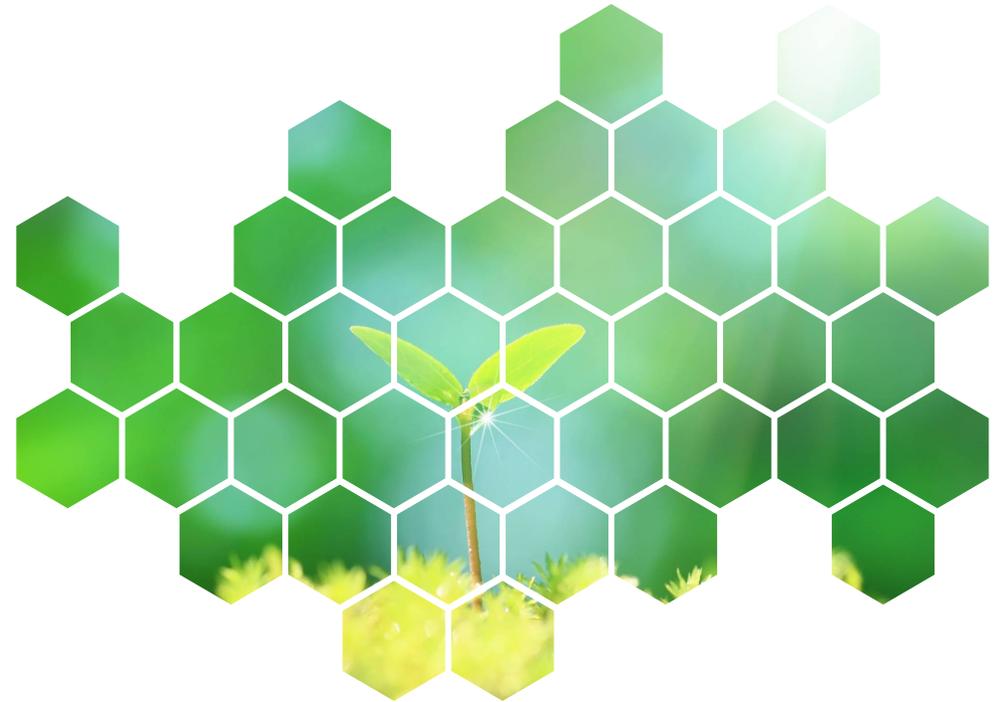


# Triennial Strategy Review – Stage One: Membership Analysis

Siemens Benefits Scheme Investor Plan



Prepared for: Trustee of the Siemens Benefits Scheme Investor Plan

Prepared by: Chris Inman, CFA CAIA and Sophie Moore, CFA

Date: 9 June 2022

# Agenda

- **Objectives and Executive Summary**
- **Section 1** Membership Analysis
- **Section 2** Strategy Review Decisions
- **Section 3** Investment Beliefs
- **Section 4** Summary
- **Appendix** Modelling Assumptions

# Objectives for Today

2. **Agree** whether retaining a multi-asset target for the default strategy remains appropriate

4. **Agree** representative member groups to facilitate risk/return analysis of the default strategy in Stage 2 of the review

Discuss any queries or comments



1. Better understand the Investor Plan membership profile

3. **Agree** whether to retain alternative lifestyle options targeting annuity-purchase and cash lump sum outcomes

5. Recap investment beliefs and objectives, and note next steps in the 2022 triennial DC strategy review process

*Additional consideration:  
'Gender Pensions Gap' analysis*

*Additional consideration:  
Wording for an Investor Plan  
'mission statement'*

# Executive Summary

- At 31 March 2022 there were 30,691 Plan members; split 23% active, 77% deferred.
  - Compared to our previous 2019 analysis; your deferred proportion has increased (from 67%) while the average age of both your active/deferred populations remains similar.
  - The gender pay gap remains a topical issue. However, equally concerning is the issue of a gender *pensions* gap. Our initial high-level analysis of the Investor Plan's membership suggests that there exists a c.34% gender pensions gap, which may warrant further consideration.
- Projected pot sizes for the majority of members remains sufficiently high to support taking retirement benefits flexibly. In addition, broader market trends and survey evidence supports maintaining flexibility for members. **We recommend retaining a multi-asset target for the default lifestyle strategy.**
- Despite low utilisation of the two alternative lifestyles targeting annuity and cash lump sum outcomes, these provide objectives-based choices for members who prefer not to self-select their own strategy. Unless the Trustee has a strong preference to simplify the range in the short-term and acknowledging ongoing work as part of Project Willow, **we propose maintaining all three objectives-based lifestyles.**
- To facilitate assessment of the expected risk and return metrics of the current default strategy, we have identified a set of representative members to broadly reflect the overall membership profile. Based on our analysis, **we propose that the existing set of representative members (used in the 2019 and 2016 reviews) remains appropriate.**
- The Trustee's investment beliefs provide a foundation for strategy design. During a recent Trustee Training session on this topic, attendees discussed the idea of articulating an Investor Plan 'mission statement'. This new mission statement is included for discussion and approval.
- The next stage of the strategy review, to be discussed at the September Board meeting, involves modelling analysis to confirm expected risk/return metrics for the default strategy, and advice to consider whether the design of the default glidepath remains appropriate.

# Introduction and Context – Regulatory Background

The Trustees are responsible for setting the Scheme's investment strategy and making sure it remains appropriate for meeting members' needs. In line with the DC Code of Practice 13 (Governance and administration of occupational trust-based schemes providing money purchase benefits), an investment strategy review should be completed at least every three years, and immediately following any significant change in the demographic profile of the membership.

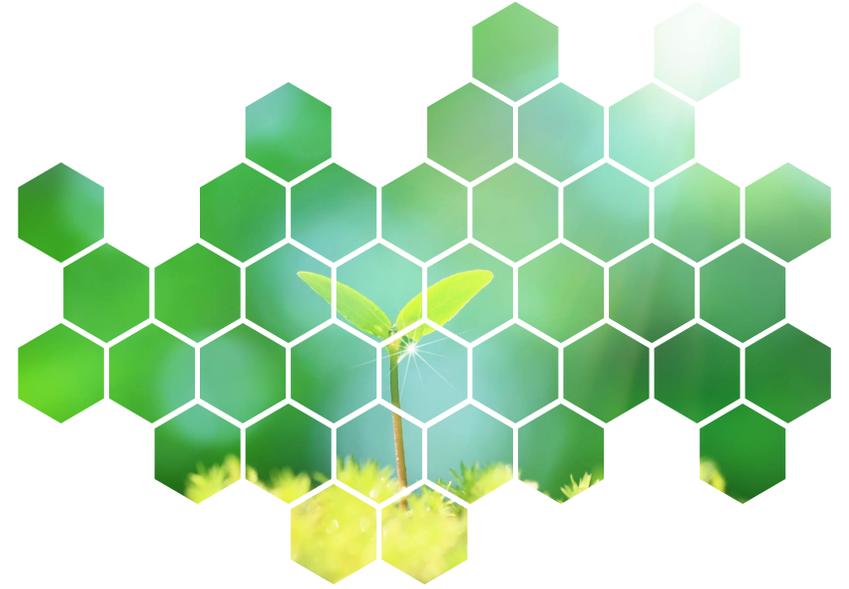
As a minimum, the Pensions Regulator expects an investment strategy review to include the following:

1. Membership analysis: Trustees are expected to consider the characteristics of different segments of members when setting investment objectives and strategies.
2. Objective setting: Trustees must consider their aims and objectives for default arrangements which should be documented in the Statement of Investment Principles (SIP).
3. Strategy analysis: Trustees are required to review the default arrangement in light of the membership and the degree to which it is consistent with the trustees' aims and objectives.
4. Changing investment market conditions: While reviewing their investment strategies, trustees are expected to consider changes in the investment conditions, products and techniques available in the marketplace which may be appropriate for their scheme.



**Points 1 and 2, above, are covered in this presentation.**

**The remaining points 3 and 4 will be covered in the next stage of the strategy review.**



# Membership Analysis

# Summary Membership Statistics

Strategy	Active members	Deferred members	Total
Flexible Access Lifestyle	6,356	21,902	28,258
Traditional Annuity Lifestyle	8	49	57
Cash Out Lifestyle	1	30	31
Freestyle	620	1,725	2,345
<b>Total</b>	<b>6,985</b>	<b>23,706</b>	<b>30,691</b>

## Investment Strategy

The overwhelming majority of members utilise the default strategy with c.8% of members investing via the Freestyle range.

