Church of England Funded Pensions Scheme

Report on actuarial valuation as at 31 December 2018

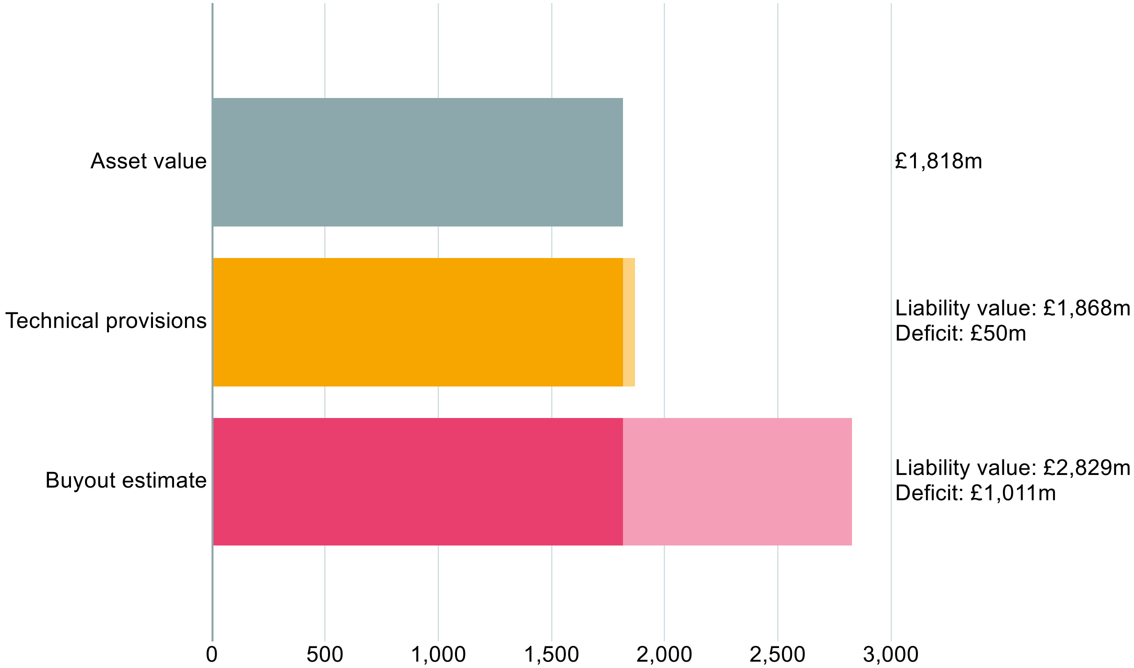
Aaron Punwani

6 December 2019

Actuarial valuation as at 31 December 2018

Summary

- As instructed, I have carried out an actuarial valuation of the Church of England Funded Pensions Scheme ("the Scheme") as at 31 December 2018. I now present my report which is addressed to the Church of England Pensions Board ("the Board") as Trustee of the Scheme.
- The main purpose of the report, required by the Pensions Act 2004, is to set out the results of and outcomes from the valuation. Scheme members will receive a summary funding statement relating to the valuation in due course.
- The Board is responsible for the choice of assumptions for the valuation, and for then setting an appropriate level of future contributions, in consultation with the Responsible Bodies. The main results are summarised below, with further detail in the following sections, appendices and the attached statement of funding principles and schedule of contributions.



Contributions from the Responsible Bodies in respect of:	
Funding deficit	7.1% of pensionable stipends until December 2022
Future service accrual and ongoing expenses	Approximately 32.8% of pensionable stipends as set out in the Schedule of Contributions
Other	To fund any augmentations granted

Aaron Punwani FIA
Partner and Appointed Scheme Actuary

6 December 2019
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Contents of this report

Funding objective and actuarial assumptions

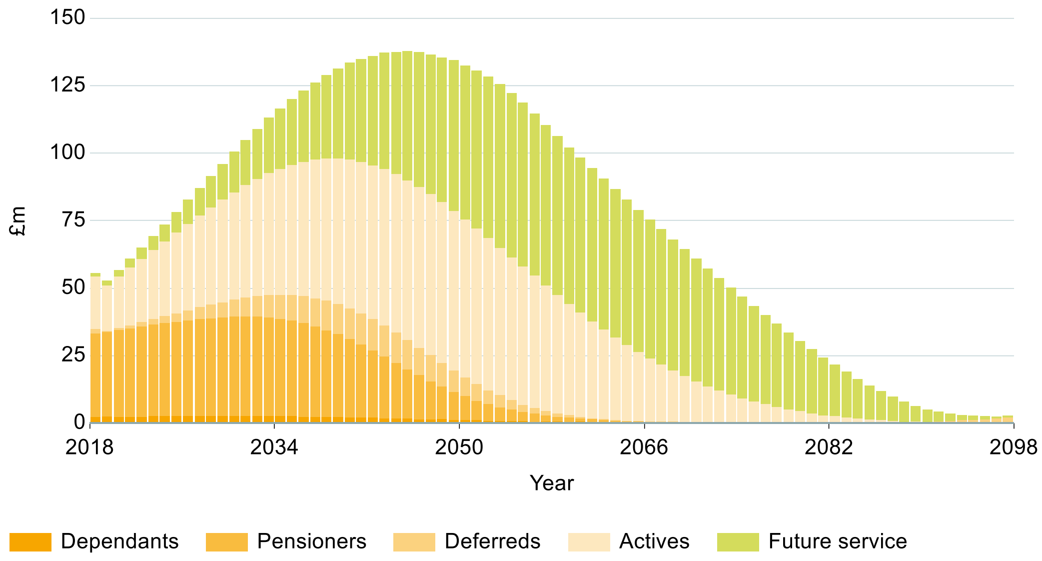
An overview

Principles in setting method and assumptions

- The Scheme's statutory funding objective is to hold sufficient and appropriate assets to cover its technical provisions.
- The Board took advice from me and has determined the method and assumptions to use for this valuation in consultation with the Responsible Bodies.
- The valuation adopted the "projected unit method", under which the technical provisions are calculated as the amount of assets required as at the valuation date to meet the projected benefit cashflows, based on benefits accrued to the valuation date and the various assumptions made.
- There is a risk that the assumptions are not borne out in practice and that the funding position deteriorates. Further details on the risks the Scheme faces are set out in the Appendix.
- The technical provisions are not intended to be sufficient to enable the Scheme to be wound up and its benefits secured in full with an insurance company.

Projected cashflows as at the valuation date

- The benefit cashflows, which are primarily linked to price inflation, projected from the valuation date, are shown below. The future service cashflows in the chart relate only to the membership as at the valuation date; the Scheme is open to new members.

