Pensions Policy Institute

PPI

Established - 2001

THE DC FUTURE BOOK 2021:

IN ASSOCIATION WITH COLUMBIA THREADNEEDLE INVESTMENTS

COLUMBIA THREADNEEDLE INVESTMENTS

Your success. Our priority.

ISSUE #7

The Pensions Policy Institute (PPI)

We have been at the forefront of shaping evidence-based pensions policy for 20 years.

The PPI, established in 2001, is a not-for-profit educational research organisation, with no shareholders to satisfy– so our efforts are focussed on quality output rather than profit margins. We are devoted to improving retirement outcomes. We do this by being part of the policy debate and driving industry conversations through facts and evidence.

The retirement, pensions and later life landscapes are undergoing fast-paced changes brought about by legislation, technology, and the economy. Robust, independent analysis has never been more important to shape future policy decisions. The PPI gives you the power to influence the cutting-edge of policy making. Each research report combines experience with independence to deliver a robust and informative output, ultimately improving the retirement outcome for millions of savers.

Our Independence sets us apart – we do not lobby for any particular policy, cause or political party. We focus on the facts and evidence. Our work facilitates informed decision making by showing the likely outcomes of current policy and illuminating the trade-offs implicit in any new policy initiative.

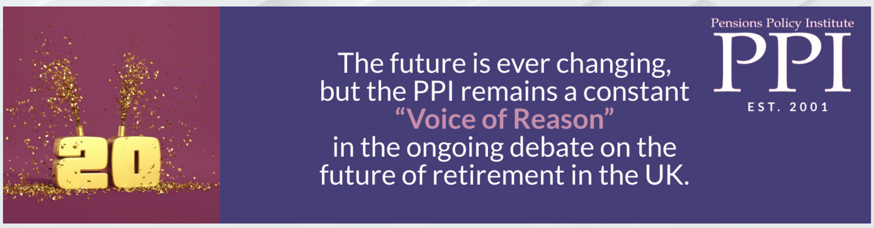
Our Vision:
Better informed policies and decisions that improve later life outcomes
We believe that better information and understanding will help lead to a better policy framework and a better provision of retirement income for all.

Our Mission:
To promote informed, evidence-based policies and decisions for financial provision in later life through independent research and analysis
We aim to be the authoritative voice on policy on pensions and financial and economic provision in later life.

By supporting the PPI you are aligning yourself with our vision to drive better informed policies and decisions that improve later life outcomes and strengthening your commitment to better outcomes for all.

As we look forward now to the next 20 years, we will continue to be the trusted source of information, analysis, and impartial feedback to those with an interest in later life issues. The scale and scope of policy change creates even more need for objective and evidence-based analysis. There is still much to do, and we look forward to meeting the challenge head on.

For further information on supporting the PPI please visit our website:
www.pensionspolicyinstitute.org.uk or contact Danielle Baker, Head of Membership & External Engagement
danielle@pensionspolicyinstitute.org.uk



Lauren Wilkinson, Senior Policy Researcher Pensions Policy Institute

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.

John Adams, Senior Policy Analyst, Pensions Policy Institute

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 pension policy project number of PPI modelling projects including a number of projects 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.

Daniela Silcock – Head of Policy Research, Pensions Policy Institute

Daniela is Head of Policy Research at the Pensions Policy Institute (PPI), and leads the 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.

The DC Future Book:
Unravelling Workplace Pensions

Foreword i
Introduction 1
Chapter One: What is the DC landscape? 2
Chapter Two: What does the DC landscape look like? 10
Chapter Three: How might the DC landscape evolve in the future? 32
Chapter Four: How has the COVID-19 pandemic impacted DC investment strategies? 39
Chapter Five: Reflections on policy 46
Glossary 56
Technical Appendix 61
References 65
Acknowledgements and Contact Details 68

A Research Report by Lauren Wilkinson, Daniela Silcock and John Adams
Published by the Pensions Policy Institute

ISBN 978-1-914468-01-8
www.pensionspolicyinstitute.org.uk

The DC Future Book 2021: Foreword

Columbia Threadneedle Investments has supported *The DC Future Book* since its inaugural publication six years ago. We are pleased to see that it has become the foremost longitudinal study of the UK Defined Contribution (DC) market we envisaged it to be.

This is a special edition indeed – it is the first time that the Pensions Policy Institute has been able to track DC market activity against the backdrop of a major crisis. Chapter 4 specifically looks at the impact of the Covid-19 pandemic on DC investment strategies, how trustees have responded and what valuable lessons can be learnt.

Over the last 18 months, market movements have been a picture of contrast. In early 2020, at the beginning of the pandemic, we saw periods of extreme market volatility impacting valuations. Through the interventions of governments and central banks many markets were then propelled back to, or even above, pre-pandemic levels. This recovery was fast paced and much quicker than that of preceding crises.

Encouragingly, DC schemes' long-term investment horizons and diversified portfolios meant that they have been able to withstand the market volatility and protect their members, a large proportion of whom are invested in default funds. Due to the unprecedented nature of the crisis, many DC scheme trustees also did not make changes to their schemes' investment strategies. This has protected them from investment losses and allowed them to benefit from the subsequent recovery.

While this has meant that the positive trends in the UK DC market, such as growing aggregate assets and median DC pot sizes, have continued, this is not the time for complacency. Making no or little changes to investment strategies turned out to be the right approach this time, but a prolonged market downturn could have resulted in a much worse outcome for DC scheme members.

We would encourage all pension trustees to take the experience of Covid-19 as an opportunity to work ever closer with their advisers and asset managers to assess the resilience of their schemes' default funds. There are several measures DC schemes can take to improve member outcomes, as Columbia Threadneedle's Andrew Brown explores in his article on page 47 including diversification into asset classes such as infrastructure and real estate.

[1] DC trustees: COVID-19 scheme management and investment guidance | The Pensions Regulator

Finally, we should not forget that the pandemic has, in some instances, also presented opportunities for investors with a good understanding of where longer-term returns may be found. Sectors such as technology and online sales, for example, have experienced growth during this period. Covid-19 has also brought to light a heightened awareness of Environmental, Social and Governance (ESG) factors, particularly around social issues such as health and labour practices. This shifting emphasis among investors highlights how rapidly ESG issues can evolve, underscoring the importance of trustees being both proactive and flexible in their approach to responsible investment considerations.

We are pleased that *The DC Future Book* continues to promote a better understanding of trends and themes in the UK DC pensions market. It allows us as asset managers to engage in dialogue and continue to provide the right investment solutions for our clients.

We hope you enjoy reading it.

Michaela Collet Jackson
Head of Distribution, EMEA, at Columbia Threadneedle Investments

Introduction

Demographic and policy changes mean that, compared to previous generations of pensioners, current and future retirees will:

- live longer on average;
- receive their State Pension later;
- be more likely to reach retirement dependent on Defined Contribution (DC) savings, with little or no Defined Benefit (DB) entitlement; and
- have greater flexibility when accessing and using their DC savings over the course of later life.

These changes increase the risks borne by pension savers and the complexity of decisions they must make at and during retirement. Given the potential risks involved for those retiring with DC savings, and the rapid expansion of the workplace DC market, it is important that a comprehensive compendium of DC research, statistics and longitudinal studies is available to allow observation and analysis of developing trends.

This report is the seventh edition of the Pensions Policy Institute's (PPI) 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 impact of the COVID-19 pandemic on DC schemes' investment strategies and the lessons that may be learned in order to help schemes better prepare for and prove more resilient to future crises.

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?

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[1]

Box 1.1: The State and private pension system

State Pensions		Private Pensions
Provides a basic level of income (set just above the main income related benefit for pensioners)* with the effect of redistributing money from those better off to those less well off.	Aims	Redistributes income across an individual's lifetime.
Compulsory for all workers under State Pension age, earning above the Lower Earnings Limit. Paid through National Insurance contributions.	Contributions	Voluntary, though automatic enrolment regulations require at least minimum contributions from employers and workers who do not opt out.
Pre-April 2016: basic State Pension (flat rate) and additional State Pension (earnings related); Post April 2016: new State Pension (flat rate) - those reaching State Pension age after April 2016 receive the higher of their entitlement under the two systems.	Structure	Vary in structure - Defined Benefit schemes deliver a proportion of salary in retirement. Defined Contribution pension pots depend on contributions, charges and investment returns.
Provided and administered by the Government.	Provider	Either provided directly by employers (including Government employers) or through third parties. Access is generally provided by employers though individuals can join private pension schemes.

** Pension Credit*

Pensions in the private tier can be either workplace (provided through an 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). The latest available data shows that, as of 2019, there were 12.7 million non-workplace pensions accounts, accounting for 20% of the AUM in the UK pensions sector.[2] Individuals may have both workplace and personal pensions at the same time.

[1] For further detail regarding the UK pension system, see PPI's Pension Primer (2021)

[2] 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.[3] Other significant risks are (Figure 1.1):

Figure 1.1[4]

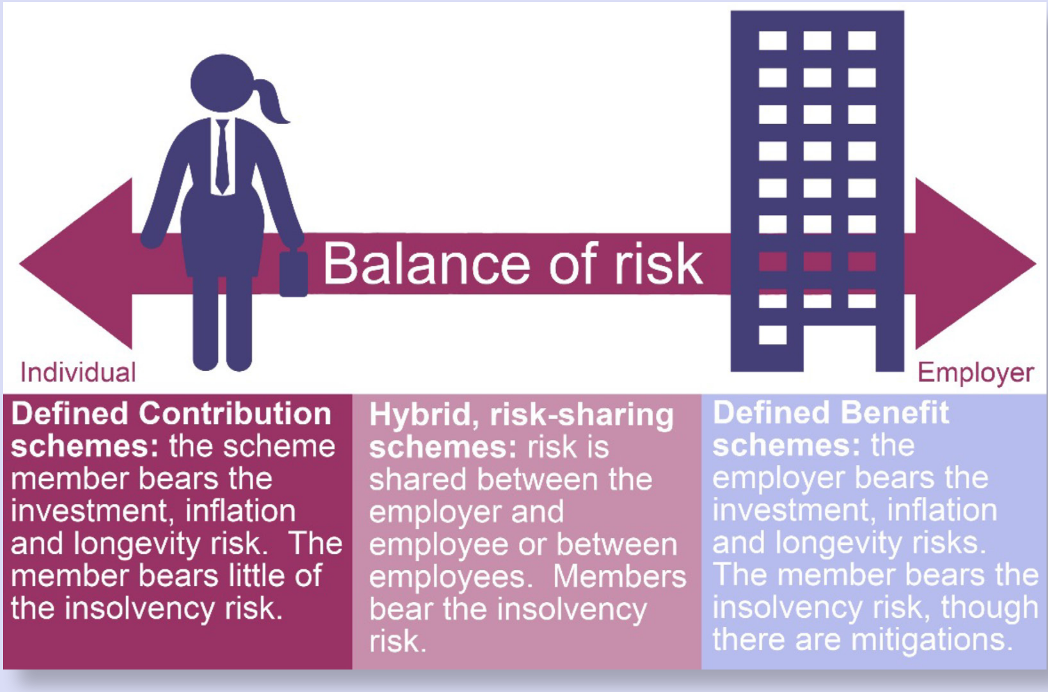
There are other risks associated with saving in and accessing private pensions including (but not limited to):

- Making sub-optimal decisions about how to access retirement savings,[5]
- Poor understanding of the income level required for an adequate standard of living, and the amount that needs to be saved to achieve that income level
- Excessive product charges,
- Poor annuity rates,
- Poor investment strategies,
- Market turbulence,
- Becoming a victim of fraudulent schemes or other pension scams,
- The risk of needs in retirement changing unexpectedly, for example, as a result of developing health and social care needs, and
- The interaction between pension savings and means-tested benefits.[6]

[3] Redwood *et. al.* [PPI] (2013)
[4] 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 their pension provider can't pay members and is authorised by the Financial Conduct Authority (FCA).
[5] 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. Pension Wise was created in order to mitigate this increased risk by offering a free source of guidance for DC savers.
[6] Blake & Harrison (2014)

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

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, for those with very low incomes, small amounts of DC savings may have significant proportional effects on later life living standards if, for example, they can use them to supplement a State Pension income or to pay off mortgages or other debts, which could reduce living costs in later retirement.

The introduction of a third type of pension scheme, Collective Defined Contribution (CDC), presents a new option for risk sharing

The Pension Schemes Act 2021 legislated a framework for the establishment of CDC schemes in the UK. CDC schemes have two defining features:

- Collective: Risks and costs are shared collectively between the scheme's members rather than individually.
- Defined Contribution: Contribution rates (employer and employee) are defined in advance, with no ongoing liability to pay more in the future to cover benefits.

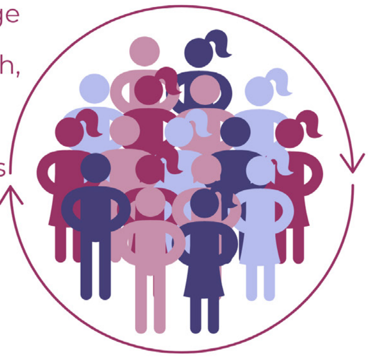
Unlike in individual DC schemes, CDC schemes are designed to provide members with an income for life, similar to that provided by DB. However, CDC income levels are not guaranteed and can be subject to increases and decreases during both the accumulation phase and after retirement, depending on the scheme's funding position. CDC offers a middle ground between DC and DB, providing members with greater certainty about retirement outcomes than is possible in individual DC, while providing greater cost and liability certainty for employers than a DB scheme.

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

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 lagged 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.

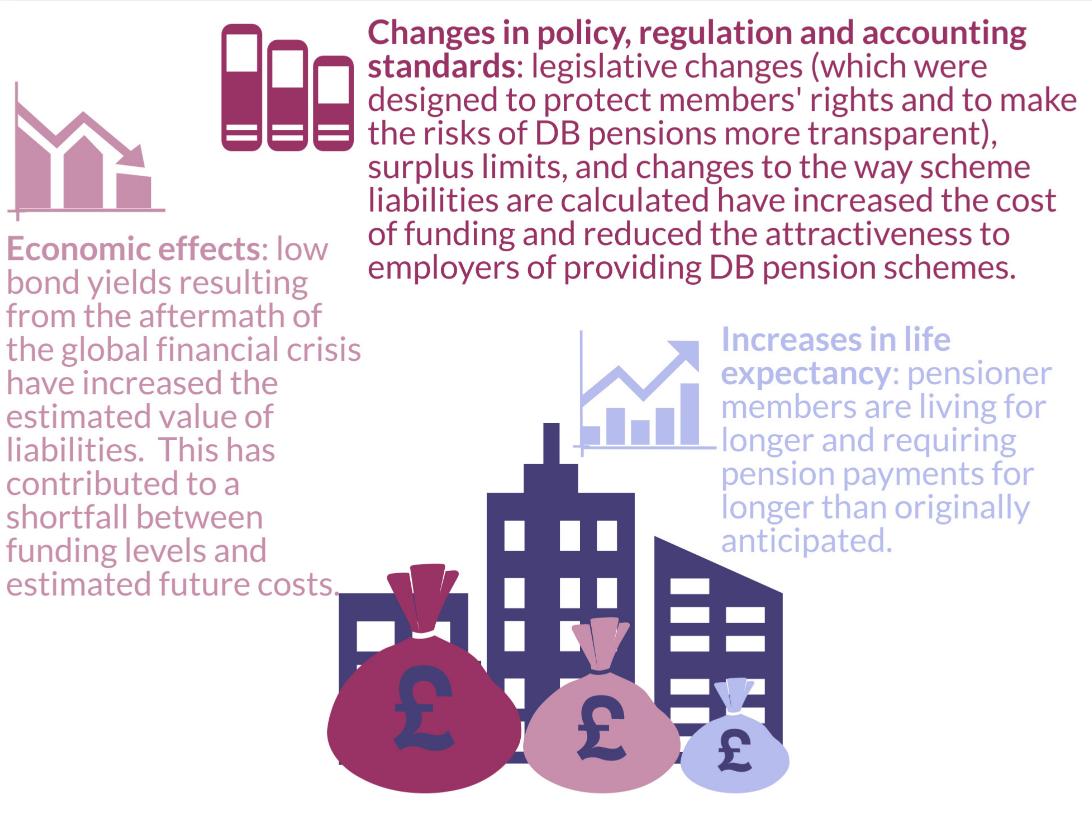


Dependency ratio: In 2020 there were 289 people over State Pension age for every 1,000 people of working age. This is projected to grow to 361 for every 1,000 by 2050.