## Contribution Structure

The most popular choices are:

- Maximum overall (10% member, 10% employer)
- Minimum to matching (4% member, 4% employer)
- Minimum member contributions to still achieve maximum employer matching (7% member, 10% employer)

*\* Note one member with 30% member contribution rate and 30% employer contribution rate was assumed to be on the maximum rate of 10%/10%.*

Member Contribution Rate	Standard		Enhanced	
	Company Contribution Rate	Number of Members	Company Contribution Rate	Number of Members
4%	4%	<b>1,604</b>	6%	<b>51</b>
5%	7.5%	<b>707</b>		
6%	9%	<b>492</b>		
7%	10%	<b>1,128</b>	10.5%	<b>42</b>
8%	10%	<b>286</b>	12%	<b>31</b>
9%	10%	<b>68</b>	13.5%	<b>22</b>
10%	10%	<b>1,927</b>	15%	<b>627</b>
<b>Total</b>		<b>6,212</b>		<b>773</b>

# Membership Evolution Since 2019

- The **total number of Plan members has decreased** from 31,880 in 2019 to 30,691 in 2022
- **Total Plan assets have increased** as a result of ongoing contributions and salary inflation as well as investment performance, which has been positive in the interim years.
- **Average fund values have increased**, both at the mean and median level.
- For both active and deferred populations, **average age has remained broadly similar**.
- Trends in contribution rates remain similar to 2016 and 2019, with **younger members paying lower contributions than older members**

**Tables:** Snapshots of member summary data from 2022 (left) and 2019 (right)

## 2022

Metric	Actives	Deferred	Total
Number of members	6,985	23,706	30,691
Youngest member	16.0	18.0	16.0
Oldest member	74.0	82.0	82.0
Mean age	42.2	46.3	45.4
Mean salary	£50,123	£0	£11,407
Median salary	£44,200	£0	£0
Mean fund value	£83,471	£47,854	£55,960
Median fund value	£38,828	£18,556	£21,688
Total fund value	£583,044,204	£1,134,422,664	£1,717,466,867

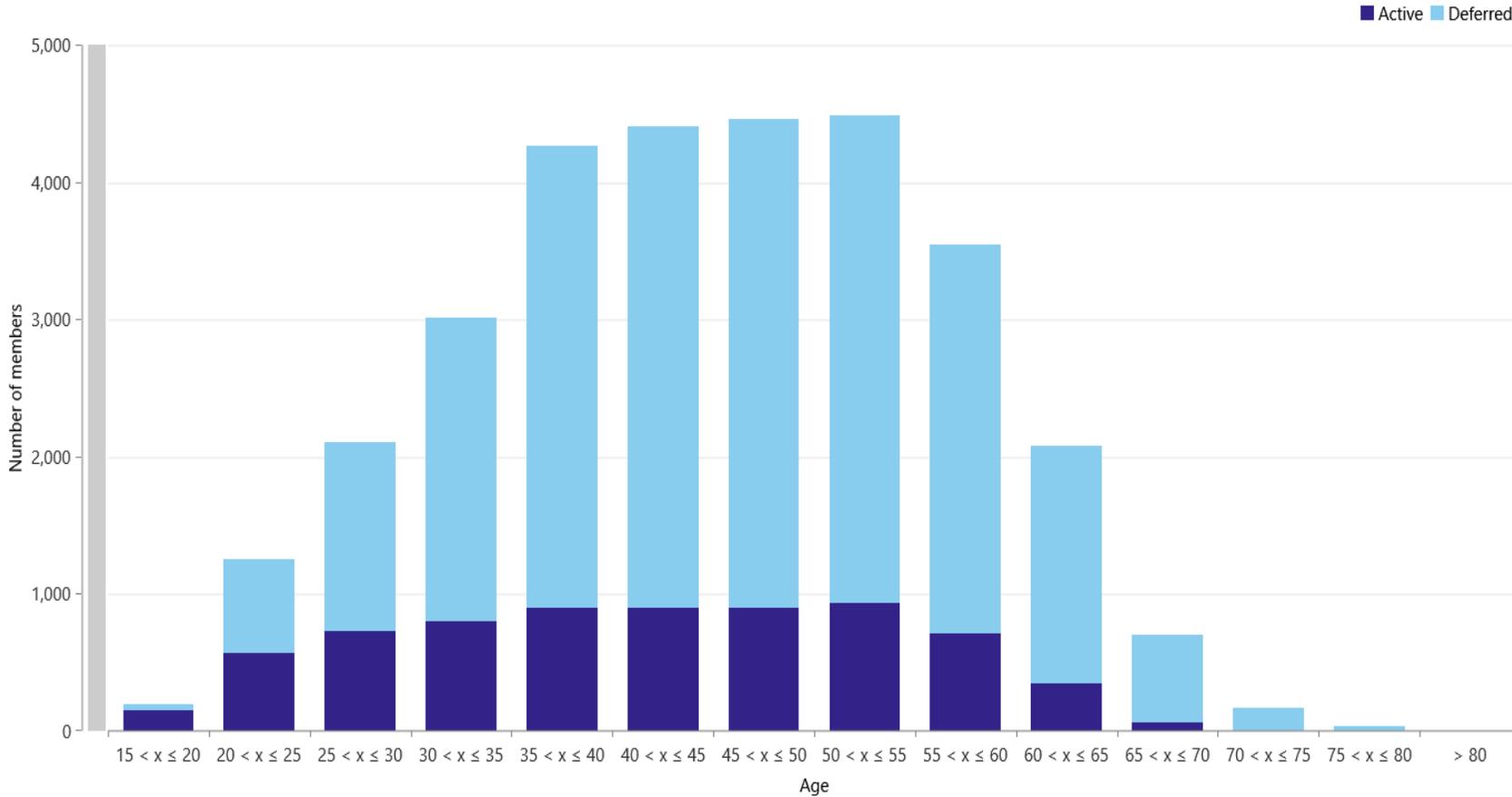
## 2019

Metric	Actives	Deferreds	Total
Number of members	10,424	21,456	31,880
Youngest member	16.8	17.6	16.8
Oldest member	76.0	80.3	80.3
Mean age	43.1	45.5	44.7
Mean salary	£42,769	£0	£13,984
Median salary	£37,452	£0	£0
Mean fund value	£71,177	£33,906	£46,093
Median fund value	£33,466	£13,731	£17,776
Total fund value	£741,952,396	£727,481,632	£1,469,434,027

Source: 2022 membership data provided by Trafalgar House on 5 April.