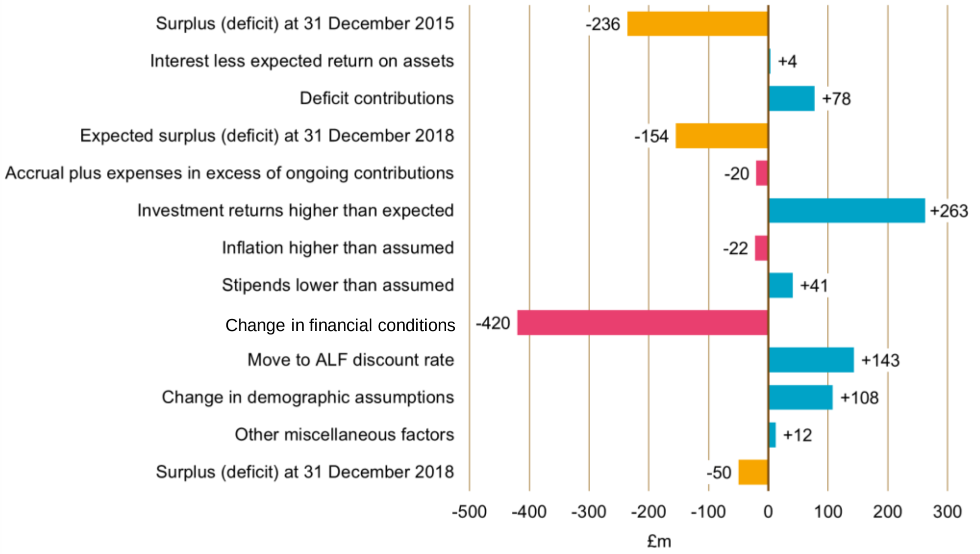


Full detail of assumptions

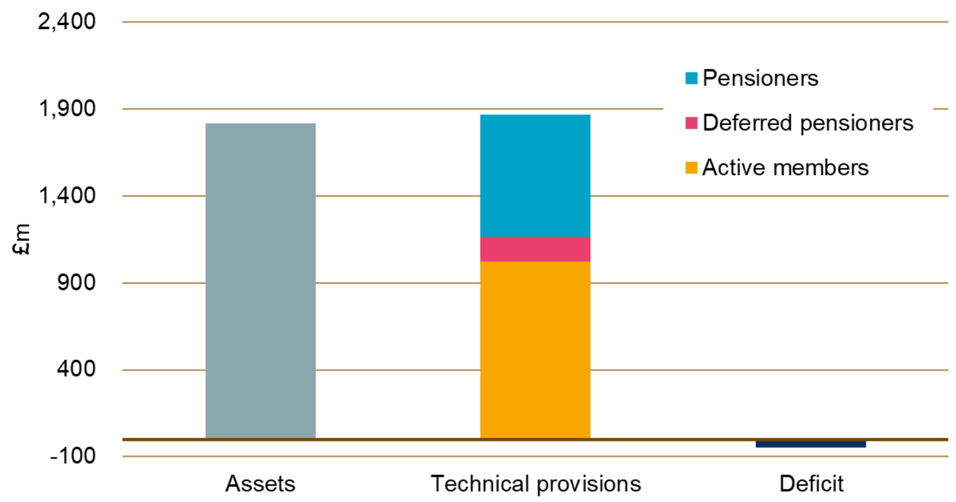
- The assumptions are set out in the Board's statement of funding principles, a copy of which is attached to this report.
- In determining the assumptions, the Board took account of their assessment of the strength of the Responsible Bodies' covenant, and in particular their likely ability to pay additional contributions in the future if future experience proves to be less favourable than the assumptions.

Technical provisions

Reconciliation of experience to 31 December 2018



Assets and Technical Provisions as at 31 December 2018



- As at the valuation date the calculated technical provisions were £1,868m and resulting deficit was £50m, as shown opposite.

- The "Change in financial conditions" and "move to ALF discount rate" items should be considered together as they are closely related. "ALF" refers to the asset-led funding method that the Board has decided newly to adopt and which is described in the Statement of Funding Principles. Based on conditions at the last valuation, moving to an ALF discount rate would have had a much smaller impact.

- Had experience since the 2015 valuation been in line with the assumptions adopted for that valuation, the Scheme would have had a deficit of £154m at 31 December 2018. The actual position is therefore £104m better than expected, and the key reasons for this are shown in the charts above.

- The main reasons for the change in the future service rate from 28.0% to 32.8% are the change in financial conditions, partly offset by the move to an ALF-based discount rate and the change in demographic assumptions.

- The appendix shows the effect on the valuation of changing some of the key assumptions.

Certification

- Under the Pensions Act 2004, I am required to certify that the technical provisions have been calculated in accordance with the legislation, and my certificate is attached.

- I am also required to certify that the schedule of contributions is consistent with the statement of funding principles and that payment of contributions at the agreed rates can be expected to lead to the Scheme having sufficient assets to cover its technical provisions in five years' time. My certificate forms part of the schedule of contributions and is based on financial conditions at the valuation date.

Our calculations are based on the membership data, benefits and assets as set out in the Appendix

