- Master trust[15] regulation: The 2017 Pension Schemes Act provided for the introduction of an authorisation and supervision regime for master trusts which will apply to new and existing schemes. This regime is now in force and has led to the consolidation of many master trusts.[16]
- Schemes are required to provide increased transparency: The Occupational Pension Schemes (Administration and Disclosure) (Amendment) Regulations 2018, which came into force in April 2018, require DC scheme trustees to publish charge and transaction cost information for all investment options along with an illustration of the compounding effect of the costs and charges.[17]
- Schemes are required to consider whether the financial impact of Environmental, Social and Governance (ESG) factors might affect their members' pension investments: Since October 2019 pension scheme trustees have had to set out, in their Statement of Investment Principles (SIP), their policy on how they take account of financially material factors, including ESG considerations and climate change, in their investment decision making. From 1 October 2020 the SIP must also set out how the scheme's asset managers are incentivised to align their investment strategy and decisions with the trustees' investment policies, including in relation to ESG matters. Additionally, the Government is currently consulting on policy proposals to require trustees of larger occupational pension schemes and authorised schemes to address climate change risks and opportunities through effective governance and risk management measures.[18] ESG investment approaches available to schemes are explored in Chapter Four.

Demographic, market and policy changes affect needs and resources in retirement (see Boxes 1.2-1.5)

The above shifts affect the needs and resources of, and the risks faced by, people at and during retirement. Compared to previous generations, future retirees will:

- Live longer and take their State Pension later,
- Be more likely to reach retirement with DC savings (and no or low levels of DB entitlement) and have near total flexibility in regard to accessing their savings,
- Face more risk and complexity at and during retirement,
- Be more likely to have a need for long-term care in later life, as they reach older ages, and will face challenging decisions about how to fund this.

13. The Occupational Pension Schemes (Charges and Governance) Regulations 2015
14. https://www.gov.uk/government/consultations/review-of-the-default-fund-charge-cap-and-standardised-cost-disclosure
15. A DC pension scheme, governed by a board of trustees, offering the same terms to multiple employers and their employees.
16. services.parliament.uk/bills/2016-17/pensionschemes.html
17. www.legislation.gov.uk/uksi/2018/233/made
18. DWP (2020a)

Chapter One Summary

While saving into a private pension can offer benefits over other savings vehicles (employer contributions, tax relief and compound interest), there are also risks associated with saving into and accessing a private pension (investment risk, inflation risk, longevity risk and insolvency risk). The level of risk and who it falls upon is dependent on the type of pension scheme.

As the UK private pensions landscape has shifted rapidly from DB to DC, largely as a result of DB scheme closures and the introduction of automatic enrolment, there has also been a shift of risk from employer to employee.

While some regulation has been introduced to better protect DC savers now that this is the norm for workplace pension provision, with future retirees likely to live longer and reach retirement with predominantly DC savings, as well as near total flexibility in how they access them, they are likely to face more risk and complexity at and during retirement.

Chapter Two: What does the DC landscape look like?

This chapter provides an overall picture of the current Defined Contribution (DC) landscape.

Automatic enrolment

Automatic enrolment requires all employers to enrol eligible employees into a qualifying pension scheme. To be eligible for automatic enrolment an employee must be aged between 22 and State Pension age and be earning £10,000pa or above in at least one job. Those who are self-employed or have several jobs which each pay below the £10,000pa threshold are not eligible.

Employers are required to contribute on behalf of workers while they remain active members. The minimum required level of contributions from April 2019 is 8% of band earnings (£6,240 to £50,000) though employers and workers may contribute more:

- Employers must contribute at least 3% of band earnings on behalf of workers, though employers may choose to cover the whole 8% (with some employers offering pension contributions higher than this).
- Workers whose employer makes only minimum contributions are required to contribute a minimum of 5% of band earnings (though tax relief is applied to contributions, reducing the impact on take-home pay) unless they opt out.

New and newly eligible employees are automatically enrolled and have a one-month window to opt out and receive back all personal contributions. People who cease contributing after the opt-out period has expired, are not eligible to claim back their contributions. Those who opt out or cease contributing are re-enrolled around every three years.

Employees and automatic enrolment

Employees were automatically enrolled on a staged basis starting with the largest employers in October 2012. By the end of 2018 all existing employers were required to automatically enrol their employees and all new employers also have that obligation.

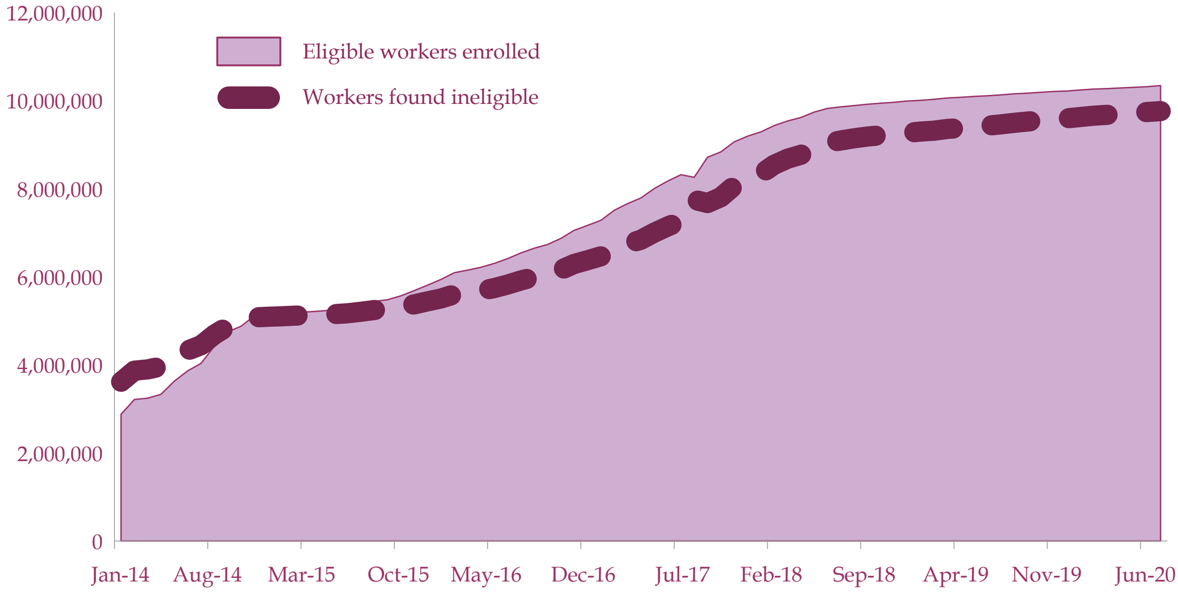
10.3 million people were automatically enrolled by July 2020

By July 2020, 10.3 million employees were automatically enrolled. However, a further 9.8 million were found ineligible due to age or earnings (Chart 2.1).

Chart 2.1[19]

10.3 million workers were automatically enrolled by July 2020, a further 9.8 million were found ineligible

Cumulative numbers of workers automatically enrolled and cumulative number of workers found ineligible (since January 2014) by month



Removing the lower age limit for automatic enrolment, from 21 to 18, as recommended by the automatic enrolment review, could increase eligibility by around 2.8%, while removing the lower earnings limit of £10,000 in a single job could increase eligibility by around 14% among those in employment.[20]

People who are self-employed are not eligible for automatic enrolment, by nature of the fact that they do not have an employer who can automatically enrol them. Following the 2017 Automatic Enrolment Review, Nest has done substantial amounts of research and trials around how to encourage higher levels of pension saving among the self-employed. They have identified a number of options for increasing self-employed pension saving, with the following found to be most appealing to the self-employed:

- 'Set and forget' mechanisms: 'These captured the idea of saving little and often, but with greater flexibility to irregular and unpredictable incomes than is currently possible in retirement saving for most self-employed people. The fact that contributions would only be made in proportion to money coming in, rather than at a fixed, regular amount, had high appeal.'
- Saving at the point when income was known for the year: 'The group liked the simplicity of only having to consider retirement saving once a year. However, a number questioned whether they would be likely to actually get around to contributing in this context or have the funds available at that point when they were also completing their annual tax return.'
- Combining short-term, more liquid savings with retirement saving: 'This was positively received, although it was perceived as potentially complex. Care would have to be taken presenting this approach to self-employed people.'[21]

805,000 employees have been automatically re-enrolled

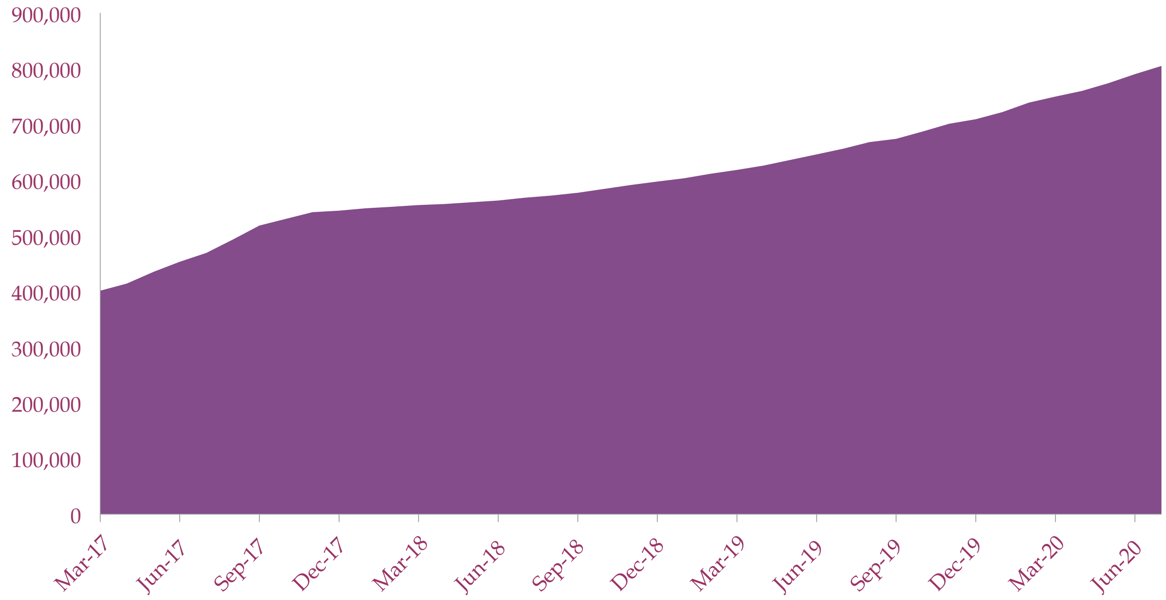
Employers are required to automatically re-enrol all eligible workers around three years after the date they opt out the first time. By July 2020, 805,000 employees had been automatically re-enrolled (Chart 2.2).

19. TPR (2020a)
20. PPI analysis of Labour Force Survey
21. Nest (2019a)

Chart 2.2[22]

805,000 workers were automatically re-enrolled by July 2020

Cumulative numbers of eligible jobholders automatically re-enrolled (since March 2017) by month



The most recently recorded automatic enrolment opt-out rate is 9% (2018/19)

People have the opportunity to opt out and have their contributions returned to them within one calendar month of being automatically enrolled. Opt-out levels have remained low at around 9% despite fears that opt-outs might increase once smaller employers started reaching their staging dates or as minimum contribution levels increased.[23] For their long-term modelling the Government assumes the proportion of automatically enrolled people who opt out, plus those who voluntarily stop contributing after the opt-out period, to average 15% per year.[24]

Opt-in rates vary by scheme size

Ineligible employees may opt in to their employer's automatic enrolment scheme. Those earning above £6,240 are eligible for employer contributions, if they opt in, and those earning below are not, though employers may choose to contribute anyway. Some employers automatically enrol all of their employees, including those ineligible.

6% of non-eligible workers were enrolled into a pension scheme in 2016/17 as a result of either opting in, or a blanket automatic enrolment policy by their employer.[25] In 63% of schemes where at least some non-eligible employees had been enrolled, the employees had actively asked to join, whereas in 29% of these schemes, it was company policy to enrol every worker. In 9% of these schemes, non-eligible employees joined for another, unstated reason.[26]

70% of eligible employees saved in a pension for at least three of the last four years[27]

Some people cease contributing to their scheme after their one month opt-out period has expired. This could be because they:

- Leave their current job (they may be automatically enrolled via their next job),
- Fall below the eligible earnings band lower limit, or
- Do not wish to continue contributing into their automatic enrolment pension scheme.

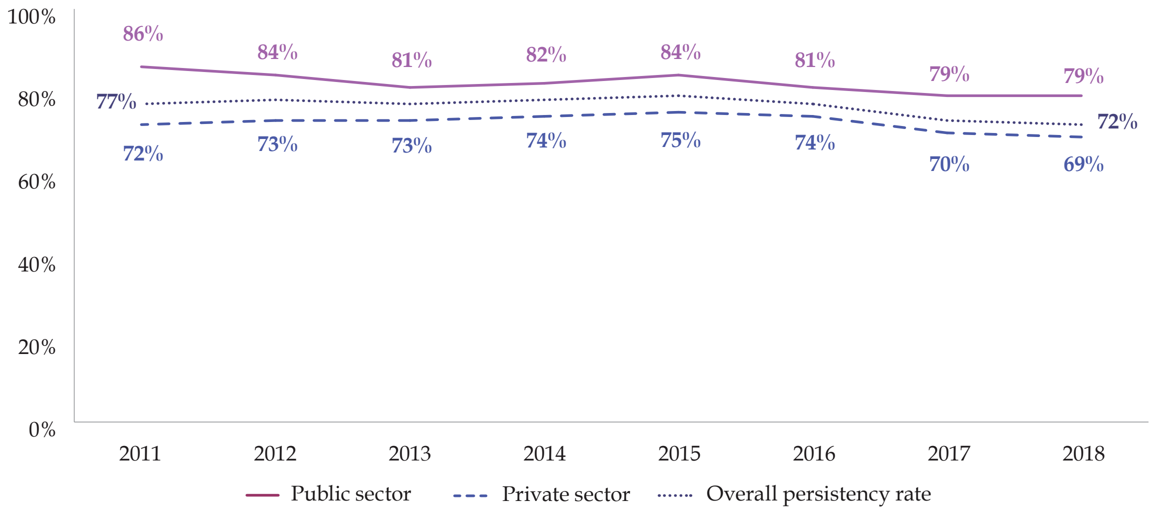
22. TPR (2020a)
23. DWP (2020b)
24. DWP (2018)
25. DWP (2018)
26. DWP (2018)
27. DWP (2020c)

Therefore, it is useful to look at the "persistence rate": the proportion of people automatically enrolled who contribute regularly into their pension. In order to measure persistency among the eligible population, the Department for Work and Pensions (DWP) tests the proportion of eligible employees contributing into a workplace pension for at least three out of a period of four years (Chart 2.3).

Chart 2.3[28]

Persistency rates have decreased, mainly in the private sector

Percentage of eligible employees saving persistently 2011-2018 by sector



Persistency in pension saving has fallen since 2016, from 77% to 70% in 2019. Persistency in the public sector fell from 84% to 79% between 2012 and 2018 and from 73% to 69% in the private sector. Lower levels of persistency in the private sector may be a function of more frequent job changes. There is a greater decline in persistency in the public sector than in the private sector. The DWP reports a degree of uncertainty regarding the evidence on those in the non-persistent group which could distort the figures.[29]

The data used in this year's edition of The DC Future Book does not reflect changes that may result from the current COVID-19 pandemic. There are some concerns that opt-out rates may increase and persistency of saving decrease in the next few years. This trend will be monitored in future editions of The DC Future Book.

28. DWP (2019a)

29. DWP (2019a) "The proportion of eligible savers not saving persistently remained at one per cent in 2018, and for the remaining 27 per cent there is an indeterminate amount of evidence in the ASHE dataset to judge either way. The 'evidence indeterminate group' has been increasing in recent years. The reasons for this are not clear, although there has been a small decrease in the ASHE response rate since 2014. The growth in this evidence indeterminate group appears to be the driver of the decrease in those identified as persistent savers."

Scheme Type

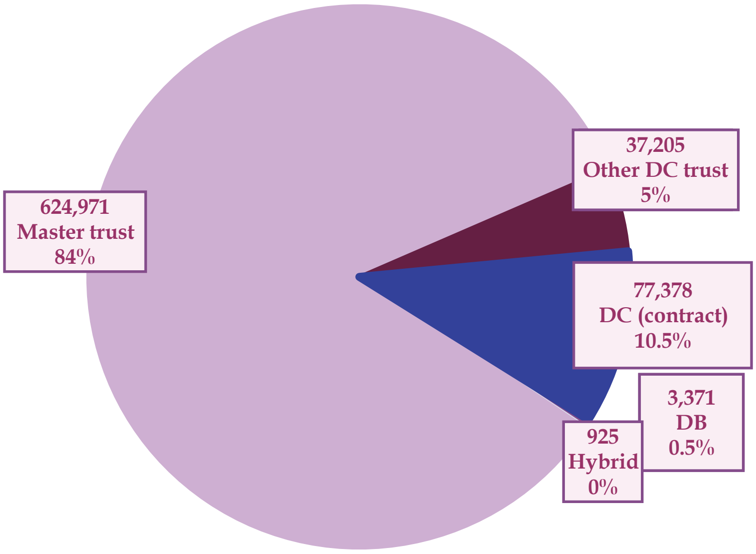
More than 4 in 5 employers have automatically enrolled their employees into master trust schemes

Employers have a choice into which scheme they enrol their employees. The provision of Defined Benefit (DB) schemes has dwindled in the private sector, and private sector employers are more likely to automatically enrol employees into Defined Contribution (DC) schemes. The use of DC schemes, specifically master trusts, has risen dramatically with automatic enrolment (Chart 2.4).

Chart 2.4[30]

98% of employers have automatically enrolled their employees into DC schemes

Automatic enrolment by March 2019 by scheme type



98% of employers have chosen to automatically enrol their employees in DC schemes, up from 97% in 2017, but stable since 2018. 84% of employers have automatically enrolled their employees in master trust schemes, up from 83% in 2018.