# Age Distribution

Number of members by age



## Analysis

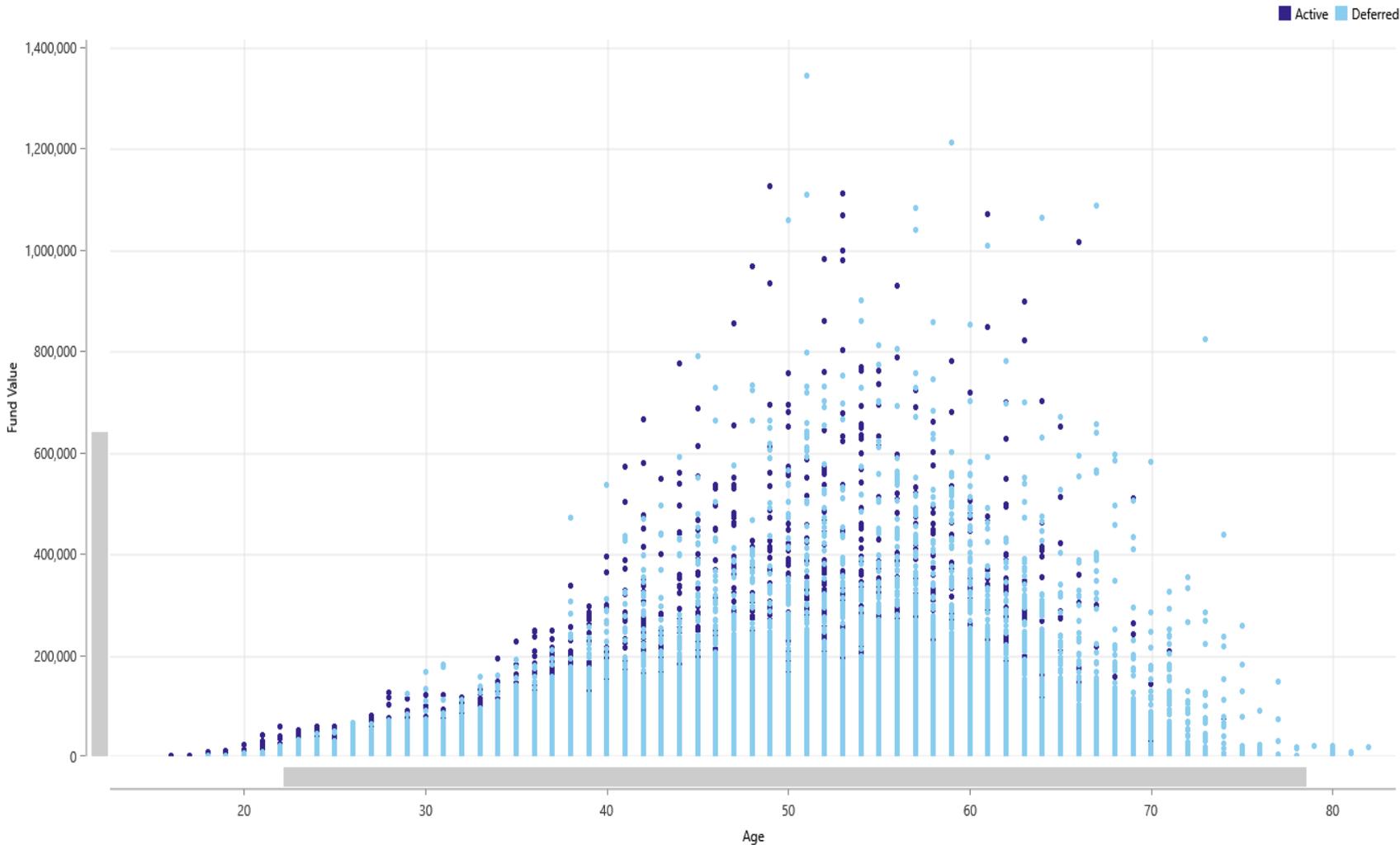
The membership shows a wide age distribution, including 913 members over age 65.

The population is primarily (77%) made up of deferred members.

Membership spans a broad age range, with a fairly even split across the 35 to 55 brackets

# Age vs Fund Value

Fund Value against Age



## Analysis

The vast majority of members (77%) have a current pot size less than £70,000.

The largest pots are seen for middle aged members.

The oldest members may well have significant DB benefits accrued elsewhere.

Current pot sizes are mostly less than £70,000

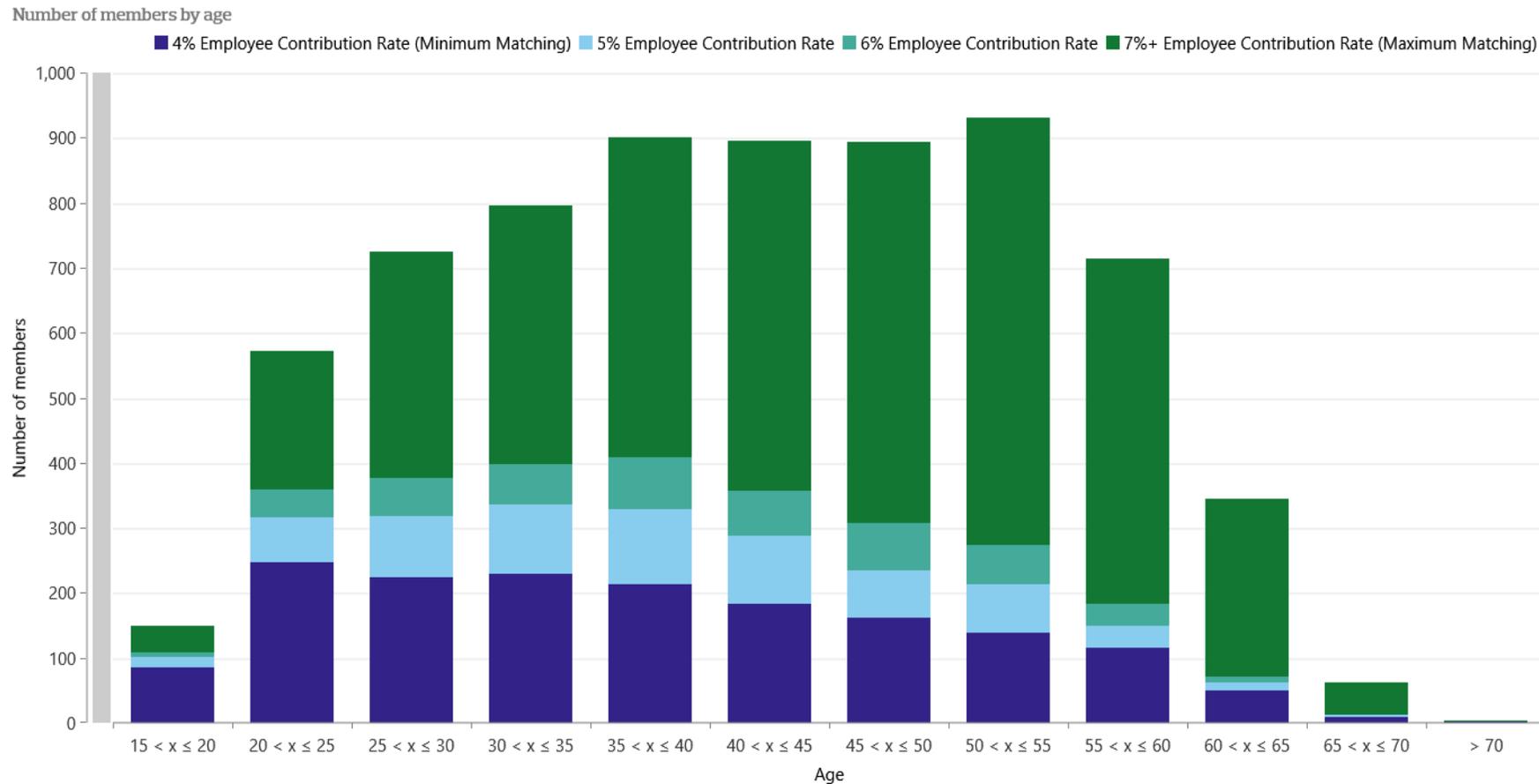
\*Note members with a fund value above £1,400,000 have been excluded from the graph for presentational purposes.



## Analysis

The majority of members (59%) are taking advantage of the maximum employer matching available.

There may be a communication opportunity, to make other members aware of more generous matching opportunities.