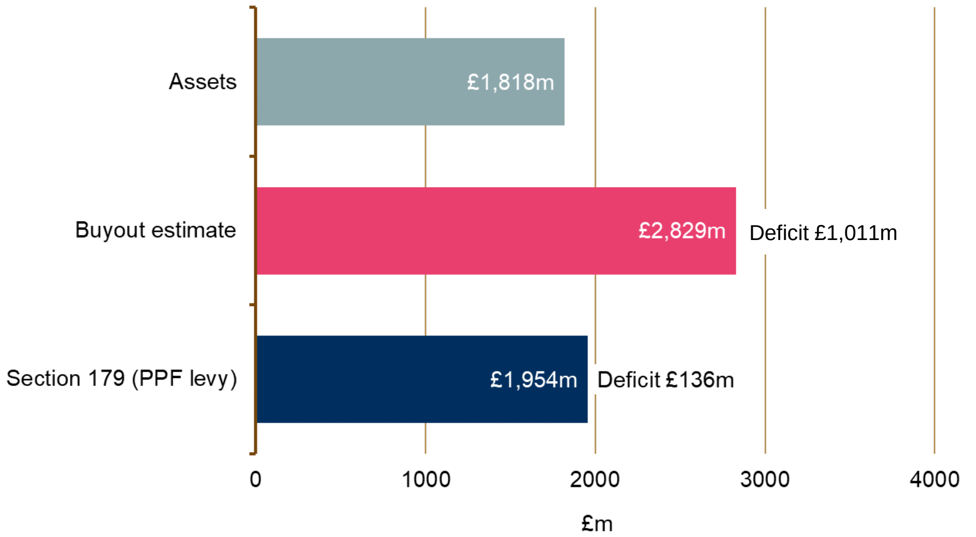
Discontinuance at the valuation date

The position were the Responsible Bodies to have ceased sponsoring the Scheme

Derivation of the solvency position

- We have considered the solvency position by estimating the cost of securing all benefits by the purchase of annuities with an insurance company. We have included an allowance for the expenses that would be incurred in winding up the Scheme. This measure of solvency is often referred to as the "buy-out cost".
- We have not obtained quotations, but have produced our estimate using the assumptions described in the appendix. In practice, the actual position can be determined only by completing a buy-out and will depend on factors such as market conditions, competition in the insurance market and expenses, so could be very different from the estimate shown.
- The estimated deficit on this basis was about £1,011m. This corresponds to an estimated solvency level of 64% and this compares with 57% as at the previous valuation. The reasons for the change are similar to those explaining the change in the Technical Provisions, together with changes in the insurance market.

Discontinuance measures



Interaction with the PPF

- Where a pension scheme is discontinued because of the insolvency of the Responsible Bodies, the Pension Protection Fund ("PPF") is required to assess whether the scheme is eligible to enter the PPF. This includes assessing whether the scheme is insufficiently funded.
- In broad terms, if the PPF is satisfied that the scheme's assets are insufficient to buy out benefits equal to PPF compensation with an insurance company, then the assets would be transferred to the PPF which would then pay members PPF compensation in place of scheme benefits. If the assets are sufficient, the scheme can be wound up outside the PPF with the assets first used to secure benefits equal in value to PPF compensation, with the balance being applied to secure benefits above that level in accordance with the scheme's rules.
- We calculate that on a "section 179" (PPF Levy) basis, there was a deficit in the Scheme of £136m as at 31 December 2018. Further details relating to the section 179 valuation are set out in the appendix with the full results set in in my formal section 179 certificate, a copy of which is attached to this report.
- This indicates that, were the Responsible Bodies to have become insolvent and the Scheme wound up as at the valuation date with no further contributions paid, the Scheme would have had a shortfall and so met the financial test for entering the PPF.

Our calculations are based on the membership data, benefits and assets as set out in the Appendix

Experience since the valuation date

Developments since 31 December 2018

- Based on changes in investment market conditions since the valuation date the funding position is expected to have improved. However, the future service contribution rate is expected to have increased, due to increases in asset prices and reductions in asset yields.
- Markets continue to be affected by the current political and financial uncertainty which could make the funding position volatile.

Projected funding levels at the next valuation

- The projected funding levels three years after the valuation date are shown below.
- These projections are based on market conditions at the valuation date and are made on the basis that:
  - future experience is in line with the assumptions set out in the statement of funding principles; and
  - there is no change in the insurance market.
- Experience from the valuation date is likely to be different from the assumptions made – in particular the best estimate investment return is higher than the assumption in the statement of funding principles. Therefore, the position at the next valuation is likely to be different from that illustrated.

Approximate projected funding levels

Measure	31 December 2018	31 December 2021
Technical Provisions	97%	99%
Solvency	64%	65%

Appendix

- Key risks faced by the Scheme
- Membership data, benefits and assets
- Sensitivity to assumptions
- Assumptions used for assessing solvency
- Assumptions used for PPF Section 179 valuation

Key risks faced by the Scheme

Further analysis could be undertaken on specific risks

Risk	Description of risk
Employer covenant	The Responsible Bodies are not able to support the Scheme, and in particular is not able to pay increased contributions if experience is unfavourable.
Investment strategy	Changes in asset values are not matched by changes in the technical provisions. The technical provisions are more linked to the investment strategy following the adoption of the ALF strategy, but the Scheme continues to have a substantial holding in return-seeking assets whose values are volatile and so the two may move out of line as investment conditions change.
Investment returns	Investment returns on existing assets are lower than anticipated and / or the returns available on new money are lower than current assumptions. The greater the allowance made in the technical provisions for returns on assets other than gilts, the greater the risk that those returns are not achieved. In addition, if the Scheme is ever closed to accrual, the Board is likely to wish to de-risk into lower risk and more liquid assets, which would reduce anticipated investment returns.
Inflation	Actual inflation is higher, and so benefit payments are higher, than anticipated.
Mortality	Scheme members live longer, and so benefits are paid longer, than anticipated. In particular, no allowance is made for specific risks, such as climate change, so members may live for a different length of time than assumed.
Member options	The incidence of Scheme members exercising benefit options which are potentially not “neutral” to the Scheme’s funding position (such as early retirement or commutation) is different from that anticipated.
Regulatory	In future the Scheme may have backdated claims or liabilities arising from equalisation or discrimination issues or from future legislation or court judgments.
Climate	Climate-related risks and opportunities are likely to have widespread social and economic effects during the Scheme’s lifetime. They include physical risks from the climate itself and transition risks from actions which reduce greenhouse gas emissions. They could potentially affect the Scheme’s investment returns, the financial strength of the Responsible Bodies and mortality rates.

Membership data, benefits and assets

Summary as at 31 December 2018

Membership at 31 December 2018 (2015 in brackets)	Number		Average age		Total deferred pensions / pensions (£000 pa)	
Active members	8,176	(8,376)	53	(53)	n/a	(n/a)
Deferred pensioners	2,102	(1,998)	53	(52)	6,121	(5,300)
Pensioners and Dependants	10,242	(7,071)	75	(72)	33,530	(23,462)
Total	20,520	(17,445)				

Asset class	£m	%
Traditional credit	57	3%
Global Equities (developed)	742	41%
Emerging Market Equities	104	6%
Small Cap Equities	146	8%
US Private Loans	74	4%
Emerging Market Sovereign Debt	55	3%
Real Estate	174	10%
Global Tactical Asset Allocation	69	4%
Infrastructure	155	8%
Cash and net current assets	8	0%
Liability Driven Investments	234	13%