Employers and automatic enrolment

Automatic enrolment has now fully staged, and all existing employers should have been through the automatic enrolment process. The number of employers automatically enrolling grew exponentially as smaller employers began to stage in 2014. By the end of automatic enrolment staging, 1.1 million employers had been through the process. By July 2020, this had risen to 1.7 million, as a result of new employers joining the market (Chart 2.5).[31]

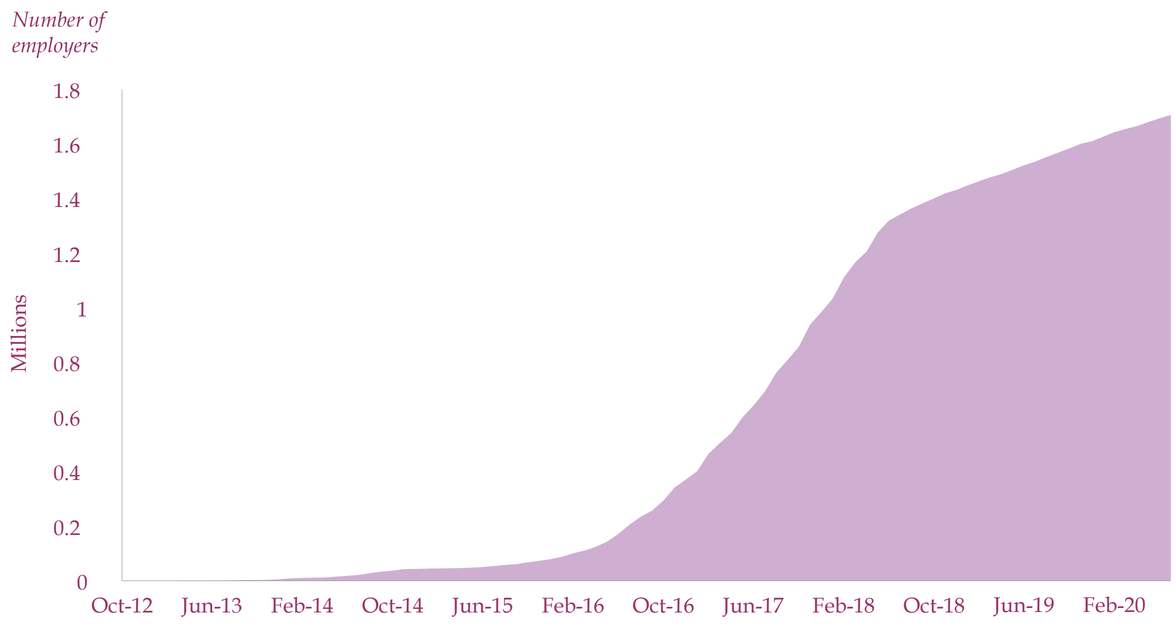
30. TPR (2019a)

31. TPR (2020a)

Chart 2.5[32]

1.7 million employers had automatically enrolled employees by July 2020

Employers who completed automatic enrolment declarations of compliance by July 2020 (cumulative)



The number of employers going through the automatic enrolment process has increased and therefore you would expect the number of compliance and penalty notices (issued to employers who have not fully complied with their automatic enrolment duties) to increase. The number of penalty notices issued by The Pensions Regulator has increased, from 1,493 in 2014, 3% of employers staged, to 367,314 by the end of March 2020, 22% of employers who have automatically enrolled, though some employers will have received more than one of these notices (Table 2.1).

Table 2.1: Cumulative number of compliance, contribution and penalty notices issued by The Pensions Regulator (TPR) by time period[33]

	Total notices	Employers who have automatically enrolled	Proportion of notices to employers
By end 2014	1,493	43,538	3%
By end 2015	6,667	78,789	8%
By end 2016	44,095	370,432	12%
By March 2017	58,817	503,178	12%
By March 2018	157,386	1,166,156	13%
By March 2019	283,730	1,489,815	19%
By March 2020	367,314	1,665,610	22%

32. TPR (2020a)
33. TPR – compliance and enforcement quarterly bulletins for the relevant periods

Awareness of ongoing automatic enrolment duties, particularly re-enrolment duties, increased significantly between 2018 and 2019

The increase in notices suggests that smaller employers have found compliance more difficult than large employers. This is unsurprising as small employers are less likely to have pre-existing in-house pension administration systems and are less likely to be aware of their ongoing duties in relation to automatic enrolment.

Awareness of re-enrolment duties among small employers has increased drastically as they have now reached their first re-enrolment deadlines. Awareness of re-enrolment was at 81% among micro employers and 91% among small employers in 2019, compared to 46% and 55% respectively in 2018.

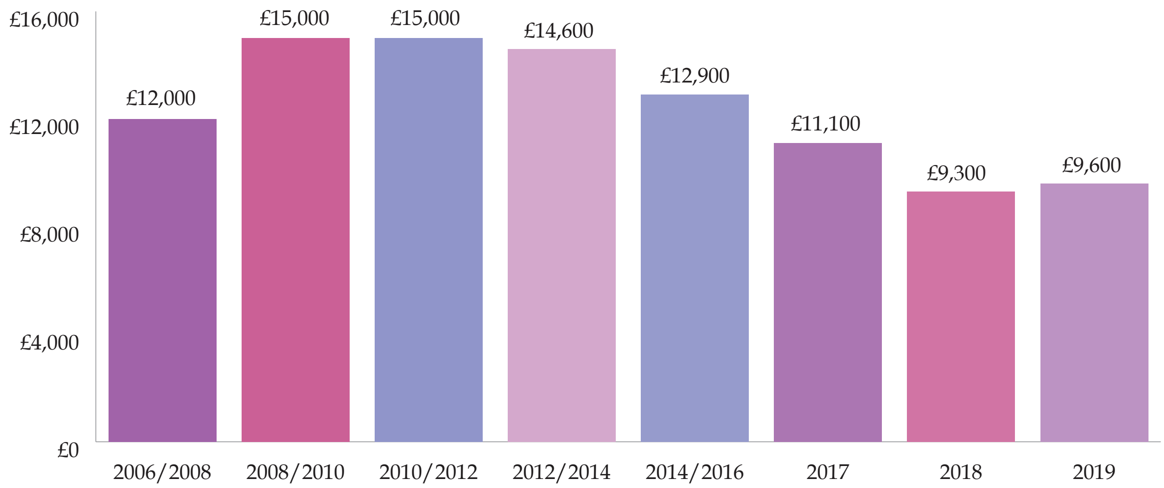
DC saving levels

Between 2008/10 and 2018, the median DC pot size decreased from £15,000 to £9,300 as a result of people being automatically enrolled and accruing initially small pension pots. However, as a result of the increase in minimum contributions, all employers having staged and pots having some time to increase in value, median pot sizes have increased by £300 since 2018 to £9,600. (Chart 2.6). This data has been analysed in previous editions of The DC Future Book, with 2019 data showing median pot sizes increasing for the first time since automatic enrolment was introduced, illustrating that the small pots that were initially accrued in the early years of automatic enrolment are now beginning to grow as savers who previously had no pension savings continue to contribute.

Chart 2.6[34]

Median DC pension savings have started increasing as minimum contributions levels have increased and members have spent a longer time enrolled

Median DC savings between 2006 and 2019 in Great Britain for people aged 16 and over (includes both deferred and active savers)



Although median DC pot sizes initially declined following the introduction of automatic enrolment, this resulted from an increase in the number of people saving for a pension who had not been saving previously, which skewed the baseline population for analysis. Aggregate assets across all savers collectively have increased dramatically since the introduction of automatic enrolment. For example, between 2015 and 2020 aggregate assets in DC grew from £324 billion to £471 billion.

DC asset allocation

The next section explores how assets are allocated within pension schemes.

34. PPI analysis of Wealth and Assets Survey data, 2017 and 2018 data projected using PPI models

Box 2.1: investment strategies

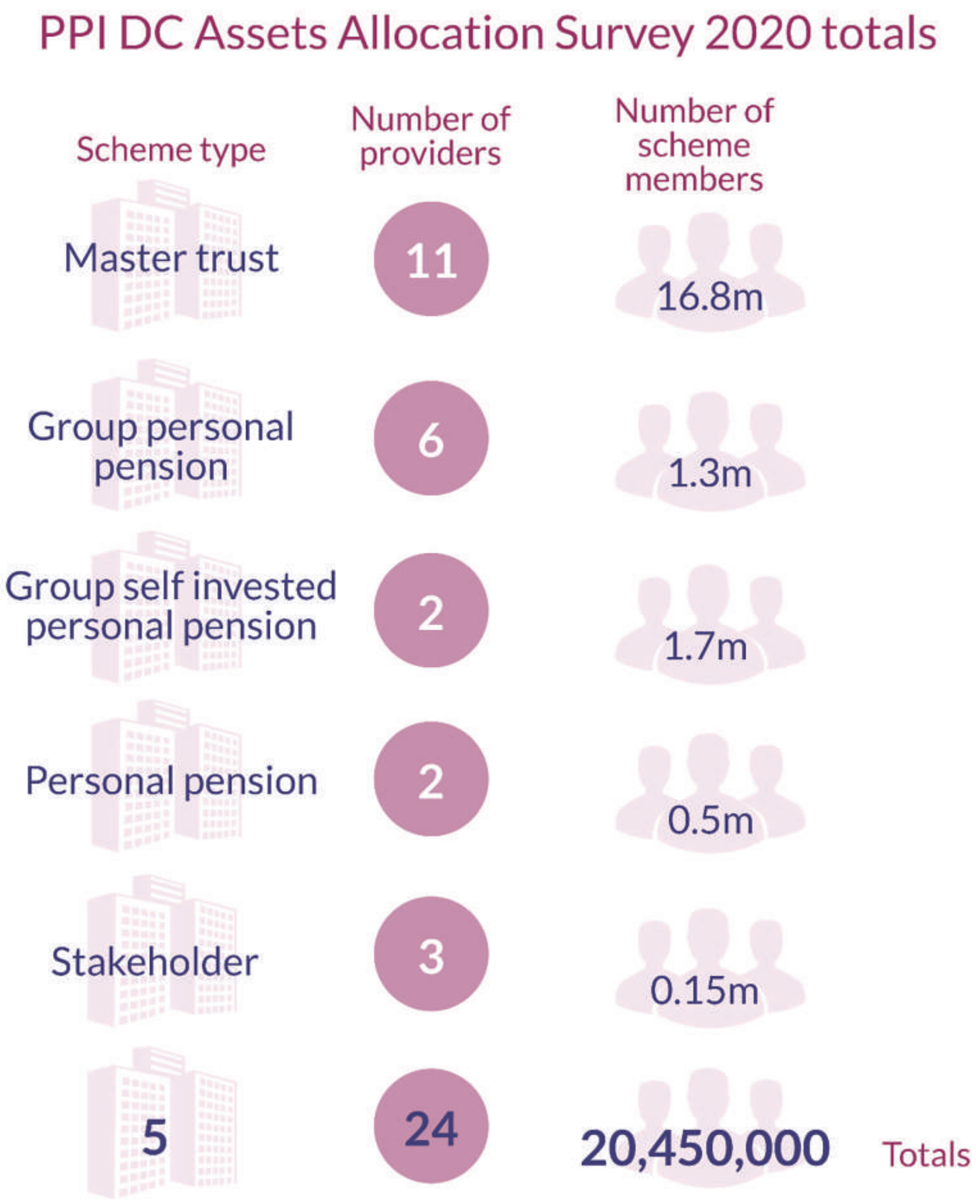
Many asset mixes are labelled as "funds" but consist of several different asset classes which might vary over time. Therefore, it is more accurate to describe asset mixes as "strategies" rather than "funds", for example high-risk, low-risk or lifestyle strategies (risk level refers to investment risk, which comprises short-term volatility and the risk of suffering severe losses).

Asset mixes might be labelled as, for example, "high-risk", "low-risk", "lifestyle", "with-profits" or "retirement-date" strategies, though the structure of each will vary depending on the scheme that is offering it. Most schemes will offer a variety of strategies alongside the default strategy.

Default strategy: membership and value

The following data is based on the results of the PPI DC Assets Allocation Survey 2020. The participating schemes collectively manage more than 20 million DC pots, representing a large proportion of the membership of DC workplace pension schemes. Some members covered will hold multiple pots from several different schemes (Figure 2.1).

Figure 2.1[35]



35. PPI DC Assets Allocation Survey 2020

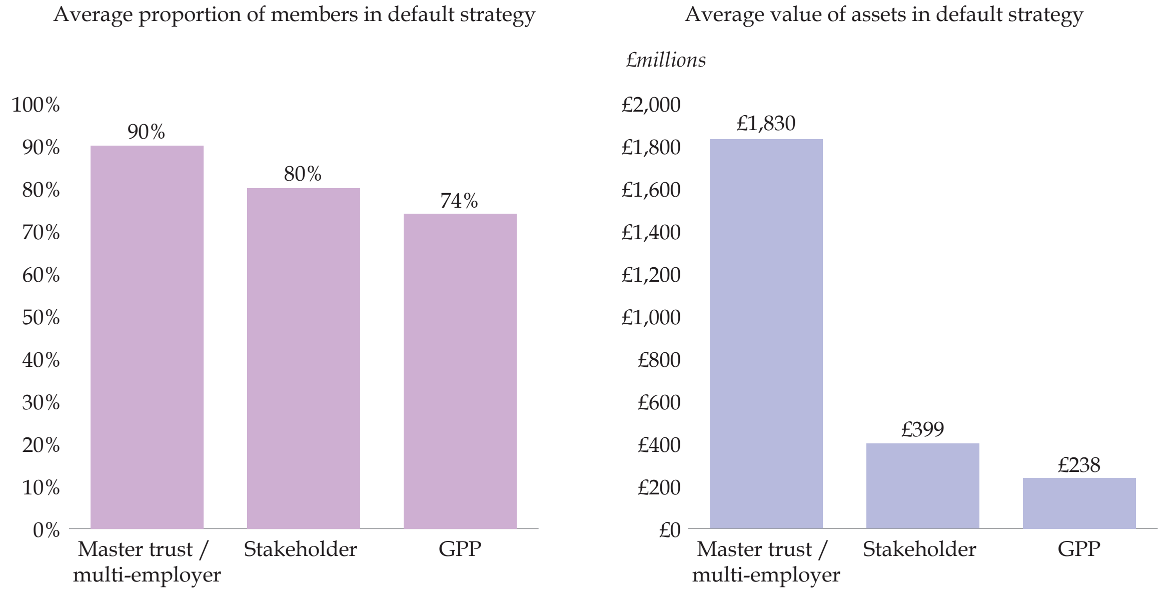
Members of master trust/multi-employer schemes are more likely to be invested in the default strategy

In 2018 master trust schemes had the highest proportion of total members invested in the default strategy at 99% on average. In the 2020 survey, the average was 90%, a reduction on previous years but still a significantly greater proportion than other scheme types. Smaller and newer master trust schemes tend to have fewer members in the default strategy, than older schemes, perhaps as a result of aiming at different parts of the market from traditional mass-market master trusts. Master trusts default strategies had the highest value of aggregate assets at £1.8bn on average. Fewer providers are now running open Stakeholder pension schemes, but there is high residual asset value in Stakeholder pension schemes,[36] as they were widely used as workplace schemes prior to the introduction of automatic enrolment and the charge cap (Chart 2.7).

Chart 2.7[37]

Members of master trusts are much more likely to be in the default strategy than members of stakeholder and GPP schemes

Average proportion of members and average value of assets in default strategy by scheme type, 2020



36. Stakeholder pension schemes can be either workplace or personal pensions as members have an individual contract with the provider
37. PPI DC Assets Allocation Survey 2020

Investment strategies

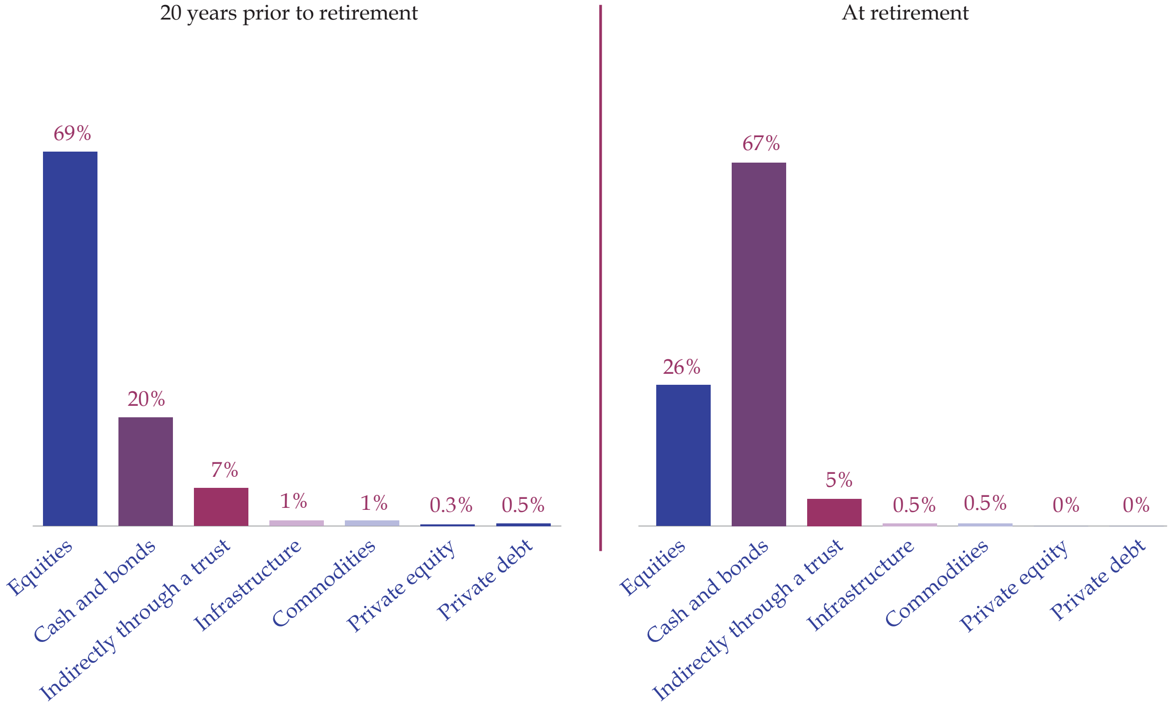
On average, master trust default strategies allocate more than two thirds (69%) of assets to equities 20 years before a member's retirement date. By a member's retirement date, no master trusts in the survey invested more than 45% in equities, with the average being around a quarter (26%).

The use of illiquids and alternative assets is growing, though a significant proportion of this allocation is invested via listed alternatives, such as indices, which are relatively liquid and unlikely to capture the illiquidity premium[38] in full (Chart 2.8).

Chart 2.8[39]

By a member's retirement date, average allocation to equities in a master trust's default fund has reduced from more than two thirds to a quarter

Average allocation to different asset types in master trust default strategy by 20 years to and at retirement



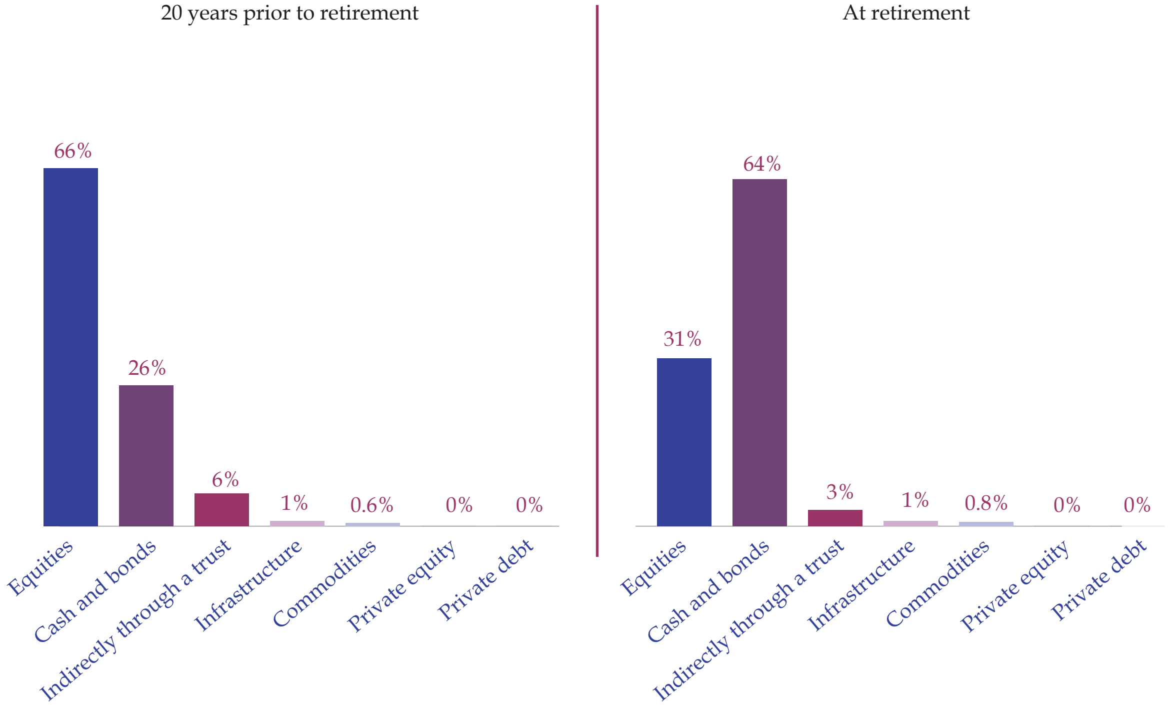
38. Expected higher returns as a result of investing in an asset which cannot be traded frequently.
39. PPI DC Assets Allocation Survey 2020

Although a higher proportion of funds are being invested in alternatives than previously, equities are still widely used during the early stages of saving (Chart 2.9). Group Personal Pensions (GPP) are generally more heavily invested through pooled funds than Stakeholder Pensions.

