Oracle UK Pension Plan

Actuarial valuation as at 31 May 2022

Scheme Funding Report

Paul Hubbold FIA
Barnett Waddingham LLP

25 May 2023

1 Summary

In accordance with Section 224(1) of the Pensions Act 2004 the Trustee has asked me to prepare an actuarial valuation of the Oracle UK Pension Plan (the Plan) as at 31 May 2022.

A summary of the results of the valuation is as follows:

- Using the method and assumptions agreed by the Trustee, the Plan had assets sufficient to cover 58% of its Technical Provisions as at 31 May 2022, corresponding to a deficit of £252m.
- In light of the results of this valuation, the Trustee has agreed with Oracle Corporation UK Limited (the Employer) that:
  - Contributions will be paid in monthly instalments split between the existing escrow arrangement (£15m pa) and payments made directly to the Plan (£20m pa) for the period from 31 May 2022 to 31 May 2024. Then contributions of £31m pa will be paid to the escrow arrangement in respect of the period from 1 June 2024 to 31 May 2029.
  - The contributions agreed assume that Plan experience will be in line with the assumptions underlying the Technical Provisions, except that the returns on the pre-retirement assets (TRA and Core Contributions) include additional outperformance of 1.2% pa.
  - The Employer will pay the expenses of running the Plan directly (excluding any "de-minimis" expenses which are met by the Plan), including any levies payable to the Pension Protection Fund (PPF).
- The Trustee's assessment of the Technical Provisions assumes the continued support of the Employer. I understand that, based on a formal covenant assessment by Cardano in October 2022, the Trustee believes the support for the Plan to be "Tending to Strong" and has determined the level of the Technical Provisions and the manner in which the deficit is to be corrected on this basis.
- If the Plan had secured benefits with an insurance company using deferred and immediate annuities, I estimate it would have enough assets to cover 41% of its liabilities as at 31 May 2022, corresponding to a deficit of £494m. This means that, had the Plan wound up at the valuation date with no further funds available from the Employer, there would not have been sufficient assets available to secure members' full benefit entitlements. This assessment excludes any recovery under the parental guarantee or escrow arrangement.
- Using the assumptions prescribed for the Section 179 valuation, the Plan had sufficient assets to cover 61% of its liabilities in respect of the compensation that would be paid by the Pension Protection Fund. The Section 179 valuation is one of the factors that determine the levy that is paid to the Pension Protection Fund by the Plan and I will submit the results via The Pensions Regulator's "Exchange" system.

The next actuarial valuation should be carried out with an effective date no later than 31 May 2025 and the contributions payable by the Employer will be reviewed as part of that valuation.

Paul Hubbold FIA
Barnett Waddingham LLP
25 May 2023

2 Methodology and assumptions

Actuarial valuations under the Pensions Act 2004

In accordance with Section 224(1) of the Pensions Act 2004 the Trustee has asked me to prepare an actuarial valuation of the Oracle UK Pension Plan (the Plan) as at 31 May 2022.

This report summarises the results of the valuation, including the information required by Regulation 7 of the Occupational Pension Schemes (Scheme Funding) Regulations 2005 and Appendix A of TAS 300: Pensions issued by the Financial Reporting Council. This report complies with Technical Actuarial Standards issued by the Financial Reporting Council – in particular TAS 100: Principles for Technical Actuarial Work and TAS 300: Pensions. These are the only TASs that apply to this work.

This report is addressed to the Trustee, but it has been written so that an informed reader can understand the financial position of the Plan, including how it has developed since the previous valuation and how it might develop in the future. However, this report is not intended to assist any user in making decisions, and valuations required for specific purposes (e.g. employer accounting, corporate transactions and advice to individual members) should be calculated in accordance with the specific requirements for such purposes. Neither I nor Barnett Waddingham LLP accepts liability to third parties in respect of this report.

A copy of this report should be provided to the Employer within seven days of the Trustee receiving it.

Membership data

The membership data has been provided by the Plan's administrators. I have relied on information supplied to the administrators by the Trustee being accurate. A summary of the membership data used for the valuation, along with a comparison with the data used for the previous valuation, is set out in Appendix A.

I am not aware of any significant changes to the membership since the previous valuation, although the Plan has completed various GMP related projects over the period (more information below).

The membership data has been checked for reasonableness and I have compared the membership data with information in the Trustee's Report and Accounts. Whilst this should not be seen as a full audit of the data, I am happy that the data is sufficiently accurate for the purposes of the valuation.