Life expectancy: In 2021, a 65 year old man can expect to live on average to age 85.1 and a 65 year old woman to age 87.3. When the contributory State Pension was introduced in 1925, a 65 year old man could expect to live to around age 76.

Box 1.3: Market changes

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.[7] Private sector DB membership had declined to around 1.1 million active members by 2020 and 89% of private sector schemes were closed to new members, but 44% were open to new accruals by existing members.[8] 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 13.2 million active members in DC schemes compared to around 6.7 million active members in DB schemes, including the public sector.[9] 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).

[7] Carrera *et.al* [PPI] (2012)
[8] PPF (2020)
[9] PPI Aggregate Model

Box 1.4: Policy changes[10]

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 - £50,270 2021/22). 10.5 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 (£177.10pw) at £179.60pw for a single person in 2021/22.

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

Box 1.5: Regulatory changes

- Value for money: Over the last year, the Government has carried out two consultations relating to the charge cap and value for money for DC savers: a September 2020 consultation, '*Improving outcomes for members of defined contribution (DC) pension schemes*', on draft regulations and statutory guidance to deliver better value for money for members of DC schemes, and a March 2021 consultation, 'I*ncorporating performance fees within the charge cap*', on draft regulations on performance fee smoothing. Following these consultations, the Government decided to move forward with the introduction of new regulations from October 2021. These measures will require around 1,800 smaller DC schemes (with assets of less than £100 million) to demonstrate that they continue to offer value for members comparable to that offered by larger schemes. As part of this initiative, schemes will be required to publish net returns, in addition to costs.

[10] 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 Pension Credit as a result. Therefore, the level of the new State Pension is intended to provide an incentive to save in a workplace pension.

- 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. Since 1 October 2020, the SIP has also had to 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. From October 2021, DC schemes with more than £5 billion AUM and all master trusts must produce an annual report on their consideration of climate change risks in line withTask Force on Climate-related Financial Disclosures (TCFD) recommendations. From October 2022, this will also apply to DC schemes with AUM between £1 billion and £5 billion.

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,
- be more likely to reach retirement with no or low levels of DB entitlement,
- 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.

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, there are still challenges. 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?

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.

The self-employed group, including around 4.4 million people,[11] is excluded from accessing the benefits of automatic enrolment by the fact that they do not have an employer who can automatically enrol them and contribute on their behalf.

Many people with multiple jobs are also excluded from automatic enrolment as a result of low earnings. Of the 10.1 million workers ineligible to be automatically enrolled, almost 106,000 workers, of whom 70% are women, are not being automatically enrolled into a pension because their earnings come from more than one job.[12]

Employers are required to contribute on behalf of workers while they remain active members. Since April 2019, the minimum required level of aggregate contributions is 8% of band earnings (£6,240 to £50,270 in 2021/2022), 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 until they reach age 55. Those who opt out or cease contributing are re-enrolled every three years.

Employees and automatic enrolment

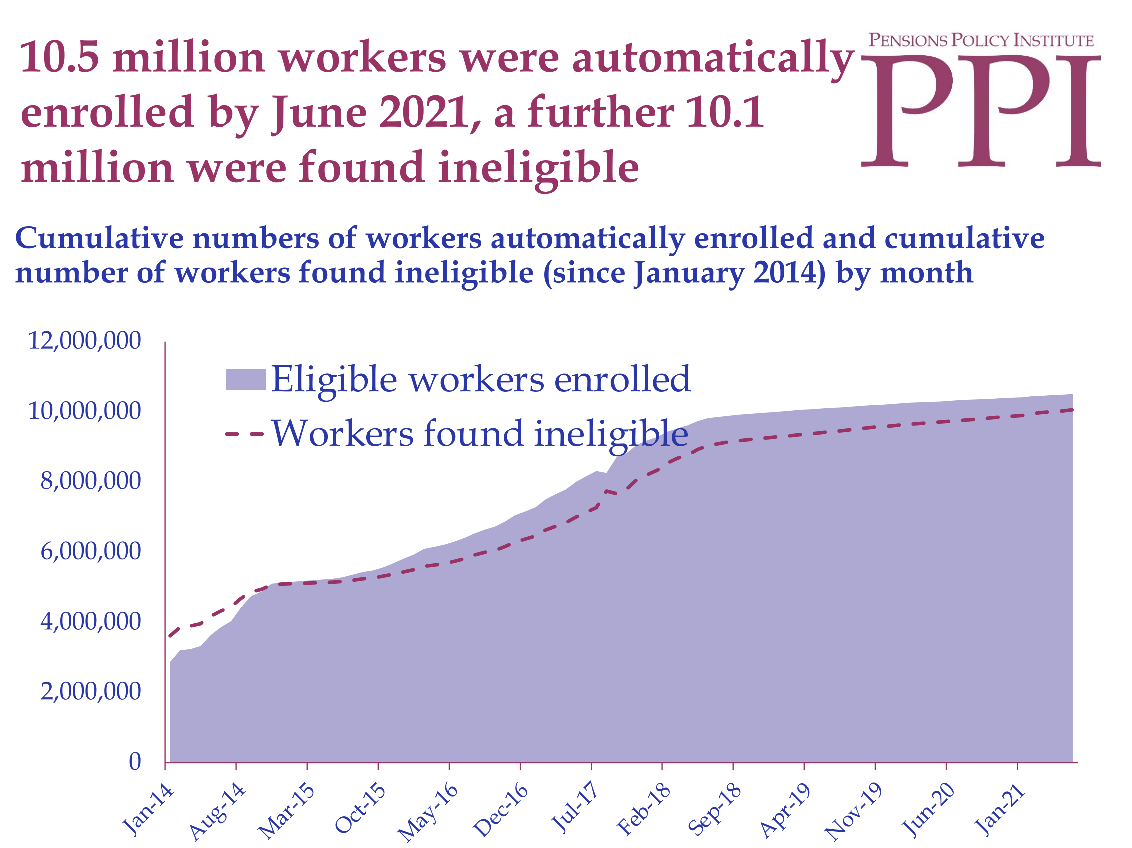
Employees were automatically enrolled on a staged basis starting with the largest employers in October 2012. By the end of 2018, all existing employers were required to automatically enrol their employees and all new employers also have that obligation.

10.5 million people were automatically enrolled by June 2021

By June 2021, 10.5 million employees were automatically enrolled. However, the number of employees found ineligible for automatic enrolment due to age or earnings has continued to grow more rapidly, reaching 10.1 million by June 2021, compared to 9.8 million last year (Chart 2.1). This trend may be attributed to an increased number of employees in lower-income jobs or more employees working in multiple jobs.

[11] IPSE (2020) The self-employed landscape in 2020
[12] PPI (2020) The Underpensioned Index

Chart 2.1[13]



Reducing the age of eligibility for automatic enrolment, from 22 to 18, as recommended by the 2017 Automatic Enrolment Review, could increase eligibility by around 2.8% (around 700,000 people), while removing the lower earnings eligibility threshold of £10,000 in a single job could increase eligibility by around 14% (around 3.5 million people) among those in employment.[14]

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. The National Employment Savings Trust (Nest) conducted substantial amounts of research and trials on methods of encouraging higher levels of pension saving among the self-employed, following the Automatic Enrolment Review. Nest identified a number of options, 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.'

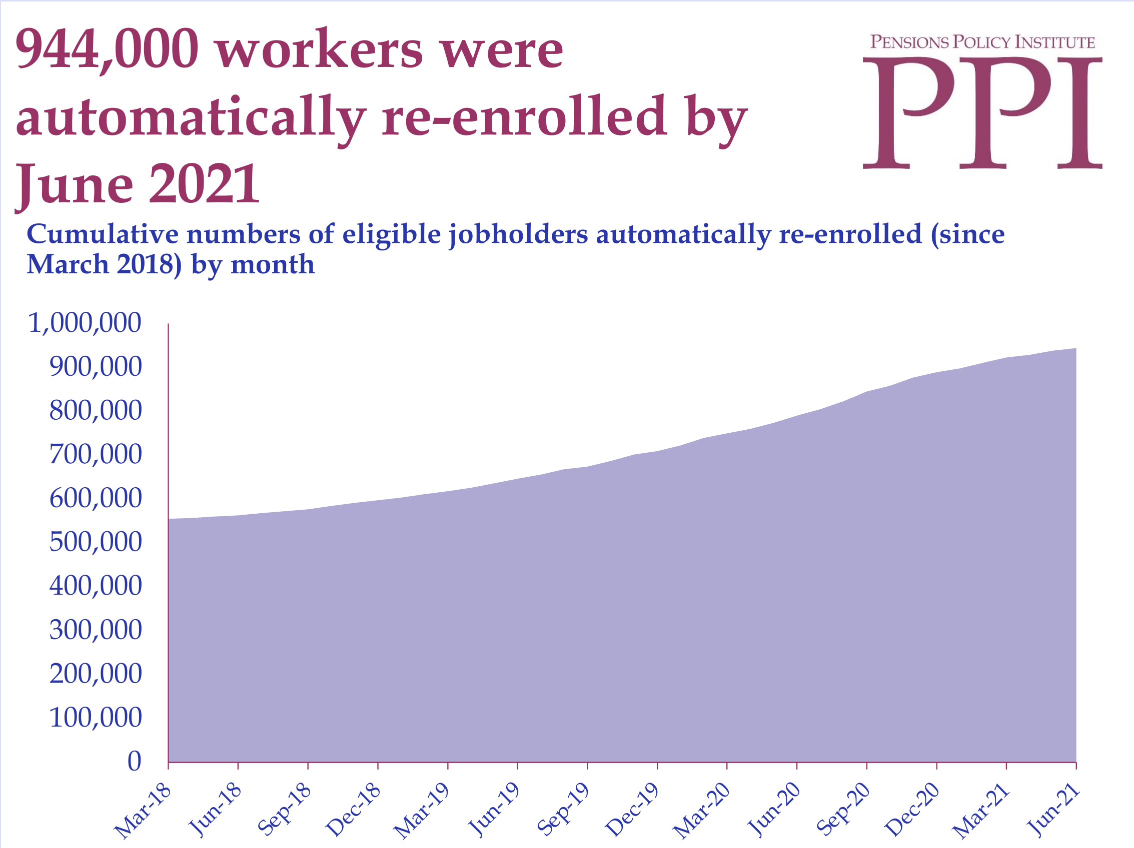
13 TPR (2021a)
14 PPI analysis of LFS

- 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.'[15]

944,000 employees have been automatically re-enrolled

Employers are required to automatically re-enrol all eligible workers three years after the date they opt out the first time. By June 2021, 944,000 employees had been automatically re-enrolled, compared to 805,000 in June 2020 (Chart 2.2).

Chart 2.2[16]



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.[17] 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.[18]

While it is too early to draw conclusions about the full impact of the COVID-19 pandemic, some schemes have observed increased opt out rates over the last year. For example, Nest saw opt-out rates increase from 8% to 11% between April and September 2020. However, there have been no significant changes in average contribution levels, with the majority continuing to save at the same level.[19]

[15] Nest (2019a)
[16] TPR (2021a)
[17] DWP (2020b)
[18] DWP (2018)
[19] Nest (2021) Retirement saving in the UK 2020

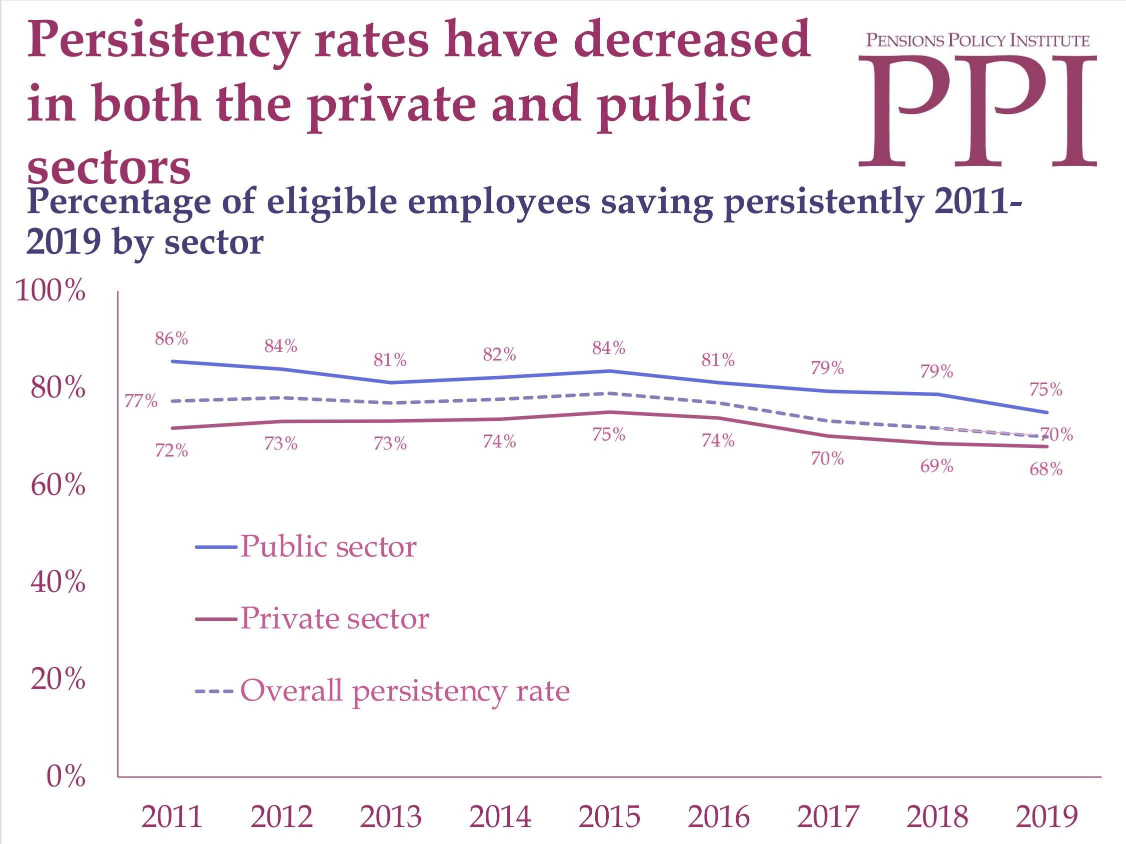
70% of eligible employees saved in a pension for at least three of the last four years[20]

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.

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[21]



Persistency in pension saving has fallen since 2016, from 77% to 70% in 2019. Persistency in the public sector fell from 84% to 75% between 2012 and 2019, and from 73% to 68% 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.[22]

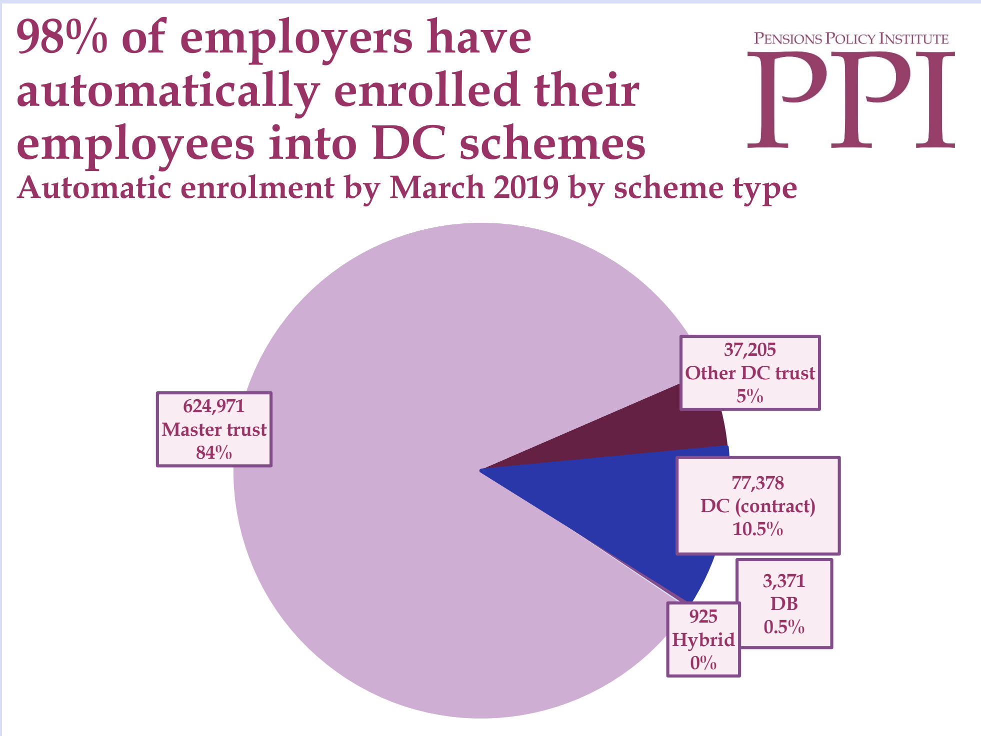
[20] DWP (2020c)
[21] DWP (2019a)
[22] DWP (2019a) "The proportion of eligible savers not saving persistently remained at one per cent in 2018, and for the remaining 27 per cent there is an indeterminate amount of evidence in the ASHE dataset to judge either way. The 'evidence indeterminate group' has 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 four in five 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 DC schemes. The use of DC schemes, specifically master trusts, has risen dramatically with automatic enrolment (Chart 2.4).