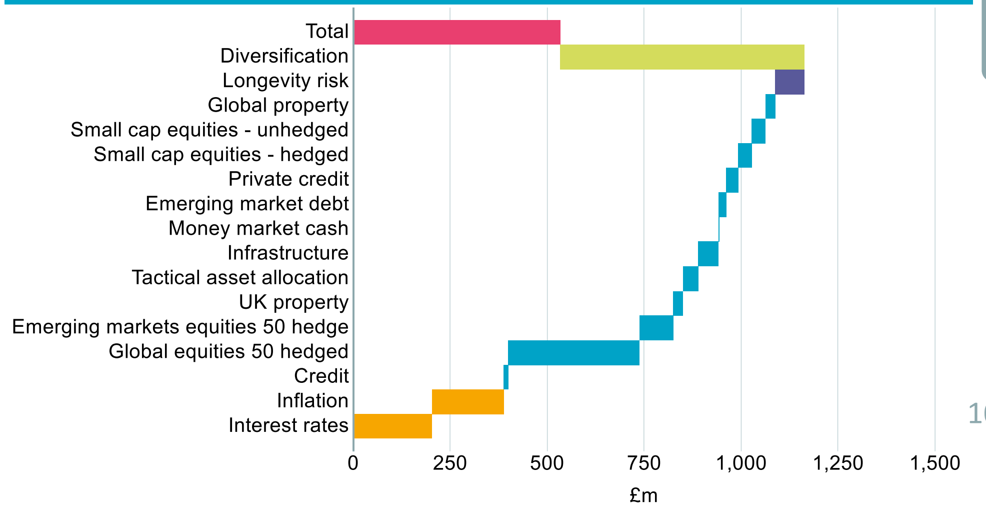
Description of assets and assumptions

- We have used the assets as shown in the Scheme's audited accounts as at 31 December 2018 and dated 25 June 2019. We have excluded AVCs and other money purchase benefits in the assets and the technical provisions shown in this report.
- The total "Risk" figure of £533m in the chart opposite is the 3-year 95% value at risk figure on LCP's financial assumptions. This means our model predicts there being a 1 in 20 chance of the funding position deteriorating by £533m or more over a three year period. More detail is available on request.
- For illustration we have included an allowance of 4% for the value at risk due to uncertainty in the mortality assumption.

Further information on the data used and the benefits valued

- We have been provided with an updated full membership data extract by the Board's staff. We have relied on this data and have no reason to doubt its overall accuracy for the purposes of the valuation.
- We have summarised the data as at 31 December 2018 in the table opposite.
- The valuation results use the latest available National Minimum Stipend data up to and including the figure of £24,280 for the year to 31 March 2020.
- The deferred pension figures have been obtained by totalling deferred pensions as at 31 December 2018.
- The pension figures for pensioners include the increases granted on 1 April 2019. The increases granted (upon pension earned before 2008) on 1 April 2017, 2018 and 2019 were 2.0%, 3.9% and 3.3% respectively.
- We have valued the benefit and contribution structures in line with our understanding of the Scheme's Trust Deed and Rules dated 5 December 1997, as amended.
- We have made no allowance for discretionary increases.

Value at risk at 31 December 2018 against Technical Provisions



Appendix – data and benefits and assets

Sensitivity to assumptions

We have looked at the effect of varying assumptions

Commentary

- The valuation results are sensitive to the assumptions chosen and we illustrate here effects of changes to some of the key assumptions.
- The results are also sensitive to the pensioner mortality assumption in terms of both life expectancy at the valuation date and how life expectancy may change in the future. To the extent that the mortality assumption under-estimates life expectancies, the technical provisions will be too low, all other things being equal.
- As an illustration, if it were assumed that life expectancies were one year longer than implied by the mortality assumption adopted, the technical provisions would be broadly 2-3% higher.

	Description	Surplus/ (deficit) £m	Employer future service rate (% of pensionable stipends)
	2018 initial assumptions	(50)	32.8%
A	No allowance for returns above gilts	(648)	47.1%
B	Reduce ALF discount rate by 0.1% pa	(85)	33.6%
C	Reduce stipend increase assumption to RPI – 0.5% pa	(9)	31.4%
D	Assume shorter life expectancy by reducing the adjustment to the base tables by 5%	(27)	32.5%
E	Make lower allowance for mortality improvements by reducing the annual long-term rate by 0.25% pa to 1.25% pa	(36)	32.4%
F	Use an initial rate of mortality improvement (“a”) of 1% pa rather than 0.5% pa	(69)	33.0%
G	Remove main margins for prudence – best estimate asset returns, long term rate of mortality improvements 1.25%	272	25.6%

Each basis shows the effect of varying each assumption in isolation. The effect of making more than one change is not necessarily additive.

Assumptions used for assessing solvency

We have used the assumptions summarised below

Summary of approach

- We have based our estimate of the solvency position on our understanding of the principles used by insurance companies in setting their prices, having regard to actual quotations received for other schemes.
- We have not obtained an actual quotation for the Scheme, and there is considerable volatility in prices. Therefore, were the benefits actually to be bought out, the position could be very different from that illustrated. The basis used has no relevance beyond this estimate of the buy-out cost and my statutory estimate of solvency.
- The demographic assumptions we have used are generally the same as those used for the technical provisions (where relevant) except as shown opposite.
- We have early experience of some possible reductions in insurer pricing since the valuation date that reflect the reductions in life expectancy implied by subsequent mortality studies. I have not included this in my statutory solvency estimate.
- We have calculated our estimate of the solvency position assuming that the insurer's terms for members options are adopted.

Main financial assumptions

Assumption	% pa
Illustrative single equivalent assumptions	
Gilt yield	1.7
Rate of RPI inflation	3.5
Revaluation in deferment	RPI
Pension increases in payment	Set consistent with market-based pricing for the relevant minimums and maximums

Main demographic assumptions

Assumption	
Commutation	None
Proportion married	85% at retirement or earlier death
Mortality assumption	As for Technical Provisions but using CMI 2017 improvements with long term improvement rates of 1.5%.
Expense reserve	We have included a provision of £52m for the costs that would be incurred by the Board in winding up the Scheme. In practice, the actual winding-up expenses could be very different.

Assumptions used for PPF Section 179 valuation (1 of 2)

We have used the assumptions summarised below

Scope of valuation

- A “section 179 valuation” is carried out in accordance with section 179 of the Pensions Act 2004. The sole purpose of a section 179 valuation is to enable the Board to fulfil their statutory duty to provide the required information to the Pensions Regulator.
- Once submitted, the Board of the PPF will use the valuation results to calculate the Scheme’s future Pension Protection Levy (“PPF”) until a new section 179 valuation is provided.
- Additionally, were the Scheme to enter a PPF assessment period, the results of a section 179 valuation might be used in assessing whether the Scheme’s funding position was such that it was eligible to enter the PPF.