Many members are taking advantage of the available matching contributions

# Investment Choices

Number of members by age



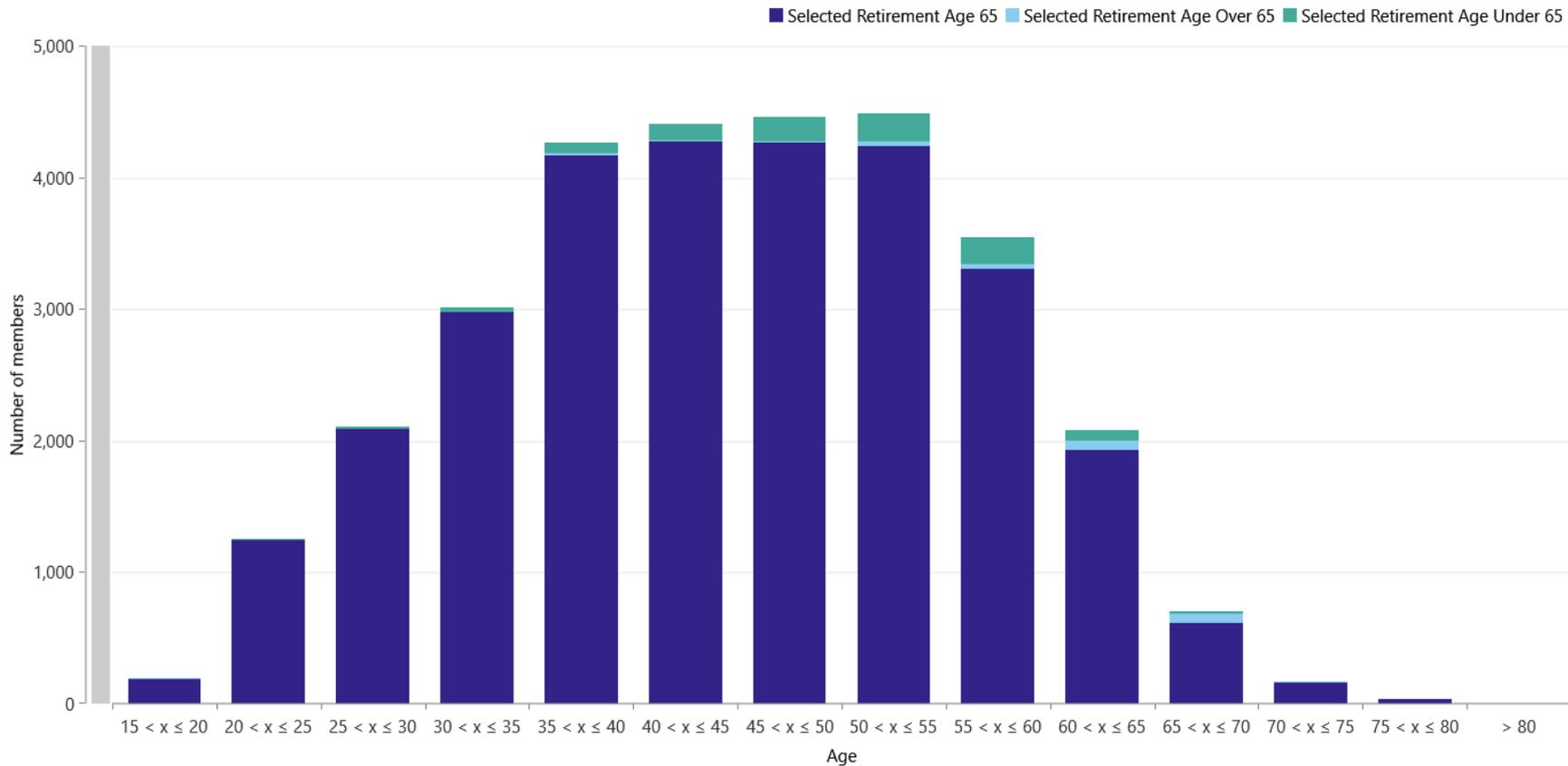
## Analysis

Similar to 2019, and in line with industry experience, the majority of members invest in the default.

92% of members invest in the default (unchanged from 2019)

# Age vs Selected Retirement Age (SRA)

Number of members by age

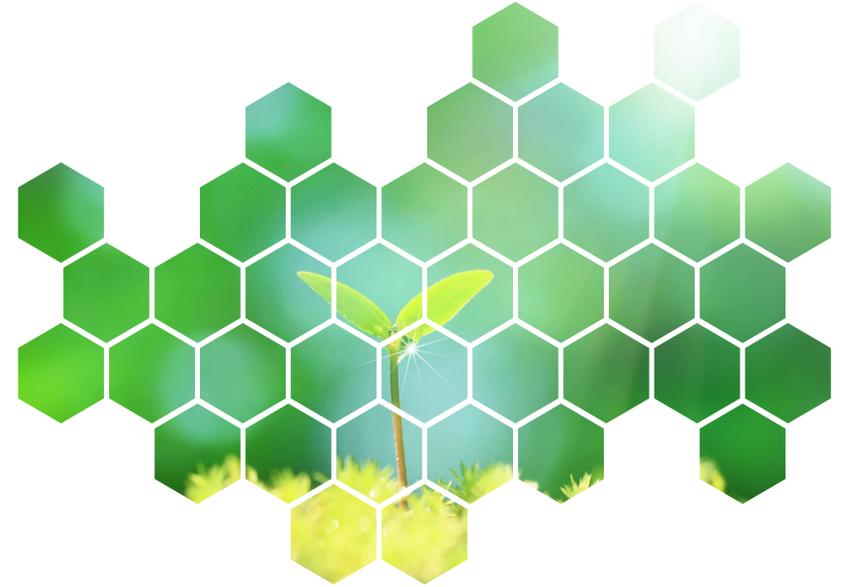


## Analysis

Given that there are members with current ages greater than their selected retirement age, this may suggest that members haven't engaged and/or there is an inaccurate representation of retirement ages.

Almost all members (96%) have SRA equal to the default of 65

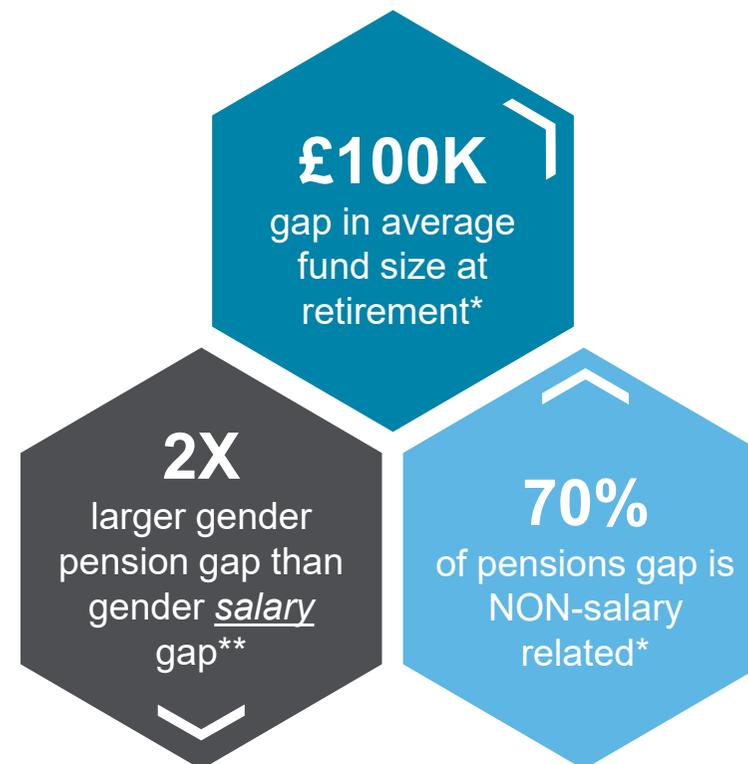
# Additional Consideration: 'Gender Pensions Gap' Analysis



# Background

## What is the 'gender pensions gap'?

- UK firms (with >250 employees) are required by law to report on the gender **pay** gap.
- However, research indicates that the gap in retirement outcomes between men and women – the gender **pensions** gap – is materially higher than the respective pay gap.
- Whilst the gender pay gap is one of the drivers of the gender pension gap, there are typically other factors that exacerbate the disparity in retirement outcomes between men and women such as career breaks and contribution rates.
- We have carried out high-level analysis to show the extent of the gender pensions gap in the Plan and suggest that Trustee could consider:
  - What factors may be driving this; and
  - Potential solutions to address the imbalance.



\*Source: "Women & Retirement report" – Scottish Widows 2021

\*\*Source: "Achieving gender equality in pensions" – Prospect 2021

## Siemens Gender Pay Gap 2021

	Mean hourly gap (%)	Median hourly gap (%)	Mean bonus gap (%)	Median bonus gap (%)
<b>Siemens PLC</b>	17.23	24.43	36.97	32.94
<b>Siemens Mobility Ltd</b>	21.10	25.20	24.90	26.50
<b>Siemens Financial Services Ltd</b>	36.47	39.88	43.42	40.58
<b>Electrium Sales Limited</b>	32.51	31.99	79.81	0.00
<b>Siemens Industry Software Ltd</b>	32.91	39.36	63.80	73.17

# Gender Pensions Gap – High Level Analysis

The high level analysis over the following pages considers the Plan’s active membership.

## Siemens

Current fund value – Percentile	Gender Pension Gap
75%	37%
50%	34%
25%	33%

### Female Current Fund Value per £1000 of Male Current Fund Value



Demographics	Male	Female
Membership	5,245 (75%)	1,740 (25%)
Average Age	42.3	41.9
Average term to retirement (years)	22.7	23.1
Average current fund value (mean)	£91,292	£59,895

### Commentary

Current fund values for males are roughly 34% higher than that of females, with a material disparity at both the lower and higher end of the spectrum.

This gap appears to be slightly lower (33%) when comparing members in the bottom quartile of fund values versus those in the upper quartile (37%).

➤ This might indicate structural issues other than salary impacting retirement outcomes for females, given the disparity increases as fund values (and salaries) increase. Note the gender *pay* gap is relatively constant at all levels.

### Possible next steps

- Carry out detailed analysis to better understand drivers of the gap.
- Consider implementing financial education and/or communications tailored specifically to target women within the workforce to address the gap in retirement outcomes.