Chart 2.4[23]



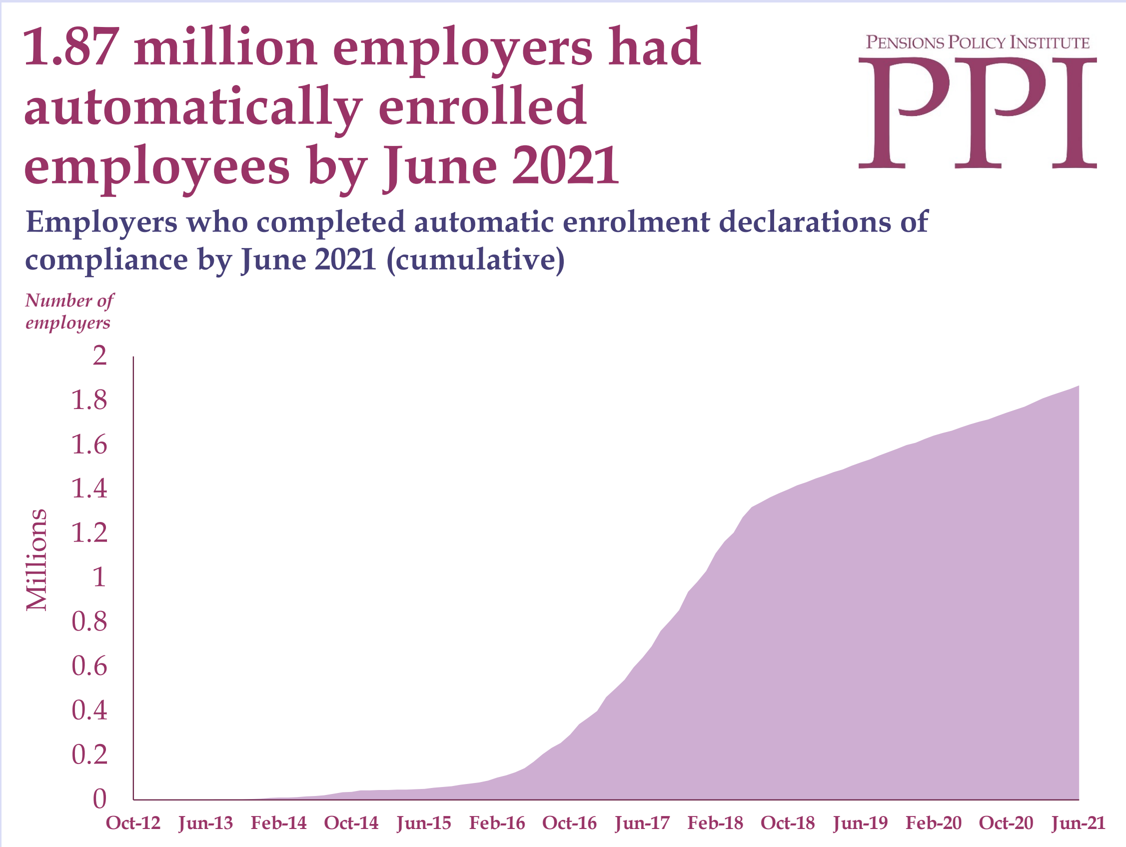
98% of employers have chosen to automatically enrol their employees in DC schemes, up from 97% in 2017, but stable since 2018. 84% of employers have automatically enrolled their employees in master trust schemes, up from 83% in 2018.

Employers and automatic enrolment

Automatic enrolment has now fully staged (by 2018), and all existing employers are required to automatically enrol new employees and re-enrol existing employees who have opted out. 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 June 2021, this had risen to 1.87 million, as a result of new employers joining the market (Chart 2.5).[24]

[23] TPR (2019a)
[24] TPR (2021a)

Chart 2.5[25]



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 (TPR) has increased, from 1,493 in 2014, 3% of the employers who had 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[26]

	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%

[25] TPR (2021a)
[26] TPR – compliance and enforcement quarterly bulletins for the relevant periods

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 begun to increase. Between 2018 and 2019, median pot sizes increased by £300 to £9,600. Median pot sizes increased more substantially between 2019 and 2020, to £11,400 (Chart 2.6). This data has been analysed in previous editions of The DC Future Book, with last year's 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. Average pot sizes in 2020 do not necessarily reflect the full impact of the COVID-19 pandemic, which may be seen in upcoming years.

Chart 2.6[27]

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.

[27] PPI analysis of Wealth and Assets Survey data, 2017 and 2018 data projected using PPI models

DC asset allocation

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

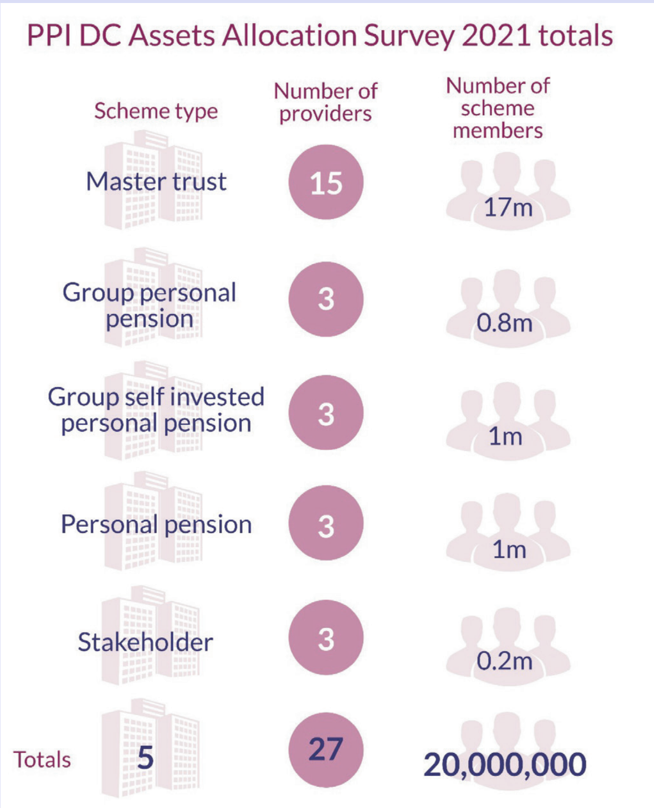
Box 2.1: investment strategies

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". 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 2021. The participating schemes collectively manage around 20 million DC pots, representing a large proportion of the membership of DC workplace pension schemes. Some members covered by the survey will hold multiple pots in several different schemes (Figure 2.1).

Figure 2.1[28]



Box 2.2: The PPI DC Assets Allocation Survey 2021

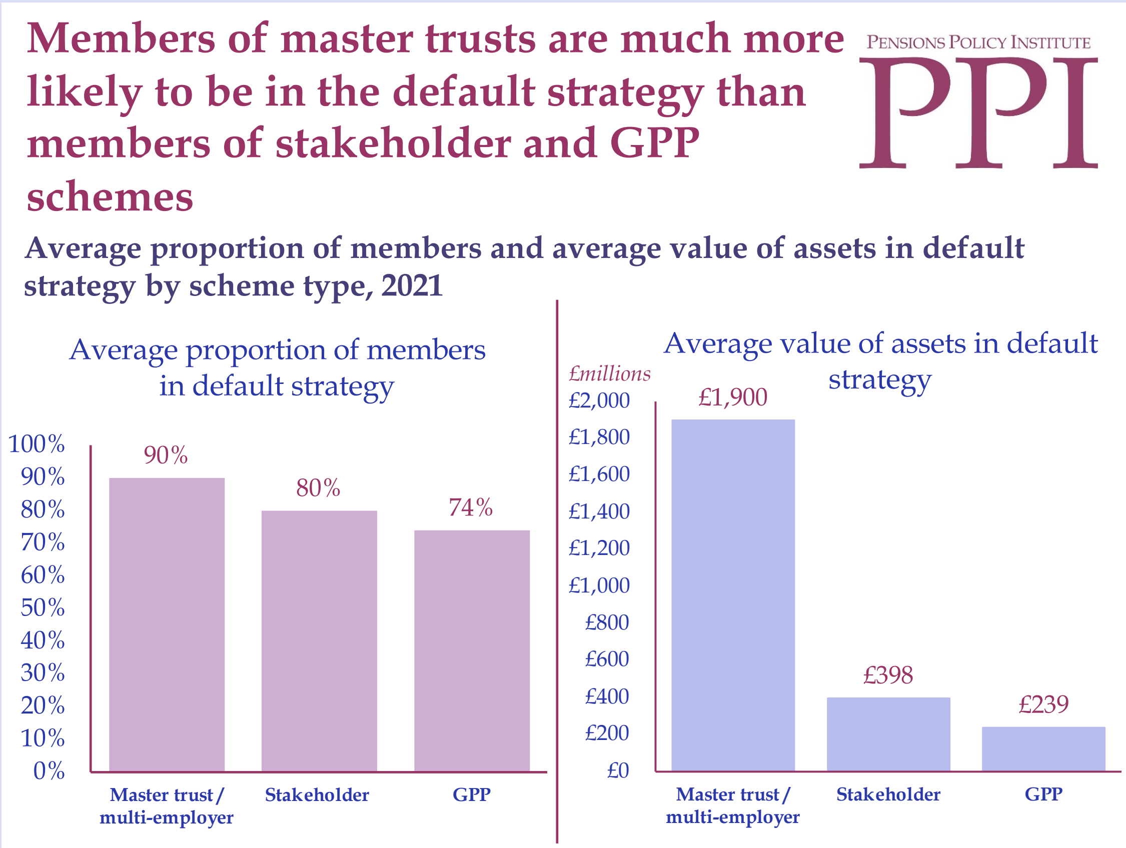
The DC Assets Allocation Survey is an annual online survey that collects data on size, charges, and asset allocation across the DC universe. Since its inception in 2015, alongside the first edition of The DC Future Book, the survey has grown from four providers covering around 4 million members, to 27 schemes covering around 20 million members. This year's survey was carried out over June and July 2021.

[28] PPI DC Assets Allocation Survey 2021

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 2021 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 £1.9bn on average. Fewer providers are now running open Stakeholder schemes, but there is high residual asset value in such schemes,[29] 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[30]



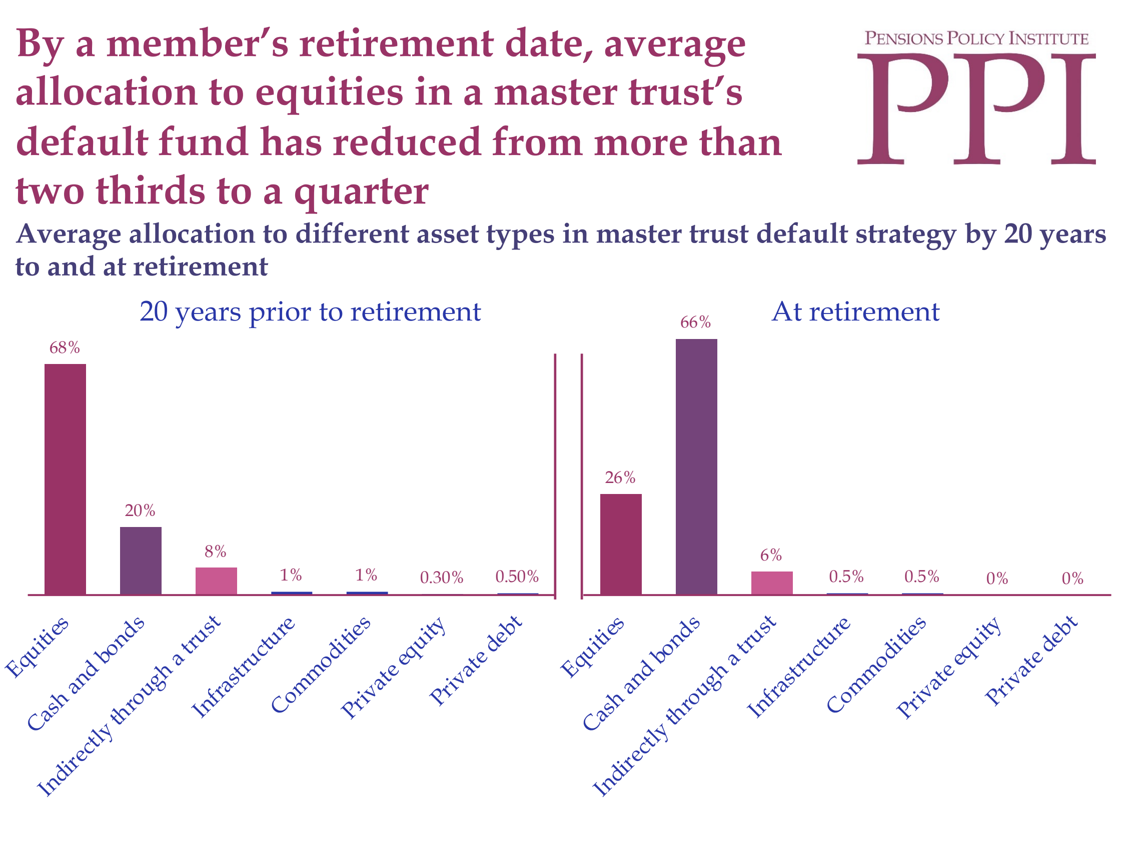
Investment strategies

On average, master trust default strategies allocate more than two thirds (68%) 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 alternative asset indices, which are relatively liquid and unlikely to capture the illiquidity premium[31] in full (Chart 2.8).

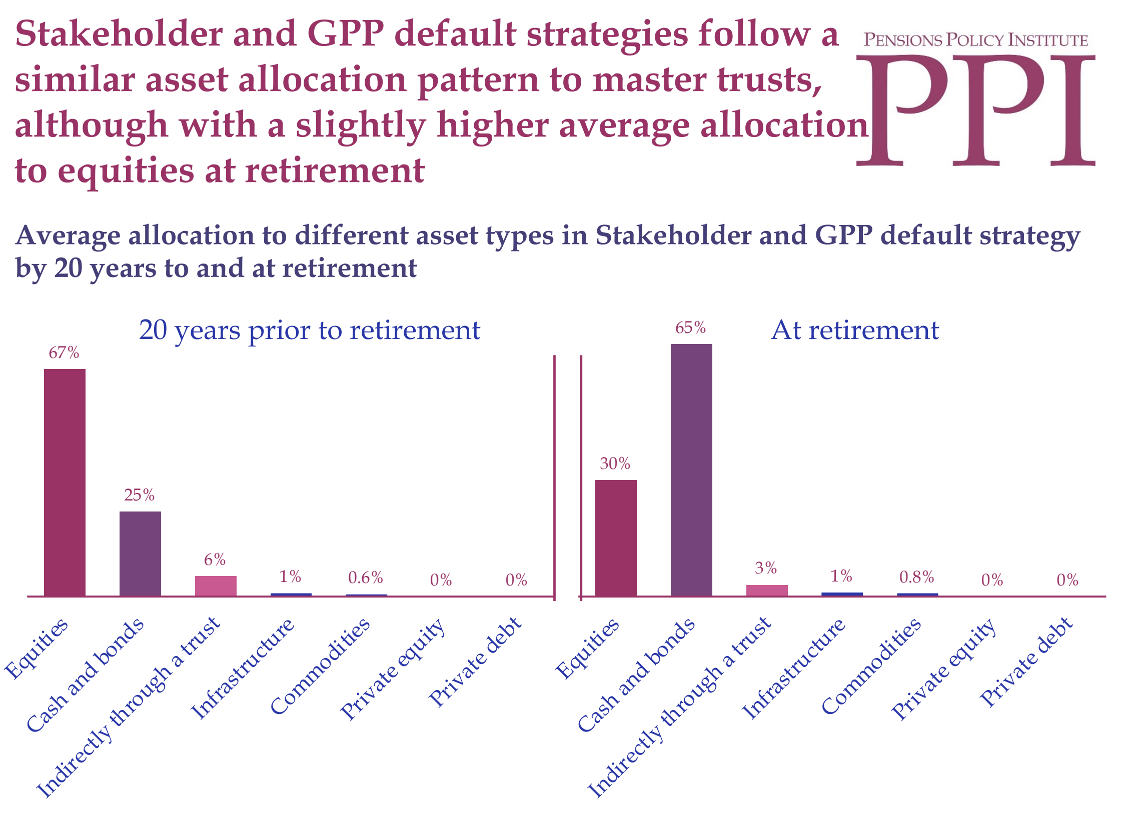
[29] Stakeholder schemes can be either workplace or personal pensions as members have an individual contract with the provider
[30] PPI DC Assets Allocation Survey 2021
[31] Expected higher returns as a result of investing in an asset which cannot be traded frequently.