Valuation of Section 179 liabilities

- The benefits to be valued are the Scheme’s benefits adjusted to reflect, broadly, the compensation that members would currently receive if the Scheme were to enter the PPF.
- I have placed a value on the projected adjusted benefits, using the PPF’s prescribed assumptions as at the effective date (version A9).
- I have taken into account the PPF’s valuation guidance (version G8) and responses to Frequently Asked Questions (FAQs) relating to section 179 valuations published on the PPF website.
- The previous section 179 valuation, carried out with an effective date of 31 December 2015, showed a deficit of £312.8m. The current valuation shows decrease in the deficit to £136.4m. This improvement is due to similar factors to those described elsewhere in this report, together with changes in the prescribed assumptions.

Approximations made

- In certain respects the membership data provided for the valuation was not sufficiently complete to enable us to value PPF compensation precisely. As permitted by the PPF, I have made approximations where appropriate. In particular:
  - For active members who have completed less than two years’ service, I have taken the value of the liability to be 90% of the value of the deferred pension calculated on the prescribed assumptions.
  - I have made a prudent estimate of the additional liabilities arising from adjusting Scheme benefits to remove any inequalities in transferred-in GMPs to be £0.5m.
  - I have not applied the 10% reduction to any CWDPF spouse only pensions.
  - We have “stripped out” the pension increase awarded as at 1 April 2019. This increase is included in the data for funding purposes but not required in a section 179 valuation.
  - For transferred-in benefits and other service credits, the whole benefit has been treated as post-5 April 1997 service.
  - I have included the value (on a section 179 basis) of the contingent benefits not yet in payment for legacy Clergy (Widows and Dependants) Pension Fund.
- In providing my section 179 valuation certificate, I am required to confirm that in my opinion the calculated value of the protected liabilities is unlikely to have been understated. I am satisfied that taken as a whole, the approximations made for the purposes of this valuation are prudent in that they will tend to overstate the value placed on the liabilities. Accordingly I am happy to provide the required certification.

Assumptions used for PPF Section 179 valuation (2 of 2)

We have used the assumptions summarised below

Assumptions

- The PPF Board prescribes the actuarial assumptions to be adopted for a section 179 valuation – I have used version A9 of the assumptions guidance. The financial assumptions are specified by reference to yields on certain gilt indices at the valuation date and are summarised in the table opposite.

Main financial assumptions

Assumption	% pa Non-pensioners	Pensioners
Net discount rates during deferment		
for revaluing benefits earned before 6 April 2009	-1.76	n/a
for revaluing benefits earned after 5 April 2009	-0.82	n/a
Net discount rates after retirement		
for benefits earned before 6 April 1997	1.62	1.62
for benefits earned after 5 April 1997	-0.78	-0.18

Main demographic assumptions

Assumption	
Percentage married (at Normal Pension Age or earlier death)	Males: 85% Females: 75%
Mortality assumption	100% of the S2PA tables with improvements from 2007 in line with the CMI 2016 projections with a long term annual rate of improvement of 1.5% (males) and 1.25% (females)

There is also a prescribed allowance for wind-up and benefit installation expenses according to the amount of the calculated section 179 liabilities and the membership profile of the Scheme.

Use of our work

Aaron Punwani

Partner and Scheme Actuary

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Prepared on 6 December 2019

The advice in this report is from Aaron Punwani in his role as Scheme Actuary. Under the terms of our professional conduct code and guidance, it has been reviewed by Tom Lorenc, a qualified actuary and another LCP partner. We are satisfied that this complies with our professional requirements and that the degree of independence of the reviewing actuary is appropriate.

This work has been produced by Lane Clark & Peacock LLP under the terms of our written agreement with the Church of England Pensions Board ("Our Client") in its capacity as Trustee of the Church of England Funded Pensions Scheme.

This work is only appropriate for the purposes described and should not be used for anything else. It is subject to any stated limitations (eg regarding accuracy or completeness). Unless otherwise stated, it is confidential and is for your sole use. You may not provide this work, in whole or in part, to anyone else without first obtaining our permission in writing. We accept no liability to anyone who is not Our Client.

If the purpose of this work is to assist you in supplying information to someone else and you acknowledge our assistance in your communication to that person, please make it clear that we accept no liability towards them.

This report is part of the work in connection with the valuation of the Scheme. The report has been produced for the information of interested readers and not with the intention that it should support any decision that they may make. Our work in preparing this and the associated documents described above complies with Technical Actuarial Standard 100: Principles for Technical Actuarial Work, together with Technical Actuarial Standard 300: Pensions.

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Actuary's certification of the calculation of technical provisions

This certificate is provided for the purpose of Section 225(1) of the Pensions Act 2004 and Regulation 7(4)(a) of the Occupational Pension Schemes (Scheme Funding) Regulations 2005

Name of scheme Church of England Funded Pensions Scheme

Calculation of technical provisions

I certify that, in my opinion, the calculation of the scheme's technical provisions as at 31 December 2018 is made in accordance with regulations under section 222 of the Pensions Act 2004. The calculation uses a method and assumptions determined by the trustees of the scheme and set out in the Statement of Funding Principles dated 6 December 2019.

Signature: .... **Date:** 6 December 2019

Name: Aaron Punwani **Qualification:** FIA

Address: Lane Clark & Peacock LLP
95 Wigmore Street
London W1U 1DQ

Church of England Funded Pensions Scheme ("the Scheme") Statement of Funding Principles

We, the Church of England Pensions Board, as Trustee of the Church of England Funded Pensions Scheme, have produced this statement of funding principles and it is designed to comply with Section 223 of the Pensions Act 2004.

It sets out:

- our policy for assessing the "technical provisions" – that is the amount of money the Scheme should aim to hold from time to time in order to make provision for the Scheme's liabilities; and
- how we intend to achieve the objective of holding this amount of money in the Scheme (this is known as meeting the "statutory funding objective").

This statement has been prepared as part of the Scheme's actuarial valuation as at 31 December 2018. We have taken advice from the scheme actuary, Aaron Punwani, when drawing up this statement, and have consulted the Responsible Bodies.

1. Technical provisions

We have decided that the technical provisions and the future service contribution rate should be calculated using the method and assumptions set out in the Appendix to this document.

We chose this method and these assumptions following consultation with the Responsible Bodies. In arriving at them, we took advice from the scheme actuary, and we took account of various relevant factors (in particular the ability of the Responsible Bodies to support the Scheme and the expectation that the scheme will remain open to new members for the foreseeable future).

2. Recovery plan

If the value of the Scheme's assets is less than the technical provisions, we are required to set a recovery plan, in consultation with the Responsible Bodies, that is designed to eliminate the difference by the payment of additional "deficit" contributions.

The objective for the 2018 valuation is to aim for the shortfall to be eliminated by 31 December 2022. This period was set after considering the financial strength of the sponsors and their ability to pay the resulting contributions.