Guaranteed Minimum Pension (GMP) equalisation

The Plan has completed an exercise to reconcile and rectify GMPs and implemented GMP equalisation for current members of the Plan. This means that pensioner members have had their benefits amended (using a 'year by year' method known as "Method C2" for equalisation) and deferred members will see their benefits altered when they reach retirement (if GMP equalisation applies). Therefore the valuation reflects the cost of GMP equalisation for pensioners on a member-by-member basis. For non-pensioner members I have continued to apply the 1.5% loading to the value of the liabilities which was determined ahead of the last valuation on a member-by-member basis. I have also included a reserve of £1.3m in respect of the impact of GMP equalisation on past transfers as set out in my method and assumptions advice dated 22 April 2022.

Benefits

The Plan provides pension benefits in retirement and benefits on death either before or after retirement. The benefits provided by the Plan are set out in the Definitive Trust Deed & Rules dated 23 December 1993 and subsequent amendments (including the most recent Definitive Trust Deed and Rules dated 5 February 2008) and are summarised in Appendix B. This summary is intended for

2 Methodology and assumptions

quick reference only and full details of the benefits are set out in the Plan's governing documentation. I have made no allowance for discretionary benefits as there is no past practice of granting such accords.

I am not aware of any significant changes to the benefits since the previous valuation.

In accordance with previous instructions, I understand the following:

- The 23 December 1993 Definitive Deed and Rules are unclear in relation to some of the benefits provided to members. In particular the benefits associated with the "Pension Guarantee Formula" are not clearly specified. I understand that the Trustee and Employer have previously agreed that benefits are to be administered and the Plan funded in line with the Underpin Formula set out in the 5 February 2008 Definitive Trust Deed.

- I understand that legal advice provided to the Trustee in relation to the 10 December 1998 Definitive Deed and Rules states that the Rules may be void due to the absence of a Section 67 certificate. However, the Trustee has agreed to administer the Plan on the basis that the prospective benefit changes introduced by the 1998 Rules are valid and the calculations in this report are in accordance with this practice.

Assets

The Plan includes both Money Purchase and Final Salary sections. The Money Purchase section of the Plan includes both Core and Non-Core contributions:

- Core Contributions – DC assets allocated to members to which the Pensions Underpin applies.
- Non-Core Contributions - DC assets allocated to members on a pure DC basis.

In addition, the Final Salary Section Underpin Reserve includes the following:

- Pensioner Reserve Fund (PRF) – assets currently used to back the liabilities of Pensioner members
- Trustee Reserve Account (TRA) – assets used to fund the difference between a member's notional account and the value of the Pensions Underpin when members retire or transfer out.
- Underpin Reserve bank account and net current assets.

For the purpose of this report, the Non-Core Contributions are excluded from both the assets and liabilities since their inclusion would have a neutral effect on any deficit.

I have been provided with a copy of the Trustee's audited Report and Accounts for the period ending 31 May 2022. This shows that the market value of the Plan's assets, is £464m (rounded), of which £346m relate to the Pensions Underpin (i.e. the Final Salary Section Underpin Reserve and Core Contributions). This asset figure also excludes any assets invested in the escrow arrangement that was put in place following the 2013 actuarial valuation.

Funding objectives

The Trustee's funding objectives are described in a Statement of Funding Principles dated 19 May 2023, a copy of which is included in Appendix F. In summary, the Trustee has adopted the "Statutory Funding Objective", which is that the Plan should have sufficient and appropriate assets to meet its liabilities. The Trustee is currently developing its Long Term Objective for the Plan, however, given the funding deficit, meeting the Statutory Funding Objective is the current priority.

The principal purpose of the valuation is therefore to examine the financial position of the Scheme at the valuation date and to agree the contributions payable to ensure that the Statutory Funding Objective is expected to be met.

2 Methodology and assumptions

Methodology used to achieve objectives

The valuation has been carried out on a "market-related" basis. This means that assets are taken into account at their market value. For comparison with the assets, a consistent measure is needed for the liabilities that are expected to arise in respect of benefits already earned at the valuation date – otherwise known as the "Technical Provisions". This is achieved by projecting the benefits that are expected to be paid to members of the Plan as a result of:

- pensions already in payment;
- pensions arising from future retirements;
- lump sums payable to future retirees in exchange for part of their pension;
- lump sums payable following the death of a member; and
- pensions payable to eligible dependants following the death of a member.

To estimate the amount of these future benefit payments, assumptions need to be made regarding:

- how the Pensions Underpin and the associated assets in respect of the Pensions Underpin will increase prior to payment;
- how pensions will increase while in payment;
- whether members will leave service or die before reaching retirement;
- how long members will live in retirement;
- whether members will have an eligible dependant on death and, if so, the age of their dependant; and
- whether members will exercise certain options, such as exchanging pension for cash at retirement.