Chart 2.8[32]



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).

Chart 2.9[33]

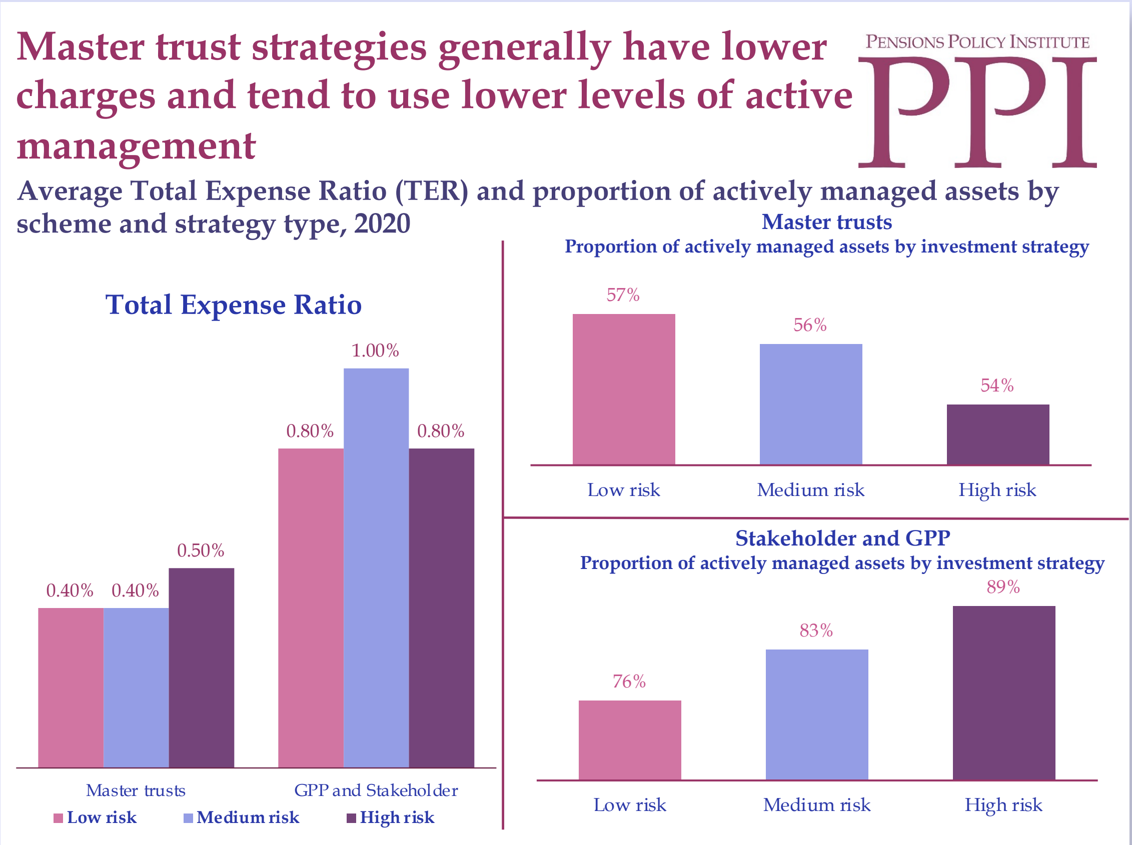


[32] PPI DC Assets Allocation Survey 2021

[33] PPI DC Assets Allocation Survey 2021

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 and GPPs, 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 a low correlation within the survey data between charges and proportion of actively managed assets.

Chart 2.10[34]



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 £50,270 in 2021/22).

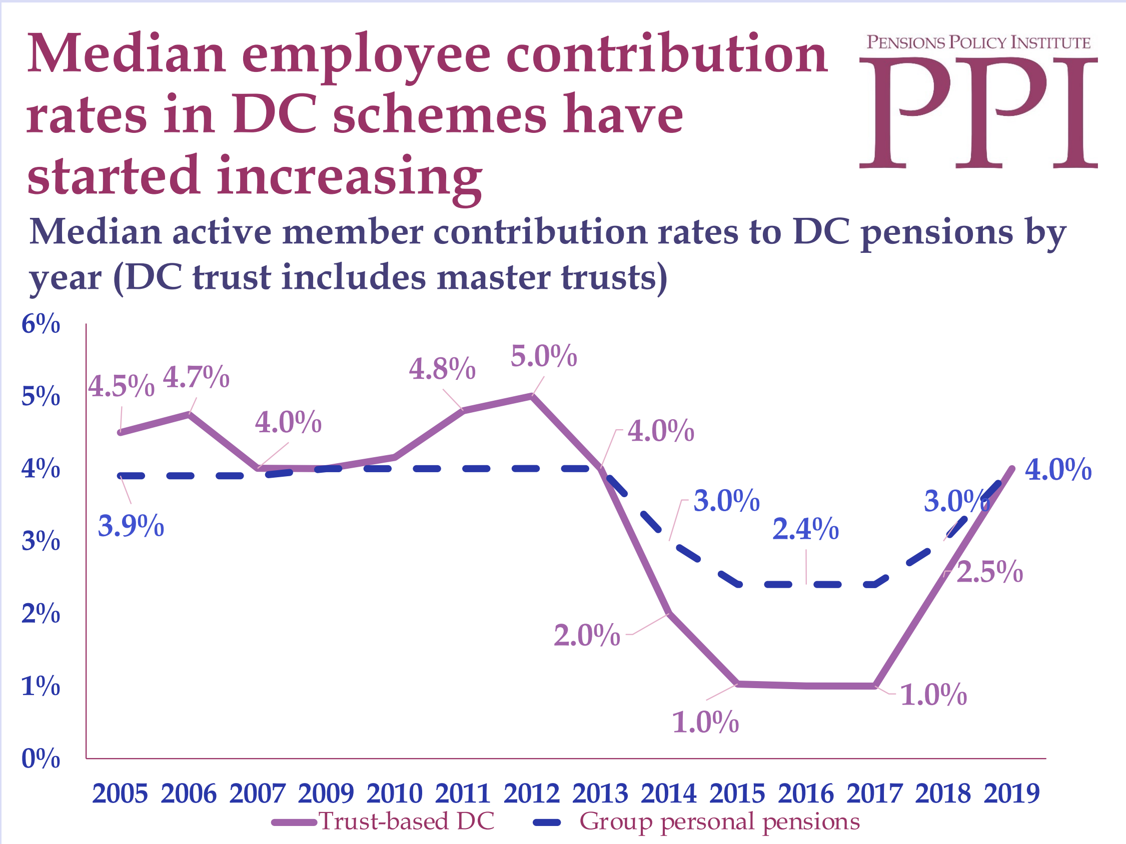
What is a sufficient level of contribution?

Under an assumption of full entitlement to the new State Pension and a lifetime of minimum required automatic enrolment contribution rates, anyone earning over £12,700 will require additional savings beyond the default 8% of band earnings to reach their target replacement rate which will allow them to replicate working-life living standards in retirement. For those on median earnings in 2020 of £24,900, the total contribution rate needs to be about 20%, a further 12% above the minimum required under automatic enrolment, which would yield a fund of around £113,000 by SPa.[35]

[34] PPI DC Assets Allocation Survey 2021
[35] PPI (2021) *What is an adequate retirement income?*

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 were contributing 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.[36] 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.[37]

Chart 2.11[38]

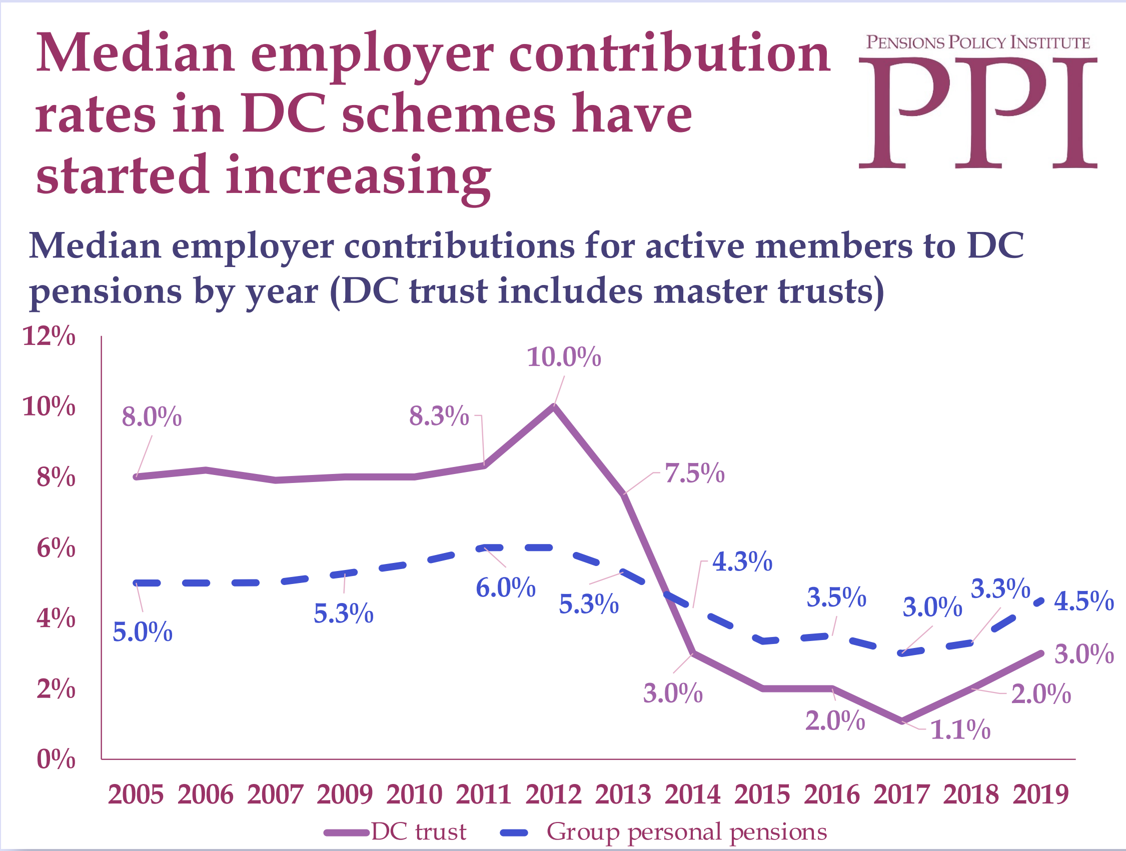


Employee contributions dropped after 2012 as a result of people being automatically enrolled into pension schemes and paying minimum contributions. However, as a result of minimum required contribution levels rising to 3% for employees in 2018, employee contributions increased to 2.5% (trust-based DC) and 3% (contract-based DC). Some employee contributions would have been lower than 3% of total earnings as the minimum required contributions were applied to band earnings. In 2019, employee 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). In 2020,

[36] IFS (2016)
[37] DWP (2017)
[38] 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.

average employer contributions to GPPs fell slightly (-0.1%) but average employer contributions to trust-based DC schemes continued to grow (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 for contributions is reduced to £0 in the mid-2020s.

Chart 2.12[39]



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 contributions earnings band is reduced to £0 in the mid-2020s.

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.[40] Member charges often erode small, deferred member pots over time and small pots can be uneconomic for providers to manage. These 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

[39] 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.
[40] For more information, see Baker et. al (2020) Policy options for tackling the growing number of deferred members with small pots [PPI]

(unless the member reactivates their contributions - if eligible to do so - or consolidates this pot 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. The Government is currently considering ways of ensuring that small, deferred member pots are automatically consolidated in the future, with the Small Pots Working Group publishing its first report in December 2020.

Accessing DC savings in retirement

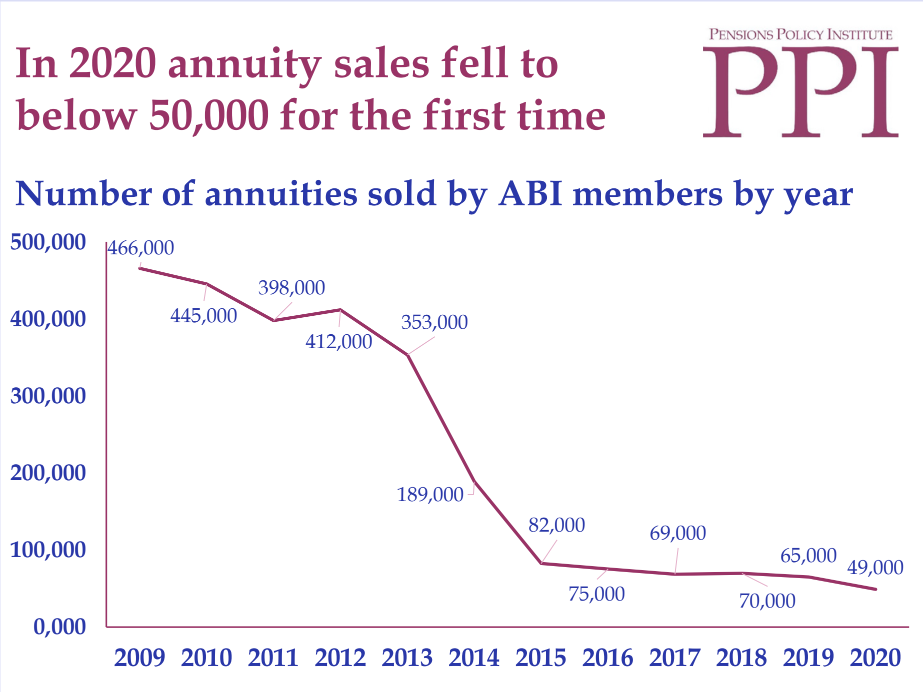
The number of DC pots accessed declined significantly in 2020, especially the number of pots being fully withdrawn, suggesting that savers were, understandably, cautious about accessing savings during a period of volatility. In 2019 around 433,000 DC pots were accessed; in 2020 around 277,500 DC pots were accessed for the first time, a 36% decrease on the previous year.

Annuities

Prior to the introduction of the new pension flexibilities in 2015, 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.[41]

When the pension freedoms were introduced, annuity sales declined more rapidly, and have averaged around 70,000 per year throughout 2016 to 2019 (Chart 2.13). However, 2020 saw a much sharper decline in annuity sales, with just 49,000 sold over the course of the year, potentially as a result of COVID-19 affecting annuity prices and making annuities less attractive, and/or people delaying retirement because of the pandemic's effect on their savings.