### Proportion of Males / Females in each quartile of current fund value



# What Could be Driving the Gap?

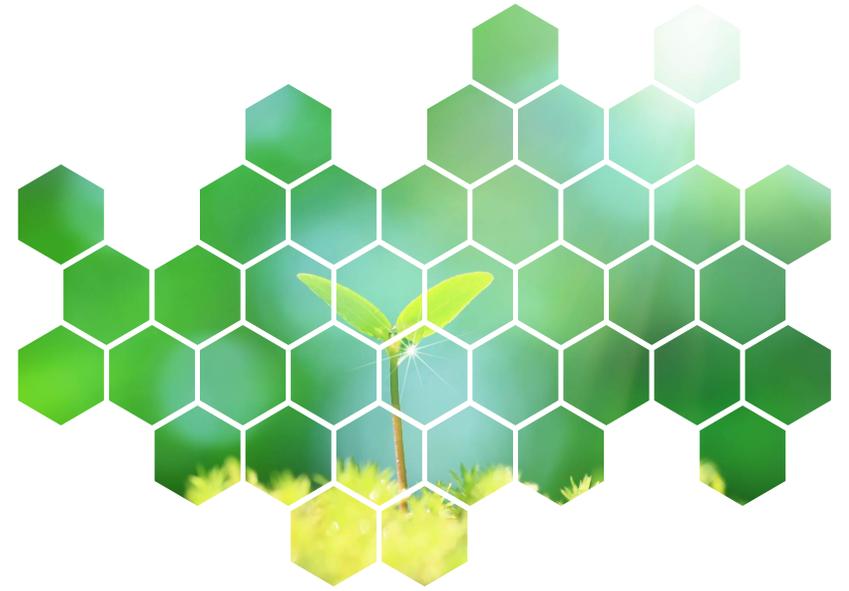
The table below sets out analysis of your (actives only) membership data split by gender, aiming to identify possible areas that could be driving the gender pensions gap.

	Male	Female
Number of members	5,245	1,740
Average age	42.3	41.9
Average salary	£53,016	£41,399
Average fund value	£91,292	£59,895
Average service	7.1	7.0
Average total contributions	16%	15%
Default strategy	89%	96%
Self-select	11%	4%



## Possible inferences

- Members working for Siemens PLC and Siemens Mobility Ltd constitute over 75% of the scheme's active membership. Analysis of active members at these two companies will be key in the determination of drivers.
- Gender **pay** gap of c.24% for Siemens PLC and c.25% for Siemens Mobility Ltd is driving some of the differences, but not all of it given the **pensions** gap is larger across the Investor Plan (c.34%).
- Similar levels of contributions and years of service, which implies pay gap and potentially investment choices/career breaks could be contributing factors.



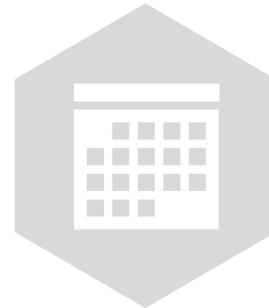
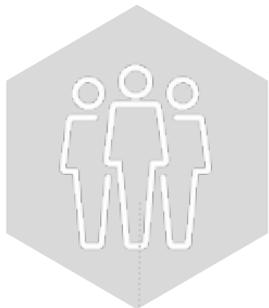
# Strategy Review Decisions

# Key Points to Agree

2. **Agree** whether retaining a multi-asset target for the default strategy remains appropriate

4. **Agree** representative member groups to facilitate risk/return analysis of the default strategy

Discuss any queries or comments



1. Better understand the Investor Plan membership profile

3. **Agree** whether to retain alternative lifestyle options targeting annuity-purchase and cash lump sum outcomes

5. Recap investment beliefs and objectives, and note next steps in the 2022 triennial DC strategy review process

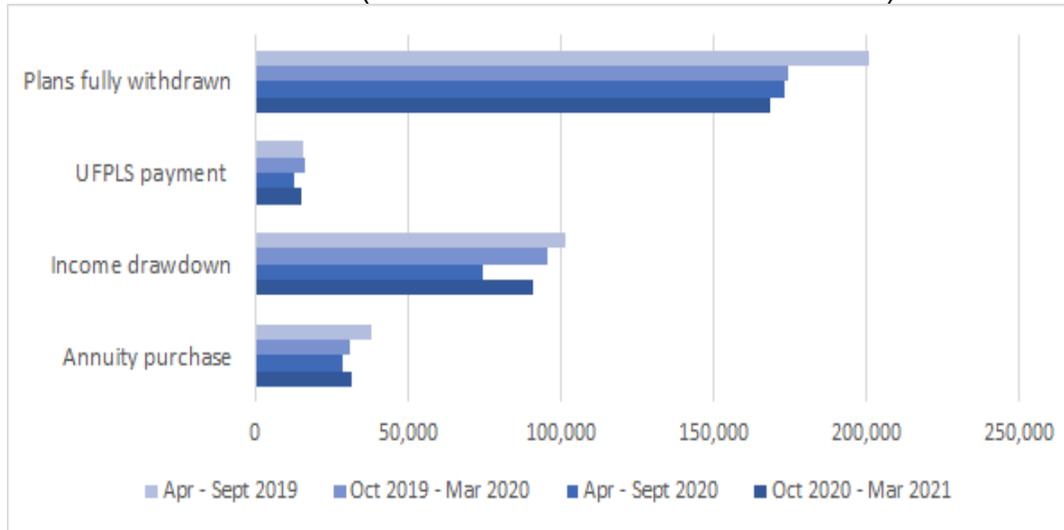
*Additional consideration:  
'Gender Pensions Gap' analysis*

*Additional consideration:  
Wording for an Investor Plan  
'mission statement'*

# Accessing savings – Market trends

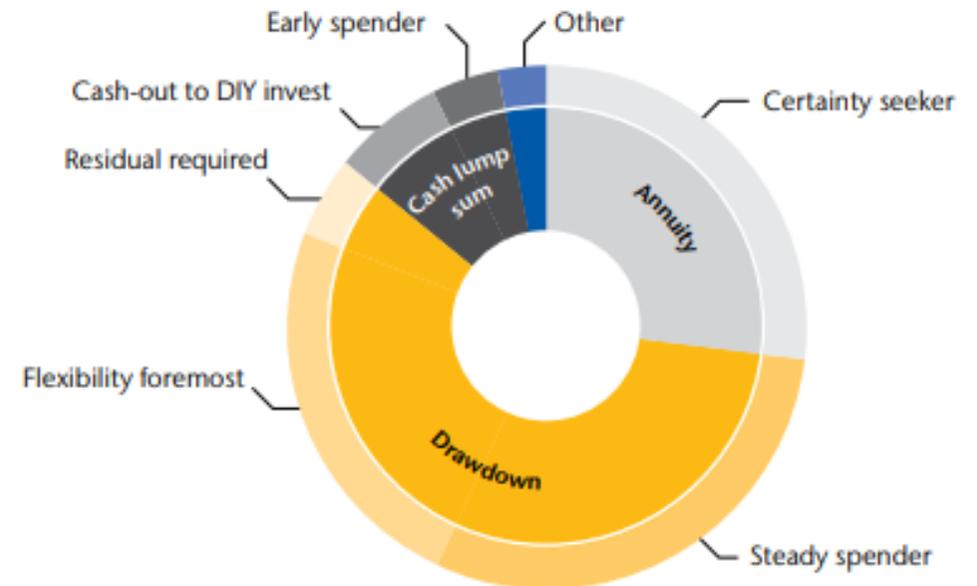
## FCA data

Number of pension plans accessed for the first time by method of access (Source: FCA retirement income data)



## Aon DC Survey 2020

How members expect to access their savings in retirement<sup>1</sup>



## Changing trends

The FCA data shows us that the most common method savers are currently using to access their pensions is full withdrawal (although it should be noted that 90% of savers choosing this option had pot values of under £30k).

Aon's DC Survey of how members intend to take their benefits paints a different picture, with more than 60% of respondents aiming to utilise some form of income drawdown. This is consistent with members becoming more reliant on their DC savings to fund their retirement.