However, the benefits are expected to be paid over a long period of time and, during that time, the assets held are expected to earn investment returns. Therefore, for comparison with the assets, the projected benefit payments are reduced to allow for the investment return that is anticipated prior to payment. This methodology is commonly referred to as "discounting" and the investment return allowed for is referred to as the "discount rate". For consistent comparison with the market value of the assets at the valuation date, the choice of discount rate reflects relevant market indicators at the valuation date.

As the Plan is closed to all future accrual (although some members, referred to as "In Service Deferreds", continue to have benefits linked to their salary), it is anticipated that the investment strategy will become more cautious as the membership matures. This is allowed for by assuming a lower discount rate for the period after a member's retirement.

Valuations on other bases

As part of the valuation, I am required to include an estimate of whether the Plan would have had sufficient assets to secure benefits with an insurance company and meet the expenses associated with winding-up the Plan. This is referred to as "the solvency estimate".

For many schemes, the liability value for a solvency estimate is expected to be significantly higher than the Plan's Technical Provisions, as insurers will assess the liabilities in a cautious manner reflecting their investment strategy, reinsurance costs, capital requirements and other factors. The assumptions used for the calculation of the Technical Provisions do not make the same allowance for these items and may for example include a higher expected additional return from investment in riskier asset classes.

The Trustee is also required under Section 179 of the Pensions Act 2004 to obtain a valuation at least every three years on a basis that is set by the Pension Protection Fund (PPF). The results of this valuation are used by the PPF to determine the levy that is paid by the Plan to the PPF to provide compensation for members of pension schemes that are underfunded and the employer has become insolvent. Although not strictly part of the actuarial valuation, I have included details of the Section 179 valuation in this report.

Recent court judgements

In line with the PPF's s179 guidance, we note the following regarding recent court cases that have implications for compensation paid to members by the PPF:

Lloyds (GMP equalisation) – I have made a member specific allowance for the impact of GMP equalisation for the current Plan membership. I have made no allowance for equalisation of historic transfers within the s179 valuation which is in line with the PPF's guidance.

Hampshire – this judgement stated that members are entitled to PPF compensation of at least 50% of their original scheme benefits. As instructed by the PPF in their current s179 guidance, no allowance has been made for the outcome of the Hampshire judgement in our calculations.

Hughes – this judgement (and subsequent appeal) followed on from the Hampshire judgement and confirmed that the PPF compensation cap, as set in legislation, is unlawful based on age discrimination and can no longer be applied.

As per current guidance from the PPF, our calculations assume the compensation cap will not apply to any members. This represents a change from the previous s179 valuation when the compensation cap was still in force.

Bauer – this judgement stated that, even where a member's PPF compensation is at least 50% of their original scheme benefits, any reduction should not result in the member living below the at-risk-of-poverty threshold determined by Eurostat. As instructed by the PPF in their current s179 guidance, no allowance has been made for the outcome of the Bauer judgement in our calculations.

It should be noted that if or when the PPF update their s179 guidance to include allowance for the Hampshire or Bauer judgements, s179 liabilities would increase for any affected members.

Assumptions

The assumptions agreed by the Trustee for the purpose of the Statutory Funding Objective as at 31 May 2022, along with the assumptions used at the previous valuation, are summarised in Appendix D. My advice on the assumptions and derivation of the assumptions is set out in my report dated 3 October 2022, which was subsequently discussed and revised following discussions between the Trustee and Employer and my associated advice relating to any amendments.

The assumptions I have used for the solvency estimate are also summarised in Appendix D. Whilst I am satisfied that these assumptions are appropriate for the purpose of the solvency estimate, and in particular that they satisfy the requirements of Regulation 7(6)(a) of the Occupational Pension Schemes (Scheme Funding) Regulations 2005, the Trustee should understand that:

- The assumptions are only intended to give a broad indication of likely annuity costs, and that an actual quotation could differ materially from this estimate.
- The expenses associated with discontinuing a pension scheme are difficult to predict and the expense assumption should not be seen as a quotation of the likely expenses involved.

The assumptions for the Section 179 valuation are prescribed by the PPF.

3 Results

Statutory Funding Objective

Using the methodology described above and the assumptions set out in Appendix D, the results of the valuation are as follows.