Chart 2.13[42]

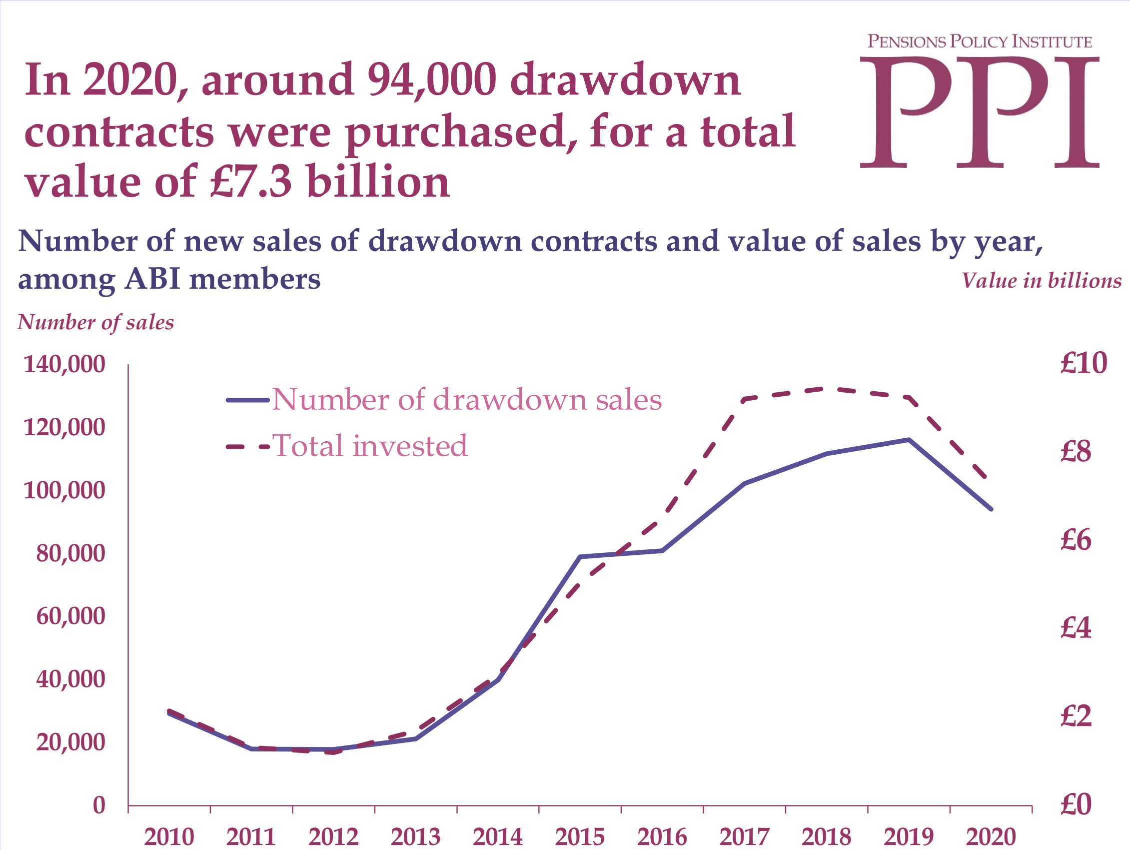


[41] ABI (2015)
[42] ABI statistics, Quarterly Pension Annuities by Age and Size of Fund

Income drawdown

The use of income drawdown was fairly consistent between 2010 and 2014, with around 20,000 new contracts being purchased each year. In 2014, after the announcement of Freedom and Choice, the number of drawdown 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. However, in 2020, drawdown sales declined to 94,000, likely as a result of the COVID-19 pandemic (Chart 2.14).

Chart 2.14[43]



Lump sums

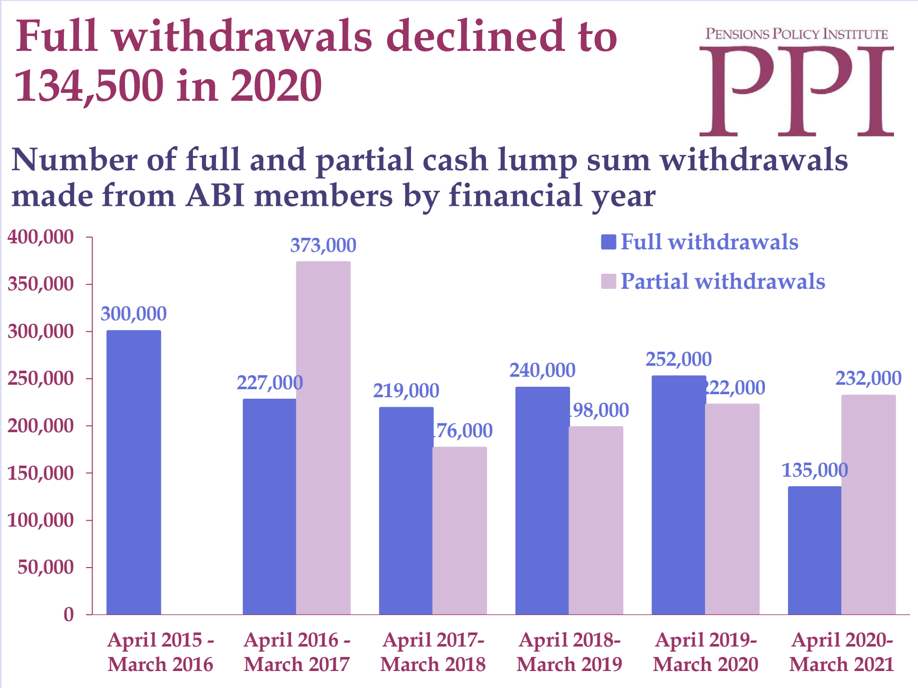
Since April 2015, those aged 55 and over[44] can withdraw cash lump sums from their DC savings, taxed at their highest marginal rate of income tax, with 25% tax-free.[45] The number of full (total pot) lump sum withdrawals was initially high at 300,000 in the financial year 2015/16 due to pent up demand, but decreased to around 252,000 in 2019/20. As with other means of accessing DC pots, full lump sum withdrawals declined in 2020/21, to 134,500. Partial withdrawals increased over the last year to 232,000 (Chart 2.15).

[43] ABI stats – Pensions Overview tables, 2020

[44] 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.

[45] 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.

Chart 2.15[46]

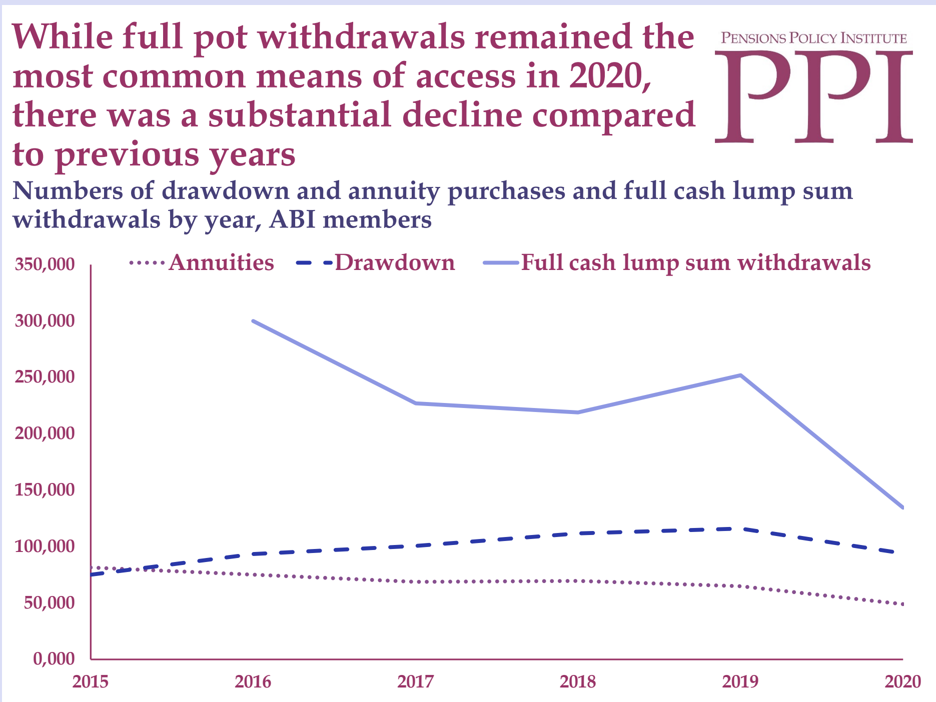


There is still a reasonable amount of variability in the number of withdrawals taken each year and so it is not yet clear what the overall trend might be.

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. The volatility and uncertainty experienced during 2020 as a result of the COVID-19 pandemic has had a significant impact on DC access behaviour, and it is unclear what the longer-term impact may be on access trends. Chart 2.16

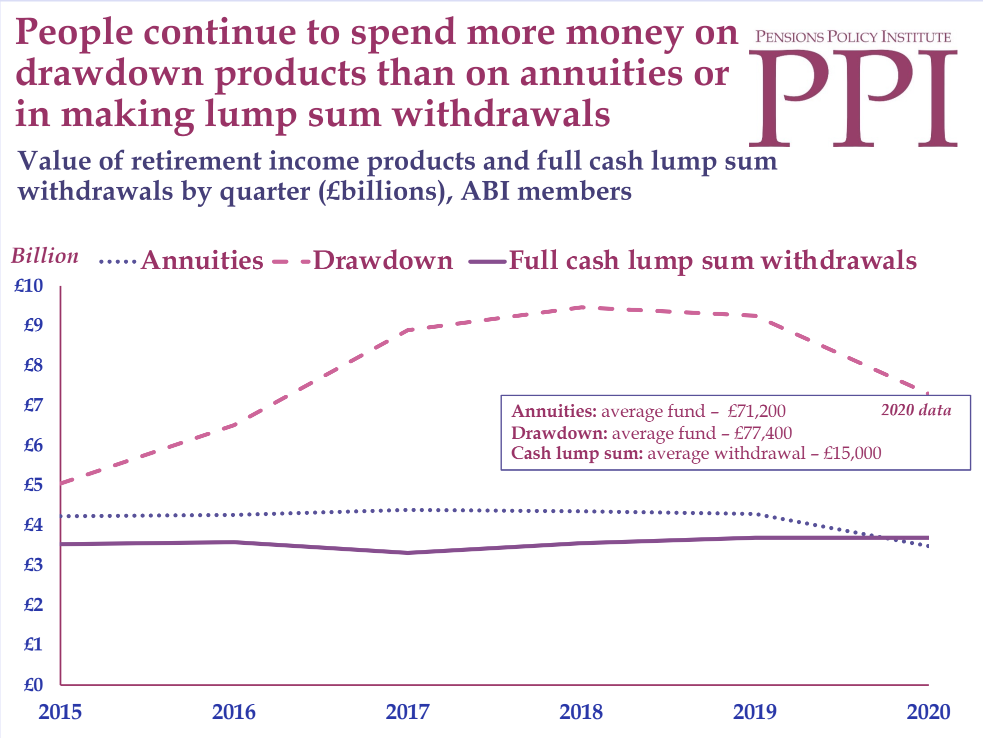
Chart 2.16[47]



46 ABI stats, Retirement Income Data
47 ABI statistics

However, those taking out annuity or drawdown contracts tend to do so using larger funds than those taking lump sum withdrawals. In 2020, the average fund size used to enter drawdown was £77,400, the average fund used to purchase an annuity was £71,200, and the average full lump sum withdrawal was around £15,000 (Chart 2.17).

Chart 2.17[48]



DB transfers

Increased flexibility, falls in interest rates, increased Cash Equivalent Transfer Values and bad press associated with some DB schemes[49] 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: where 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 between October 2019 and March 2020 was around £467,000.[50] Those transferring a DB entitlement worth £30,000 or more are required to take regulated advice before doing so.

[48] ABI statistics
[49] www.xpsgroup.com/media/1311/xps-pensions-group_member-outcomes-report_2019.pdf
[50] FCA (2020b)

Between October 2018 and March 2020, around 52,400 DB pension savers 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 87,491 people sought advice regarding whether to transfer,
- 57% (49,456) of those seeking advice were advised to do so,
- Of the 43% (38,035) advised not to transfer, 8% (2,936) still transferred as "insistent clients".[51]

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.[52]

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.[53]

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 independent financial advice.

[51] FCA (2020b)
[52] FCA (2020b)
[53] www.fca.org.uk/consumers/financial-services-products/investments/financial-advice/independent-and-restricted-advisers, accessed 07.08.2015

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

- The introduction of the pension freedoms 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.[54]
- 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 freedoms was accompanied by a new, national guidance service known as "Pension Wise". Pension Wise offers free, 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 since 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[55]

During the 2020/21 financial year:

- There were no face-to-face appointments, due to the COVID-19 pandemic (there were 81,400 in 2019/20),
- There were around 78,000 telephone appointments (up 56% from 2019/20 – much of this uplift likely came from the cancellation of face-to-face appointments), and,
- There were over 47,800 self-serve journeys completed via the Pension Wise website.

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 2020.

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 three years that have followed:

- In 2020, 42% of those purchasing drawdown products from ABI members used independent advice, a drop from 48% in 2019.
- 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. In 2020 the proportion using restricted advice declined slightly to 22%.

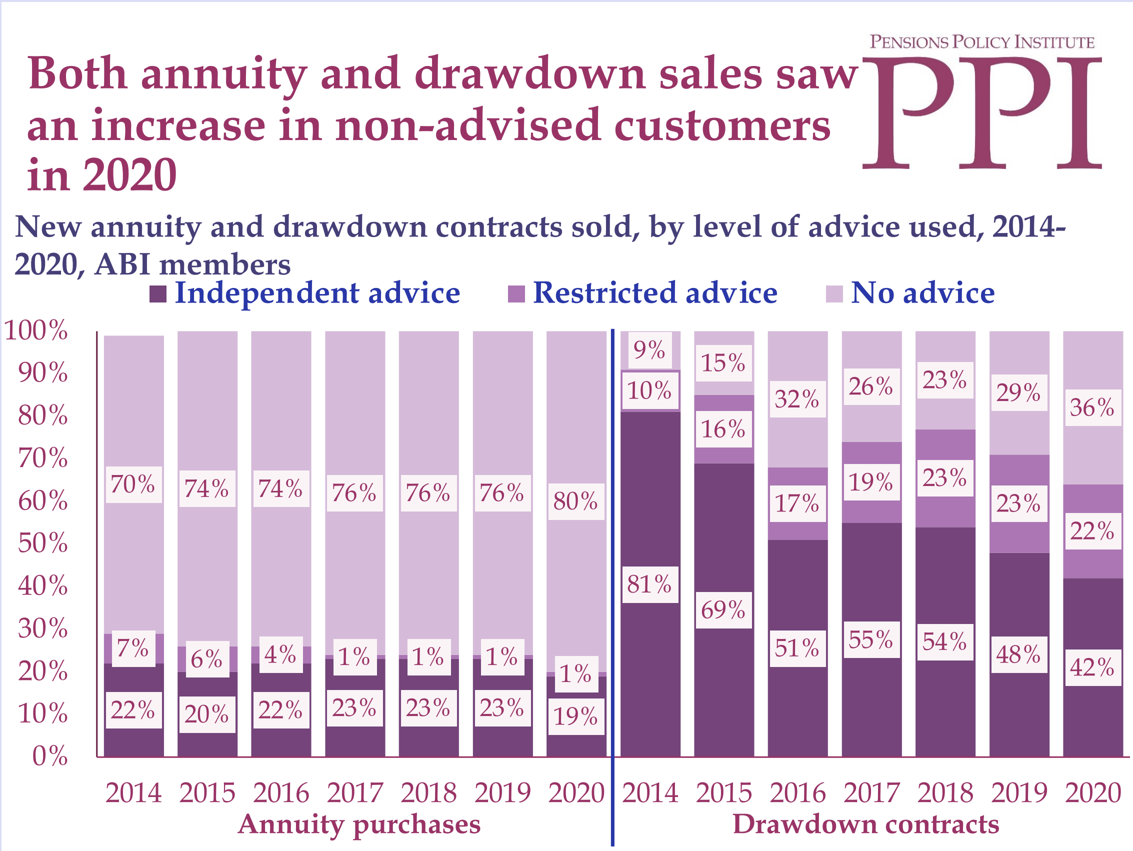
[54] HMT, FCA (2016)
[55] MAPS (2021)

- 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%. In 2020, non-advised drawdown sales increased to 36%.

The use of independent advice for annuity purchases remained constant from 2017 to 2019 at 23%, but in 2020 decreased to 19%.

- The use of restricted advice for annuity purchases has dropped from 7% in 2014 to 1% since 2017, and
- The proportion of people buying annuities unadvised has grown from 76% in 2017-19 to 80% in 2020 (Chart 2.18).