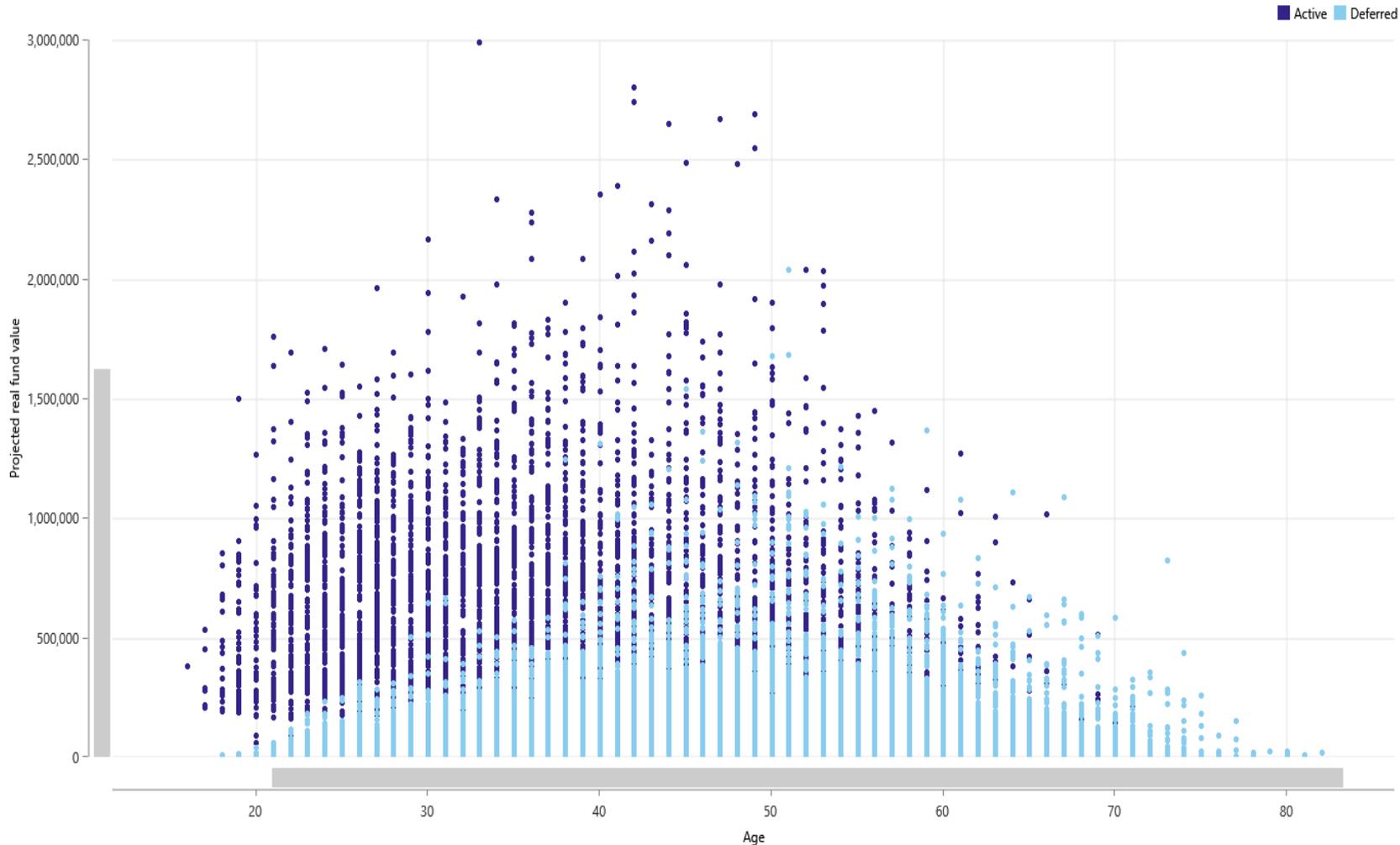
Notes:

1. 1,319 UK employees with workplace pensions, excludes 'don't know' responses

# Projected Fund Values



Projected real fund value against Age



## Analysis:

Average projected fund value is c.£170k. Average for actives is c.£490k.

Typically see members with fund values of this (sufficiently large) size choosing to take flexible drawdown in retirement, which supports maintaining a drawdown-targeting default strategy.

Significant minority of older members with smaller pots may prefer a cash-targeting option. But note limited take-up of Cash Out Lifestyle in practice.

Projected fund values are sufficiently high to support a drawdown-targeting strategy as the default

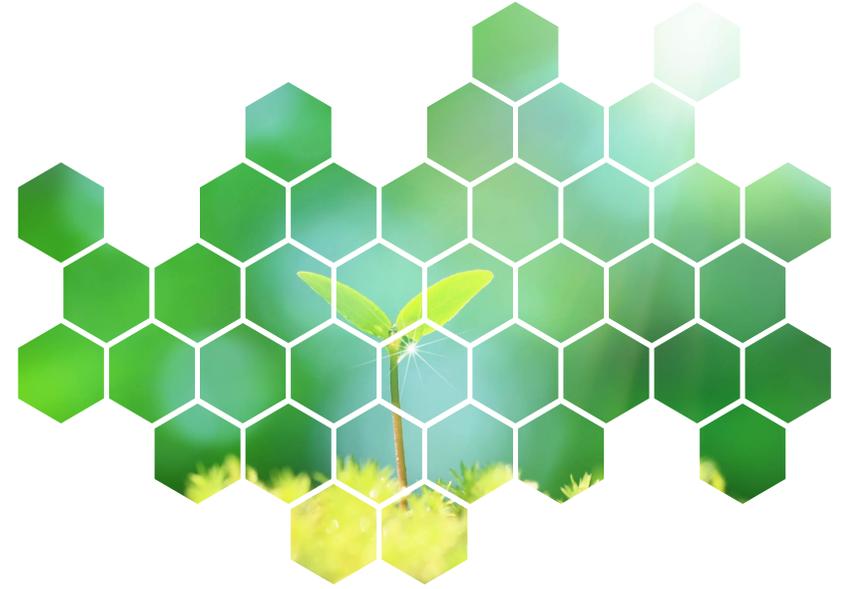
*\*Note members with a projected fund value above £3,000,000 have been excluded from the graph for presentational purposes.*

# Representative Members

- Based on our analysis, and taking a pragmatic and proportionate approach, we are comfortable that membership demographics have not changed sufficiently since the last review in 2019. We propose that the existing representative members (below, first set in 2016) remain appropriate.
- In line with the approach used last year, we have 'rolled forward' (i.e. calculated updated figures taking account of contributions, realised returns, salary growth assumptions) the representative member metrics by three years to give the following proposal for 2022:

Member	Status	Age	Salary (£)	Fund value (£)	Total Contributions (% p.a.)
A	Active	27	21,500	18,000	12%
B	Active	42	39,000	101,500	14%
C	Active	57	23,000	45,000	14%
D	Active	58	76,500	170,000	18%

These sample members will be used to assess risk/return outcomes for the current strategy



# Investment Beliefs

# Current Investor Plan Investment Beliefs

Implied belief	'So what?'	Current position
<p><b>Many members will not want to regularly monitor and amend their investment decisions</b></p>	<p>The primary focus of the Board should be the default strategy, where the vast majority of assets are invested. The default should reflect a lifestyle approach, whereby investments are automatically adjusted throughout the journey in order to mitigate the evolving risks faced by members as they move towards retirement.</p>	<p>Continue to offer the Flexible default, plus two additional alternative lifestyle strategies (Annuity, Cash), which together cater for the main 'at-retirement' options for members that do not want to make investment decisions.</p>
<p><b>Flexibility is valuable for members</b></p>	<p>However, there is value in flexibility, and therefore alternative investment strategies and an appropriate Freestyle range should be provided, to meet members' differing investment needs.</p>	<p>Strategies are consistent until nearing retirement; allows flexibility to switch between lifestyle options at low cost prior to divergence (members might only engage in later years).</p>
<p><b>Overall fund range should provide balance between 'enough' choice to meet differing needs, but not 'too many' options which can mute member engagement</b></p>	<p>Need to make sure that there is an appropriate degree of choice for Plan members. No desire to offer a 'fund supermarket'-style range, however need a mix of genuinely differentiated options.  The range should be formally reviewed at least every three years as part of strategy considerations.</p>	<p>The overall fund range includes options comprising different asset classes, investment styles (active/passive) and approaches (lifestyle/Freestyle), to allow members to pick options to meet individual needs.</p>
<p><b>All fund managers utilised will possess the required skills to meet their stated objectives</b></p>	<p>All managers should be ratified as appropriate by the Plan's investment advisers.  Where a new fund manager is put in place, a selection exercise should take place to determine the most suitable investment.</p>	<p>Managers should all have received a 'Buy' rating from Aon and where this is not the case, detail of why the manager remains appropriate is documented.  Aon has supported the Plan in appointing an appropriate investment manager where there were no 'Buy' rated products available (e.g. inflation-linked annuity fund, which targets specific objectives).</p>