Benefits already earned at the valuation date:	£m
In Service Deferreds	97
Deferreds	430
Pensioners	70
GMP equalisation of past transfers	1
Technical Provisions	**598**
Market value of assets	**346**
Deficit	**(252)**
Funding level	**58%**

It should be understood that these results indicate the expected cost of providing the Plan benefits using the chosen method and assumptions. The actual cost of providing the benefits will depend on the actual experience. The sensitivity of the results to the key assumptions is included as Appendix E.

My certificate confirming that the calculation of the Technical Provisions has been carried out in accordance with the relevant legislation is included in Appendix F.

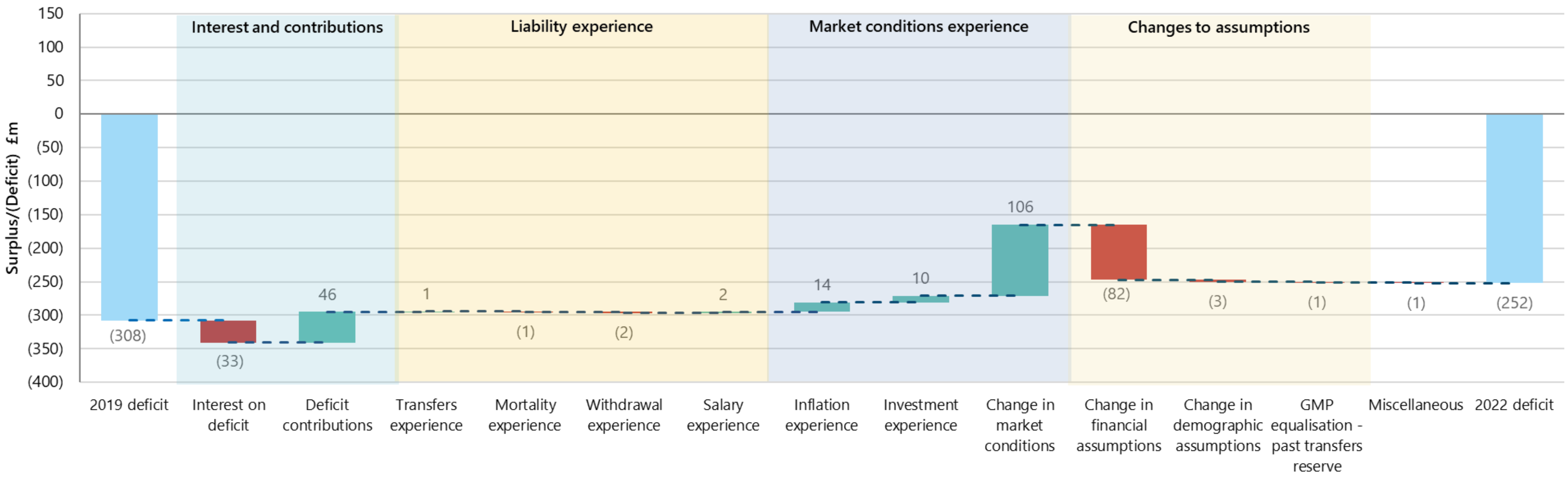
Contribution requirements

Details of the contributions agreed between the Trustee and the Employer are set out in a formal Schedule of Contributions and Recovery Plan. These documents are included in Appendix F. My certificate confirming that the Statutory Funding Objective is expected to be met by the end of the period covered by the Schedule of Contributions is also included in Appendix F.

3 Results

Reconciliation to previous valuation

The previous valuation was carried out as at 31 May 2019. The results are summarised in my report dated 29 October 2020 and show a funding level of 48% corresponding to a deficit of £308m. The key factors that have influenced the deficit of the Plan over the period are shown on the following chart:



3 Results

Solvency estimate

The results of the valuation using the assumptions for the solvency estimate described in Appendix D are as follows:

Solvency estimate:	£m
In Service Deferreds	140
Deferreds	610
Pensioners	80
Expenses	10
Estimate of solvency liabilities	**840**
Market value of assets	**346**
Deficit	**(494)**
Funding level	**41%**

As at 31 May 2019 the solvency funding level was estimated to be 26%.

The Plan would not have had sufficient assets at the valuation date, based on the assumptions, to secure full benefits with an insurance company. If the Plan had wound up at the valuation date, the Employer would have been obliged to make good any shortfall. However, if the Employer were unable to do so, for example due to insolvency, the assets would have been applied to secure benefits in line with the statutory priority order that applied at the valuation date. The coverage of benefits falling into each priority class is estimated in the following table:

Category of benefit	Coverage level
Expenses and defined contribution benefits	100%
Benefits equivalent to PPF compensation	53%
Other benefits	0%

This shows that the Plan would not have had sufficient assets to secure benefits equivalent to the compensation provided by the PPF. Therefore, had the Plan wound up with no further funds available from the Employer (including under the parental guarantee or from the escrow arrangement), it is likely that the Plan would have entered the PPF and members would only receive benefits up to the PPF compensation level rather than their full Plan benefits.