Chart 2.18[56]



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 2019/20, 42% (up from 40% in 2018/19) of those making regular withdrawals from drawdown or Uncrystallised Fund Pension Lump Sums withdrew at an annual rate of 8% or more, and nearly three quarters withdrew at a rate of at least 4%.[57] However, pension withdrawals may need to be limited to a maximum of 3.5%, rising in line with the Consumer Prices Index (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.[58] 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.[59]

[56] ABI Statistics
[57] FCA (2019c)
[58] PPI Modelling
[59] For more information see PPI (2019) *Living through later life* and PPI (2019) *Supporting later life*

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.[60] 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.[61] Drawdown investment pathways came into force in February 2021, so data on their impact on retirement outcomes is currently limited. However, this will be explored further in future editions of The DC Future Book as data becomes more readily available. The FCA has also made it illegal to default consumers into cash drawdown; savers must now actively opt in if they want to invest in cash or cash-like assets.

Summary

By June 2021, 10.5 million employees were automatically enrolled, slightly more than the 10.1 million employees who have been found ineligible due to age or earnings. To June 2021, 944,000 employees have been automatically re-enrolled after previously opting out. Opt-out rates remain stable at around 9%, although there is some evidence of increased opt out rates resulting from the pandemic. Persistency of saving is also relatively high, with more than two thirds (70%) of eligible employees saving into a pension for at least three of the last four years.

More than four in five (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 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. The median DC pot size increased to £11,400 in 2020.

In 2020, around 134,500 people took full cash lump sum withdrawals, compared to 94,000 drawdown purchases and 49,000 annuity purchases. Individuals purchasing annuities had an average fund of £71,200, while those moving into drawdown had an average of £77,400. Full withdrawals averaged £15,000 in 2020.

In 2020, levels of advice used by annuity purchasers declined for the first time since 2017, and the levels of advice used by drawdown purchases also continued to decline, with more than a third (36%) of drawdown customers purchasing without taking any advice.

[60] FCA (2018b)
[61] FCA (2019d)

Chapter Three:

How might the DC landscape evolve in the future?

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 freedoms, 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 freedoms, 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 – 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 the automatic enrolment 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.[62]

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 2041, there could be more than 10 million people actively saving in master trust schemes, and almost 15 million active DC savers overall

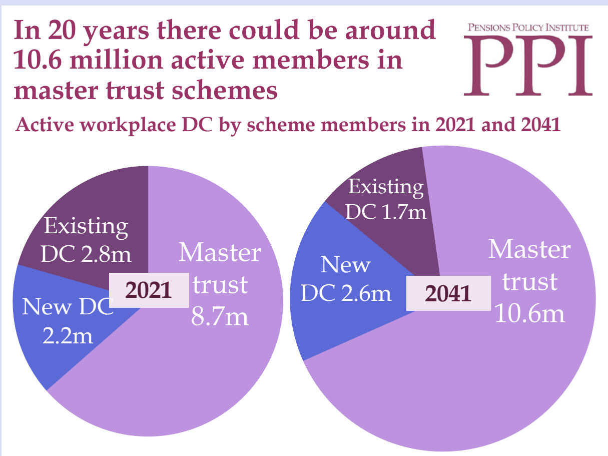
In 2021, there are around 13.7 million active members in DC workplace pension schemes.[63] Around 8.7 million of these are in master trusts, around 2.8 million are in DC schemes which existed prior to automatic enrolment, and around 2.2 million are in new schemes created subsequent to automatic enrolment DC schemes (but which are not master trusts).

Assuming current trends in scheme allocation continue, by 2041 there could be around 14.9 million active members in DC workplace pension schemes, with around:

- 10.6 million in master trust schemes,
- 1.7 million in DC schemes which pre-dated automatic enrolment, and
- 2.6 million active members in other automatic enrolment DC schemes Chart 3.1).

The number of active members in private sector DB schemes could shrink from 1.1 million in 2021 to 0.4 million by 2041.[64]

Chart 3.1[65]



[62] Based on information about scheme allocation from The Pensions Regulator – does not account for opt-ins or ineligible workers who are automatically enrolled.
[63] PPI Aggregate Model
[64] PPI Aggregate Model
[65] PPI Aggregate Model

Box 3.3: Assumptions

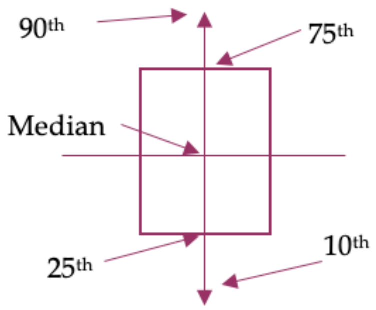
The following analysis is based on the assumptions that:

- 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.[66]
- Before charges, investments yield a nominal average 6% investment return (annually).[67]
- Earnings increase by 3.4% per year over the course of the projection (on average).[68]
- Annual Management Charges (AMCs) range between 0.5% and 0.75% depending on scheme type.[69]

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

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 at SPa could grow from around £38,000 to around £63,000 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 £38,000, (for those aged 55 to 64 in 2021) to around £63,000 (for those aged 35 to 44 in 2021) all in 2021 earnings terms (Chart 3.2).

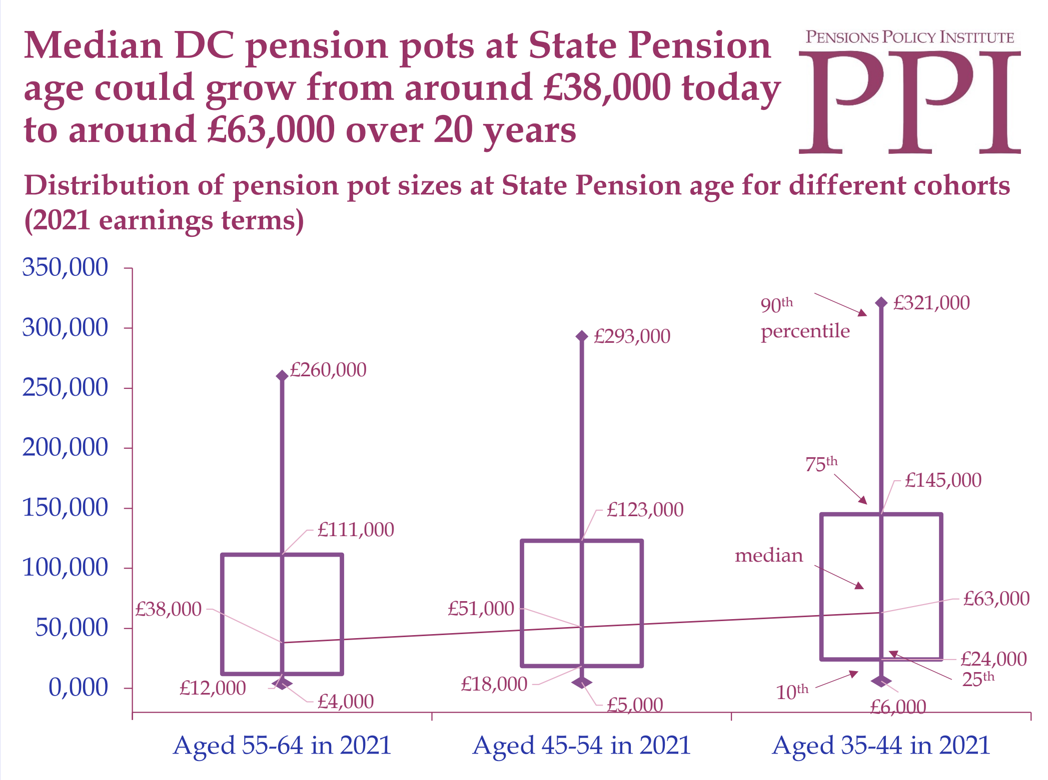
[66] It is generally thought that a number of people will opt out of automatic enrolment, their reasons for doing so are specific to each person and difficult to predict. While the aggregate modelling approach allows us to make a blanket assumption across the population, the modelling presented in this 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.

[67] 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 (July 2020).

[68] Based on OBR projections from Fiscal Sustainability Report

[69] See the appendix for further detail on assumptions

Chart 3.2[70]



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 the State Pension, State benefits and any 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 based 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%.[71]
- AMCs vary by scheme.

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

[70] PPI Aggregate Model
[71] 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 (July 2020).

By 2041, aggregate assets in DC schemes could grow to around £995 billion

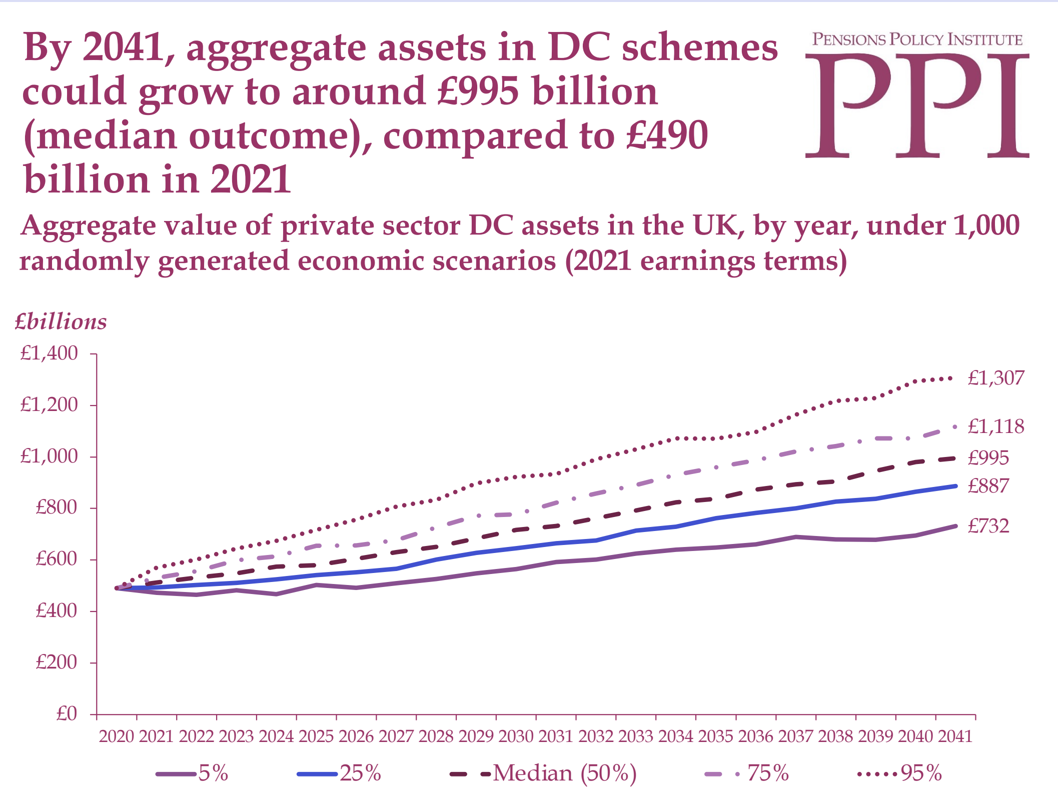
Assuming that current trends continue, the aggregate value of private sector workplace DC assets could grow from around £490 billion in 2021 to around £995 billion in 2041. The aggregate value of assets is sensitive to economic performance. If the market performs very poorly, DC assets could stagnate, reaching around £732 billion by 2041. In a very positive market performance scenario, DC assets could grow to around £1,307 billion by 2041 (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.

Chart 3.3[72]



[72] PPI Aggregate Model: refer to the Technical Appendix for more details on the methodology

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.

Summary

In 20 years, there could be more than 10 million active members in master trust schemes, and almost 15 million active DC savers overall. The number of active members in private sector DB schemes could shrink from 1.1 million in 2020 to 0.4 million by 2041.

Median DC pension pots at SPa could grow from around £38,000 today to around £63,000 over the next 20 years.

By 2041, aggregate assets in DC schemes could grow to around £995 billion, from the 2021 value of £490 billion. Investment performance, employee and employer behaviour and Government policy will all affect the aggregate value of DC pension schemes in the future.

Chapter Four:

How has the COVID-19 pandemic impacted DC investment strategies?

Chapter Four: How has the COVID-19 pandemic impacted DC investment strategies?

This Chapter explores the impact of the COVID-19 pandemic on DC schemes' investment strategies and the lessons that may be learned in order to help schemes better prepare for future crises.

DC schemes' experience of and reaction to the pandemic offer lessons for weathering future crises, however unpredictable these may be

The last year and a half has been a challenging and uncertain time as Governments, businesses and investors have responded to the COVID-19 pandemic and its economic effects. Some changes have been temporary, such as the extreme volatility observed during 2020, which has since stabilised, but others are likely to have longer-term consequences. Disruption from COVID-19 is likely to accelerate some investment trends, making the evaluation and implementation of some investments easier, while complicating others. There are a number of lessons to be learned from DC schemes' experience of and reaction to the pandemic:

- Long-term investment horizons and diversified portfolios helped DC schemes to cope with the extreme short-term volatility seen in the early months of the pandemic.
- The immediate impact of volatility on those near to, at or in retirement suggests that lifestyle strategies still have an important role to play post-pension flexibilities.
- While the pandemic presented an opportunity for schemes to review their investment strategy, many did not make significant changes and this strategy protected some pension savers from crystallising investment losses.
- While the pandemic has introduced uncertainty and risk, it has also presented opportunities for investment.
- Because the impact and response to the pandemic varies around the world, attitudes towards globalisation may shift.
- There is an increased focus on responsible and sustainable investment, especially around social factors.

Long-term investment horizons and diversified portfolios helped DC schemes to cope with the extreme short-term volatility seen in the early months of the pandemic

The most obvious investment impact of COVID-19 in 2020 was an exceptionally high dispersion of returns between different asset classes, as the pandemic proved helpful for some businesses and harmful for others. The UK stock market, alongside stock markets around the world, experienced significant falls and volatility as the pandemic began to unfold. By the end of March 2020, the FTSE 100 had experienced its worst quarter since the fourth quarter of 1987, seeing a reduction of over 32% peak to trough.[73]

While experiencing significant asset price declines and volatility early in the pandemic, pension funds appeared to fare better than stock markets in general because funds are diversified and hold lower-risk assets, such as bonds, alongside more volatile equities - although the impact varied depending on members' proximity to retirement. For example, in late March 2020, the value of Nest members'

[73] https://www.theguardian.com/business/live/2020/mar/31/china-economy-picks-up-covid-19-german-unemployment-us-confidence-stock-markets-business-live

investments had fallen by 17.6% since the start of the year, with members close to retirement losing only 0.6% as their investments had been largely shifted out of equities as they approached retirement.[74] However, it is important to note that because the volatility was caused by external factors rather than economic shifts and the subsequent recovery has been particularly rapid compared to previous market drawdowns of this magnitude, future crises that are not followed by such a recovery may be more challenging for pension schemes to ride out.

Most DC scheme members, particularly those who have been automatically enrolled are invested in their scheme's default fund, which could help to protect them from extreme losses as a result of market volatility

The vast majority of people who have been automatically enrolled are invested in their scheme's default strategy. These strategies are generally designed to withstand the ebbs and flows of the market over a long period of time, and experience suggests that there is little appetite for people to make an active decision to move their money to a different investment fund. More than 95% of members of trust-based DC schemes (including master trusts) are invested in their scheme's default fund.[75] Those who remain invested in their scheme's default fund may experience greater protection against market turbulence.

For individual savers, seeing the value of your pension fund fall significantly can be understandably alarming, and waiting to see if it recovers is no less stressful. There were concerns that the heightened volatility in the stock market could result in savers making impulsive decisions to withdraw pots (if able due to age), stop contributing, or switch to less volatile funds, crystallising losses. Despite the volatility seen in the stock market during 2020 and widespread media reporting on how this could impact workplace pensions, only 7% of workplace pension savers said that they checked to see how their pension investments had been affected by market movements in 2020.[76]

The immediate impact of volatility on those near to, at or in retirement suggests that lifestyle strategies still have an important role to play post-pension flexibilities

While DC schemes in general have long-term investment horizons, for individual savers near to, at or in retirement this is not necessarily the case as their savings have a shorter period in which to recover from asset price declines, compared to younger savers, before they make withdrawals which act to crystallise investment losses. The impact of the extreme volatility experienced in 2020 was mitigated for DC savers in lifestyle funds, whose investments will have followed a pre-defined path away from riskier assets, such as equities, towards more stable assets, such as bonds - although bonds were not immune to the volatility experienced in the early months of the pandemic. This means that pot sizes will not have been as severely impacted by declines in global equity markets.