Chart 2.9[40]

Stakeholder and GPP default strategies follow a similar asset allocation pattern to master trusts, although with a slightly higher average allocation to equities at retirement

Average allocation to different asset types in Stakeholder and GPP default strategy by 20 years to and at retirement



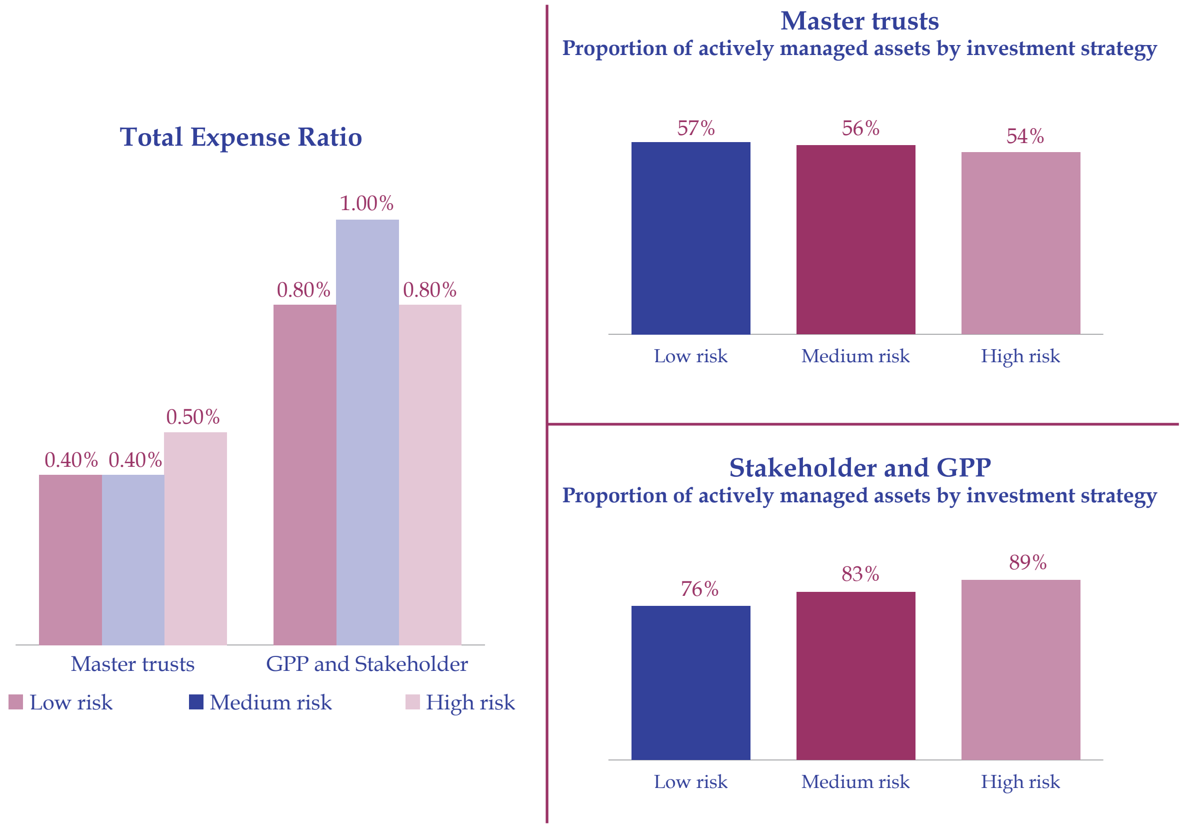
40. PPI DC Assets Allocation Survey 2020

Total Expense Ratios (TERs) were lower in master trust schemes than other DC workplace pensions, due to master trust schemes being designed with economies of scale in mind and some other DC schemes containing older legacy scheme charges or higher charges on non-default strategies. In Stakeholder Pensions and GPP, medium risk strategies tended to have the highest TERs, potentially through greater use of multi-asset funds and non-default strategy funds, though medium risk strategies did not have higher proportions of actively managed assets than other strategies (Chart 2.10). There is low correlation within the survey data between charges and proportion of actively managed assets.

Chart 2.10[41]

Master trust strategies generally have lower charges and tend to use lower levels of active management

Average Total Expense Ratio (TER) and proportion of actively managed assets by scheme and strategy type, 2020



Contributions

The required level of contributions that employers and workers (who do not opt out) must jointly make into a pension scheme under automatic enrolment legislation is currently 8% of band earnings (£6,240 to £50,000 in 2020/21).

What is a sufficient level of contribution?

8% of band earnings may not be a sufficient contribution level to allow people to achieve an adequate standard of living in retirement from State and private pensions alone. A median earner contributing 8% of band earnings into a pension scheme every year from age 22 until State Pension age (SPa) would only have a 50% chance of achieving the same standard of living in retirement that they experienced in working

41. PPI DC Assets Allocation Survey 2020

life (from private and State Pension income).[42] In many cases, people will not contribute steadily for their entire working life and would require a higher percentage of contribution to achieve a 50% likelihood of replicating working life living standards.[43]

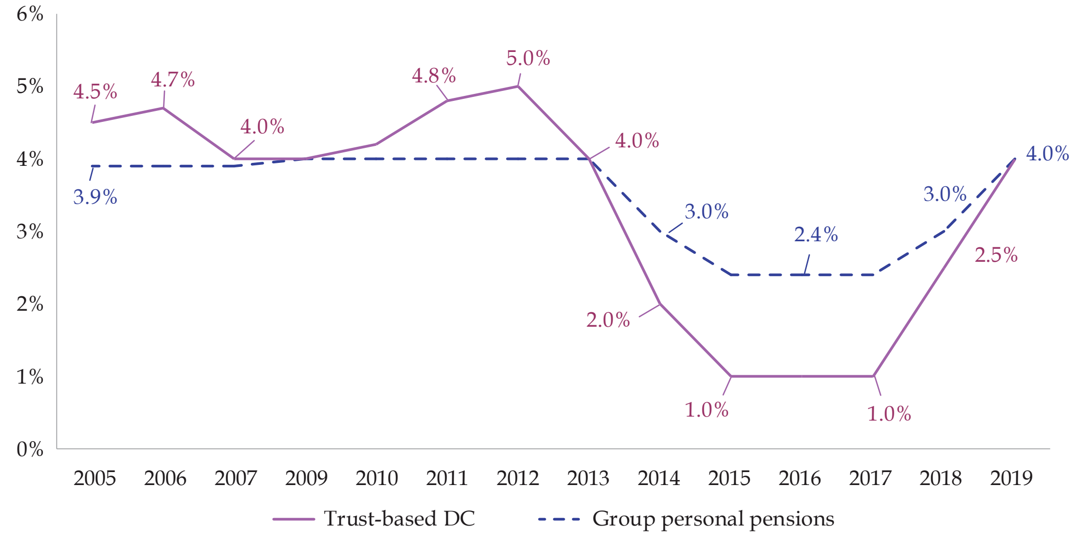
A median earner might need to contribute between 11% and 14% of band earnings to have a two-thirds chance of replicating working life living standards if contributing between age 22 and SPa. For people who begin contributing later or who take career breaks, the contribution levels that may be necessary to allow people a chance of replicating working life living standards in retirement will be far higher.

Median employee contribution rates initially fell as a result of more employees joining pension schemes for the first time and paying minimum contributions alongside their employers (Chart 2.11). However, this does not mean that pre-automatic enrolment savers are paying less. As minimum contributions increase, median levels should rise to above 8%. Between 2012 and 2016, mean contribution rates rose by 1.05% (0.45% from employees and 0.6% from employers) as a result of more people saving in pension schemes.[44] The Automatic Enrolment Review in 2017 recommended lowering the lower earnings band for contributions to £0, so people would pay contributions on their first pound of earnings up to the higher rate of the earnings band. The DWP's ambition is to implement this policy in the mid-2020s. If enacted, this change would increase the level of contributions made by those whose employers are contributing at the minimum required level.[45]

Chart 2.11[46]

Median employee contribution rates in DC schemes have started increasing

Median active member contribution rates to DC pensions by year (DC trust includes master trusts)



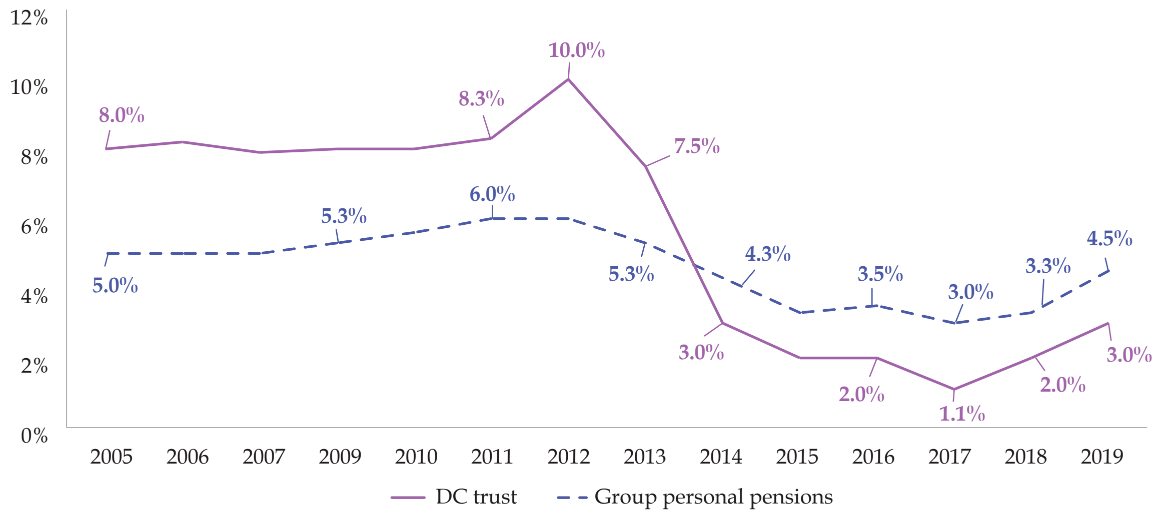
42. Assuming State Pension is uprated in line with the triple lock and that people purchase an annuity with their private pension savings.
43. Redwood *et. al*. (2013), assumes median earnings at every stage of working, based on Pension Commission replacement rates.
44. IFS (2016)
45. DWP (2017)
46. This work was produced using statistical data from ONS. The use of the ONS statistical data in this work does not imply the endorsement of the ONS in relation to the interpretation or analysis of the statistical data. This work uses research datasets which may not exactly reproduce National Statistics aggregates.

Employee contributions dropped after 2013 as a result of people being automatically enrolled into pension schemes and paying minimum contributions. However, as a result of minimum required contribution levels rising to 3% for employees in 2018, employee contributions increased to 2.5% (trust-based DC) and 3% (contract-based DC). Some employee contributions will be lower than 3% of total earnings as the minimum required contributions can be applied to a band of earnings (£6,240 to £50,000). In 2019, employer contribution levels rose again (by around 1%) as minimum employee contributions increased to 5% of band earnings in April 2019 (though tax relief is applied to contributions, reducing the impact on take-home pay) (Chart 2.12). Employee contributions may continue to rise in the future if, for example, policies designed to encourage members to contribute more are implemented, or if the lower earnings band is reduced to £0 in the future.

Chart 2.12[47]

Median employer contribution rates in DC schemes have started increasing

Median employer contributions for active members to DC pensions by year (DC trust includes master trusts)



Median employer contribution rates have increased as a result of the rise in minimum required contributions in 2018 and 2019. Employer contributions may potentially continue to rise in the future, especially if the lower earnings band is reduced to £0.

Levelling down

Automatic enrolment represents a cost to employers[48] because of the administrative burden of ensuring scheme compliance and employee eligibility and the cost of employer contributions. Employers respond in different ways to increased costs, for example by:

- Raising the price of their products, if possible,
- Reducing wage increases,
- Building the costs into their budget without reducing costs elsewhere,
- "Levelling down" their pension offering, either by reducing the percentage they contribute towards existing pension scheme members to match those who are being automatically enrolled or by changing contribution or scheme terms for new members.[49]

Between 2012 and 2017 the proportion of eligible private sector employees who were in schemes that were being levelled down grew from 12% to 15%, around 1.6 million people. This does not mean that all of these people had their contributions reduced, some of the people will work for employers who reduced the contribution offer for new, automatically enrolled, members.[50]

47. This work was produced using statistical data from ONS. The use of the ONS statistical data in this work does not imply the endorsement of the ONS in relation to the interpretation or analysis of the statistical data. This work uses research datasets which may not exactly reproduce National Statistics aggregates.
48. Whether they already offered a pension scheme or not.
49. DWP (2019b)
50. DWP (2019b)

Deferred members

The number of deferred pension pots in the DC master trust market is likely to rise from 8 million in 2020 to around 27 million in 2035.[51] Member charges often erode small, deferred member pots over time and small pots can be uneconomic for providers to manage. Extra management costs may eventually be passed on to members through increased charges.

Policies aimed at consolidating pots are likely to provide a better long-term solution than tackling charging structures. Altering charging structures is unlikely to resolve the problems associated with small, deferred member pots, as charges either erode member pots or prevent schemes from breaking even on pot management, and deferred pots will not generally grow large enough to overcome these issues (unless they are re-joined by the member or transferred to consolidate with other pots).

If DC pension pots are to remain financially sustainable for both members and providers, a more strategic policy-based approach, exploring options for pot consolidation is required.

Accessing DC savings in retirement

Annuities

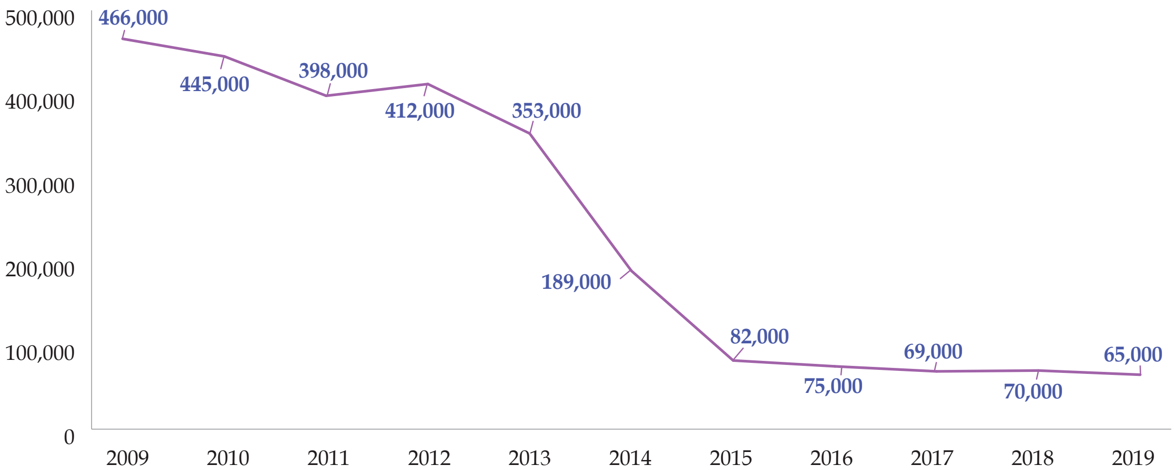
Prior to the introduction of the new pension flexibilities Freedom and Choice, the majority of people used their DC savings to purchase an annuity, as due to regulations around how savings could be accessed this was the main option available to many savers. In 2012, over 90% of DC assets being accessed were used to purchase annuities. Overall sales of annuities peaked in 2009 at around 466,000. However, since then, they have been declining.[52]

When the pension flexibilities were introduced, annuity sales declined more rapidly, and have averaged around 70,000 per year throughout 2016 to 2019 (Chart 2.13).

Chart 2.13[53]

Annuity sales averaged around 70,000 per year during 2016 to 2019

Number of annuities sold by ABI members by year



51. For more information, see Baker et. al (2020) *Policy options for tackling the growing number of deferred members with small pots* [PPI]
52. ABI (2015)
53. ABI statistics, Quarterly Pension Annuities by Age and Size of Fund

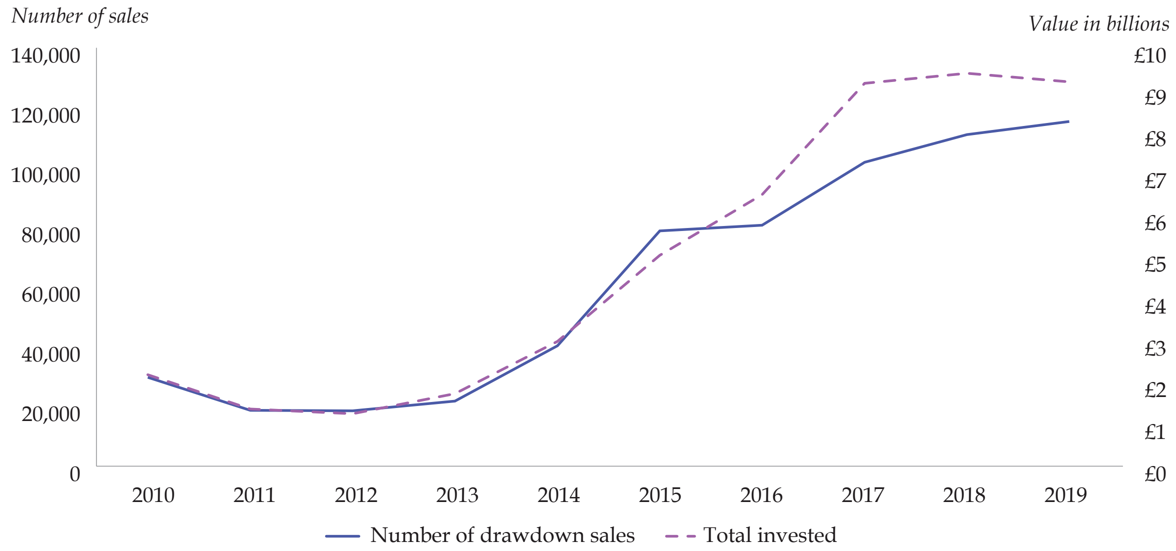
Income drawdown

The use of income drawdown was fairly consistent between 2010 and 2014, with around 20,000 new contracts each year. In 2014, after the announcement of Freedom and Choice, the number of sales doubled to almost 40,000 new contracts. Since then it has been steadily increasing, growing to around 116,000 new contracts being sold in 2019, to a total value of around £9.3bn. This represents an increase in new drawdown customers compared to 2018, but a decrease in the value of new customers' aggregate funds (Chart 2.14).