Projected future results

The progression of the funding level over time is influenced by a large number of factors, including the experience of the Plan's membership, the investment return achieved and the contributions paid.

I estimate that three years after the valuation date (i.e. at the next valuation) the funding position on a Technical Provisions basis will be 65% and on a solvency basis will be 48%. This allows for contributions to be paid as described in Appendix F (i.e. £20m pa to the Plan for two years and nil thereafter) and assumes that investment returns and other experience over the next three years is in line with the assumptions used for the Technical Provisions. The projections exclude assets held in the escrow arrangement as it is assumed that these assets will be transferred to the Plan after the period of the projections.

3 Results

Section 179 valuation

A certificate setting out the results of the Section 179 valuation using the method and assumptions prescribed by the PPF is included in Appendix F. We will provide the details set out on this certificate to the PPF via The Pensions Regulator's Exchange System.

Changes since the valuation date

Current market conditions are significantly different to that at the valuation date of 31 May 2022. In particular, long term government bond yields are around 2% pa higher which would lead to a much lower value of the liabilities if used in the valuation calculations (all else being equal).

The Trustee and Employer have discussed making an allowance for post valuation experience and concluded not to do so. This decision is partly based on the Plan's investment strategy which provides limited hedging of the funding position (due to the DC nature of the majority of the Plan's assets) and historic valuation practice where no such post valuation adjustment has been made.

4 Risks

There are many factors that affect the financial position of the Plan which can lead to the Plan being unable to pay members' benefits. In this section I comment on some of the factors that could have a material impact.

Employer Covenant risk

One of the greatest risks to the ability of the Plan to pay members' benefits is that the Employer may be unable to fund future deficits.

The Trustee's chosen assumptions and deficit recovery period reflect an objective assessment of the risk that the Employer will not be able to support the Plan in the future. The Trustee should monitor the strength of the Employer over time (including the strength of the parent company providing the £800m guarantee), so that any sudden changes in the Employer's position can be mitigated.

Investment risk

Allowance is made in the assumptions for the expected long-term performance of asset classes such as equities. There is a risk that these returns will not be achieved in practice, which would result in further contributions being required.

Further, the value of the Plan's assets may not move in line with the Plan's liabilities – either because the Plan invests in volatile assets whose value might fall, or because the value of the liabilities has increased due to falling interest rates and the assets are not of sufficient duration to keep up (or a combination of these).

The sensitivity of the valuation results to changes in the investment return assumptions is included in Appendix E. The Trustee should regularly review their investment strategy to ensure they understand the risks being taken and that those risks are being appropriately managed.

Inflation

In projecting the expected future benefit payments, assumptions are made regarding future price inflation. There is a risk that the actual rate of inflation will be higher than assumed which will increase the cost of providing the benefits. This would result in additional contributions being required and a deterioration in the financial position unless investment returns are similarly higher than expected.

The sensitivity of the results to the choice of inflation assumptions is included in Appendix E. The Trustee should consider the inflation risk present within the Plan when reviewing the investment strategy.

Mortality

It is not possible to predict with certainty how long members of the Plan will live, and if members live longer than expected, additional contributions will be required and the Plan's financial position will deteriorate.

The sensitivity of the results to the choice of mortality assumptions is included in Appendix E. The Trustee should review its mortality assumptions at each valuation, taking into account all available evidence, to ensure they remain appropriate for the Plan.

Member options

Certain benefit options may be exercised by members without requiring the consent of the Trustee or the Employer, for example exchanging pension for cash at retirement or taking a transfer value. Generally the terms for exercising these options should leave the Plan no worse off as a result and may in some cases be favourable to the financial position of the Plan. Therefore there is limited risk of further contributions being required or a deterioration of the financial position as a result of members exercising these options.

4 Risks

The sensitivity of the results to the assumed exercise of options by members is included in Appendix E. The Trustee should regularly review the transfer value basis and other actuarial factors to understand the financial implications of members exercising options and to ensure that the terms for doing so remain appropriate.

Legislative risk

Changes in legislation could increase the value of the Plan's liabilities. The Trustee should therefore take professional advice to ensure that they are aware of any changes in legislation and the impact of these changes on the Plan's funding position.

The Trustee receives regular updates on legislative matters from their advisers.