The prevailing view was that savers could benefit from delaying access to their pension pot for as long as possible in order to give it time to recover as much as possible, as well as making additional contributions to help restore pension pot values more quickly, if possible. However, in practice these options would be more challenging for some savers than others. Those on lower incomes, as well as those

[74] https://www.theguardian.com/business/2020/mar/23/coronavirus-giant-uk-pension-fund-says-it-is-protecting-small-savers
[75] https://www.thepensionsregulator.gov.uk/en/media-hub/press-releases/tpr-lifts-the-bonnet-on-default-investment-governance
[76] Aon (2021) *Keeping on track in challenging times: Aon's DC pension and financial wellbeing employee research 2021*

who were furloughed, will find it harder to make additional contributions, and may also find it more difficult to postpone retirement in order to delay accessing their savings, as those on low incomes have lower levels of non-pension wealth upon which they could draw. They are also more likely to experience disability or long-term illness at younger ages that can make working longer harder.[77]

Since the introduction of more flexible rules for accessing DC pensions in 2015, there have been questions raised about whether lifestyling strategies that de-risk members' savings as they approach their retirement date are still appropriate. Post-pension flexibilities, retirement is no longer a 'cliff edge' moment and, with significantly more savers purchasing income drawdown products as a means of accessing their savings, many pots will remain invested over the course of retirement. However, the pandemic has highlighted that there is still a role for lifestyle strategies. For older savers who are less able to implement these strategies to give their pension savings time to recover, especially those already making flexible withdrawals from their pot, lifestyle strategies play a particularly important role in protecting them from market shocks.

While the pandemic presented an opportunity for schemes to review their investment strategy, many did not make significant changes and this strategy protected pension savers from crystallising investment losses

The uncertainty and volatility associated with the pandemic have encouraged many schemes to review their portfolio of investments to ensure that risks and opportunities presented by the pandemic were appropriately accounted for in order to mitigate the negative impact. The Pensions Regulator (TPR) encouraged trustees to 'review and manage specific risks that may now exist within their portfolios or with their service providers', as well as reviewing 'any previously agreed investment and risk management decisions to be implemented in the future… to ensure they remain appropriate, efficient and do not introduce risks or crystallise losses.'[78]

While many schemes took this opportunity to review their investment strategy, the nature and uncertainty of the crisis meant that many chose not to take any immediate action in relation to their asset allocations. Around a third of DC schemes reviewed their objectives as a result of the pandemic but chose not to take any immediate action, while four in 10 focused primarily on short-term actions. Around half (53%) of institutional investors surveyed in 2020 said that they would not be making any portfolio changes until the economic and investment outlook became clearer.[79] There was a sense among some investors that because the volatility and losses experienced by the stock market had not been caused by economic or financial issues, it was not the right time to make changes to investment strategy and that it was better to wait for the volatility to subside.[80]

Given the uncertainty and volatility experienced during the early months of the pandemic, this pragmatic approach to investment strategy protected pension schemes from crystallising losses. Quickly selling off assets during a period of uncertainty is generally unwise as it locks in losses and investors may miss out on any recovery. Following an initial period of extreme volatility and lower than expected returns early in 2020, the recovery and, in some cases, dramatic increase in stock market returns over the rest of the year, emphasised the value of buy and hold strategies employed by long-term investors including pension schemes.

[77] PPI (2019) *Living through later life*
[78] TPR (March 2020 – last updated January 2021) DC scheme management and investment: COVID-19 guidance for trustees
[79] Schroders (2021)
[80] Schroders (2021)

The pandemic has reiterated the important role to be played by diversification

The broad dispersion of returns and volatility experienced during the pandemic has reiterated the importance of diversification. This is likely to incorporate not just diversification of sectors but also of asset classes, with a shift beyond equities, bonds and real estate, towards looking increasingly to other asset classes, including private markets and infrastructure. While DC scheme investment in these asset classes is currently fairly limited, the pandemic may accelerate this shift. Indeed, 42% of global institutional investors have diversified into alternatives, real assets and private market assets to reduce the impact of market volatility caused by the pandemic.[81]

While the pandemic has introduced uncertainty and risk, it has also presented opportunities for investment

Uncertainty and shifts in economic activity resulting from the pandemic, and especially consecutive lockdown measures, meant that the returns from some economic sectors of investment were compromised. By contrast, other sectors provided growth and diversification opportunities for those investors with a good understanding of where longer-term opportunities may be found, in terms of which assets or approaches could provide sustained future growth and diversification over both the short and longer term.

The pandemic has provided increased revenue for businesses with online sales and the technology sector, while other industries were negatively impacted

In particular, global equity market returns were mainly driven by a small number of US technology stocks, as consumer behaviour shifted in an even more pronounced way from physical shopping to online. British consumers spent £113 billion online throughout 2020, an increase of 48% on the previous year. Amazon's global revenue increased by 40% year-on-year to $197bn, compared to its 15% year-on-year increase to 2019. Similarly, eBay's revenue increased 23% year-on-year to $9.3bn, compared to a 2% increase the previous year.[82] Other sectors, particularly hospitality, experienced substantial losses as result of lockdowns and uncertainty surrounding the pandemic.

This magnified the variation between portfolio performance across different markets, investment managers and schemes, depending on whether they were over or underweight in their allocation to these investments relative to peers. As the UK emerges from lockdown, it remains to be seen what the enduring impact will be of these changes in consumer behaviour and the subsequent impact on investment in these sectors.

Periods of extreme uncertainty and volatility can result in mispricing and sudden, unpredictable shifts in the market

Disruption and extreme return patterns also create the possibility of mispricing. The theory of efficient markets is based on the idea that all available information is correctly and instantaneously factored into market prices. But in periods of rapid change (i.e. when new information is emerging) and uncertainty (when information is difficult to interpret), significant deviation from efficient pricing is more likely, as investors attempt to adjust to the new investment environment. This creates opportunities as well as risk, highlighting the periodic fragility of markets overall and the potential for a correction.

[81] Schroders (2021)
[82] Ofcom (2021)

Because the impact and response to the pandemic varies around the world, attitudes towards globalisation may shift

The uncertainty around market prospects has been magnified by variations in the impact of COVID-19, and in the political and economic responses of many countries. Differential responses mean that there may be greater variation in recovery and future development paths, reducing the homogenisation of global economies for the immediate future. However, global economic growth and future investment returns could be adversely affected by a shift away from globalisation towards more inward-looking economies.

The experiences of the pandemic may lead to greater repatriation of supply chains in order to minimise the impact of future crises

Although global economies have become increasingly interdependent over time, COVID-19 may lead to a reconsideration of the extent to which complex global supply chains can be relied upon in a time of crisis, and hence to some retrenchment. Given the supply issues that have emerged as a consequence of the pandemic, Governments may seek greater self-reliance for more key functions, while corporations may seek to simplify supply chains.

COVID-19 may result in increased variations in inter-country inflation – inflationary pressure building as a result of the Government and central bank stimulus measures that are being taken. This is an area where divergence may arise, given the significant variations between countries, of central bank interventions and the size of government stimulus packages.

There is an increased focus on responsible and sustainable investment, especially around social factors

COVID-19 has and is expected to continue to impact both the pace and the nature of the development of sustainable finance. The challenges faced over the last 18 months have brought social issues, in particular, into greater focus. Indeed, the crisis has placed a spotlight on firms' social policies towards key stakeholders, including employees, suppliers and customers.

More generally, the pandemic has emphasised the importance of areas in health and labour practices that may previously have been overlooked. Nearly two thirds (64%) of Principles for Responsible Investment (PRI) signatories surveyed in 2020 said that COVID-19 had highlighted some social issues that were not already a priority, including areas such as:

- Occupational health and safety;
- Social safety nets;
- Worker protection;
- Responsible purchasing practices and supply chain issues;
- Diversity; and
- Digital rights, including privacy.[83]

Shifts in investor emphasis resulting from the pandemic, along with concurrent social movements that drove further attention to this previously under-considered area of ESG, highlighted how rapidly focus on social issues can evolve and come to the fore - underscoring the importance of schemes being both proactive and flexible in their

[83] PRI (2020)

approach to social considerations and ESG more broadly. Indeed, the speed and volume at which the bond market has responded to a broad range of social issues has been significant. Governments, supranational entities and corporations across the world raised funds that have been exclusively channelled into projects with social outcomes, such as healthcare support, education and job preservation. Moreover, investor interest has been substantial, with issuance of such bonds oversubscribed.

While the rise of green, social and sustainable bond issuance seen in 2020 has continued in 2021, with USD 701bn of these bonds having been issued this year to date (compared to USD 515bn in 2020), the pandemic has proved to be a catalyst for the exponential growth in social bond issuance in particular – with USD 173.9bn of social bonds issued so far in 2021, compared to USD 165.8bn in 2020 and USD 18.4bn pre-pandemic in 2019.[84] Moreover, going forward, the social bond market will be instrumental in facilitating a just and fair transition to a net-zero-carbon economy by supporting the transition of jobs through training and education. Additionally, this process will be aided by the opening of the Government's green gilt market, which, in directing investment proceeds to predetermined green projects, will see the inclusion of social co-benefits from the funding.

Summary

DC schemes' experience of and reaction to the pandemic offer lessons for weathering future crises, however unpredictable these may be

The COVID-19 pandemic is not the first crisis, or 'unknown unknown', to cause volatility and uncertainty in pension schemes' investments and we can expect to experience further crises in the future. Crises such as the COVID-19 pandemic are, by definition, unpredictable, which makes them harder to prepare for. However, the lessons learned from this experience and the subsequent longer-term risk-management processes that are put in place as a result are likely to mean that schemes are better prepared for the inevitable unknown market shocks that will come their way.

[84] Source: Columbia Threadneedle Investments/Bloomberg as at 19 August 2021. This issuance compares with green bond issuance of USD 326.6bn in 2021 to date (USD 263.4bn in 2020, USD 242.6bn in 2019) and sustainability bond issuance of USD 126.3bn in 2021 to date (USD 76.3bn in 2020 and USD 44.6bn in 2019).

Chapter Five:

Reflections on policy

Chapter Five: Reflections on policy

Policy reflection from an investment perspective

Andrew Brown –
Institutional Business Group Director, Columbia Threadneedle Investments

The potential inadequacy of future pension provision is fast becoming one of the biggest socio-economic challenges facing the UK. We cannot simply rely on increasing member contributions to punitive levels so advanced investment thinking can and should play a greater role in generating returns and ultimately reducing the disparity of expected outcomes. DC can take advantage of positive cash flows and a long investment horizon to access a wider range of risk premia, embracing tangible asset classes that have the additional benefit of engaging members.

This can only be achieved by advancing investment governance and innovative thinking towards leading edge Defined Benefits (DB) standards. Of course, DC is not DB which has an increasingly negative cash flow and de-risking focus. However, DC decision makers are less inclined to cast the investment decision making net as far and wide as their DB counterparts, particularly if the current mix of the default fund is 'adequate'.

Simply *doing things right*, or addressing the hygiene factors, as opposed to *doing the right things* is to the detriment of improving members' outcomes. This is the case for many DC schemes' governance of investment strategies and a consequence of many factors, including how risk is underwritten. In DB it is the employer's covenant or balance sheet (and if the covenant fails the member is protected by the Pension Protection Fund). In DC it is not the employer's balance sheet but the typically disengaged member who shoulders the risk of a poor investment outcome.

As Chris Wagstaff notes in his Pension Watch insight: "*the level of investment governance employed by a decision making body, such as a Trustee Board, Investment Committee or Defined Contribution (DC) Committee, is, by definition, commensurate with its collective capabilities (including its specialist investment knowledge), the efficacy of its time management and how well it organises itself.*"* As the provision of DC pensions has been transformed over the past decade, governance bodies are increasingly dealing with non-investment related matters and a multitude of regulatory requirements.

Of course, the default fund and the glide path is all important, given that is where the majority of members invest. Failing to diversify across multiple lowly correlated risky assets leaves investors wide open to periods of exceptional price and returns volatility and periodically large capital drawdowns. The performance of pure equity or bond portfolios over the past decade has been strong, somewhat of an exception by historical standards. But we cannot buy past performance.

Given this, a diversified and dynamically managed strategy which taps into a range of return drivers to diversify equity and credit risk may be a good alternative for those expecting a relatively smooth returns journey without necessarily compromising long-run returns.

* Pensions Watch - Issue 10: The Investment Governance Premium. Columbia Threadneedle Investment. June 2021

I think it is important that a default fund has a performance target, one that can be benchmarked relative to a meaningful objective, for example, inflation plus 4% which is comparable to the long-run return of equities. I firmly believe that Multi-Asset or Diversified Growth Funds (DGFs) should have a meaningful role to play in default funds across the glidepath. In essence these strategies seek attractive levels of growth with lower levels of volatility than equities by allocating between a diverse range of asset classes.

Looking at a manager's target return has historically been unhelpful but it is clearly important to understand a manager's approach and how they might expect to perform in different market environments. As a peer group, the performance has not stood out in particularly strong markets. DGFs, in essence, have been attempting to solve a problem that did not, in retrospect, exist and can be accused of providing too much D and not enough G. However, it is important to keep an eye on what success looks like in different markets in the future but also what you could have won if you had invested in other asset classes.

Have the last couple of decades been something of a historical freak? Many better qualified economists and investors take this view. Over long periods equities deliver high total real returns and are well suited to investors with a high tolerance for volatility in pure equity portfolios. With that in mind we must remind ourselves of the characteristics of this asset class. Equity is the most junior and riskiest part of a firm's capital structure and as such can have high levels of uncertainty which manifests itself in bouts of volatility over a market cycle and periodic large drawdowns.

An impactful drawdown is not unthinkable and prospective retirees may find their time-horizons incompatible with the sort of holding periods that have historically been associated with markets recouping losses. In 1929, the US stock market did not recover until 1948 in nominal terms. The Japanese market has yet to recover 30 years on from its 1990 peak. Furthermore, the approach to equity holdings requires careful consideration. The impressive recovery of the US market was initially led by a handful of stocks that were fortunate enough to be uniquely positioned for how COVID-19 impacted our daily lives. Exposure to an index should not be conflated with diversification; holding the global weighting of US stocks can lead to a high concentration of technology companies.

The long time horizon of DC investors and positive cashflows means that DC schemes are well placed to take advantage of illiquid asset opportunities that are largely missing from most DC default funds. That means missing out on the associated illiquidity risk premia that populate the asset portfolios and returns of most DB schemes. With their diverse return drivers, long-term cash flows that are often linked to inflation and returns that are often less sensitive than equity or credit returns to the macroeconomic environment, illiquid assets, such as real estate and social and economic infrastructure equity and debt, typically offer a markedly different risk-return profile and pattern of returns to that of public equity and credit markets.**

The impediments to DC schemes investing in illiquid assets are well known (though not insurmountable) and relate to governance requirements, platform capabilities, cost and minimum investment sizes though the drive towards consolidation and associated scale may help. As such, Master Trusts have significant a role to play (as they have had in enabling auto enrolment) and among the myriad of benefits which might include administration and governance is the investment proposition.

** It's time for investment to do more of the heavy lifting. Columbia Threadneedle Investments. June 2019.

However, the growth and scale of Master Trusts to date has not led to diversifying towards this opportunity set, with "*NEST being the only master trust to have any genuinely illiquid holdings in the form of a modest allocation to private debt and some indirect exposure to property through a composite property fund*" as reported in the recent DCIF white paper.*** Perhaps investment managers need to make their private market offerings more attractive and better communicate how they improve member outcomes. Though if cost is the determining factor in provider selection, advanced investment thinking will continue to be curtailed.

When we look at the highly topical and regulatory requirement to consider ESG factors, the approach is arguably bordering on a somewhat limited implementation. There is no one-size-fits-all approach to integrating ESG factors within an investment process with techniques ranging from negative screening, or exclusion, to more sophisticated engagement and social impact approaches. At present, any advancement in the DC investment landscape sits very much towards the former and I believe engaged members will demand more in future. Perhaps governance bodies should consider whether it is possible to meaningfully engage with an index of potentially thousands of companies? With the ability to divest from companies as opposed to exerting influence?

Ultimately, investments need to work harder for hard working members, which is incompatible with a set and forget approach or static allocations that over rely on public markets. The mindset needs to shift towards net value-add to help members achieve sustainable long-term returns and more certain outcomes.

*** DCIF (2020) *Growing Pains: Master trusts beyond auto-enrolment*

"Pension Freedom and Choice – the unfinished business"?