Chart 2.14[54]

In 2019, around 116,000 drawdown contracts were purchased, for a total value of £9.3 billion in new premiums

Number of new sales of drawdown contracts and value of sales by year, among ABI members



54. ABI stats – Pensions Overview tables, 2020

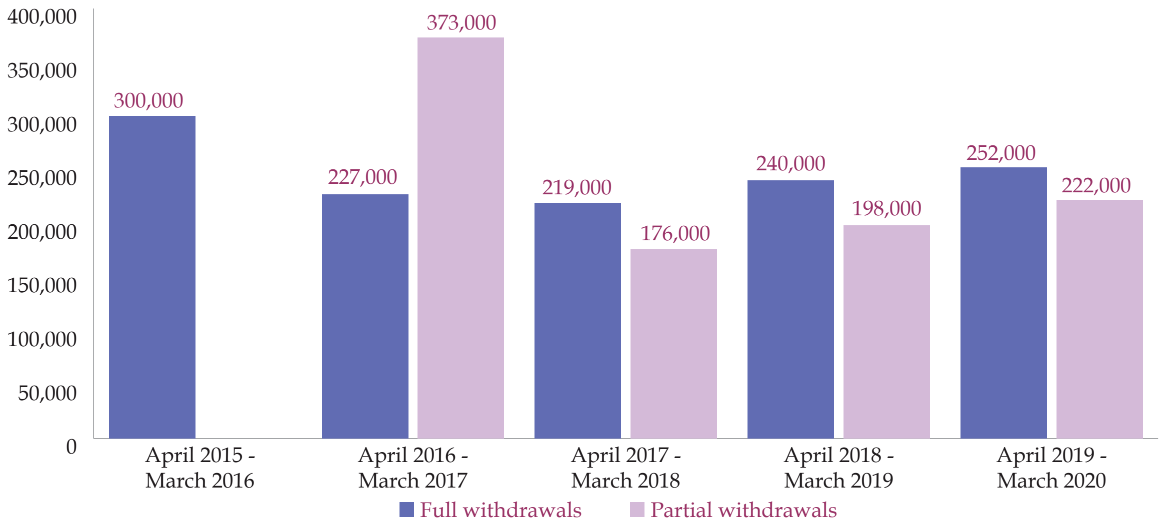
Lump sums

Since April 2015, those aged 55 and over[55] can withdraw cash lump sums from their DC savings, taxed at their highest marginal rate of income tax, with 25% tax-free.[56] The number of full (total pot) lump sum withdrawals was initially high at 300,000 in financial year 2015/16 due to pent up demand, but has decreased to around 252,000 in 2019/20. ABI data on the past two years show that partial withdrawals were far more popular in 2016/17, probably due to pent-up demand as it took some time after the pension flexibilities were rolled out for schemes to be able to offer products which allowed partial withdrawals. In 2019/20, there were 222,000 partial withdrawals (Chart 2.15).

Chart 2.15[57]

There were around 252,000 full withdrawals in 2019/20

Number of full and partial cash lump sum withdrawals made from ABI members by financial year



There is still a reasonable amount of variability in the number of withdrawals taken each year and so it is not yet clear what the overall trend might be.

55. In 2028, the age at which private pension savings can be accessed will increase from 55 to 57, in order to reflect SPa increasing to age 67.
56. Prior to April 2015, only those with DC pots under £15,000, (£18,000 in 2015) could withdraw their entire fund as a lump sum without incurring a tax penalty.
57. ABI stats, Retirement Income Data

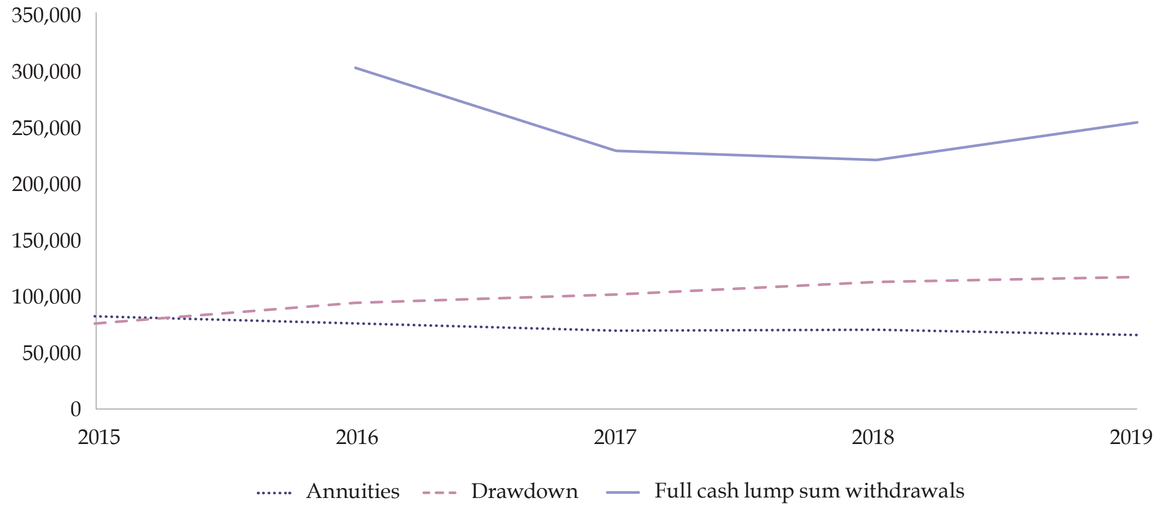
DC savings access trends

More people are taking full cash lump sum withdrawals than buying annuities or drawdown products. In 2019, around 252,000 people took full cash lump sum withdrawals, compared to 116,000 drawdown purchases and 65,000 annuity purchases (Chart 2.16). Current access trends may change as more people start to reach retirement with lower levels of DB entitlement to fall back on. The data on access to savings in this report uses information provided by ABI members and does not cover the full drawdown market.[58]

Chart 2.16[59]

More people withdraw money through cash lump sums than through drawdown or annuity products

Numbers of drawdown and annuity purchases and full cash lump sum withdrawals by year, ABI members



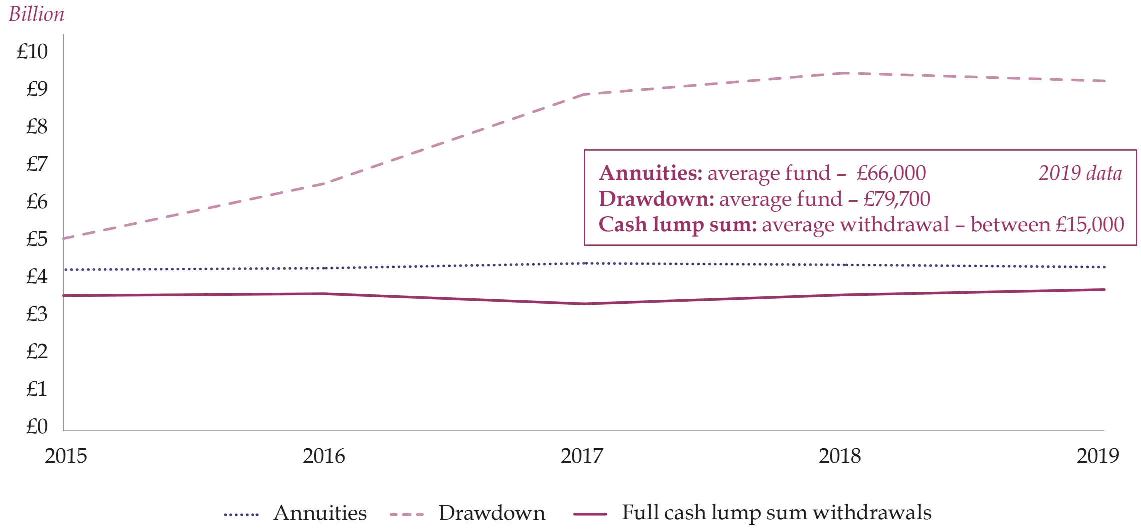
58. A few large providers have recently left ABI membership, thereby reducing market coverage
59. Data on withdrawals for 2016-2019 applies to end of financial year rather than calendar year. ABI statistics, Retirement Income Data: Apr 2018 to Sep 2018, Quarterly New Business: Pensions, ABI statistics, Quarterly Pension Annuities by Age and Size of Fund; ABI (2016a)

However, those taking out annuity or drawdown contracts tend to do so using larger funds than those taking lump sum withdrawals. In 2019, the average fund size used to enter drawdown was £79,700, the average fund used to purchase an annuity was £66,000 and the average full lump sum withdrawal was around £15,000 (Chart 2.17).

Chart 2.17[60]

People continue to spend more money on drawdown products than on annuities or in making lump sum withdrawals

Value of retirement income products and full cash lump sum withdrawals by quarter (billions), ABI members



DB transfers

Increased flexibility, falls in interest rates, increased Cash Equivalent Transfer Values and bad press associated with some DB schemes[61] have incentivised some people to transfer their DB entitlement into a DC scheme, in order to be able to access their pension savings flexibly and feel a greater sense of ownership over their pension savings. While transferring may benefit some people, there are two main risks associated with transfers from DB to DC:

- Individual risk: if people transfer out of a DB scheme when it is not in their best financial interest to transfer.
- Scheme risk: substantial transfers from DB schemes could cause schemes to change or review their investment strategies. However, in some cases, transfers out could help scheme funding through reduction of liabilities.

The proportion of DB members transferring is increasing

Over 6 million people are eligible to transfer deferred benefits from a DB scheme and the average amount transferred in 2019 was around £350,000.[62] Those transferring a DB entitlement worth £30,000 or more are required to take regulated advice before doing so.

Between April 2015 and September 2018, around 171,600 who had sought advice, transferred their DB pension. Some of those who were advised not to transfer chose to still transfer as "insistent clients":

- Around 235,000 people sought advice regarding whether to transfer,
- 69% (162,000) of those seeking advice were advised to do so,
- Of the 31% (72,900) advised not to transfer, 13% (9,500) still transferred as "insistent clients".[63]

60. ABI statistics - Retirement Income Data: Apr 2018 to Sep 2019, Quarterly New Business: Pensions, ABI statistics, Quarterly Pension Annuities by Age and Size of Fund.
61. XPS Group (2019)
62. FCA (2018a), FCA (2019b)
63. FCA (2019b)

The Financial Conduct Authority (FCA) is concerned that transferring may not be appropriate for all those being advised to do so, though around 59,100 people were triaged out of the process after an initial pre-advice discussion. The FCA intends to continue work on ensuring that the transfer advice people receive is appropriate to their circumstances.[64]

Advice and Guidance

Box 2.2: What is the difference between advice and guidance?

Advice and guidance are subject to different regulatory requirements. The following definitions are provided by the FCA.[65]

Independent advice: "An adviser or firm that provides independent advice is able to consider and recommend all types of retail investment products [...] Independent advisers will also consider products from all firms across the market, and have to give unbiased and unrestricted advice. An independent adviser may also be called an 'Independent Financial Adviser' or 'IFA'."

Restricted advice: "A restricted adviser or firm can only recommend certain products, product providers, or both. The adviser or firm has to clearly explain the nature of the restriction. […] Restricted advisers and firms cannot describe the advice they offer as 'independent."

Guidance or information: "If you are only given general information about one or more investment products, or have products or related terms explained to you, you may have received 'guidance' rather than 'advice'. This is sometimes also called an 'information only' or 'non-advice' service. The main difference between guidance and advice is that you decide which product to buy without having one or more recommended to you."

A greater cost is generally attached to the provision of independent (or restricted) advice, in return for the adviser or firm taking on some of the responsibility for the outcome of acting on the advice offered. The use of guidance puts responsibility for the final decision making on the consumer, who also bears the risks of making a bad decision. Some financial transactions (such as purchasing drawdown products or transferring DB entitlement into a DC scheme) will particularly benefit from the use of independent financial advice.

The use of advice and guidance is currently undergoing transitions for a variety of reasons:

- The market has changed over the last few years as a result of the Retail Distribution Review, which in 2013 created greater delineation between Independent and Restricted Advice, as well as clarifying and restructuring charging so that more consumers bear total costs, which must be disclosed in a transparent manner, upfront. This policy may restrict access to consumers who find the new charging structure difficult to manage.
- The introduction of the pension flexibilities in April 2015 means that some people who previously would have bought an annuity will choose to access pension savings through other means. Some of these people may use advisers at and during retirement to help manage more flexible access methods.
- DC pension scheme members are now eligible for £500 of tax-free employer arranged advice (if their employer chooses to provide this) and may take £500 from their pension pots up to three times, to use for advice, though not all employers offer this.[66]
- Some organisations offer web-based "robo-advice", which is aimed at people who would benefit from advice but may not have access because they cannot afford (or believe they cannot afford) regulated financial advice. Robo-advice uses algorithms to help answer money-based questions and should allow companies to offer advice more quickly and cheaply.
- The introduction of the new pension flexibilities was accompanied by a new, national, guidance service known as "Pension Wise". Pension Wise offers free,

64. FCA (2019b)
65. www.fca.org.uk/consumers/financial-services-products/investments/financial-advice/independent-and-restricted-advisers, accessed 07.08.2015
66. HMT, FCA (2016)

tailored and independent guidance (online, by telephone or face-to-face), to those aged 50 or above with DC savings (Box 2.3). Pension Wise has merged with two other guidance providers, The Pensions Advisory Service and the Money Advice Service, to form a single guidance body, the Money and Pensions Service which provides guidance on pensions and other financial issues.

Box 2.3: Figures for Pension Wise[67]

- In 2018/19, 15% of those accessing DC savings had a Pension Wise appointment without taking any regulated advice. A further 37% took regulated advice, among which some may also have contacted Pension Wise.

During the 2018/19 financial year:

- The Pension Wise website received around 2.3 million visits,
- Over 90,000 face-to-face appointments were completed (up 43% from 2017/18),
- There were around 40,000 telephone appointments (up 63% from 2017/18), and,
- There were over 37,000 self-serve journeys completed via the Pension Wise website (introduced in July 2017).

Fewer people are using regulated advice when purchasing retirement income products in general, and although use of advice when purchasing drawdown began to increase between 2016 and 2018, it then declined between 2018 and 2019

The use of regulated advice for those purchasing drawdown has decreased since 2014. It increased by 4% in 2017, but subsequently declined again in the two years that have followed:

- In 2019, 48% of those purchasing drawdown products from ABI members used independent advice, a drop from 54% in 2018.
- While the proportion of those using independent advice while purchasing drawdown has fallen since 2014, the proportion using restricted advice has risen every year since 2014, when it was 10%, remaining stable at 23% in 2018 and 2019.
- The proportion of non-advised drawdown sales reduced from 32% in 2016 to 26% in 2017 and, again, to 23% in 2018, but in 2019 increased to 29%.

The use of independent advice for annuity purchases remained constant over the past three years at 23%, though:

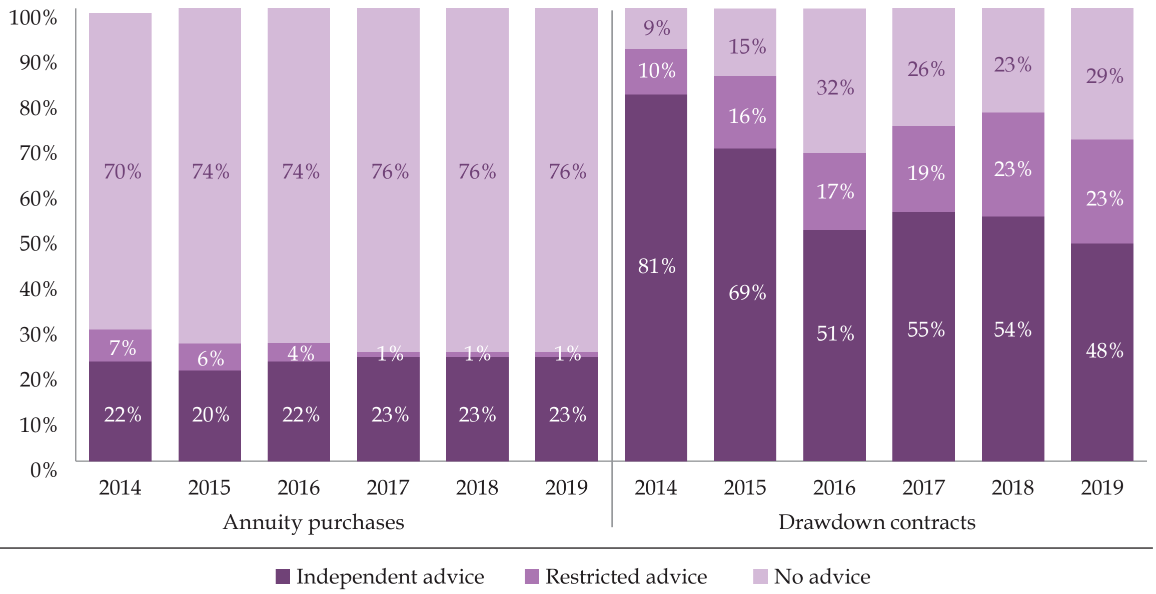
- The use of restricted advice during annuity purchases has dropped from 7% to 1% since 2014, and
- The proportion of people buying annuities unadvised has grown from 70% to 76% (Chart 2.18).

67. FCA (2019c); MAPS (2020)

Chart 2.18[68]

The proportion of non-advised drawdown purchases increased between 2018 and 2019, while annuity advice levels remained low but stable

New annuity and drawdown contracts sold, by level of advice used, 2014-2019, ABI members



Purchasing retirement-income products without the use of advice or guidance increases the risk that individuals will not make optimal decisions for meeting their income needs in retirement. For example, in 2018/19, 40% of those making regular withdrawals from drawdown or Uncrystallised Fund Pension Lump Sums withdrew at annual rate of 8% or more and nearly three quarters withdrew at a rate of at least 4%.[69] However, pension withdrawals may need to be a maximum of 3.5%, rising with CPI for people to have a good chance of sustaining their pot throughout retirement, assuming average life expectancy and a pot invested 60% in equities and 40% in bonds.[70] However, most people will not draw down at the same flat rate over the course of their retirement, but rather make the most of the flexible nature of drawdown to match income to needs that evolve during later life.[71]

In 2018, the FCA found that around a third of those who have used non-advised drawdown were invested in wholly cash strategies rather than strategies with the potential for higher returns. The FCA estimates that around half of these people are likely to lose out as a result of their investment choice. A pot used for an income stream over a 20 year period could pay out an increase in annual income of 37% if it was invested in a mix of assets rather than solely in cash.[72] The FCA has introduced a requirement for drawdown providers to offer "investment pathways" to consumers, who will need to make decisions on how they wish to draw their income and then be given an appropriate underlying investment portfolio on that basis. This process will prevent new drawdown customers being defaulted into all-cash investments.[73]

68. ABI Statistics – New business full product breakdown by quarters – numbers may not total due to rounding
69. FCA (2019c)
70. PPI Modelling
71. For more information see PPI (2019) *Living through later life and* PPI (2019) *Supporting later life*
72. FCA (2018b)
73. FCA (2019d)

Chapter Two Summary

By July 2020, 10.3 million employees were automatically enrolled, slightly more than the 9.8 million employees who have been found ineligible due to age or earnings. To July 2020, 805,000 employees have been automatically re-enrolled after previously opting out. Opt-out rates remain stable at around 9%, despite fears that this might increase once smaller employers reached their staging dates or as minimum contribution levels have increased. Persistency of saving is also relatively high, with nearly three quarters (72%) of eligible employees saving into a pension for at least three of the last four years.