Climate risk

The Plan faces potential risks from both the physical effects of climate change and the transition to a low-carbon economy. Climate risk may manifest itself through any of the other risks identified above, including investment and inflation risk, potentially causing a deterioration in the Plan's funding position. The Task Force on Climate-related Financial Disclosures (TCFD) is a framework that aims to help companies and investors measure, manage, and report their climate-related risk exposures and opportunities in a consistent manner. Large pension schemes are already subject to TCFD requirements and the Trustee should prepare for the Plan to come into scope in future.

The Trustee receives updates their advisers and asset managers about how climate risks are allowed for in the Plan's investment strategy. The Trustee's policy on environmental, social and governance (ESG) issues, including climate change, is included in the Plan's Statement of Investment Principles.

Appendix A - Summary of member data

A summary of the membership data used in the valuation is as follows. The membership data from the previous valuation is also shown for comparison. All average ages are weighted by the proposed Scheme Funding liability.

In Service Deferred Members						
	31 May 2022			31 May 2019		
	Number	Average age	Basic Salary £m pa	Number	Average age	Basic Salary £m pa
Males	329	56	29	417	54	33
Females	116	56	8	138	53	9
	445	**56**	**37**	**555**	**54**	**42**

Deferred Members						
	31 May 2022			31 May 2019		
	Number	Average age	Deferred Pension £m pa	Number	Average age	Deferred Pension £m pa
Males	2,645	58	8	2,819	55	9
Females	1,251	56	3	1,328	54	3
	3,896	57	11	4,147	55	12

Pensioner Members						
	31 May 2022			31 May 2019		
	Number	Average age	Pension £m pa	Number	Average age	Pension £m pa
Males	405	68	2	237	67	1
Females	144	66	1	76	66	1
	549	68	3	313	67	2

The membership data excludes 310 members who have no Pensions Underpin benefits.

The above summary differs slightly to that shown in the Trustee's Draft Report and Accounts as it is based upon a more recent data extract. Therefore it reflects member movements (such as transfers out and retirements) which are effective before 31 May 2022, but which were processed at a later date.

Appendix B - Summary of benefits

The following is a summary of the main Plan benefits only. Full details are set out in the Plan's documentation, and no action should be taken based on the summary below without referring back to the formal documentation.

General provisions	
Member contributions:	The Plan closed to all future accrual from 31 December 2010.
Contracting-out status:	Prior to 31 May 2004 the Plan was contracted out of the State Second Pension on a Reference Scheme basis. After this date the Plan was contracted in.

Pension benefits	
Normal Retirement Date:	Age 65 unless otherwise specified in the member's contract of employment.
Pension on normal retirement:	For service up to 31 May 2004, the greater of: - The Pensions Underpin Formula = 1/80th of Final Pensionable Salary for each year of service - The value of the member's Core Contributions For service from 1 June 2004, benefits are pure DC.
Commutation of pension:	Part of the member's pension may be exchanged for a lump sum on retirement.
Increases in payment:	Pension in excess of GMP - in line with CPI inflation up to a maximum of 5% pa GMP - statutory increases
Increases in deferment:	Pension in excess of GMP - in line with CPI inflation subject to an upper cap GMP - statutory fixed rate

Death benefits	
Death in deferment:	A spouse's pension is payable provided it satisfied contracting out requirements. A lump sum is payable in addition equal to the difference between the member's notional account as at date of death and the value of the contracted out benefits. Benefits from non-core contributions are also payable.
Death after retirement:	On death in the first five years, a lump sum equal to the outstanding balance of five years' pension payments is payable. A spouse's pension equal to one half of the member's pension in payment at death is payable. Benefits from non-core contributions are also payable depending on the options selected at retirement.

Appendix C - Summary of assets and contributions

Assets at 31 May 2022

	Final Salary Section (£m)	Money Purchase Section (£m)
Multi-asset	94	332
Equities	-	17
Bonds	-	8
Property	-	1
Cash	1	9
Total investments	**95**	**367**
Net current assets (Including Bank Balance)	**1**	**1**
Total market value of assets	**96**	**368**

As at 31 May 2022 there was £50.9m within the Escrow account. At the previous valuation the funds within the escrow account totaled £19.6m.

The actual return achieved on the Plan's investments since the previous valuation was approximately 4.5% pa.

Contributions since previous valuation

The previous valuation resulted in a formal Schedule of Contributions being put in place with effect from 23 October 2020. The contributions payable under this schedule can be summarised as follows.