In calculating the necessary contributions allowance is made for returns from the Scheme's investments at the rates set out in the Appendix.

3. Discretionary benefits

The Rules allow for benefits in payment to be increased at the discretion of the Trustee and with the agreement of the sponsors.

In setting the technical provisions we have made no allowance for such discretionary awards. To the extent that any were to be granted in future, appropriate arrangements would need to be made at that time to meet the cost of doing so.

4. Payments to the Responsible Bodies

We do not currently expect to make any payments back to the Responsible Bodies.

5. Contributions other than from the Responsible Bodies

There are no arrangements in place for any contributions to be paid to the Scheme other than from the Responsible Bodies.

6. Cash equivalent transfer values

Under current legislation, the trustees may reduce transfer values to take account of the funding level of the Scheme.

Cash equivalent transfer values are calculated on a basis determined by us, having received advice from the actuary. The Board does not currently expect to reduce transfer values, even if the funding level in the Scheme would permit this. However, the position will be kept under review with the actuary if the need arises.

7. Reviewing the valuation position and this statement

We will normally commission a full actuarial valuation every three years. Under rule 15.6 of the Scheme, we can request full valuations more frequently than every three years and, depending on circumstances, we may do so from time to time.

This statement replaces the previous statement, which was dated 21 December 2016.

We will review and, if necessary, revise this statement as part of each valuation. We may review it at other times.

This statement of funding principles was prepared on 6 December 2019

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Signed on behalf of the Board

Signature: ....

Name: JOHN BALL

Position: CEO

Date: 6 December 2019

Signed on behalf of the Responsible Bodies

Signature: ....

Name: JOHN BALL

Position: CEO

Date: 6 December 2019

Church of England Funded Pensions Scheme
Statement of Funding Principles
Actuarial method and assumptions

The method and assumptions for calculating the technical provisions, future service contribution rate and the recovery plan are set out below.

1. Technical provisions

Actuarial method

Projected unit method with a one year control period.

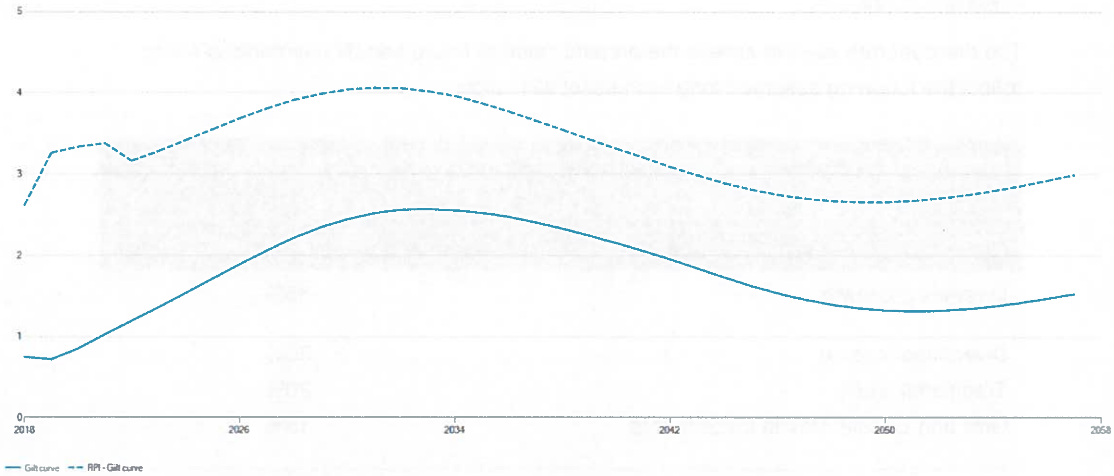
Gilt return and price inflation assumptions

The assumptions for the future return on gilts and price inflation are derived consistently as described below:

- The return from gilts over each future year is taken from the latest available yield curve as at the valuation date for fixed interest gilts as published by the Bank of England (adjusted for changes in market conditions between the effective date of the curve and the valuation date) and extrapolated for later durations.
- Price inflation as measured by the Retail Prices Index ("RPI") over each future year is as implied by the latest available yield curves as at the valuation date for fixed interest and index-linked gilts as published by the Bank of England (adjusted for changes in market conditions between the effective date of the curves to the valuation date) and extrapolated for later durations.

For illustration, as at 31 December 2018, the assumptions for the return on gilts and RPI inflation were as shown in the chart below:

Gilt returns and implied RPI inflation as at 31 December 2018



For illustration, as at 31 December 2018 the single equivalent average rates (weighted by reference to the projected future benefit cashflows) were:

	Rate
Gilt returns	*1.8% pa*
RPI inflation	*3.4% pa*

AA corporate bond yields

The return from AA bonds over each future year is derived as follows:

- Data on corporate bond yields is obtained as at the valuation date;
- Bonds are included in the data set if they are classified as "AA" and "Corporate", in line with the requirements of the accounting standards;
- Reasonableness checks are carried out on the data, in particular to ensure that bonds are only used where the prices supplied and yields are consistent;
- A yield curve is fitted to the data using least squares optimisation techniques;
- The yield curve is extrapolated beyond 30 years in line with a gilt yield curve.

For illustration, as at 31 December 2018 the AA bond yield (weighted by reference to the projected future benefit cashflows) was 2.9% pa.

Investment returns

The discount rate used to assess the present value of future benefit payments is set to reflect the following assumed long term asset allocation:

Asset class	Allocation
Diversified Growth	35%
Diversified Income	30%
Traditional credit	20%
Gilts and Liability Driven Investments	15%

The Board then applies to "haircut" to the return for each asset class for prudence, taking into account investment market conditions and its assessment of the sponsor covenant available to the Scheme.

The anticipated rate of return on each asset class has thus been determined as follows for the 2018 valuation:

Asset class	Best estimate return	Return "haircut"	Anticipated return net of haircut	Reason for haircut
Diversified Growth	Gilt yield + 4.0% pa	(2.0% pa)	3.8% pa	Volatility high, income not secure
Diversified income	4.6% pa	(1.3% pa)	3.3% pa	Reinvestment / default risk
Traditional credit	AA bond yield	(0.3% pa)	2.6% pa	Default / downgrade risk
Gilts / Liability Driven Investments	Gilt yield	Nil	1.8% pa	N / A
Diversification benefit		+0.1% pa	0.1% pa	

The actual discount rate used for each future year will be a combination of the anticipated rate of return on each asset class, consistent with the above strategy.