More than 4 in 5 (84%) employers have automatically enrolled their employees into master trust schemes, while 5% have enrolled employees into other trust-based DC schemes and 10% into contract-based DC schemes. Use of DB or hybrid schemes for automatic enrolment is very low. More than 4 in 5 (84%) employers have automatically enrolled their employees into master trust schemes, while 5% have enrolled employees into other trust-based DC schemes and 10% into contract-based DC schemes. Use of DB or hybrid schemes for automatic enrolment is very low.

While average DC pot sizes declined in the early years of automatic enrolment, they have started to increase between 2018 and 2019, from £9,300 to £9,600, as minimum contribution levels have increased and members have spent a longer time enrolled.

In 2019, around 252,000 people took full cash lump sum withdrawals, compared to 116,000 drawdown purchases and 65,000 annuity purchases. Individuals purchasing annuities had an average fund of £66,000, while those moving into drawdown had an average of £79,700. Full withdrawals averaged £15,000 in 2019.

Levels of advice used by annuity purchasers have remained low but stable since 2017, but the proportion of non-advised drawdown sales increased to 29% in 2019, from 23% in 2018.

Chapter Three: How might the DC landscape evolve in the future?

This Chapter uses PPI modelling to explore how the Defined Contribution (DC) landscape might evolve in the future both for individuals and on an aggregate level.

The evolution of the DC market depends on many factors

Previous Chapters have set out the current state of the DC market and outlined the factors which are likely to lead to changes in the future, including: automatic enrolment, the private sector move from Defined Benefit (DB) to DC schemes, the use of pension flexibilities and changes to the way that advice and guidance are used and delivered.

The way that the DC market evolves in the future will also depend on how individuals respond to policies such as automatic enrolment and pension flexibilities, as well as external factors such as employer behaviour and the performance of the overall economy.

Box 3.1: Modelling

This report uses the PPI suite of models and data from the Office for National Statistics' (ONS) Wealth and Assets Survey (Wave 6) to explore how DC assets may change and grow in the future under the assumption that current trends continue. The Chapter also sets out the potential distribution of DC assets, under a range of possible future economic scenarios (based on historical data).

The future value of DC assets depends on many variables:

- Employee behaviour - participation and contribution levels.
- Employer behaviour – contribution levels, scheme choice, remuneration decisions.
- Industry behaviour – charges, investment strategies, default offerings, new scheme development (e.g. Collective Defined Contribution schemes).
- Economic, demographic and financial market effects – market performance, inflation, age and size of the working population.
- Policy changes – which affect pension saving such as taxation, changes to minimum pension age, introduction of new scheme-types, or a policy of auto-escalation of contributions under automatic enrolment.

The model outputs should be viewed as an illustration of a range of potential scenarios arising from current trends, and not a prediction of the future.

The following analysis explores how a continuation of current trends in DC saving could affect the membership numbers and the aggregate value of DC scheme assets in the future.

How might scheme membership develop in the future?

Under automatic enrolment, employers could choose to use their existing workplace pension provision as long as it qualified under regulations. Those without existing provision, or who wished to change their offering for new or existing members, had the choice to set up and run a DB, DC or Hybrid/risk-sharing scheme themselves or to offer membership in a DC scheme run by a third-party. Some employers offer a combination of these.

Box 3.2: Assumptions

The following analysis is based on the assumptions that:

- All eligible workers are automatically enrolled and 15% opt out, or cease contributing after the opt-out period has expired, before accruing meaningful amounts of assets.
- Of newly enrolled workers:
  - ➢80% are enrolled into a master trust scheme.
  - ➢20% are enrolled into a non-master trust, automatic enrolment DC scheme.[74]

The displacement of members, leaving one type of scheme and entering another (as a result of movements in and out of the labour market or between jobs) results in roughly the same proportions of the workforce in different types of schemes. New members of DC schemes, who may be leaving DB schemes or be newly automatically enrolled, are split between automatic enrolment and workplace DC schemes which pre-dated automatic enrolment in the proportions outlined above.

By 2040 there could be around 10 million people actively saving in master trust schemes

In 2020, there are around 13.2 million active members in DC workplace pension schemes.[75] Around 8.3 million of these are in master trusts, around 2.9 million are in DC schemes which existed prior to automatic enrolment, and around 2 million are in new schemes created subsequent to automatic enrolment DC schemes (but which are not master trusts).

Assuming current trends in scheme allocation continue, by 2040 there could be around 14.1 million active members in DC workplace pension schemes, with around:

- 10 million in master trust schemes,
- 1.6 million in DC schemes which pre-dated automatic enrolment, and
- 2.5 million active members in other automatic enrolment DC schemes (Chart 3.1).

74. Based on information about scheme allocation from The Pensions Regulator – does not account for opt-ins or ineligible workers who are automatically enrolled.

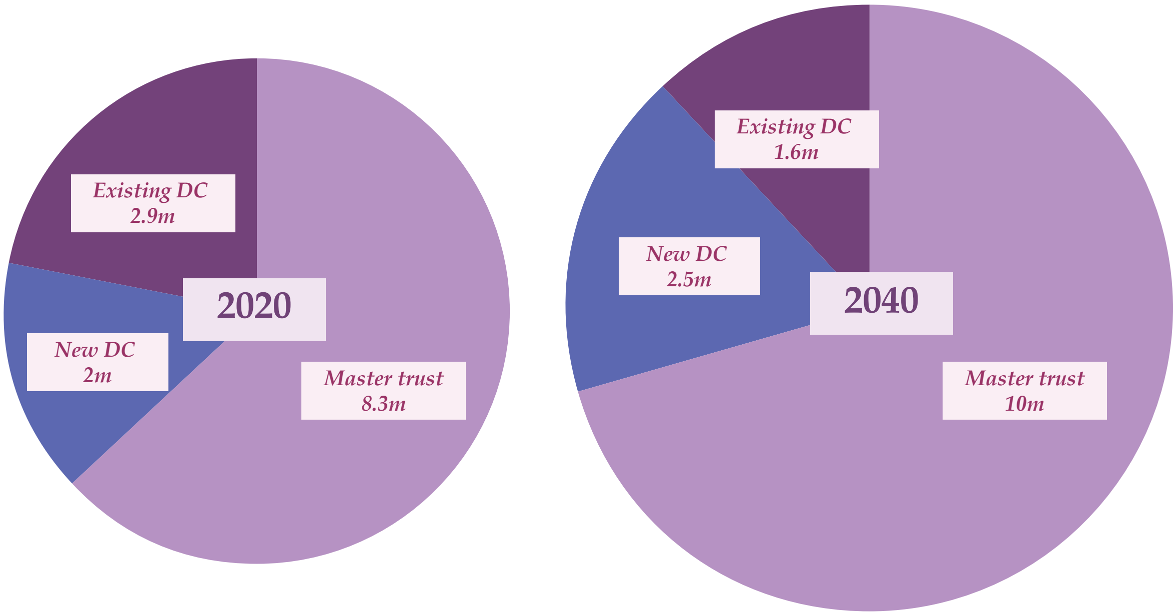
75. PPI Aggregate Model

The number of active members in private sector DB schemes could shrink from 1.1 million in 2020 to 0.4 million by 2040.[76]

Chart 3.1[77]

In 20 years there could be around 10 million active members in master trust schemes

Active workplace DC by scheme members in 2020 and 2040



Box 3.3: assumptions

The following analysis is based on the assumptions that:

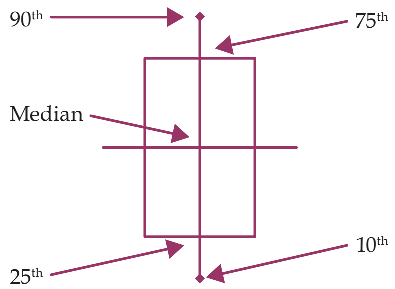
- Those currently saving in a workplace DC pension (trust or contract-based) continue saving at their current level and continue contributing, with their employer, in the same proportions.
- Those who are not currently saving, but are eligible, are automatically enrolled and do not opt out.[78]
- Before charges, investments yield a nominal average 6% investment return (annually).[79]
- Earnings increase by 3.9% per year over the course of the projection (on average).[80]
- Annual Management Charges (AMCs) range between 0.5% and 0.75% depending on scheme type.[81]

Economic assumptions are based on Office for Budget Responsibility (OBR) projections appropriate to the projection period.

76. PPI Aggregate Model
77. PPI Aggregate Model
78. It is generally thought that a number of people will opt out of automatic enrolment, their reasons for doing so are specific to each person and difficult to predict. While the aggregate modelling approach allows us to make a blanket assumption across the population, the modelling presented in this section is based on analysis of individuals making it difficult to accurately predict who would and who would not opt out. The modelling instead presents the potential savings under the current automatic enrolment system.
79. A blend of Office for Budget Responsibility (OBR) returns based on an asset mix to represent typical pension portfolios. The long-term economic assumptions are based on the OBR Fiscal Sustainability Report (January 2017).
80. Based on OBR projections from Fiscal Sustainability Report
81. See the appendix for further detail on assumptions

Box 3.4: Box plots

Box plots allow graphic representation of a distribution of outcomes. The rectangle represents the 25th to 75th percentiles of the distribution while the ends of the vertical line represent the 10th and 90th percentiles. The horizontal line through the middle of the box represents the median.



Median DC pension pots could grow from around £35,000 to around £68,000 over 20 years

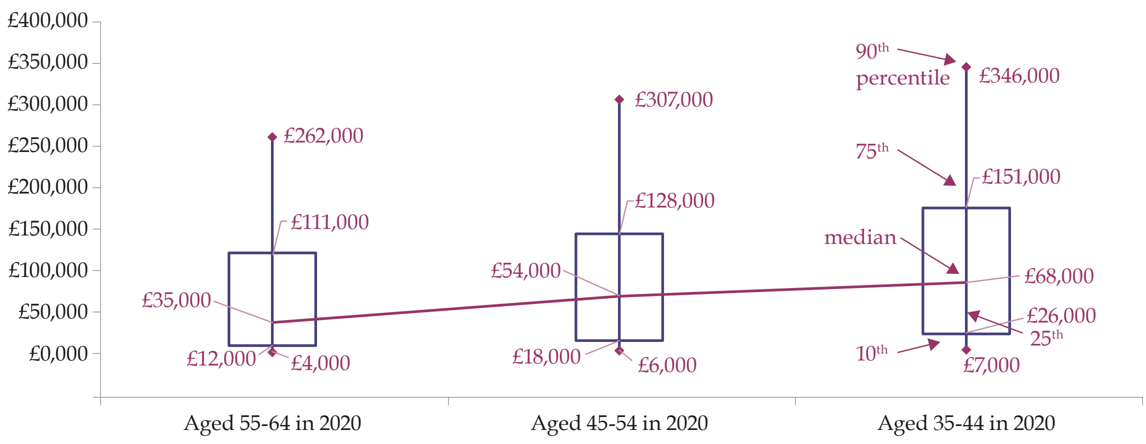
Assuming that those currently contributing to a pension fund with their employer continue to do so, the median DC pension pot size at State Pension age (SPa) could grow over the next 20 years from around £35,000, (for those aged 55 to 64 in 2020) to around £68,000 (for those aged 35 to 44 in 2020) all in 2019 earnings terms (Chart 3.2). These actual and projected median DC pot sizes have grown from £30,000 and £67,000 in 2019 and 2039 respectively, as shown in last year's edition of The DC Future Book: in association with Columbia Threadneedle Investments.

Chart 3.2[82]

Median DC pension pots at State Pension age could grow from around £35,000 today to around £68,000 over 20 years

Distribution of pension pot sizes at State Pension age for different cohorts (2020 earnings terms)

1.



A pot of £68,000 could yield an annual income of around £3,200 from an annuity.[83] On top of a full individual new State Pension income of around £9,100 per year, this could yield an annual retirement income of around £12,300. This level of income may not allow an individual to achieve an income that focus groups have found necessary to achieve a minimally acceptable standard of living, which means around half of today's 35-44 year olds may struggle to meet income adequacy targets when they reach retirement.[84]

82. PPI Aggregate Model

83. 65 year old man, level single-life annuity, Money Advice Service comparison tool

84. PLSA (2017), JRF Minimum Income Standard

The low average levels of DC pension savings that people will accrue over the next few decades means that many will be mainly dependent in retirement on income from State Pension, state benefits and any other DB pension or non-pension savings they have.

How might the aggregate value of private sector DC assets grow in the future?

The following section explores how the aggregate value of DC assets might grow based on certain assumptions about employee and employer behaviour and under a range of potential future economic performance scenarios.

Box 3.5: Assumptions

The following analysis is based on the assumptions that:

- All eligible employees are automatically enrolled and existing savers remain saving.
- 15% of automatically enrolled savers opt out or cease contributing, before accruing any meaningful assets,
- Employee/employer contributions vary by scheme type:
  - Those in master trust and other automatic enrolment DC schemes make contributions with their employers on band earnings.
  - Existing savers continue contributing at the same rates, on total earnings (if applicable).
- Investment scenarios are a product of the PPI's Economic Scenario Generator (which uses data from Bloomberg). Long-term median rates are taken from OBR Fiscal Sustainability Report.
- Median investment return is dependent on pension scheme and varies between 5.5% and 6%.[85]
- AMCs vary by scheme.

Economic assumptions are based on long-term OBR projections appropriate to the projection period.

By 2040, aggregate assets in DC schemes could grow to around £913 billion

Assuming that current trends continue, the aggregate value of private sector workplace DC assets could grow from around £471 billion in 2020 to around £913 billion in 2040. The aggregate value of assets is sensitive to economic performance. If the market performs very poorly, DC assets could stagnate, reaching around £581 billion by 2040. In a very positive market performance scenario, DC assets could grow to around £1,630 billion by 2040 (Chart 3.3).

Box 3.6: Percentiles

The following charts illustrate how a range of economic scenarios could affect the value of DC assets. The values are shown in terms of the likelihood that they will occur:

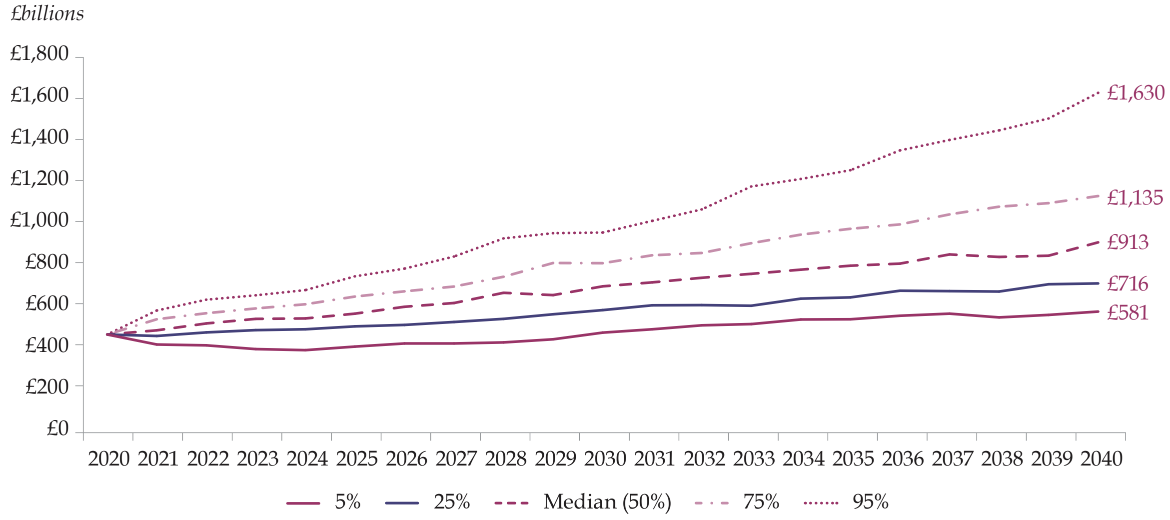
- The 5% line represents the very poor performance end; in the modelling only 5% of outcomes were worse than presented by this line.
- The 95% line represents the very good performance end; in the modelling only 5% of outcomes were better than presented by this line.
- The 25% and 75% points represent a 25% probability of relatively poor or relatively good performance respectively.
- 50% (median) is the central projected outcome, based on past performance.

85. A blend of Office for Budget Responsibility (OBR) returns based on an asset mix to represent typical pension portfolios. The long-term economic assumptions are based on the OBR Fiscal Sustainability Report (January 2017).

Chart 3.3[86]

By 2040, aggregate assets in DC schemes could grow to around £913 billion (median outcome), compared to £471 billion in 2020

Aggregate value of private sector DC assets in the UK, by year, under 1,000 randomly generated economic scenarios (2020 earnings terms)



Employee and employer behaviour, and government policy, will all affect the aggregate value of DC pension schemes in the future

The aggregate value of private sector workplace DC schemes will vary, not just as a result of economic fluctuations, but also as a result of employee and employer behaviour and government policy. There are an unlimited variety of possible ways that these agents could behave in future, and each would have a different effect on the aggregate value of DC assets and the value of a member's pot at retirement.

86. PPI Aggregate Model: refer to the Technical Appendix for more details on the methodology

Chapter Three Summary

In 20 years there could be around 10 million active members in master trust schemes, with a further 4.1 million active members in other types of DC scheme. The number of active members in private sector DB schemes could shrink from 1.1 million in 2020 to 0.4 million by 2040.

By 2040, aggregate assets in DC schemes could grow to around £913 billion, from the current value of £471 billion in 2020. Although, investment performance, employee and employer behaviour, and government policy, will all affect the aggregate value of DC pension schemes in the future.

Median DC pension pots at State Pension age could grow from around £35,000 today to around £68,000 over the next 20 years. A pot of £68,000 could yield an annual income of around £3,200 from an annuity. On top of a full individual new State Pension income of around £9,100 per year, this could yield an annual retirement income of around £12,300, for the average DC saver retiring in 2040.

Chapter Four: How can DC schemes effectively integrate ESG considerations into investment strategy?

This Chapter explores the Environmental, Social and Governance (ESG) investment approaches available to Defined Contribution (DC) pension schemes, the impact these various approaches may have and their suitability for schemes of different type and size. This Chapter was produced using desk research and interviews with a range of stakeholders across the pensions industry.

While integrating ESG considerations into investment strategies can be complex, schemes of all sizes and types should be able to find a suitable way to do so, considering the wide range of approaches available

The financial implications of ESG factors are becoming increasingly important considerations in pension schemes' investment decisions as these issues become more pressing, both in and of themselves, as well as a result of external pressures such as increased regulation and a broader societal focus. While there has been increasing focus on ESG issues among pension schemes in recent years, some trustees, providers and Independent Governance Committees (IGCs) are still struggling to understand the best way to integrate these considerations into their investment strategies, with some still lagging behind on recognising the benefits of doing so. While scheme size can restrict the ESG approaches that are easily accessible for a scheme, there are a broad range of approaches available requiring different levels of cost and resource.

Those schemes who do not approach these issues effectively may not be achieving the best possible outcomes in terms of risk-adjusted returns and value for money.