- Contributions of £35m pa would be paid by the Employer with effect from 31 May 2020 to 30 May 2029 to address the deficit revealed by the valuation.
- Subject to review following the next actuarial valuation, due as at 31 May 2022, contributions will be paid in monthly instalments split between the existing escrow arrangement (£15m pa) and payments made directly to the Plan (£20m pa) for the period to 30 May 2024. The full contributions of £35m pa will be paid to the escrow arrangement in respect of the period from 31 May 2024 to 30 May 2029.
- The Employer will pay the expenses of running the Plan directly (excluding any "de-minimis" expenses which are met by the Plan), including any levies payable to the Pension Protection Fund (PPF) or the Pensions Regulator (TPR).

I understand that contributions have been paid in accordance with this schedule. Over the period since the previous valuation, the actual contributions that have been paid to the Plan were as follows:

Contributions (£m) for the year ending:	31 May 2022	31 May 2021	31 May 2020
Deficit contribution – Employer	20	21	10

The above contributions are those paid by the Employer over the year and ignore the impact of any contributions held as a net current asset as at 31 May 2019.

Appendix D - Summary of assumptions

	31 May 2019 Technical Provisions	31 May 2022 Technical Provisions	31 May 2022 Solvency estimate
Pre-retirement discount rate	3.5% pa (gilts + 2% pa)	4.55% pa (gilts + 2% pa)	BW estimate of annuity pricing
Post-retirement discount rate	2.4% pa (gilts + 0.9% pa)	3.25% pa (gilts + 0.7% pa)	
Price inflation (RPI)	3.65% pa	3.85% p.a.	
Price inflation (CPI) • Pre 2030 • Post 2030	2.65% pa	2.85% pa 3.85% pa	
Salary inflation	4.65% pa (RPI + 1% pa)	4.85% pa (RPI + 1% pa)	
Pension increases	Based on relevant inflation assumption allowing for any caps or collars	Based on relevant inflation assumption allowing for any caps or collars	A model of each increase, allowing for insurers' relative pricing of different caps and collars
Mortality tables	100% of S3NA light tables	100% of S3NA light tables	92.5% of SAPS S3NA
Improvements in life expectancy	CMI 2018 with a long-term improvement rate of 1.5% p.a., an initial addition parameter of 1% p.a.	CMI 2021 with a long-term improvement rate of 1.5% pa, an initial addition parameter of 1% pa and 2020/2021 weight parameters of 0%	BW estimate of annuity pricing
Proportion married at retirement	80% of males and 70% of females	80% of males and 70% of females	85% of males and 75% of females
Age and sex of dependant	Male members 3 years older than their female dependant, and vice versa	Male members 3 years older than their female dependant, and vice versa	Male members 3 years older than their female dependant, and vice versa
Allowance for early retirements	None	None	None
Allowance for withdrawals	10% pa	10% pa	None
Allowance for cash commutation	None	None	None
Allowance for expenses	None	None	See below
Allowance for discretionary benefits	None	None	None
Allowance for GMP equalisation	1.5% of the liabilities	Member specific allowance for the current membership plus a fixed reserve of £1.3m in respect of historic transfers out of the Plan	Member specific allowance for the current membership plus a fixed reserve of £1.3m in respect of historic transfers out of the Plan