As at 31 December 2018, the weighted average discount rate was therefore calculated to be 3.2%:

(35% × 3.8%) + (30% × 3.3%) + (20% × 2.6%) + (15% × 1.8%) + 0.1% = 3.2%

The best estimate rates of return, haircuts and the assumed long-term asset strategy as shown in the above tables are subject to an annual review by the Board, with a full review of the methodology carried out at each valuation.

Other assumptions

Future benefit payments are projected using the assumptions set out below.

- Increases to pensions in payment calculated over each future year at a rate reflecting the provision of the rules, the assumption for RPI inflation in that year and the volatility of RPI inflation of 1.8%, subject to review at each valuation

For illustration, as at 31 December 2018 the resulting single equivalent average assumed rates of pension increase were:

Pension increase	*Assumption*
RPI subject to a minimum of 0% pa and a maximum of 5% pa	*3.2% pa*
RPI subject to a minimum of 0% pa and a maximum of 3.5% pa	*2.7% pa*

- No allowance for discretionary pension increases.
- Future increases in pensionable stipends (except where shown already known) are assumed to be in line with RPI. No explicit allowance is made for promotions.
- Deferred revaluation is assumed to be in line with RPI
- No annual withdrawal of active members before retirement or death.

- Retirements from service according to the following scale:

Age	Percentage of members retiring each year at each age
60	4
61	5
62	6
63	7
64	9
65	60
66	45
67	31
68	45
69	50
70+	100

- An allowance for ill health retirements in line with the following table:

Age	Percentage of members retiring from ill health each year at each age
40-50	0.1
51-55	0.2
56	0.3
57	0.6
58	0.7
59-60	0.8
61-62	1.0
63-65	1.5
66-68	2.0
69+	0.0

- Members assumed to commute 6% of their pension (in addition to their accrued cash lump sum) at terms that are 15% below the technical provisions funding reserve (before allowance for any commutation).
- For mortality post-retirement and pre-retirement:
  - 95% of the S3NA_VL tables;
  - projected from 2013 in line with the CMI 2018 extended model with a long-term annual rate of improvement of 1.5% for both males and females,

a smoothing parameter of 7 with an initial addition to mortality improvements of 0.5% pa.

- 75% of members are assumed to have a spouse or civil partner at the valuation their normal retirement age.
- Spouses/civil partners assumed to be three years younger (male members) or three years older (female members) than the member.
- An allowance for expenses of approximately 1.5% of total pensionable stipends, with precise details set out in the Schedule of Contributions.
- Pension Protection Fund levies to be met by the Scheme's assets.
- No explicit allowance has been made for the equalisation of Guaranteed Minimum Pensions ("GMPs") since the only GMP in the Scheme arises from a small amount of transferred-in GMP which is immaterial in the context of the Scheme.

2. Recovery plan

The allowance for the return on existing assets during the period covered by the recovery plan are as adopted for the calculation of the technical provisions.

The calculation of the additional contributions due under the recovery plan also assumes that the number of active clergy will decrease by 1.5% pa.

Church of England Funded Pensions Scheme ("the Scheme") Recovery Plan

The actuarial valuation of the Scheme as at 31 December 2018 revealed a deficit (technical provisions minus value of assets) of £50m.

In accordance with Section 226 of the Pensions Act 2004, the Church of England Pensions Board has prepared this recovery plan, after obtaining the advice of Aaron Punwani FIA, the Scheme Actuary.

1. Steps to be taken to ensure that the statutory funding objective is met

The Trustee has determined, after consultation with the Responsible Bodies, that Responsible Bodies will pay contributions at the following level to eliminate the funding shortfall (in addition to the contributions required to meet accruing benefits).

- 11.9% of pensionable stipends until 31 December 2020
- 7.1% of pensionable stipends from 1 January 2021 for a period of 2 years.

2. Period in which the statutory funding objective should be met

The deficit is expected to be eliminated by 31 December 2022. This is based on the following assumptions:

- Technical provisions are calculated according to the method and assumptions set out in the Scheme's Statement of Funding Principles dated 6 December 2019.
- The return on existing assets and new contributions during the period are as adopted for the calculation of the technical provisions.
- The number of active clergy will decrease by 1.5% pa.

3. Agreement by the Trustee and the Responsible Bodies

This recovery plan was prepared on 6 December 2019.

Signed on behalf of the Board

Signature:...

Name: ......JOHN BALL..

Position: ....CEO..

3609932 Date: 6 December 2019

Page 2 of 2 Agreed on behalf of the Responsible Bodies

Signature:

Name: John Ball

Position: CEO

Date: 6 December 2019.

Church of England Funded Pensions Scheme ("the Scheme")

Schedule of Contributions

This Schedule of Contributions has been prepared by the Church of England Pension Board ("the Board"), as Trustee of the Scheme, in accordance with Part 3 of the Pensions Act 2004 and the Occupational Pension Schemes (Scheme Funding) Regulations (SI 2005/3377). It sets out the contributions, other than the members' additional voluntary contributions, payable to the Church of England Funded Pensions Scheme for the period of five years from the date the Actuary certifies the Schedule, subject to review at future actuarial valuations.

It also shows the contributions that are payable to the Scheme between the effective date of the valuation and the date that the Actuary certifies the Schedule.

The Responsible Bodies and the Church of England Pensions Board, as Trustee of the Scheme, have agreed this schedule, as indicated below by authorised signatories.

Contributions by each Responsible Body will be at an annual rate representing a percentage of the National Minimum Stipend in the 12 months ending on the previous 31 March, multiplied by the appropriate Multiple set out in Rule 3.1, for each Member for whom that Responsible Body is responsible.

1. Contributions payable until 31 December 2022

The relevant contribution rate to the Scheme until 31 December 2022 will be:

- 39.6% of pensionable stipends[1] for the Church Commissioners and the Dioceses; and
- 39.9% of pensionable stipends[1] less an annual rebate for other Responsible Bodies. The annual rebate is calculated as £70 pa per full-time member in active service each 31 December.

This is made up as follows:

- 26.5% of pensionable stipends[1], becoming 31.3% of pensionable stipends[1] from January 2021, in respect of the future accrual of benefits;
- 11.9% of pensionable stipends, becoming 7.1% of pensionable stipends from 1 January 2021 in respect of the funding shortfall, payable to 31 December 2022 in accordance with the agreed Recovery Plan;

[1] taking into account the appropriate Multiple as described above

- an allowance for expenses as follows:
  - for the Church Commissioners and the Dioceses, 1.2% of pensionable stipends[1];
  - for the other Responsible Bodies, 1.5% of pensionable stipends[1] less the annual rebate. The annual rebate is calculated as £70 pa per full-time member in active service each 31 December.