ESG risk factors are becoming an increasingly important consideration in pension schemes' investment decisions

The potential future economic consequences of global phenomena, such as climate change and social movements, are becoming clearer to many investors. There are increasing risks faced by pension schemes that do not adequately take these issues into account, particularly those who fail to comply with growing levels of regulation in this area.

The Government has introduced regulations which strengthen the obligation on pension scheme trustees to consider ESG factors in investment decisions

Since 1 October 2019, schemes have been required to set out, in their Statement of Investment Principles (SIP), their policies in relation to 'financially material considerations', which includes material ESG risk factors, over the 'appropriate time horizon', and how those considerations are taken into account in the selection and retention of investments.

From 1 October 2020, trust-based DC schemes will be required to produce an implementation statement explaining how they have followed and acted upon the stated investment policies set out in their SIP. The Pensions Regulator has said that, 'the purpose of this report is to help ensure that 'action follows intent' as much as possible.'[87] This includes reporting on the way in which the scheme monitors its asset managers who undertake investment and engagement activities on its behalf and whether these managers have acted in accordance with the trustees' stated policies.

In addition to regulatory changes already legislated for, the Pension Schemes Bill 2019-21 will allow the Government to impose new duties on pension scheme trustees intended to ensure effective governance in relation to climate change.

Despite an increasing focus on ESG, there is still confusion among some trustees and IGCs about the need for consideration

Although changes in regulation have strongly encouraged trustees and IGCs to become more informed on ESG issues, there are concerns that some trustees have treated the changes in regulation relating to ESG risk factors as a 'tick box exercise' rather than engaging with it in a meaningful way. For example, 38% of pension professionals say that a tick box exercise with the minimum required changes to the SIP, but no changes to the investment portfolio, best describes the approach taken by most of their clients; 57% said the most common approach taken was no change yet to the investment portfolio but a genuine interest shown in ESG, while only 2% said that material changes had been made to the investment portfolio.[88] This largely stems from confusion about what ESG risk factors comprise and the important role their integration into investment decision-making has to play in financial risk-mitigation.[89] The key barriers to scheme engagement with ESG considerations are:

- Lack of consensus over definition
- Confusion over level of risk mitigation
- Worry that consideration of ESG factors is in opposition to fiduciary duty[90]

While understanding has increased in recent years, there is still a lack of consensus regarding how to define and implement ESG considerations among trustees and IGCs

Changes in regulation, as well as the increasingly imminent risk presented by some ESG factors, have pushed many trustees and IGCs to improve their knowledge and understanding of ESG issues. However, there is a clear need to further improve the knowledge gap as 43% of pension schemes are not properly prepared for increased reporting obligations or meaningful ESG integration into their investment strategy.[91]

Boards whose understanding of ESG is concentrated in one or two members, may have lower levels of scrutiny on ESG issues, if these members are generally deferred to on how to integrate ESG into the investment strategy. A minimum standard of trustee understanding and knowledge on issues around ESG and sustainable investment would help to ensure that debate regarding how best to integrate ESG risk factors into investment decisions is not limited.

There is confusion around the financial-risk mitigation aspects of ESG

Some trustees and IGCs struggle to recognise the connection between ESG risk factors and long-term risk-adjusted investment returns. Especially as some factors, such as the depletion of natural resources, may not have a detrimental effect on member outcomes until a relatively distant point in the future.[92] Two thirds (67%) of pension professionals say that regulation is the primary driver of change, compared to just 14% who say the primary driver is financial.[93] This supports concerns that some trustees may be doing the bare minimum

87. TPR (2019b)
88. SPP (2020)
89. Wagstaff (2020)
90. Sackers (2019)
91. https://esgclarity.com/pension-funds-ill-prepared-for-esg-reporting-obligations/
92. OECD (2017)
93. SPP (2020)

to comply with regulatory changes, rather than engaging with ESG considerations in a meaningful way.

Consideration of ESG factors within a scheme's investment strategy should not be seen to conflict with the fiduciary duty to act in members' best interests

Some trustees view ESG as involving a trade-off with their fiduciary duty to seek the best possible returns for members. This reflects a misunderstanding of both the long-term investment horizons of pension schemes, as well as the increasingly material impact of regulation and ESG risk factors on investment returns. Acting in members' best interests requires schemes to invest in a way that will provide sustainable returns over the long-term as they save for retirement, not just the highest possible returns available today.[94] The 2019 edition of The DC Future Book identified that investing in assets with good ESG credentials could increase an individual's pension pot size at SPa by around 2%.[95]

There are a wide range of ESG approaches available, though the effectiveness and accessibility of each approach may vary by scheme type and size

While some ESG approaches may be better suited to larger, better funded pension schemes, the range of approaches available, whether for the scheme to implement themselves or via a fund offered by an asset manager, mean that all DC schemes should be able to meaningfully engage with ESG considerations when setting their investment strategy. Although scale can restrict the number of ESG approaches easily accessible to smaller schemes, such schemes need to focus on the impact they can have within these parameters. For example, rather than investing in and engaging directly with companies, smaller schemes can choose to invest in pooled fund strategies based on screens/exclusions, or in tilted rules-based or active funds that aim to manage ESG risk factors. No matter which approach, it is vital that schemes of all sizes have ESG strategies in place to protect their members from being exposed to unnecessary risk.

There are a wide range of approaches DC schemes may take in relation to ESG, whether via direct engagement with investee companies or, more typically, via an asset manager:

- Doing nothing: Despite increased focus on ESG issues in the pensions landscape, some schemes are still doing very little and in some cases treating regulatory requirements as a 'tick box' exercise.
- Screening (exclusion): Excluding specific companies/sectors associated with specific activities or sustainability risks, whether through index, rules-based or active funds.
- Tilted funds: Strategies that increase portfolio exposure to companies with higher ESG scores.
- Voting: Voting in a way that supports ESG considerations, either directly or via an asset manager.
- Engagement: Engaging with companies on ESG issues, either directly or via an asset manager, working with other investors, creating and sustaining momentum.
- Metrics/analytics: An underpinning approach which can enable pension schemes to make more effective decisions about how to integrate ESG considerations into their investment strategy, by benchmarking, or aligning, to defined metrics/analytics, for example, certain UN Sustainable Development Goals (SDGs) and/or climate metrics.

Each of these approaches will involve different implementation considerations that schemes will need to take into account in order to establish an effective ESG strategy:

- Level of financial risk-mitigation: The extent to which a particular strategy is likely to reduce financially material risks. This can be challenging to measure and quantify, as it is dependent on predictions about external events, especially when considering climate change issues.
- Cost: The cost of entry to an investment, as well as ongoing costs associated with management and engagement.

94. Environmental Audit Committee (2018)
95. Silcock, Adams & Pike [PPI] (2019)

- Delivery method: For example, implemented through a platform, through an asset manager or directly by the scheme.
- Governance: The amount of governance (expertise, available time and organisational efficiency) to be dedicated to conducting due diligence on the approach and its effective ongoing management. This is closely linked to cost and delivery method, and impacts the type of schemes most suited to different approaches.
- Scheme type: For which types of scheme might this approach be most accessible and effective.

Table 4.1: ESG approach framework

Implementation consideration → **Approach ↓**	**Level of financial risk-mitigation**	**Cost**	**Delivery method**	**Governance**	**Scheme type**
Nothing	Low	Low	None	Low	Not compliant with regulation but sometimes observed in small DC schemes
Screening (exclusion)	Low-Medium	Low-Medium	Large scheme or Asset manager	Low	All schemes
Tilted funds	Low-Medium	Low-Medium	Large scheme or Asset manager	Low	All schemes
Voting	Medium	Medium	Asset manager/ in-house investment teams for larger schemes	Low-Medium/ Medium-High	All schemes, though more accessible for larger
Engagement	Medium	Medium-High	Asset manager/ in-house investment teams for very large schemes	Low-Medium/ Medium-High	Typically large DB schemes, but also accessible for very large DC
Metrics/ analytics	Underpinning approach	Variable dependent on whether outsourced	Scheme or asset manager	Variable dependent on whether outsourced	All schemes

These approaches to ESG are not mutually exclusive and strategies that use a combination of approaches are likely to be most effective.

Screening (exclusion) and tilted funds

Index, rules-based and active ESG pooled fund strategies are more accessible for smaller schemes, but may not offer the same level of financial risk-mitigation as direct investment and engagement over the longer-term

With increased awareness of the difficulty faced by active managers in "beating the market" and an increased focus on cost, passive investment strategies have seen a rapid growth in assets under management compared to actively managed funds. This has been compounded by the growth in focus on ESG considerations which has seen an increase in assets under management in index and rules-based ESG strategies, such as funds that exclude certain companies or tilt allocation based on ESG ratings.[96]

While screening continues to be the most common approach to the incorporation of ESG factors into index strategies (41% compared to 28% tilted funds),[97] it may have unintended consequences. Excluding too many particular companies or sectors concentrates risk by limiting the scheme's spread of investments. Exclusion will also not necessarily have the intended positive impact on ESG issues:

- The industries typically excluded by negative screening do not generally rely on equity capital to fund growth, as they are typically very profitable in and of themselves. This means that selling (or not buying shares) will have a limited impact on these industries' funding.[98] However, this does mean that not buying these companies' debt – whether private, or public in the form of corporate bonds – is likely to have an impact.
- As long as these industries continue to deliver positive returns, there is likely to be a supply of investors. If investors who are particularly sustainability-minded divest from these industries, equities are likely to be bought by investors who care less about ESG issues, which could lead to poorer ESG progress in the long-term.
- Exclusion prevents the scheme or asset manager from engaging either unilaterally or collectively with the excluded company which might otherwise improve the company's ESG performance, although by not holding these investments the pension scheme has mitigated the risks associated with them in relation to their members' savings.[99]

Tilting, particularly strategies that use a 'best in class' approach rather than one based on absolute ESG ratings, offer an approach that may be less likely to concentrate risk as they do not generally exclude whole sectors, although it is possible that an investment strategy which allocates funds in proportion to the current sizes of market sectors may not offer as great a level of financial risk-mitigation against future changes over the longer-term. For example, the total value of firms currently in the oil and gas sector may shrink relative to the wider market over the medium-term.

Active, outcome-oriented strategies or impact investing can have a greater effect than more passive screening or tilted strategies in terms of both financial risk-mitigation and real-world outcomes (for example, social good). However, for trustees who struggle to see the connection between ESG considerations and financial risk-mitigation, these approaches are likely to be less attractive.

Direct voting and engagement strategies vs. manager led voting and engagement

Strategies involving direct engagement with investee companies are likely to have a greater impact on ESG issues that are important to the individual scheme than engagement in pooled funds via an asset manager on a variety of ESG issues

Strategies that involve direct engagement can be more cost and governance intensive than screening, tilted or impact funds. Direct engagement strategies are typically used by large Defined Benefit schemes with internal investment teams and formalised ESG policies,

96. PRI (2019)
97. PRI (2019)
98. Schroders (2019a); Schroders (2017)
99. Blitz & Swinkels (2020)

mainly via segregated mandates. Passive strategies rely on indices to determine their asset allocation and security selection, whereas active and rules-based ESG strategies require much more research into the underlying assets and practices of companies in constructing a portfolio. Portfolios primarily held in index funds and some active and rules-based funds are likely to be invested in a large number of companies, which makes it less likely that engagement with any one company in which the scheme is invested will have a material impact on the portfolio's overall performance.

However, trustees who do not fully recognise the financially material nature of ESG risks or those with more limited resources, such as smaller schemes, may judge that direct engagement strategies are not worth the level of cost and governance required compared to the financial risk-mitigation provided in return.[100]

DC schemes are generally unable to engage directly with companies because they invest primarily through pooled funds

Because DC schemes generally invest through pooled funds offered by an external asset manager, they may not have as much influence on their ability to enact higher engagement strategies. Although some asset managers are more proactive on ESG and have their own engagement policies in place, individual DC schemes invested in pooled funds will not be able to influence these policies according to their own values and policies as extensively as they would if invested directly. However, this barrier may become less of an issue in the future, as there are now some groups of investors, including smaller investors, pooling together to produce shared voting and engagement policies (Box 4.1) and as larger DC schemes result from further DC consolidation. Additionally, even if they are invested primarily through pooled funds, individual smaller schemes can formulate their own ESG and stewardship policies and use these in the selection or retention of pooled products.

Box 4.1: Groups of investors pooling stewardship activities

Climate Action 100+

An investor initiative launched in 2017 to ensure the world's 100 largest corporate greenhouse gas emitters take action on climate change. More than 450 investors with over $40 trillion in assets collectively under management are engaging companies to:

- Curb emissions,
- Improve governance and
- Strengthen climate-related financial disclosures.

Institutional Investors Group on Climate Change (IIGCC)

A European membership body for investor collaboration on climate change. IIGCC has more than 240 members, mainly pension funds and asset managers, across 15 countries, with over €33 trillion in assets under management. IIGCC works to support and help define the public policies, investment practices and corporate behaviours that address the long-term risks and opportunities associated with climate change. IIGCC's 'Net Zero Investment Framework' (on which they are currently consulting), will assist asset managers and asset owners in implementing investment policies and strategies in line with the Paris Agreement's goals by recommending methodologies and actions to achieve this.[101]

100. PRI (2019)

101. IIGCC (2020)

Many, particularly smaller DC schemes, are heavily reliant on asset managers, despite some trustees and IGCs not having a sufficient understanding of the engagement and stewardship activities managers are undertaking on their behalf

In research carried out in the two months following the October 2019 SIP regulation changes, the majority (85%) of SIPs stated that trustees had given their investment manager full discretion over the exercise of stewardship and voting rights, however only just over half (54%) said that trustees monitor investment managers' stewardship activities.[102] Only around two in five (42%) SIPs stated that trustees considered ESG factors when deciding whether to appoint or retain an investment manager, and less than one in ten (8%) gave details on how they do this in practice.[103]

The PLSA Stewardship Checklist includes a section focused on holding asset managers to account, illustrating how even schemes who have handed day-to-day stewardship activities to an external provider can implement an overarching ESG strategy (Box 4.2).

Box 4.2: PLSA Stewardship Checklist – 'Holding Service Providers to Account'[104]

- 'Seek to ensure that fund managers and other service providers respond to scheme policies (around stewardship and ESG) and objectives to deliver effective integration of long-term ESG factors into their investment approach.
- Explicitly set out expectations for outsourced stewardship activities in legal documents.
- Agree a schedule for monitoring and reviewing outsourced stewardship activities.'

Though schemes predominantly outsource their day-to-day investment decisions, for example through pooled funds, they retain a responsibility to monitor the ESG activities being undertaken on their behalf, so regardless of scheme size or type and the level of direct involvement with the ESG approaches, there is a need for all trustees and IGCs to improve their knowledge and understanding in order to best fulfil this role.

Most schemes do not have a clear voting and engagement policy, and establishing one can be complex and time consuming

The high availability of pooled funds, alongside the governance and budget required to establish, mean that most schemes do not have their own detailed voting and engagement policies. One notable exception to this is Nest, which has a clear voting and engagement policy which is publicly available (Box 4.3), as well as publishing annual reports providing members with details of how they have incorporated ESG into their investment strategy.[105] However, for smaller schemes, such an undertaking may be prohibitively costly, as this is a resource heavy undertaking in terms of the governance required.

102. UK Sustainable Investment and Finance Association (2020)

103. UK Sustainable Investment and Finance Association (2020)

104. PLSA (2020)

105. Nest (2020); Nest (2019b)

Box 4.3: Nest's voting and engagement policies[106]

Nest have clear, defined voting and engagement policies on a broad range of ESG areas, including:

Corporate leadership
Leadership and conduct, separation of chair and CEO roles, non-executive directors, director independence, effectiveness, nomination, director re-election and commitment, diversity, and gender diversity.

Sustainability
Risk oversight, sustainability reporting, climate change, cyber security, workforce, charitable and political donations, tax management, and bribery and corruption.

Reporting and audit
Informative and future-oriented reporting, external audit independence, competition and re-tendering, audit fees, and audit committee report.

Reward
Pay in context, performance related pay, multiple incentive schemes, remuneration committee meetings, and aligning business aims and shareholder interests.

Capital
Buying own shares, pre-emption rights, increase in share capital or preferred stock, mandatory takeover bid Rule 9 waiver, and dividends.

Nest also has sector specific voting standards for the UK banking sector; climate-intensive sectors; commodity related sectors such as energy, mining and agriculture; digital, technology and financial companies; and listed asset management firms.

Metrics/analytics

Metrics and analytics are an important part of identifying and formulating an appropriate ESG investment strategy, but there are concerns about the quality and consistency of data available to investors and asset managers

Metrics and analytic tools enable pension schemes to make more effective decisions about how to integrate ESG considerations into their investment strategy. These might comprise benchmarking, or aligning, to ESG scores, certain UN SDGs and/or climate metrics. However, the quality, quantity and consistency of data available will impact the effectiveness of ESG approaches taken.

Issues around quality and comparability of ESG data can make it more difficult to implement effective strategies

There are a number of limitations that schemes may face when utilising metrics and analytics:

- Quality: ESG data can face issues of reliability and consistency as it is largely self-reported.
- Coverage: ESG data tends to be more readily available on larger companies, in part because metrics have only become prominent in the last decade. Data on ESG performance of smaller companies tends to be less detailed, if available at all. Data is also less widely available in emerging markets.
- Consistency: ESG scoring methodologies are complex and vary across providers, meaning that the same company can score differently according to the metrics used or the way scores are combined.
- Frequency: Many ESG metrics are updated on an annual basis, making it harder to respond in a timely way to manage risk or enhance returns.[107]

Although there are broad issues associated with generating data analytics, there are some very significant and accessible data sources currently available. Furthermore, those asset managers who have strong stewardship and ESG credentials are working on differentiated

106. Nest (2020)

107. Blackrock (2018); Berg, Koelbel & Rigobon (2020)

solutions. Over time, this will enable them to provide DC schemes with more accurate data to further inform their decision-making.

Establishing higher standards of company disclosure, perhaps in the form of a standard reporting framework could help to improve the effectiveness of analytics processes and, as a result, ESG investment strategies. The Government is currently consulting on policy proposals to require trustees of larger occupational pension schemes to address climate change risks and opportunities through effective governance and risk management measures, in line with recommendations made by the international industry-led Task Force on Climate-related Financial Disclosures (TCFD).[108]

The ability to assess ESG factors, as well as the potential impact of ESG factors on returns, varies between asset classes

- Equities: The nature of equities lends itself well to ESG analysis, as well as allowing investors or asset managers to employ direct engagement strategies.
- Fixed income: In many cases bond issuers can be analysed by a process similar to equities, though engagement and stewardship opportunities are more limited, although there are some pooled social bond funds with explicit social impact approaches and defined outcomes which have much more direct engagement with issuers.
- Alternative assets (e.g. real estate and infrastructure): ESG analysis of alternative investments can be complex and resource heavy due to the heterogeneity of these assets and lack of transparency in available data. However, as with pooled social bond funds, pooled real estate and infrastructure funds that have explicitly defined social and environmental outcomes, have robust engagement frameworks.
- Differences in the quality of ESG data available across different asset classes and sectors creates the possible risk that investment may be focused in areas with better data, rather than those that are actually the most sustainable and beneficial for returns.[109]

Scale and scheme type

While some trustees posit lack of evidence of the financial benefits of ESG investing as the main barrier, scheme size and levels of cost and resource associated with higher engagement approaches appear to be a significant barrier

Trustees say that the key material obstacles to integrating ESG into their investment strategy are:

- Lack of evidence of financial performance of investments (48%)
- Lack of time and/or resource to consider fully (33%)
- Lack of products in the marketplace (28%)[110]

While insufficient scale can act as a barrier to certain ESG approaches, the effectiveness of a scheme's ESG strategy is not always directly correlated with size

Both cost and governance considerations can restrict the types of scheme for whom each approach may be most suitable and accessible. However, some schemes outside the very largest have given a particular focus to ESG issues and have been implementing direct engagement strategies despite their lesser scale. For example, the Church of England Pension Board covers around 40,000 members, in a mixture of DC, DB and hybrid arrangements. Due to the ethical nature of the sponsoring employer, the Pension Board has been highly focused on responsible investment and ESG issues for some time, even co-founding an open access climate change benchmarking tool (Box 4.4).