Sir Steve Webb – Partner, LCP

There are few policies in pensions, or indeed across government, which are simultaneously popular and raise money for the Exchequer. Pension 'Freedom and Choice' was one exception to this rule. When the then Chancellor, George Osborne, used his spring 2015 Budget to announce sweeping relaxations on the rules around use of accumulated pension pots, the announcement received rave reviews. But it also brought forward a lot of additional tax revenue as savers accessed their pension pots sooner, including those who transferred out of Defined Benefit arrangements in order to benefit from the new flexibilities.

Pension Freedoms were a product of a growing dissatisfaction with a structure which forced most DC savers into buying an annuity. Whilst those with the smallest pots could cash them out, and those with the largest pots could benefit from 'capped drawdown', the vast bulk of savers had to turn their pension pot into an income for life in the form of annuity.

Whilst there is nothing inherently wrong in an annuity, the product was becoming increasingly unattractive. Rising longevity and falling interest rates meant headline annuity rates had tumbled, giving the product a consistently poor press. Many savers were still not shopping around on the open market with their DC pot for the best annuity price, leading to unnecessary losses. And the number of people benefiting from enhanced annuity rates in light of poor health was still far too low. In short, the product and the process were tarnished.

Pension freedoms released people from this straitjacket. Although people were still entirely free to use their DC pot to buy an annuity, they were no longer required to do so. And, as shown in this report, large numbers voted with their feet. Annuity sales dropped from 189,000 in the year before pension freedoms to 82,000 in 2015 and have seen further gradual decline since then.

In principle, giving people the 'freedom and choice' about how to use their pension pot has to be a good thing. Everyone's circumstances are different, everyone's pension history is different and they should therefore be able to customise their pension journey in a way that is right for them rather than be forced into the straitjacket of an annuity. Indeed, one of the more surprising byproducts of pension freedoms was that DC pensions ceased to be the 'ugly duckling' of the pension world. Instead, 200,000 people with 'gold-plated' Defined Benefit pensions have opted to transfer into the DC world because of the greater flexibility on offer (along with other benefits).

However, even fans of pension freedoms such as myself would acknowledge that there are several important areas in which the policy still represents 'unfinished business'. The four areas where I think this is most true are:

- The 'decumulation' journey – What matters is not just what people do at retirement, but also in the years and decades thereafter. We simply do not know how people will cope with managing drawdown accounts as they age and, in particular, whether declining cognitive ability will become an issue. The drawdown products available in the immediate aftermath of pension freedoms were designed mainly with more sophisticated investors in mind, rather than the mass market. There is therefore still much more thinking to be done on whether we have the right drawdown products for the long-term.

- The role of annuities – Despite the obvious failures of the annuity market, annuities have, to some extent, had an unfair press - as there is nothing inherently wrong in a product which provides a guaranteed income for life, and especially one which is underwritten to provide better value for those in poorer health. Whilst buying an annuity at 55 may not be the right answer for most, there may be a case for more people using some of their residual pension savings to buy an annuity later in retirement but this is unlikely to happen without some form of 'nudge'.
- The interaction between pension freedoms and the benefits system – The benefits system was designed for a world where people were either of 'working age' and putting money into a pension, or of 'pension age' and taking it out. Pension freedoms have blurred that distinction and the situation is now highly complex for those in the 55-65 age group who may be on 'working age' benefits but also tapping in to their DC pension pot. Around 1.8m people in this age group are on Universal Credit or other means-tested benefits and growing numbers will have DC entitlements because of automatic enrolment. Those who take lump sums could find they inadvertently wipe out their benefit entitlement yet they get precious little help or guidance at the moment;
- Making it easier to take tax-free cash only – as this report shows, a common approach to pension freedoms is to cash out smaller pension pots in full. In some cases, this is driven by a desire to access tax-free cash, with the balance put on deposit in a cash ISA or similar product. Those who withdraw their money early in this way can lose out on years of investment returns, yet a full withdrawal remains the 'route of least resistance' for many. For those who plan to stay invested, the FCA has introduced default 'investment pathways' to nudge them into the right at-retirement product, but for those who simply take out the lot, there is no 'nudge'. More guidance and advice would help, but failing this a rule change which allowed people far more easily to take tax-free cash and leave the rest invested would make a real difference.

Making pensions flexible has proven to be a popular policy and the 'freedom' genie is hard to get back in the bottle. But more still needs to be done to make sure that savers of modest means get the best outcomes both at retirement and through retirement.

Steve Webb is a partner at consultants LCP and was pensions minister 2010-15.

Policy reflection from The Pensions Regulator

Lou Sivyer - Head of Policy, Regulatory Policy, Analysis and Advice Directorate, TPR

Defined Contributions (DC) are transitioning and their position in the savings market is changing. For The Pensions Regulator this means a shift in focus. We need to ensure that savers are making informed decisions about their whole pension. For many approaching retirement, their savings will be a mix of DC and Defined Benefits (DB) pots; and that adds a level of complexity in terms of making sound decisions.

Those savers who may have previously built up decent levels of DB benefit, might consider the DC element could be used to clear debts, fund a special holiday or to provide a deposit for children. A one-off spend to clear the decks. This may or may not be a sensible decision. Each saver is unique and would be well guided to take specific advice or guidance. In addition, savers' priorities may well have changed, or had new light thrown on them, over the course of the Covid-19 pandemic.

The decisions that those reaching retirement are now having to make can be particularly complex, especially if they have multiple DB and DC pots payable from different ages, with different pension increases and different terms and investment profiles. We need to consider how best to help and encourage savers to think through and consider their options, and, crucially, to make sure they avoid falling victim to a scam.

Now, more than ever it's important for savers to think about the kind of retirement they want. It's no longer enough to keep tucking a little away each month in the belief that this will provide a comfortable post-work life.

Regularly thinking about what kind of retirement is desired, how much can be put away for the future and how close goals are is important. We must encourage savers to be actively involved in their savings. That's a big ask. For those in their fifties, having the first inkling of retirement - and whose savings will be a DB/DC mix - it's a pressing question. And one they might not be asking.

For those being auto enrolled or just joining the workforce, then (outside the public sector and putting aside CDC for the moment) it is likely that their entire retirement savings will be DC.

If that is the case, then it's important to start saving early and keep saving. Compound interest will increase the value of those early contributions, but just starting to save is important.

How those contributions are invested and that they take an appropriate amount of risk, volatility and liquidity are less important in those early years. However, it is critical that the design of the default funds into which most new savers will invest are carefully and appropriately designed. Climate and other risk factors need to be factored in. Younger savers are much more engaged in climate issues, so there is an opportunity to leverage that interest in how their pension savings are invested. We are working hard to push ESG issues up the agenda and make them more accessible and understandable.

It is important to think about costs and charges that might erode value, but much more important to think of this in terms of 'value for money' – what are you getting for the money you pay? If it is superior investment performance, that might be worth paying more for.

Ensuring that the right investments are offered, that ESG factors are considered, that costs continue to be reasonable are part of, but not the whole story. In our view, the key pillars of good value for money are suitable investments, reasonable costs and charges, and good quality, efficient services and administration. But those things can only be delivered by ensuring that those looking after savings are applying the highest levels of governance and decision making.

A continuing drive from us and the government is consolidation in DC schemes, in terms of pot consolidation and scheme consolidation. This will help to achieve our goal for all savers to get good value for money from their pension savings, both through more professionalisation of trustee boards and access to broader and more innovative investment strategies.

As a regulator of work-based pensions in the UK, those challenges I've outlined above will be a focus for us. We will do so in partnership with others, including the FCA, and with the interests of savers at the heart of what we do.

Illiquid assets – are they the answer in DC?

Rona Train - Partner and Senior DC Consultant, Hymans Robertson

The UK government has made it clear that it wants UK pension schemes to help the post-COVID-19 recovery by investing in long-term UK assets, including green technology and infrastructure. There are undoubtedly opportunities for pension schemes to add value by accessing illiquid assets, but those who are determining the strategies for our DC pension schemes should be clear on the potential benefits, practicalities and investment reasons for doing so.

Most DC investment strategies currently focus on liquid, passively managed funds. And there are good reasons for this. They keep ongoing costs low for members, governance time is minimised for trustees and other fiduciaries, and members do not have to suffer the transition costs to new strategies if an active manager fails to deliver. Pension schemes should only introduce active management if they believe it can add value, net of fees, over the long term for members. And there are certainly some areas where it can.

The same argument should go for illiquids. All DC fiduciaries should ask themselves:

1. Will the introduction of illiquid assets give me something I can't access in liquid markets?
2. Will they give me better long-term risk-adjusted returns for my members?
3. Can I access them in a way that does not introduce unnecessary risk or complexity to the operation of my overall portfolio?

Answering yes to each of these questions is vital before progressing the discussions any further.

Of the three, over recent years, the focus has largely been on the latter – can DC schemes access illiquid assets in a way that does not negatively impact daily liquidity and daily pricing. People often forget that we've had property funds available within DC schemes for decades. Yes, there have been challenges, as was demonstrated all too starkly during the pandemic in 2020, but these funds have largely functioned effectively without the need for daily valuations of the underlying properties.

In our view, performance fees don't work well in DC world – and we told the DWP that in our response to their recent consultation. But we believe the onus should be on fund managers to come up with solutions that work in a DC world, and that are fair to all members. Indeed, some larger DC schemes are already accessing illiquid assets and achieving this within the current constraints in terms of daily pricing and liquidity. There is scope for further innovation, and changes in regulation could ease some of the challenges, but there is no absolute barrier for DC schemes to access illiquid assets.

The government is seeking to encourage schemes to invest in the UK economy and help the recovery. But pension schemes should not consider solely – and importantly should not be regulated into – investing in the UK economy. Yes, there are attractive opportunities in things like green infrastructure but there are also opportunities abroad which could provide equally as attractive opportunities. The primary focus should always be on delivering the best returns for our members.

In many ways, with DC schemes there has been a "race to the bottom" in terms of fees. This has been partly due to pressure exerted through the charge cap. However, many schemes' default investment strategies lie well below the charge cap. Are we doing our members a disservice by focusing too much on fees and not enough on long-term net-of-fees returns? In some cases, yes.

Take master trusts as an example. Many DC occupational single trust schemes currently have an investment strategy that has 100% in equities (or other growth assets) when members are far away from retirement. Most (though not all) master trust default investment strategies are much more conservative in the so called "growth" phase. Whilst trustees of single trust schemes have often been tempted to sign off transfers to master trust arrangements based on the low ongoing fees promised to members, what often gets lost is the impact of the transfer to the new arrangement on projected long-term member outcomes – which in some cases could be 10–15% lower than with the existing strategies. Over time, and with a dramatic increase in scale, we expect master trust investment strategies to become more sophisticated and incorporate a range of alternative assets - but for many this is still some way off. For example, while the median Master Trust is responsible for around £1bn of members' assets today, this could potentially rise to £40bn in the next decade. Those responsible for smaller arrangements may be less keen to adopt illiquid assets if they believe they will not be one of the "survivors" of the inevitable consolidation within the master trust market.

Finally, and perhaps more controversially, we might question whether, rather than setting a **price cap**, the government could potentially rather consider a **price floor** for investment. This could go some way to mitigating the race to the bottom and prompt consideration of a wider range of investment assets. But, whilst master trusts remain in the asset gathering stage, it's likely that, even if this was implemented, we'd only see a gradual move towards alternative assets.

In summary, our view is that, over the longer term, fund managers will develop more appropriate investment structures which will allow schemes to answer "yes" to the three questions set out above. And over time, master trusts will start to compete on long term returns, not just short-term fees. This will provide the opportunity for more sophisticated investment strategies including illiquid assets to help deliver better returns for our DC members.

Glossary

Technical appendix

PPI aggregate model

References

Supporting Members

Glossary

Active members: Pension scheme members making current contributions.

Active Management:[85] 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:[86] 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.

Defined Benefit (DB) Pension Scheme: An employer-sponsored pension scheme 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.

[85] http://www.thepensionsregulator.gov.uk/glossary.aspx
[86] http://www.thepensionsregulator.gov.uk/glossary.aspx

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 dependents (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. Also known as income drawdown.

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:[87] 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 freedoms: 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 highest marginal rate of income tax, with 25% tax free.

Gilts:[88] 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.[89]

[87] http://www.thepensionsregulator.gov.uk/glossary.aspx#s21610
[88] http://www.thepensionsregulator.gov.uk/glossary.aspx#s21610
[89] But were not required to pay contributions

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.

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:[90] 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.[91]

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.

[90] www.thepensionsregulator.gov.uk/glossary.aspx#H
[91] www.investopedia.com/terms/r/roboadvisor-roboadviser.asp

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 bought and sold 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 (CPI) 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: 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.

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 2021 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). 3,000 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: 1.9%
Earnings: 3.4%
Equity return: 6.7%
Bond Return: 1.8%
Risk-free Return: 0.2%

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 5.1%. 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,[92] and 0.5% for other DC/master trust schemes set up for automatic enrolment.[93]

Earnings growth and other economic assumptions are taken in line with Office of Budget Responsibility (OBR) assumptions,[94] 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.

[92] Average charges for trust-based schemes are 0.71% and for contract-based schemes 0.95%, DWP (2012), A 0.75% charge cap was introduced for any DC default funds being used for automatic enrolment from April 2015 onwards.
[93] Equivalent Annual Management Charge for multi-employer/Master trust schemes such as Legal and General's Worksave, Nest and The People's Pension.
[94] OBR (2019)

The Economic Scenario Generator (ESG)

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 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

Y1 Long-term yields

Ys Money market yields

S Stock returns

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

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

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 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 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),[95] 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.[96] 73.2% of those in DB schemes are assumed to work within the public sector,[97] 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.[98] It was assumed that the stocks of DC assets in 2010 were £275 billion.[99]

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

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 schemes which were set up for automatic enrolment, or DC 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%[100] 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 £50,270 with an earnings trigger of £10,000 (all in 2021/22 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.

[100] 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"

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

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*

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*

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*

Ofcom (2021) *Online Nation*

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

PRI (2020) *COVID-19 accelerates ESG trends, global investors confirm*

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

Schroders (2021) *Institutional Investor Study 2020*

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*

Willis Towers Watson (2018) *DB member choice survey 2018*

XPS Pensions Group (2018) *Member outcomes under freedom and choice*

The PPI is grateful for the continuing support of its Supporting Members:

PLATINUM

Aviva
Columbia Threadneedle Investments
Just
The Pensions Regulator

GOLD

AXA Investment Managers
Cardano Group: (including Cardano, NOW: Pensions & Lincoln Pensions)
Department for Work and Pensions
Legal & General Investment Managers
NEST
RPMI
Smart Pension
Wealth at Work Ltd
Capita
MFS Investment Managers
Phoenix Group
Scottish Widows
The People's Pension

LONG STANDING SILVER

ABI
Aon
BP Pension Trustees Ltd
Exxon Mobil
PLSA
Royal London
Shell
Which?
Age UK
Barnett Waddingham
Chartered Insurance Institute
MNOPF
Quilter
Sackers
USS

Acknowledgements and Contact Details

The Pensions Policy Institute is grateful for input from many people in support of this paper, including:

Danielle Baker	Laura Cook	Maritha Lightbourne
Katie Banks	Chris Curry	Sarah Luheshi
Steve Brady	Graham Davey	Verena Moench
Andrew Brown	Gareth Dee	Graham Peacock
James Churcher	Janine Harrison	Chris Scicluna
Sharon Collard	Aleck Johnston	Adam Sewell
Bob Collie	Ivan Laws	Chris Wagstaff

Editing decisions remained with the author who takes responsibility for any remaining errors or omissions.

The Wealth and Assets Survey is sponsored by the Department for Work and Pensions; Department for Business, Innovation and Skills; HM Revenue and Customs; Department for Communities and Local Government; Scottish Government; Financial Services Authority. All data sets were provided by the UK Data Archive, University of Essex. The UK Data Archive and the funders of the survey bear no responsibility for further analysis and interpretation.

ISBN: 978-1-914468-01-8

Contact:
Chris Curry, Director
Telephone: 020 7848 3744
Email: info@pensionspolicyinstitute.org.uk

Pensions Policy Institute
King's College London
Virginia Woolf Building
1st Floor, 22 Kingsway
London WC2B 6LE

PENSIONS POLICY INSTITUTE

ISBN 978-1-914468-01-8