The contributions to the Scheme shown above exclude the additional contributions of 0.3% of pensionable stipends[1] that the Church Commissioners and the Dioceses pay to the Church of England Pensions Board towards the expenses of administering the Church of England Pensions Measures scheme.

2. Contributions payable from 1 January 2023

The relevant contribution rate to the Scheme from 1 January 2023 will be:

- 32.5% of pensionable stipends[1] for the Church Commissioners and the Dioceses; and
- 32.8% of pensionable stipends[1] less an annual rebate for other Responsible Bodies. The annual rebate is calculated as £70 pa per full-time member in active service each 31 December.

This is made up as follows:

- 31.3% of pensionable stipends[1] in respect of the future accrual of benefits;
- an allowance for expenses as follows:
  - for the Church Commissioners and the Dioceses, 1.2% of pensionable stipends[1];
  - for the other Responsible Bodies, 1.5% of pensionable stipends[1] less the annual rebate. The annual rebate is calculated as £70 pa per full-time member in active service each 31 December.

The contributions to the Scheme shown above exclude the additional contributions of 0.3% of pensionable stipends[1] that the Church Commissioners and the Dioceses pay to the Church of England Pensions Board towards the expenses of administering the Church of England Pensions Measures scheme.

Contributions will be paid on a monthly basis and will be due before the end of the following month.

No contributions are required from Members.

The Responsible Bodies will pay any additional contributions as decided by the Church of England Pensions Board, on the advice of the actuary, and in accordance with the Scheme Rules, to meet benefit augmentations. Such contributions will be paid before the end of the month following the due date notified by the Board.

This Schedule of Contributions replaces the Schedule of Contributions dated 21 December 2016 with effect from the date of certification.

This Schedule of Contributions is agreed:

on behalf of the Board

Signature: .... authorised signatory

Name: JOHN BALL

Position: CRO Date: 6 December 2019

on behalf of the Responsible Bodies

Signature: .... authorised signatory

Name: JOHN BALL

Position: CRO Date: 6 December 2019

3609903

Actuary's certification of schedule of contributions

This certificate is provided for the purpose of Section 227(5) of the Pensions Act 2004 and Regulation 10(6) of the Occupational Pension Schemes (Scheme Funding) Regulations 2005

Name of scheme Church of England Funded Pensions Scheme

Adequacy of rates of contributions

1. I certify that, in my opinion, the rates of contributions shown in this schedule of contributions are such that:

   the statutory funding objective could have been expected on 31 December 2018 to be met by the end of the period specified in the recovery plan dated 6 December 2019.

Adherence to statement of funding principles

2. I hereby certify that, in my opinion, this schedule of contributions is consistent with the Statement of Funding Principles dated 6 December 2019.

The certification of the adequacy of the rates of contributions for the purpose of securing that the statutory funding objective can be expected to be met is not a certification of their adequacy for the purpose of securing the scheme's liabilities by the purchase of annuities, if the scheme were to be wound up.

Signature: .... **Date:** 6 December 2019

Name: Aaron Punwani **Qualification:** FIA

Address: Lane Clark & Peacock LLP
95 Wigmore Street
London
W1U 1DQ

Notes not forming part of the certification

In giving the above opinion I have interpreted the phrase “could have been expected to be met” as being satisfied by consideration of the proposed contributions under the economic and demographic scenario implied by the trustee’s funding assumptions as set out in its statement of funding principles dated 6 December 2019 and their Recovery Plan dated 6 December 2019 and without any further allowance for adverse contingencies that may arise in the future. My opinion does not necessarily hold in any other scenarios.

Furthermore, I have taken no account of either adverse or beneficial outcomes that have become known to me since the effective date of the valuation. However, I have taken account of contributions that are payable to the Scheme between the effective date of the valuation and the date that I have certified this Schedule as documented in the Schedule of Contributions.

3620824

Section 179 Valuation Certificate

Scheme /Section details:

Full name of scheme: Church of England Funded Pensions Scheme

Name of section, if applicable: n/a

Pension Scheme Registration Number: 10232033

Address of scheme (or section, where appropriate)

The Church of England Pensions Board
29 Great Smith Street
London
SW1P 3PS

s179 valuation	
Effective date of this valuation (dd/mm/yyyy)	31/12/2018
Guidance and assumptions	
s179 guidance used for this valuation	G8
s179 assumptions used for this valuation	A9

Assets	
Total assets (this figure should not be reduced by the amount of any external liabilities and should include the insurance policies referred to below)	£1,817,562,000
Date of relevant accounts (dd/mm/yyyy)	31/12/2018
Percentage of the assets shown above held in the form of a contract of insurance where this is not included in the asset value recorded in the relevant scheme accounts	0%

3620824

Liabilities	
Please show liabilities for:	
Active members (excluding expenses)	£1,078,194,000
Deferred members (excluding expenses)	£198,956,000
Pensioner members (excluding expenses)	£639,504,000
Estimated expenses of winding up	£20,667,000
Estimated expenses of benefit installation/payment	£16,641,000
External liabilities	£0
Total protected liabilities	£1,953,962,000
Please provide the percentage of the liabilities shown above that are fully matched by insured annuity contracts for:	
Active members	0%
Deferred members	0%
Pensioner members	0%

Proportion of liabilities			
Please show the percentage of liabilities which relate to each period of service for:			
	Before 6 April 1997	6 April 1997 to 5 April 2009 (inclusive)	After 5 April 2009
Active members	0%	49%	51%
Deferred members	0%	72%	28%
	Before 6 April 1997	After 5 April 1997	
Pensioner members	2%	98%	

Number of members and average ages		
For each member type, please show the number of members and the average age (weighted by protected liabilities) as at the effective date of this valuation. Average ages should be rounded to the nearest whole year.		
	Number	Average age
Active members	8,176	56
Deferred members	2,102	54
Pensioner members	10,242	68

I certify that this valuation has been carried out in accordance with the Pension Protection Fund (Valuation) Regulations 2005 and with the appropriate section 179 guidance and assumptions issued by the Board of the Pension Protection Fund, including for this purpose the Q&As issued by the Pension Protection Fund in December

2018 regarding recent court judgments. I also certify that the calculated value of the protected liabilities is, in my opinion, unlikely to have been understated.

Signature .... Date: 6 December 2019

Name Aaron Punwani

Qualification FIA Employer: Lane Clark & Peacock LLP

As required, under Part 6 of the Guidance on undertaking an s179 valuation, the s179 certificate should form part of the scheme actuary's s179 valuation report. The details contained in this certificate should be separately submitted to the PPF as part of the annual scheme return via the Pension Regulator's system "Exchange".

This certificate should not be sent directly to the Pension Protection Fund.