# Current Investor Plan Investment Beliefs (2)

Implied belief	'So what'	Current position
<p><b>The baseline approach to investing in an asset class is via passive management, with selective use of actively managed strategies where considered appropriate</b></p>	<p>This is not a belief made on cost considerations. Instead it reflects a considered assessment of value for members, based on the ability of active managers (across differing asset classes) to add consistent value, and taking into account the Trustee's governance capacity.</p> <p>There is an understanding that certain asset classes or strategies are best managed actively, but also that it can be hard to choose the best manager and even the best manager may go through extended periods where their strategy is "out of favour".</p>	<p>The lifestyle growth stage (Opportunity Fund) utilises passive equity exposure. As this point, the primary aim is strong long-term investment returns and markets are considered relatively efficient, favouring a low-cost passive approach.</p> <p>As the focus switches to capital preservation and volatility reduction, diversification is key. The Trustee does not have the governance budget or appetite required to build a 'do it yourself' multi-asset strategy, and so delegates certain elements of the Balanced and Consolidation Fund strategies to active fund managers.</p>
<p><b>Some members may believe factors other than investment returns should be considered when making fund choices</b></p>	<p>Religious and/or ethical beliefs may impact a member's fund choice. Where considered appropriate, a product (ratified as suitable by the investment adviser) should be made available.</p>	<p>The Freestyle range includes a religious (Shariah law) fund and ethical equity fund as there has been demand for such strategies, which is likely to continue.</p> <p>Where appropriate, 'Buy' rated strategies should be used to meet potential member demand.</p>
<p><b>New asset classes or strategies may provide opportunities to enhance member outcomes, and will be given due consideration, as appropriate</b></p>	<p>The asset classes and strategies that can be seen as 'DC friendly' is a continuously evolving area. New strategies will be considered by the Investment Executive and investment advisers to identify attractive opportunities. Where considered appropriate, these will be highlighted for consideration by the Trustee.</p>	<p>The Plan accesses the illiquidity premium through direct UK property, as well as investments linked to both global property and global infrastructure prices.</p> <p>The Investment Executive holds regular discussions with the Plan's advisers and managers to consider potential new opportunities. Advisers are tasked with raising new ideas for consideration, where suitable.</p>
<p><b>Commitment to integrate responsible investment issues into our decision making as well as in the oversight and selection of investment strategies</b></p>	<p>The decision over whether to utilise responsible investing within the default or other investment strategies may have both financial and other consequences. The Trustee acknowledges this, and should therefore consider responsible investment alongside other risks when setting investment strategy.</p>	<p>The Investor Plan has in place a formal set of responsible investing priorities as well as guiding principles for their implementation. We ensure that the default incorporates this approach to responsible investing with the self-select range including stand-alone responsible investment option(s).</p>

# Regulatory Recap – Confirming Objectives

To recap, **the Pensions Regulator expects an investment strategy review to include:**

- **Objective setting:** Trustees must consider their aims and objectives for default arrangements which should be documented in the Statement of Investment Principles (SIP).

Investor Plan SIP: overall investment objective

*“The Trustee’s principal objective is to provide a range of investments that are suitable for meeting members’ long-term, medium-term and short-term investment objectives.”*

Investor Plan SIP: default strategy investment objective

*“The aim of the DC default arrangement is to provide members with the potential for higher levels of growth during the accumulation of their retirement savings and then to gradually diversify their investments to reduce volatility whilst maintaining the potential for a modest level of growth in excess of inflation.”*



## Decision Required

Confirm that the above investment objectives, as defined in the SIP, remain appropriate and aligned with Trustee views.



## Aon View

We recommend retaining the current objectives. In particular, a default strategy which targets flexible access at retirement reflects the shift from the current trend of members (mostly) accessing savings via a lump sum to complement other forms of income in retirement, to a majority utilising income drawdown in retirement.

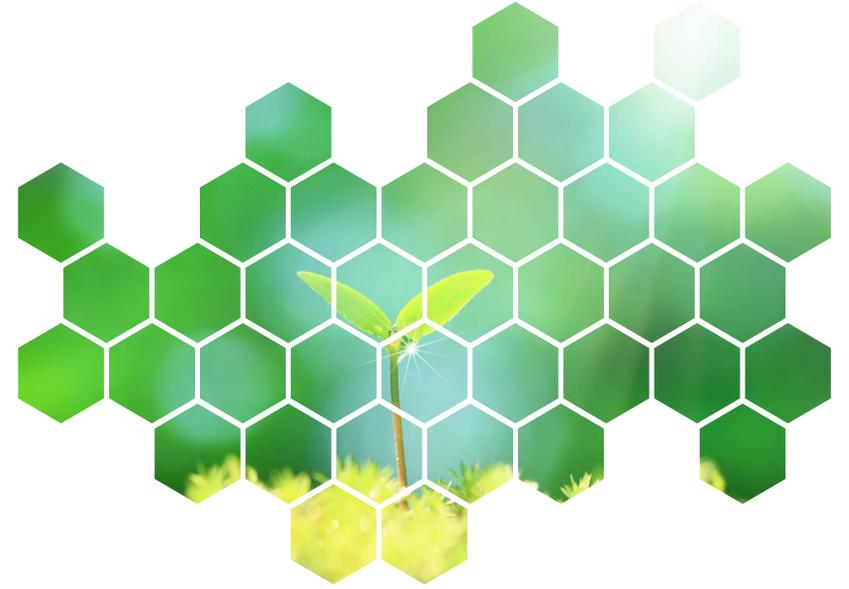
# Suggested Mission Statement

For discussion, stemming from discussions at the recent Trustee Training session on Investment Beliefs, the following wording aims to articulate the overarching aims for the Plan:



Our mission is to provide a high-quality, cost-efficient pension solution that allows members to plan and save for a financially secure retirement.

We aim to offer a flexible range of investments to meet the unique requirements of our members that enable them to save confidently for their retirement.

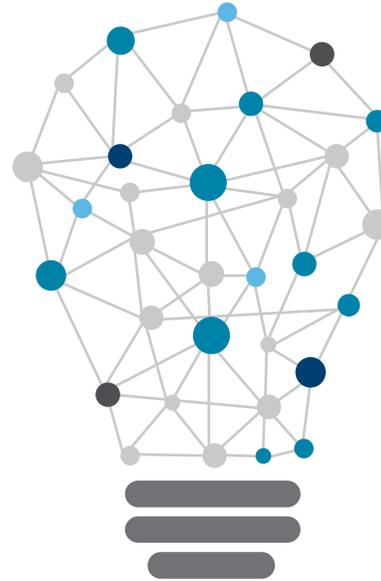


# Summary

# Recap of Recommendations

We recommend retaining a multi-asset target for the default lifestyle strategy

We propose maintaining all three objectives-based lifestyles



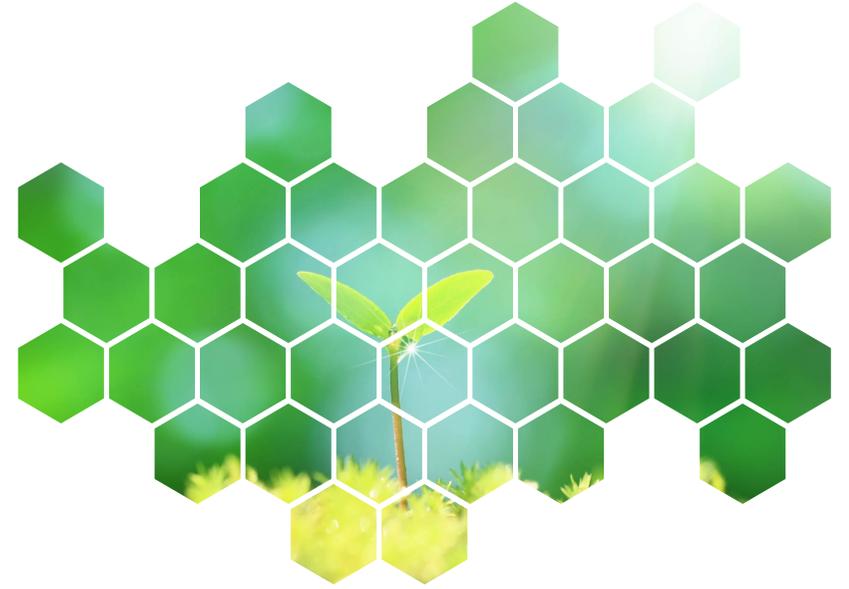
We propose that the existing set of representative members (used in the 2019 review) remains appropriate

We recommend retaining the existing objectives, as outlined in the SIP

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## Next Steps

- The next stage of the Strategy Review, to be discussed at the September Board meeting, involves modelling analysis to confirm expected risk/return metrics for the default strategy, and advice to consider whether the design of the default glidepath remains appropriate.
- Given Project Willow, we are working with the Investment Executive to agree which forms of Strategy Review analysis are likely to provide the most useful and practical insights to support the Trustee in future decision-making.
- The Trustee may wish to formally adopt a mission statement and give further consideration to the gender pensions gap.