Appendix D - Summary of assumptions

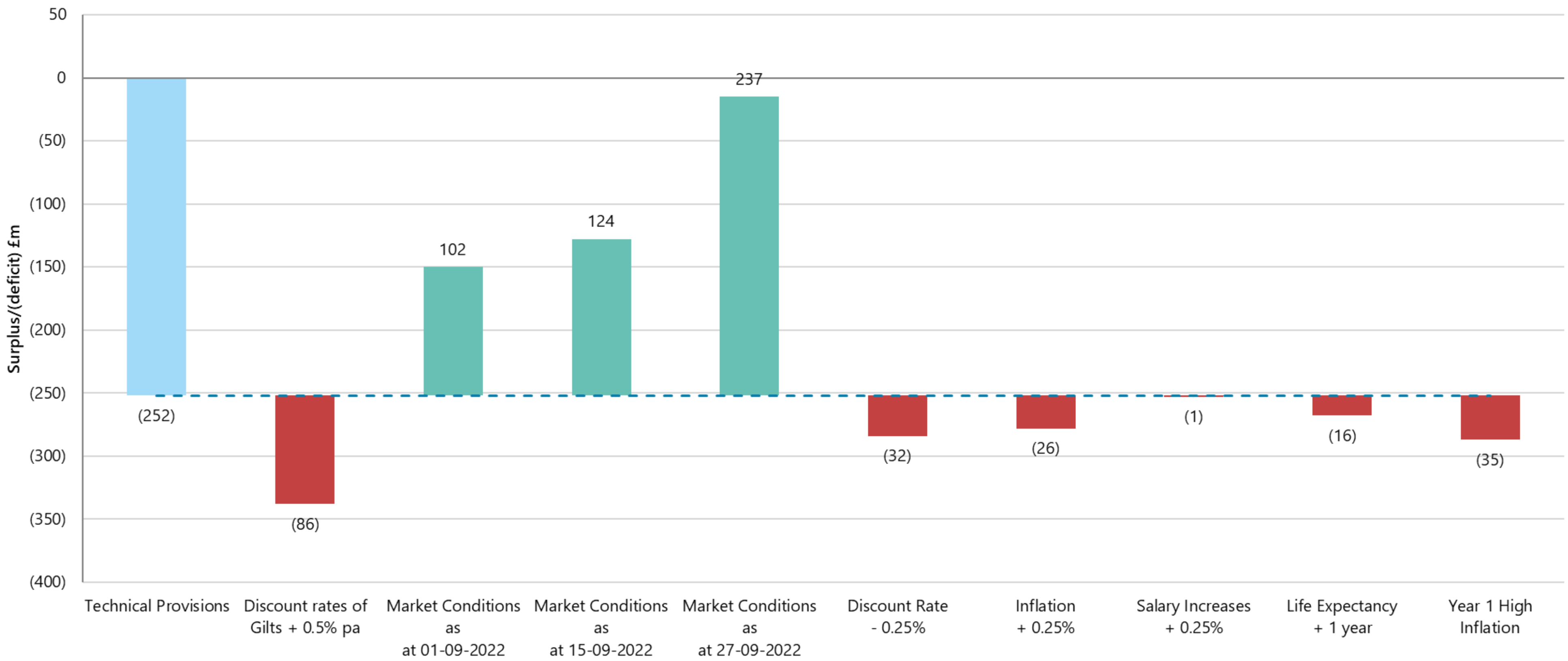
The basis used for the solvency estimate reflects a general view of annuity pricing, based on Barnett Waddingham's research into the insurance market and taking account of the pricing that Barnett Waddingham has observed across a range of transactions. These prices will include the insurer's anticipated running costs for the future administration of the pensions. Whilst I am satisfied that these assumptions are appropriate for the purpose of the solvency estimate, and in particular that this estimate satisfies the requirements of Regulations 7(4)(b) and 7(6)(a) of the Occupational Pension Schemes (Scheme Funding) Regulations 2005, the Trustee should understand that my calculations are only intended to provide a broad indication of likely annuity costs, and that an actual quotation could differ materially from this estimate.

Assets for the solvency estimate have been taken at market value as set out in the audited accounts.

The expenses associated with discontinuing a pension scheme are difficult to predict and can be significant. For the purposes of my calculations, I have made an allowance for expenses of £10m, in addition to insurer expenses which are allowed for in the solvency basis assumptions. Although I believe this allowance to be a reasonable provision for the purposes of the valuation, it should not be seen as an estimate or quotation of the likely expenses involved.

Appendix E - Sensitivity analysis

The statutory funding position is sensitive to the assumptions made regarding future experience. The following chart illustrates the impact on the funding position of making different assumptions at the valuation date.



The "market conditions as at XX-XX-XXX" sensitivities show the impact on the valuation position as at 31 May 2022 of the financial conditions changing to those in force at the various dates. It only allows for the impact on the liabilities and does not take into account any corresponding changes in asset values. The "Year 1 High Inflation" sensitivity allows for actual RPI inflation (September 2021 to September 2022) in the first year of the calculations, rather than the assumed RPI rate.

Appendix F - Valuation documents

The following documents have been agreed between the Trustee and Employer as part of the valuation process and are included in this appendix:

- Statement of Funding Principles, setting out the Trustee's funding objectives and the action to be taken if those objectives are not met.
- Schedule of Contributions, setting out the contributions payable to the Plan by the Employer from 1 June 2023.
- Recovery Plan, setting out further details of how the funding shortfall revealed by the valuation is being addressed.

The following actuarial certificates are required as part of the valuation process and are included in this appendix:

- Certification of the calculation of the Technical Provisions, which confirms that the Technical Provisions have been calculated in accordance with the regulations and the Trustee's Statement of Funding Principles.
- Certification of the Schedule of Contributions, which confirms that the Statutory Funding Objective is expected to be met by the end of the period covered by the Schedule of Contributions.

Section 179 valuation

A certificate setting out the results of the Section 179 valuation using the method and assumptions prescribed by the PPF is also included in this appendix.