108. DWP (2020a)
109. Schroders (2019b)
110. Sackers (2019)

Box 4.4: Focus on responsible investment by the Church of England Pension Board

Since its adoption of a Responsible Investment (RI) Framework, the Church of England Pension Board has assessed the RI practice of all asset managers who manage more than £50 million of assets on its behalf. The scheme employs a combination of ESG strategies, including screening on the basis of ethical issues and 'Impact Engagement' through its voting and stewardship activities. The Board also co-founded its own low-carbon analytics tool, the Transition Pathway Initiative (TPI).

Transition Pathway Initiative

Initiated by a group of asset owners, including the Environment Agency Pension Fund and National Investing Bodies of the Church of England, the TPI is a global initiative led by asset owners and supported by investors globally. It assesses companies' preparedness for transition to a low-carbon economy.[111]

As the increased use of master trusts and the regulation thereof have led to greater consolidation in the market, there are now fewer small DC schemes in the market. The number of DC schemes, including hybrid schemes, has declined by 62% over the last decade (from 4,650 to 1,740).[112] As assets under management in master trusts grow and consolidation continues, master trusts will increasingly be in a position to implement ESG investment strategies in house, where smaller schemes by necessity must delegate to an asset manager by investing via a pooled fund. At present, however, despite one or two notable exceptions, master trusts are sometimes said to be over-delegating stewardship to their asset managers without sufficient oversight.[113]

While the majority of master trusts are delegating much of the ESG risk-mitigation in their investment strategy to external managers, an increasing proportion of their assets under management are invested in ESG or climate funds, predominantly in index or rules-based strategies (Table 4.2).

111. https://www.transitionpathwayinitiative.org/tpi/faq
112. TPR (2020b)
113. Share Action (2019)

Table 4.2[114]

Scheme	Fund name	Index or rules-based vs. active	ESG or climate tilt	Percentage of equities the tilt covers
Aegon	Capital Group	Index or rules-based	ESG	Up to 30%
LifeSight	MSCI Adaptive Capped ESG Universal Index	Index or rules-based	ESG	30%
LifeSight	Robesco Sustainable Multi-Factor Equity	Active	ESG	30%
Mercer	Mercer Sustainable Global Equity Fund	Active	ESG	5%
Atlas	Schroders Sustainable Multi-Factor Equity Fund	Active	ESG	100%
Nest	UBS Climate Aware Fund	Index or rules-based	Climate	30%-40%
TPT Retirement Solutions	Low carbon index fund	Index or rules-based	Climate	10% of the default fund
The People's Pension	Multi-factor climate fund	Index or rules-based	Climate	21% of the default fund

114. Share Action (2019)

Chapter Four Summary

- The potential future economic consequences of global phenomena such as climate change and social movements are becoming clearer to many investors, and there are increasing risks faced by pension schemes that do not adequately take these issues into account, particularly those who fail to comply with growing levels of regulation in this area.
- While integrating ESG considerations into investment strategy can be complex, schemes of all size and type should be able to find a suitable way to do so, considering the wide range of approaches available.

- ESG factors are becoming an increasingly important consideration in pension schemes' investment decisions, with regulation being a key driver.
- Despite an increasing focus on ESG, there is still confusion among some trustees and IGCs about what it means and the potential benefits it can offer in terms of risk management and long-term investment returns.

- There is particular confusion among some trustees on the financial risk-mitigation aspects of ESG. However, consideration of ESG factors within a scheme's investment strategy is in no way in opposition to the fiduciary duty to act in members' best interests.
- There are a wide range of ESG approaches available, though the effectiveness and accessibility of each approach may vary by scheme type and size.

- Screened or tilted index, rules-based and actively managed pooled funds are more accessible for smaller schemes but are assumption-dependent. Stronger approaches can concentrate risk, whilst 'best in class' approaches may not take into account shifts in the economy away from some sectors and towards others.
- Strategies involving direct engagement are likely to have a greater impact on ESG issues than strategies that rely heavily or solely on negative screening, but these strategies are less accessible for schemes primarily invested in pooled funds.

- Metrics and analytics are an important part of ESG investment strategy, but there are concerns about the level, quality and consistency of data available to investors and asset managers.
- While some trustees posit lack of evidence of the financial benefits of ESG investing as the main barrier to its adoption, scheme size, levels of cost and governance considerations associated with direct engagement approaches appear to be a significant barrier.

PPI is currently undertaking a research series further exploring issues around ESG and climate change, identifying practical ways to improve ESG engagement among trustees and contract-based scheme providers. The research will explore:

- **the financial implications of ESG, climate change and stewardship;**
- **how schemes are approaching the consideration of these issues;**
- **gaps in method and approach;**
- **barriers to further engagement; and**
- **possible avenues for greater engagement.**

The series will include a Briefing Note and two reports to be published over 2020 and 2021.

Chapter Five: Reflections on policy

Simon Bond
Director, Responsible Investment Portfolio Management
Columbia Threadneedle Investments

Social bonds – the darlings of the post-pandemic world?

The COVID-19 pandemic has brought about a multitude of changes to our lives. The disruption it has had on societies across the world is unparalleled in recent times, affecting everything from employment to our health, wellbeing and daily routines. Capital markets are responding to this crisis in a comparatively unsung way that is taking centre stage this year – a record issuance in social bonds.

When considering environmental, social and governance (ESG) investments, social attributes are often overlooked for the more salient environmental and governance characteristics. This was certainly the case pre-COVID-19, with green bond issuance outweighing social by far. In many ways, assessing the "E" and "G" aspects of a company is easier: we can measure aircraft carbon emissions or board diversity relatively easily. The "S" is a bit more challenging in that regard.

But while coronavirus has reinforced the importance of ESG overall, it is social that is currently the fastest-growing part of sustainable finance. The pandemic has proved to be a catalyst for a stellar year in specifically labelled "social bonds": $63 billion was issued from January-July this year, representing a 530% increase versus the same time in 2019. [a]

Being part of the solution: advantages of social bond investing for trustees

Crises typically accelerate pre-existing trends, and momentum for social bonds has been building especially after the International Capital Markets Association, with our participation,[b] published the social bond principles in 2017. These are important guidelines that recommend transparency, disclosure and reporting for bond issuers.

What made the COVID-19 crisis different is the immediate danger it posed and the fact it came without warning. Yet the speed and volume at which the credit market responded was remarkable, proving it was not only standing ready to respond to a social crisis, it was also capable of addressing its ramifications.

Governments, supranational entities and corporates across the world raised funds that would be exclusively channelled into projects with social outcomes such as health care support, education and job preservation. Investors were able to tell where the money was going and what good it was supposed to be doing. Issuers included World Bank, African Development Bank, Inter-American Development Bank, Council of Europe Development Bank, Banco Bilbao Vizcaya Argentaria (BBVA), Bank of America, and Kookmin Bank in South Korea. Investor interest was so strong that all issuances were oversubscribed.

All evidence suggests we won't go back to where we started. We think that responsible investment will remain prominent in people's minds as we move through and out of the pandemic. We see companies increasingly focusing on the social side of their business. The crisis has placed a spotlight on firms' social policies towards key stakeholders including employees, suppliers and customers. Examples of this include the likes of Uber and Lyft partnering with hospitals and local governments to fund free rides for key workers.

a. Bloomberg, July 2020

b. Simon Bond served on the ICMA working group that developed and published the social bond principles in 2017 and has agreed to continue to serve again in every year since.

For institutional investors and pension funds, social bonds are an opportunity to respond to the crisis, meet investment needs and respond to member interests. It is also an opportunity for trustees to fulfil their fiduciary duty when it comes to integrating ESG into their investment portfolios, be it via policies in relation to financially material ESG considerations; stewardship and engagement activities with investee companies or ESG arrangements with asset managers. This has been a focus area for Defined Benefit (DB) pension schemes for quite some time, and now Defined Contribution (DC) schemes are starting to catch up.

Indeed, the Impact Investing Institute has designed a set of principles to help trustees navigate and respond to these societal and regulatory expectations. The first of which is to adopt a "transitional mindset" whereby they manage the risks and seize the opportunities presented by the move towards a net-zero carbon economy, and other major societal transitions such as this latest crisis.

Principle three, meanwhile is the identification and appointment of investment consultants who are aligned with your investment beliefs and objectives, and investment managers who can achieve your scheme's impact objectives through their investment and stewardship activities. This is responsible investing in a nutshell.

Our experience and social bond strategies' track record prove that one can do well by doing good. While the most important criteria we look at are the financials – first and foremost a company needs to be financially viable in order to deliver impact - our strategies we have successfully achieved both a financial return and positive societal impact. Our UK, European, US and Global Social Bond Funds[c] have this year broken through $750 million in assets under management, showing growth of 29%, 54%, 20% and 16% respectively.

We are only beginning to learn which long-term trends will emerge as a result of the pandemic, but the heightened sensitivity towards social issues is likely here to stay. Investing in support of the global challenges we face, risk-managing portfolios in the challenging environment the future holds, and helping trustees meet their regulatory duties can be achieved by integrating responsible investment into DC investment portfolios.

c. The UK and European social bond funds are managed by Threadneedle; the US and Global social bond funds are managed by Columbia.

David Farrar
Climate Governance and ESG
Department for Work and Pensions (DWP)

Living for Tomorrow — through effective management of financial risks and opportunities and active ownership, in line with sound logic, stronger evidence and very little recourse to emotional appeal

Chapter Four of the PPI's report makes some thoughtful points on consideration of Environmental, Social and Governance (ESG), including climate change. I have 5 observations on that Chapter.

All schemes can do something on ESG and climate change

All trustees make decisions about investment strategy, hire managers to implement them, monitor those managers and where necessary fire those managers. No manager is in a position where they can do nothing to manage climate risk. And there are exit doors to Defined Contribution master trusts and Defined Benefit super funds if trustees do not wish to carry out these key duties.

It is tempting to misquote Greta Thunberg and say "no pension scheme is too small to make a difference". However, trustees' duties are not about "making a difference" but about managing the material risks and opportunities of ESG and climate change.

You might see arguments about trustees' responsibility for non-financial factors, such as delivering the kind of society their beneficiaries will want to retire into. Or theories on positive impact improving engagement which will in turn trigger higher contributions and therefore a better outcome.

But trustees don't need those arguments. As long as the risks you are managing are financially material, you don't need an impact-based argument to have a positive impact.

To take climate change as an example, schemes manage the risks associated with the transition to a low carbon economy by increasing exposure to assets which are better prepared for transition (and are therefore managing down their carbon emissions) and decreasing exposure to assets which are less well prepared (those whose emissions are flatlining or increasing). The same strategy, designed to manage your climate risk, will also reduce your climate impact.

You don't have to wait for data before you make a decision

Intriguingly, 48% see lack of evidence of financial performance of the investments as a barrier to decision making.

We've also heard that some trustees are still saying "But what is ESG?" The easiest way to think of ESG is as nothing but the non-traditional wider risks which some trustees haven't thought about whilst they've been focused on inflation, interest rates and exchange rates.

Which makes the idea that one can't act without evidence of financial performance a little strange. Did pension schemes refuse to manage exchange rate risk until they saw definitive proof of someone else doing it successfully? Maybe they did and don't like to talk about it.

It's inescapable logic that if one scheme considers all potentially material risks, whilst another scheme considers all the same risks excepts those under an ESG umbrella, then the first scheme cannot do worse and will in all likelihood do better than the second scheme. There's no excuse for ignoring a bunch of risks just because those might also happen to be the sorts of risks that some members care about. Trustees who do this are, in the words of Sir Humphrey Appleby either "very brave" or "extremely courageous".

You don't just have to engage on pensions consultations

Where trustees have the resources for a high engagement strategy, Government welcomes consultations from all-comers. You don't just need to respond to DWP consultations – you can engage on the consultations which will deliver the investment opportunities of tomorrow, whether those concern transport, energy, manufacturing or land use. Consultations are not an election, where the supportive responses are weighed against those opposed. But the weight and breadth of responses is a consideration. And pension scheme responses can be a game changer, for example where there are question marks over the willingness of asset owners to invest.

We are strategy neutral – but biased towards active ownership

As with any report that touches on investment, it is difficult to navigate through the arguments without hearing competing claims for active and passive strategies.

But if all active management addressed ESG we wouldn't be looking at 4 degrees of global warming, opaque supply chains and questionable governance. If all passive was working, we would see more willingness by fund managers to move beyond confidential engagement towards publicly supporting – or even filing! – resolutions on climate and other ESG topics.

Share Action's Point of No Returns[a] research demonstrated no clear link between active or passive strategies and responsible investment. Some active managers are very good, others could be better and some are very poor. The picture is the same with passive managers.

With products emerging that combine the features of active and passive – for example by following an index, but with discretion to diverge – we may escape this debate. But whatever the strategy, active ownership is a necessity. Where all market participants pull on the investment chain through engagement and voting, then the evidence suggests enhanced returns. Where they let the chain slacken, returns lag.[b]

Decisions are likely to be better when we have better data

We recognise the picture painted by The DC Future Book, on the quality and consistency of data.

But data is never going to be perfect, and asset managers and owners already have some catching up to do. 2019 EY research showed asset managers and owners had both the lowest coverage and quality climate disclosures of any sector.[c] There is already data to get to grips with. The Transition Pathway Initiative reported that, of 332 corporations worldwide – the largest public companies in 16 sectors:

- 66% reported on processes to manage climate risks;
- 70% set public targets of some duration, with 57% setting long-term targets;
- 76% disclosed scope 1 and 2 emissions, with 61% disclosing scope 3 emissions.[d]

There is more than enough data to begin to work with. And with our consultation on climate risk and pension schemes launched on 26th August, we are clear that larger pension scheme trustees need to begin to ask for the data, and to report on it, so savers can work with the data too.

a. https://shareaction.org/research-resources/point-of-no-returns/

b. E Dimson, O Karakaş and X Li, "Active Ownership" in Review of Financial Studies (RFS), Volume 28, Issue 12, pp. 3225-3268, 2015.

c. How can climate change disclosures protect reputation and value? Extract from the 2019 EY Global Climate Risk Disclosure Barometer - https://www.ey.com/en_gl/assurance/how-can-climate-change-disclosures-protect-reputation-and-value

d. https://www.transitionpathwayinitiative.org/tpi/publications/50.pdf

Lauren Peacock
Campaign Manager
ShareAction

Stewardship

Quality stewardship of companies can be resource intensive, but it doesn't have to be expensive. Since analysts talk to companies all the time, voicing Environmental, Social and Governance (ESG) concerns and expectations in their conversations only adds to the quality of the discussion. Voting at a company's AGM is also a standard activity but the approach needs a refresh, as not all votes carry the same weight. There are thousands of votes, which have to be processed, but a small number can make a real difference and it's a trustee's job to know which ones count.

The 2020 season was full of significant ESG votes at companies. The climate resolution at Barclays, led by ShareAction, is one example. Banks have the potential to accelerate the transition to a low-carbon economy, by phasing out lending to polluting industries and increasing financing to renewable sectors. The resolution at Barclays was the first climate resolution at a European bank; it received the attention of both companies and investors alike and sent a clear signal to the sector that not only disclosure or planning is expected, but real action. The vote earnt 24% support, which was a win for ShareAction considering it was the first of its kind, but the lack of support from the other 76% of investors is of concern. This is when Defined Contribution (DC) pension schemes can come into their own. As they exist on behalf of their members' best interests, trustees can have significant impact by engaging with their asset managers and holding them to account on their voting record, without having to reinvent their investment strategy.

Impact

Regulation has ensured that responsible investment is here to stay; however, it should represent the starting point, not the goal. The schemes leading the way, referenced in this report, demonstrate good practice and the need for considering real-world impact. Without impact, responsible investment is simply risk management, worthwhile and important but nothing new. Adjusting returns slightly and marginally reducing risk won't make or break a member's pension, a world facing 4 degrees of warming or an unprecedented level of species loss may. Flooding, drought, debt, poverty and nutrition are all real ESG issues, which affect peoples' lives. A broader, more holistic approach is a lot for pension schemes to consider, but it is crucial that trustees and IGCs move away from short-term returns and past performance and think about emerging global norms such as the Paris Agreement and the SDGs, which are relevant to their members. Whilst it should not fall on the shoulders of pension schemes to save the planet, they should be held responsible for the impacts their investments have, whether on climate change, biodiversity, or human rights.

A growing cohort of members

Now auto-enrolment is established, perhaps it is time for some fresh thinking and a better way to communicate. I recently changed the address on my pension scheme and had a letter sent to my old address to confirm the change. This isn't just poor communication, it's communication madness. Pension schemes have a responsibility to ensure that their members know who they are – ideally to engage them in financial planning, but at the very least to build trust and reduce the risk of scams. In an environment of low returns and other financial pressures, pensions aren't going to be popular – it is therefore crucial that they are seen as an asset and not just a monthly cost. Responsible investment has a huge role to play here, but it has to be authentic and real. We are past asking members what they think of sustainable investing, we should be asking them what they want. How do they want their shares voted on? Which engagement themes are the most important to them? What areas would they like their pension scheme to speak up about? While responsible investment is a broad spectrum it can be difficult to know where to start, engaging with members can help trustees focus their activities.

Looking forward

Although DC pension schemes have had a lot to deal with in recent years, responsible investment shouldn't represent yet another barrier to overcome or a box to tick. Rather, it should be seen as an opportunity to get the most out of asset managers, engage members in a meaningful way and review the long-term viability of investment strategies.

Glossary

Active members: Pension scheme members making current contributions.

Active Management:[115] The management of assets (for example, equities, gilts) in which the skill of the fund manager is used to select particular stocks at particular times, with the aim of achieving higher than average returns for the assets in question.

Annuity: A financial product that pays an income for a pre-determined period of time, generally from the date of purchase until the date of the annuitant's death.

Automatic enrolment: A policy requiring employers to enrol eligible employees into a workplace pension scheme. Employees have the right to opt out of the scheme. Employers (and usually employees) must pay at least a minimum level of contributions, on a band of earnings, into the scheme if the employee does not opt out.

Bonds:[116] Loans made to an issuer (often the Government or a company) which undertakes to repay the loan at an agreed later date.

Charge Cap: The Occupational Pension Schemes (Charges and Governance) Regulations 2015 introduced a cap on the charges of default strategies used for automatic enrolment of 0.75% of funds under management. The cap applies to all scheme and investment administration charges. Transaction costs (third-party costs generated when investments are sold and bought on the market) are excluded from the charge cap.