# Appendix

- Modelling Data and Assumptions

# Summary Statistics

Metric	Actives	Deferreds	Total
Number of members	6,985	23,706	30,691
Youngest member	16	18	16
Oldest member	74	82	82
Average age	42.2	46.3	45.4
Average salary	£50,123	N/A	£50,123
Median salary	£44,200	N/A	£44,200
Average fund value	£83,471	£47,854	£55,960
Median fund value	£38,828	£18,556	£21,688
Total fund value	£583,044,204	£1,134,422,664	£1,717,466,867

## Data sources:

- The membership data used in the analysis was provided by Trafalgar House as at 5 April 2022.
- We have relied on the data provided and whilst we have performed high level sense checks of the data we have not sought to verify the accuracy of it.

## Modelling Scope

- The purpose of this analysis is to provide:
  - an indication of the size of funds members are expected to achieve at retirement;
  - an indication of the adequacy (based on the definition set out in this appendix) of these funds for members at retirement; and
  - a summary of which RLS each member is expected to be aiming for based on their projected salary at retirement.The assessment of adequacy is at population level and is not designed to assess adequacy for individual members.
- The scope of our work is to provide this information only. We have not considered alternate metrics.
- This work was commissioned by the Trustees of the Scheme and they are the only users of the information provided.
- The assumptions set out below relate to the projections for 31 March 2022 and are based on the data provided by the administrators.
- The modelling carried out is for the purpose of assessing adequacy at a population level and is not designed to assess adequacy for individual members.

## Data

- We have relied on the data provided and whilst we have performed high level sense checks of the data we have not sought to verify the accuracy of it.

## Projection approach

- The projections used in this analysis are stochastic i.e. many possible future conditions are allowed for in the projection.
- For any members more than 50 years from selected retirement age, we have used deterministic projection up to the point they reach 50 years from retirement and stochastic projection from that point onwards.
- All projections are in whole years.

## Stochastic projections

- A stochastic model works by projecting a very large number (typically 5,000) of different economic simulations. Each simulation is randomly generated, but allows for:
  - the interaction of key economic factors reflecting the way markets have behaved in the past (volatilities/correlations)
  - future development of these key economic factors based on current market conditions and future expectations
- Each simulation projects assets and liabilities for asset allocations and liability strategies chosen to investigate.
- The model generates a number of different simulations and produces a picture of future funding levels on each simulation.
- This can be used to provide a distribution of possible outcomes and assess the relative likelihood of events happening under different asset allocations and liability strategies.

## Aon Asset Model

The Aon Asset Model which underlies our stochastic analysis has been designed so that the following desirable technical features are exhibited:

- It is complete and consistent. All the major markets and asset classes are modelled within a consistent framework allowing for the interactions between them to be properly taken into account.
- It models the full yield curve as this allows for an accurate treatment of the liabilities and realistic modelling of the future distribution of interest rates and inflation. It also allows us to truly assess the sensitivities of the assets and liabilities to changes in interest and inflation rates.
- It is arbitrage free, i.e. there are no 'free lunches'.
- It captures the fact that extreme market events do occur more frequently than would be predicted by simpler statistical models.

# Assumptions – Used for projecting outcomes

## Lifestyle strategy

- The projections for all members are based on the Scheme’s current default lifestyle matrix as set out in the table below.

Fund	Years to retirement														
	25+	24	23	22	21	20	19	18	17	16	15	14	13	12	11
Opportunity Fund	100%	99%	98%	97%	95%	94%	91%	89%	86%	83%	80%	76%	72%	68%	63%
Balanced Fund	0%	1%	2%	3%	5%	6%	9%	11%	14%	17%	20%	24%	28%	32%	37%
Consolidation Fund	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Fund	Years to retirement											
	10	9	8	7	6	5	4	3	2	1	0	
Opportunity Fund	58%	53%	47%	42%	35%	29%	22%	15%	8%	0%	0%	
Balanced Fund	39%	42%	45%	48%	52%	56%	60%	65%	70%	75%	75%	
Consolidation Fund	3%	5%	8%	10%	13%	15%	18%	20%	23%	25%	25%	

- The assumed lifestyle strategy can have a significant impact on the adequacy of outcomes and therefore the adequacy of members who have selected a different approach may be significantly different from that shown.
- The asset allocations are assumed to be annually rebalanced to the lifestyle strategy.
- The Selected Retirement Age (SRA) sensitivity projections assume members’ SRA is changed and members will move through the lifestyle strategy based on the new target retirement age. The same improvement in outcomes will **not** be achieved if members’ assets are derisked based on the current SRA and they delay retirement.

# Assumptions – Used for projecting outcomes

## Fund modelling assumptions

- The table below sets out the way we have modelled each fund. We have included the 30 year annualised returns for information, however note that the returns vary by time horizon.

Fund	Composition	30 year return (% p.a.)
Opportunity Fund	Equities, Property and Infrastructure	6.9
Balanced Fund	DGF, Corporate Bonds, Property and Infrastructure	4.9
Consolidation Fund	DGF, Corporate Bonds and Government Bonds	3.1
Inflation	CPI	2.3

## Asset class assumptions

- The asset assumptions used are based on Aon Capital Market Assumptions at 31 March 2022.

## Active management

- The return assumptions for the Balanced Fund and Consolidation Fund include an allowance for active manager outperformance. A relatively modest allowance is applied, in line with Aon’s ‘Qualified’ fund assumptions, to reduce the reliance the results may have on assumed active manager outperformance over the very long term.
- All other assumptions assume a passive investment.

# Assumptions – Used for projecting outcomes

## Salary

- Salaries are projected assuming salary growth of CPI plus 1.5% p.a. We have not made an allowance for a promotional scale in excess of this.

## Contributions

- We have carried out projections based on the contribution levels provided in the data and allowing for the scales shown on slide 12. Members have been assumed to continue contributing at a consistent proportion of full matching contributions.

## Retirement age

- The current fund value has been projected to member's selected retirement age.

## Conversion at retirement

- Projected fund values at SRA have been converted to post retirement income assuming all members will access their benefits via income drawdown in retirement. The conversion rate of this income drawdown has been estimated at the modelling date using the following assumptions:
  - Underlying longevity based on the member's year of birth, using the S3PA tables, with improvements from 2013 in line with CMI\_2020 core projections, with a smoothing parameter of 7.0, A-parameter of 0.5% and a long term improvement rate of 1.75% p.a.
  - Post retirement discount rate set to be 1% p.a. above inflation (CPI) to allow for expected returns on a drawdown portfolio.
  - Post retirement pension increases in line with CPI. In practice, members may choose to purchase fixed income in retirement but using inflation in our projections provides a better measure of adequacy.
- During projection we assume the underlying prices move only in line with changes in gilt yields. We do not allow for variations in longevity or insurer pricing.
- For drawdown, the outcome in each simulation is based on a central estimate of drawdown income at the point of retirement, during the drawdown phase members continue to be exposed to investment risk.

# Assumptions – Used for projecting outcomes

## **Inflation**

When calculating the conversion prices set out above we assume an CPI is 0.9% p.a. below implied inflation (RPI) up to 2030 and 0.1% p.a. thereafter.

## **Lifetime allowance**

No allowance has been made for the Lifetime Allowance or any other tax considerations.

## **Risk**

Investment risk is included in the model outputs but this is not the only risk that the members face; other risks include longevity risk, operational risks and risk around government policy on DC and state pension.

## **State pension**

- this is assumed to increase in line with CPI.
- we assume members are entitled to the full state pension amount (and only the full amount).
- for retirement adequacy calculations we have assumed that members are eligible for state pension at the point they retire. For members who are assumed to retire before SPA this will overstate adequacy.

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