Compound interest: Interest is paid on the total fund, including the initial investment and the interest that has accumulated.

Contract-based scheme: A pension scheme accessed either through an employer or individually, offered and run by a third party pension provider (for example, an insurance company). Funds are owned by the individual with a contract existing between the individual and the pension provider.

Contributions: Money, often a percentage of salary, that is put into a pension scheme by members and/or their employer.

Default Strategy: The investment strategy in which members will automatically have their contributions invested in if they do not make a choice.

115. http://www.thepensionsregulator.gov.uk/glossary.aspx
116. http://www.thepensionsregulator.gov.uk/glossary.aspx

Defined Benefit (DB): An employee sponsored pension in which benefits are calculated based on years of contributions and salary (generally average or final salary).

Defined Contribution (DC) Pension Scheme: A trust-based or contract-based pension scheme that provides pension scheme benefits based on the contributions invested, the returns received on that investment (minus any charges incurred) and the way the savings are accessed.

Department for Work and Pensions (DWP): The DWP is the Government department responsible for welfare and social security, including pensions, working age benefits, and disability services.

Dependency ratio: A measure showing the number of dependants (the very young, and those over State Pension age) relative to the working age population.

De-Risking: Reducing exposure to high-volatility assets in favour of assets with lower volatility but reduced opportunity for high returns.

Drawdown: A retirement income product which allows people to continue to invest their pension savings and receive investment returns while also drawing down an income.

Enhanced Annuity: An annuity that offers a higher rate for individuals who have a shortened life expectancy due to health or lifestyle factors for example, smoking, cancer, or heart disease.

Equity:[117] Shares in a company which are bought and sold on a stock exchange. Owning shares makes shareholders part owners of the company in question and usually entitles them to a share of the profits.

Equity Release: A product which allows people aged 55 and over to release lump sums or income from housing equity, to be paid out of their estate on death.

Financial Conduct Authority (FCA): The organisation which regulates firms and individuals (including financial advisers) that promote, arrange or provide contract-based pension schemes.

Freedom and Choice/pension flexibilities: Prior to April 2015, those with DC savings of a certain level were required to purchase a secure retirement income product in order to access their DC savings. The new pension flexibilities "Freedom and Choice" loosened restrictions so that those aged 55 and over may withdraw DC savings in any amount they like, taxed at their marginal rate, with 25% tax free.

Gilts:[118] Bonds issued by the UK Government, which have a fixed interest rate. If they are index-linked, the value of the gilts increases each year with inflation, alongside the value of interest paid.

Group Personal Pension (GPP): An arrangement made for the employees of a particular employer to participate in a contract-based DC scheme on a grouped basis.

Group Stakeholder Pension (GSHP): A personal pension (DC) that was required to meet certain legislative conditions including an Annual Management Charge (AMC) of no more than 1.5%, though these schemes are now subject to the 0.75% charge cap. Prior to the workplace pension reforms, employers with five or more employees who did not already offer a pension scheme were required to offer a GSHP.[119]

Healthy Life Expectancy (HLE): An estimate of how many years an individual is expected to live without illness.

Income Drawdown: See Drawdown.

Independent Financial Advisor (IFA): IFAs provide tailored advice and recommendations that take into account individuals' circumstances.

Independent Governance Committee (IGC): Since April 2015, providers of contract-based pension schemes have been legally required to set up and maintain an IGC. IGCs are responsible for overseeing the governance of contract-based pension schemes and ensuring value for money.

Inflation: A measure of the change in the general level of prices of goods and services.

Master trust: A DC pension scheme, governed by a board of trustees, offering the same terms to multiple employers and their employees.

117. http://www.thepensionsregulator.gov.uk/glossary.aspx#s21610
118. http://www.thepensionsregulator.gov.uk/glossary.aspx#s21610
119. But were not required to offer contributions

Member: A general term for an individual who has built up entitlement in a pension scheme.

Office for Budget Responsibility (OBR): The OBR was created in 2010 to provide independent and authoritative analysis of the UK's public finances. It is one of a growing number of official independent fiscal watchdogs around the world.

Office for National Statistics (ONS): The UK's largest independent producer of official statistics and the recognised statistical institute of the UK.

Passive fund management:[120] The management of assets, e.g. equities, gilts, that replicate the performance of a given index, e.g. FTSE100, FTSE Actuaries UK Gilts Indices, with the result that the assets in question move almost exactly in line with the chosen index.

Pension Pot: A general term for the amount of money accumulated for retirement.

Personal Pension: Individual pension arrangements organised directly between an individual and a pension provider.

Robo-Advice: An online service that provides automated algorithm-based financial advice, typically without the use of a human financial planner.[121]

State Pension: The public pension provided by the UK Government to people from State Pension age with sufficient years of National Insurance entitlement.

State Pension age (SPa): The age when people can claim their State Pension. SPa is increasing and depends on an individual's birthdate.

The Pensions Regulator (TPR): The organisation which regulates trust-based pension schemes and the administration of work-based personal pension schemes.

Transaction Costs: Third-party costs generated when investments are sold and bought on the market.

Triple lock: Inflationary measure by which the value of the State Pension is increased each year by the greater of the increase in earnings, Consumer Prices Index or 2.5%.

Trust Based Pension Scheme: A Defined Contribution or Defined Benefit pension scheme taking the form of a trust arrangement, governed by a board of trustees who owe a fiduciary duty to members.

Uncrystallised fund: A pension pot which is still in its original scheme and has not been withdrawn to purchase another product, such as an annuity or drawdown.

Uncrystallised fund pension lump sum (UFPLS): Withdrawals taken from a pension pot which is still in its original scheme.

Volatility: Volatility describes the range of gains and losses that a particular fund has experienced or is likely to experience. A fund which has potential to experience high losses and gains has a high volatility and a fund with potential for low losses and gains has low volatility. In many cases volatility and returns are viewed as a trade-off, with funds incorporating higher levels of volatility in order to achieve higher returns. However, a high level of volatility exposes funds to the risk of high losses.

120. www.thepensionsregulator.gov.uk/glossary.aspx#H

121. www.investopedia.com/terms/r/roboadvisor-roboadviser.asp

Technical Appendix

The modelling for this report considers the projection of an individual using the PPI's Suite of Pension Models, using a stochastic approach of economic assumptions. The economic scenarios are generated using the PPI's Economic Scenario Generator. The Models used are detailed below. Results are presented in 2019 earnings terms.

The pensions system

The pension system modelled is as currently legislated. The triple lock is assumed to be maintained. Individuals are assumed to be members of a Defined Contribution (DC) occupational pension scheme.

General assumptions

Investment returns are modelled stochastically with curves generated by the PPI's Economic Scenario Generator (ESG). 1,000 scenarios were produced providing values for equity returns, bond returns, cash returns, CPI and earnings increases each year for each scenario. The assumed median values for each of these values are listed below, these are based on Office for Budget Responsibility long-term assumptions:

CPI: 2.0%
Earnings: 3.8%
Equity return: 7.0%
Bond Return: 4.1%
Risk-free Return: 2.1%

Other economic assumptions

Other economic assumptions are taken from the Office for Budget Responsibility's Economic and Fiscal Outlook (for short-term assumptions) and Fiscal Sustainability Report (for long-term assumptions).

Asset allocation

Unless otherwise specified, asset distributions are assumed to be 56.7% invested in equities, 33.3% invested in bonds and 10% in cash such that the median return is 5.8%. These assumptions are consistent with those used across the PPI Modelling Suite and are the result of consultation with the PPI's Modelling Review Board, which consists of a number of experts in the field of financial modelling.

Fund charges are assumed to be 0.75% for existing workplace DC schemes,[122] and 0.5% for other DC/master trust schemes set up for automatic enrolment.[123]

122. Average charges for trust-based schemes are 0.71% and for contract-based schemes 0.95%, DWP (2012), and a 0.75% charge cap will be introduced for any DC default funds being used for automatic enrolment from April 2015 onwards.

123. Equivalent Annual Management Charge for multi-employer/Master trust schemes such as Legal and General's Worksave, NEST and The People's Pension.

Earnings growth and other economic assumptions are taken in line with Office of Budget Responsibility (OBR) assumptions,[124] derived from their 2019 long-term economic determinants. The earnings band for automatic enrolment contributions and minimum salary assumption are assumed to grow with average earnings.

The Economic Scenario Generator

The PPI's Economic Scenario Generator (ESG) is used to produce randomly generated future economic scenarios based upon historical returns and an assumption of the median/long-term rates of return. It was developed by the financial mathematics department at King's College London. It is used to test how the distribution of outcomes is influenced by the uncertainty of future economic assumptions.

Key results

The Model generates projected future inflation rates, and earnings growth

- Inflation rates
  - ➢ Future CPI increases and earnings inflation rates
- Investment returns
  - ➢ Returns are produced for the major asset classes of equity, cash and gilts

This produces nominal returns which can be combined to produce investment returns for a more complex portfolio.

Application of output

The output of the ESG is a number of economic scenarios which are employed by the PPI's other models to analyse the distribution of impacts on a stochastic economic basis.

Key data sources

The specification of the model is based upon historical information to determine a base volatility and future assumptions to determine a median future return:

- Historical returns: Historical yields and returns as well as inflation measures are used to determine the key attributes for the projected rates.

- Future returns: Future returns are generally taken from the Office for Budget Responsibility (OBR) Economic and Fiscal Outlook (EFO) to ensure consistency with other assumptions used in the Model for which the economic scenarios are being generated. Volatility can also be scaled against historical levels.

Summary of modelling approach

The six identified risk factors modelled are:

G	Nominal GDP
P	CPI
W	Average weekly earnings
Y^l	Long-term yields
Y^s	Money market yields
S	Stock returns

Using these variables, a six dimensional process, x_t is defined.

$$x_t = \begin{bmatrix} \ln G_t - \ln G_{t-12} \\ \ln(P_t - \ln P_{t-12} + 0.02) \\ \ln W_t - \ln W_{t-12} \\ \ln\left(e^{Y_t^l} - 1\right) \\ \ln\left(e^{Y_t^s} - 1\right) \\ \ln S_t \end{bmatrix}$$

Where t denotes time in months.

The development of the vector x_t is modelled by the first order stochastic difference equation:

$$\Delta x_t = A x_{t-1} + a + \varepsilon_t$$

Where A is a 6 by 6 matrix, a is a six dimensional vector and ε_t are independent multivariate Gaussian random variables with zero mean. The matrix A and the covariance matrix of the ε_t were determined by calibrating against the historical data. The coefficients of a were then selected to match the long-term economic assumptions.

It follows that the values of x_t will have a multivariate normal distribution. Simulated investment returns will, however, be non-Gaussian partly because of the nonlinear transformations above. Moreover, the yields are nonlinearly related to bond investments.

The first component and third components of x_t give the annual growth rates of GDP and wages, respectively. The fourth and fifth components are transformed yields. The transformation applied ensures that the yields are always

124. OBR (2019)

positive in simulations. Similarly, the second component gives a transformed growth rate of CPI. In this case, the transformation applied ensures that inflation never drops below –2% in the simulations. This figure was selected to be twice the maximum rate of deflation ever found in the historical data.

PPI Aggregate Model

Overview of Aggregate Modelling of Private Pensions

The PPI Aggregate Model links changes in the UK population, the labour market and economic assumptions to project forward private (and State) pension savings. Population projections are taken from 2016-based figures published by the ONS.

Current distributions of individuals across pension scheme types are taken from the Lifetime Labour Market Database (LLMDB),[125] a panel dataset of 1% of UK National Insurance records. The workforce data includes numbers of individuals and average earnings split by age, gender and earnings band. The data are further split between public and private sector contracted-out schemes and those who are contracted-in to the State Second Pension (S2P).

Initial Conditions

In the base year of projection (2010), individuals with private sector pension arrangements are split between public and private Defined Benefit (DB) schemes and workplace Defined Contribution (DC) schemes. 17.5% of working individuals are assumed to be members of DC workplace pensions and 32.1% of individuals are assumed to be members of DB workplace schemes.[126] 73.2% of those in DB schemes are assumed to work within the public sector,[127] leaving 8.6% of the workforce in private sector workplace DB schemes.

The workforce not initially enrolled in public sector DB, private sector DB or private sector workplace DC, are considered as the eligible population for automatic enrolment. This includes individuals not in workplace pension schemes who contribute to personal pensions.

Stocks of existing assets for DB schemes and workplace DC schemes are split across cohorts by contribution levels. Initial stocks of workplace DB assets were assumed to be £890 billion in the base year.[128] It was assumed that the stocks of DC assets in 2010 were £275 billion.[129]

Movement of individuals between schemes due to decline in DB schemes

The proportion of individuals in each scheme is not stable over time: the proportion of the total workforce who are enrolled in a private sector DB scheme is assumed to decline by 80% between 2010 and 2030 and these individuals are moved into the existing DC workplace schemes.

Movement of individuals between schemes post automatic enrolment

From 2012, employees in the private sector without workplace DC provision are placed in a scheme to represent automatic enrolment, which is split further into master trust schemes and other DC schemes, assuming 80% are automatically enrolled into master trusts and the remaining into other DC schemes. Individuals are enrolled in proportion to the likely number of employees becoming eligible each year due to staging of their employers. Similarly, during the staging period, employees in existing DC schemes who become eligible for automatic enrolment either remain in the existing scheme or are moved to a new automatic enrolment workplace DC scheme (again split into master trusts and other DC schemes in the same proportions as mentioned above). It is assumed that 80% of existing members remain in their current scheme, and 20% are expected to move to the new automatic enrolment scheme. New members to DC schemes who have an employer with an existing scheme either join the new automatic enrolment scheme (80%) or join an existing DC scheme (20%).

Overall, after 2012 the private sector workforce is assumed to contribute to either private sector DB pension schemes, DC schemes which were existing prior to automatic enrolment, DC

125. Data from LLMDB 2010-11
126. ONS (2013)
127. Average proportion of males and females employed in public sector COSR schemes according to LLMDB 2010-11
128. TPR (2012) The Purple Book Chapter 4 Table 4.1 Assets discounted to the base year.
129. Workplace DC assets taken from ONS (2012) Table 3, adjusted for decumulated assets.

which were set up for automatic enrolment, or schemes set up for those that are eligible for automatic enrolment that did not contribute before the implementation of automatic enrolment. It is assumed that 14%[130] of the workforce change jobs from year to year, which causes individuals to shift from existing DC schemes into new DC automatic enrolment schemes over time.

Contributions

Contributions are taken as a percentage of total earnings for employer provided schemes (both existing schemes and those set up after automatic enrolment) and are taken across band earnings for individuals automatically enrolled who previously were not saving. The earnings band is taken to be £6,240 to £50,000 with an earnings trigger of £10,000 (all in 2020/21 terms).

When automatically enrolled, individuals and their employers are assumed to contribute at the minimum levels required under automatic enrolment legislation (phased in from a combined contribution of 2% of band earnings in 2012, rising to 8% of band earnings in 2019 in accordance with existing regulations) unless otherwise stated.

Limitations of analysis

Care should be taken when interpreting the modelling results used in this report. In particular, individuals are not considered to change their behaviour in response to investment performance. For example, if investments are performing poorly, an individual may choose to decrease their withdrawal rate and vice versa.

Monte Carlo simulation can be a powerful tool when trying to gain an understanding of the distribution of possible future outcomes. However, in common with other projection techniques, it is highly dependent on the assumptions made about the future. In this case, the choice of distribution and parameters of the underlying variables, the investment returns of equities, gilts and cash are important to the results.

130. Average annual workforce churn. DWP (2010) p49

References

ABI (2015) [Press release, 3 November 2015] "£4.7 billion paid out in first six months of pension freedoms"

Berg, Koelbel & Rigobon (2020) Aggregate confusion: *The divergence of ESG ratings*

Blackrock (2018) *Sustainable investing: a "why not" moment*

Blake & Harrison (2014) *Independent review of retirement income consultation*

Blitz & Swinkels (2020) *Is exclusion effective?*

Carrera, Curry & Cleal (2012) *The changing landscape of pension schemes in the private sector in the UK [PPI]*

DWP (2017) *Automatic enrolment review 2017: Analytic report*

DWP (2018) *Employers' Pension Provision Survey 2017*

DWP (2019a) *Workplace Pension Participation and Savings Trends of Eligible Employees Official Statistics: 2006 to 2018*

DWP (2019b) *Automatic enrolment evaluation report 2019*

DWP (2020a) *Taking action on climate risk: improving governance and reporting by occupational pension schemes*

DWP (2020b) *Automatic enrolment evaluation report 2019*

DWP (2020c) *Workplace pension participation and savings trends of eligible employees' official statistics: 2009 to 2019*

Environmental Audit Committee (2018) *Greening Finance: embedding sustainability in financial decision making*

FCA (2018a) *Improving the quality of pension transfer advice*

FCA (2018b) *Retirement Outcomes Review Final Report*

FCA (2019a) *Effective competition in non-workplace pensions*

FCA (2019b) *Defined benefit pension transfers – market-wide data results*

FCA (2019c) *Retirement income market data 2018/19*

FCA (2019d) *Retirement Outcomes Review: Investment pathways and other proposed changes to our rules and guidance*

Her Majesty's Treasury (HMT) Financial Conduct Authority (FCA) (2016) *Financial Advice Market Review: Final report*

The Institutional Investors Group on Climate Change (IIGCC) (2020) *Net zero investment framework for consultation*

Institute for Fiscal Studies (IFS) (2016) Presentation from Launch event of research funded by the IFS Retirement Saving Consortium and the Economic and Social Research Council *Automatic enrolment: the story so far*

Money and Pensions Service (MAPS) (2020) *Pension Wise service evaluation 2018/19*

Nest (2019a) *Supporting self-employed people to save for retirement*

Nest (2019b) *Paving the way*

Nest (2020) *Nest's voting and engagement standards - UK*

OECD (2017) *Investment governance and the integration of environmental, social and governance factors*

PLSA (2017) *Hitting the target – deliver better retirement outcomes – a consultation*

PLSA (2020) *PLSA stewardship guide and voting guidelines 2020*

PRI (2019) *How can a passive inves*tor be a responsible investor?

Redwood, Carrera, Armstrong & Pennanen (2013) *What level of pension contribution is needed to obtain an adequate retirement income?* [PPI]

Sackers (2019) *Sackers ESG survey for pension schemes*

Schroders (2017) *Demystifying negative screens: The full implications of ESG exclusions*

Schroders (2019a) *Divestment – does it drive real change?*

Schroders (2019b) *Multi-asset investments: The practical considerations of ESG in multi-asset portfolios*

Share Action (2019) *Is regulation enough? A review of UK master trusts' ESG policies*

Silcock, Adams & Pike (2019) *The DC Future Book: in association with Columbia Threadneedle Investments [PPI]*

The Society of Pension Professionals (SPP) (2020) *Putting ESG into practice*

TPR (2019a) *The current master trust market Latest facts and figures May 2019*

TPR (2019b) *A guide to investment governance: To be read alongside our DC code of practice no.13*

TPR (2020a) *Declaration of compliance report July 2012 – July 2020*

TPR (2020b) *DC trust: scheme return data 2019-2020*

UK Sustainable Investment and Finance Association (2020) *Changing course: How pensions are approaching climate change and ESG issues following recent UK reform*s

Wagstaff (2020) *It's not what you say, it's the way that you say it [Columbia Threadneedle Investments]*

XPS Pensions Group (2019) *Member outcomes under freedom and choice*

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