Actuarial Valuation as at 31 October 2018

Hewlett-Packard Limited Retirement Benefits Plan: Digital Section

Prepared for	Hewlett Packard Enterprise UK Pension Trustee Limited
Prepared by	David Eteen FIA, Scheme Actuary
Date	23 January 2020

Empower Results®

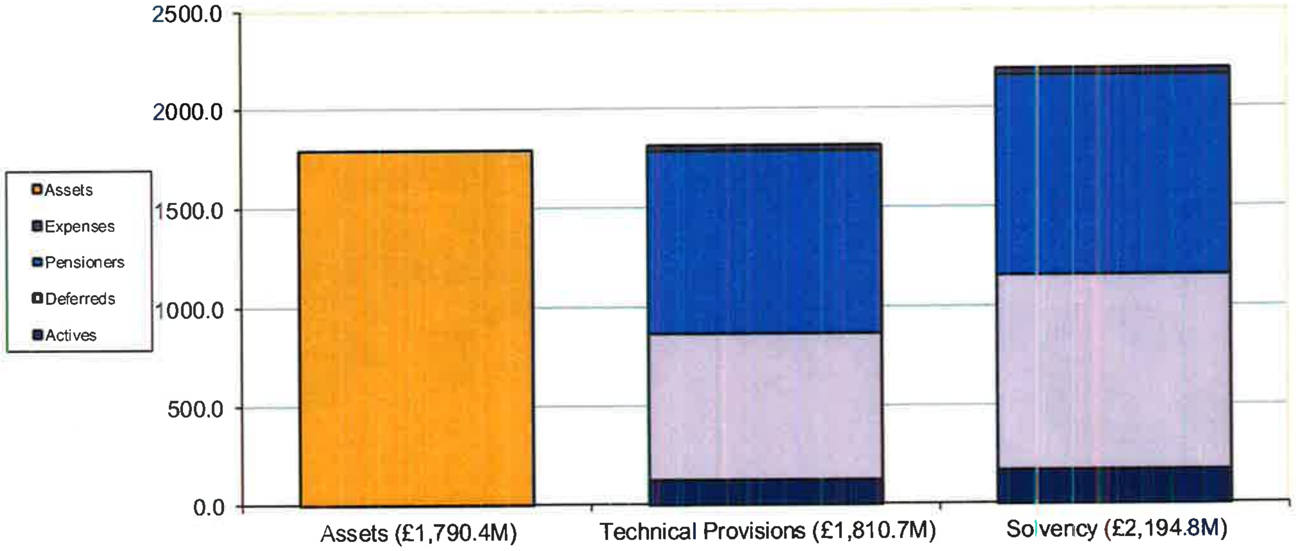
Executive Summary

The key results of the actuarial valuation as at 31 October 2018 are set out below.

There was a deficit of £20.3M relative to the technical provisions
(i.e. the level of assets agreed by the Trustee and the Company as being appropriate to meet member benefits, assuming the Plan continues as a going concern).

There was an estimated deficit of £404.4M relative to the solvency liabilities
(i.e. the estimated level of assets needed to buy insurance policies for benefits earned to the valuation date).

The Employer paid £3.8M into the Plan in April 2019. Currently no further Ongoing Funding Obligation Contributions are required to cover the amortisation of deficit and future accrual of benefits as these are expected to be covered by additional returns on the assets in excess of the discount rate. The only contributions required are Salary Sacrifice Funding Obligation Contributions (as defined in the Statement of Funding Principles) and the cost of any augmentations to benefits.



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Introduction

This report has been prepared for the Trustee to meet the requirements of Section 224(2)(a) of the Pensions Act 2004. It sets out the results and conclusions of the actuarial valuation of the Plan as at 31 October 2018.

This is a scheme funding report, it summarises the key aspects of the actuarial valuation process, including:

- The funding objective and background details
- The technical provisions
- The corresponding future service costs
- The agreed recovery plan and other contributions
- The results on the solvency basis
- Further information required for compliance purposes, including:
  - The legal framework within which the actuarial valuation has been completed
  - A summary of the membership and asset data, the benefits valued and details of the assumptions used for the actuarial valuation
  - My statutory certification of the technical provisions
  - A glossary of some technical pensions terms

Throughout the body of this report, defined contribution (DC) benefits (i.e. DC AVCs) have been excluded from the actuarial valuation results because in my view this provides a clearer picture. In order to comply formally with the legislation, an alternative presentation of the actuarial valuation results is shown in Appendix A.

Shorthand

Plan
Hewlett-Packard Limited Retirement Benefits Plan: Digital Section

Trustee
Hewlett Packard Enterprise UK Pension Trustee Limited

Company
Hewlett-Packard Limited

Rules
The Plan's Trust Deed and Rules dated 30 October 2019

Annual Salary
Annual rate of basic salary

Pensionable Service
As defined in the Rules

Important Note: The report concentrates on the Plan's financial position at the actuarial valuation date. As time moves on, the Plan's finances will fluctuate. If you are reading this report some-time after it was produced, the Plan's financial position could have changed significantly.

Previous actuarial valuation results

A summary of the results, recovery plan and agreed contributions following the previous actuarial valuation is set out below.

The key results from the previous actuarial valuation as at 31 October 2015 were:

- There was a deficit of £174.8M relative to the technical provisions, which corresponded to a funding level of 89%
- There was an estimated deficit of £659.1M relative to the solvency liabilities

Contributions agreed as part of previous actuarial valuation

The key outcome of the actuarial valuation as at 31 October 2015 was that the Company would pay Ongoing Funding Obligation Contributions (as defined in the Statement of Funding Principles) of:

- £34.3M – due to be paid by 30 April 2016
- £43.9M – due to be paid by 30 April 2017
- £0.247M – due to be paid by 31 October 2017
- £2.2M – due to be paid by 30 April 2018
- £4.0M – due to be paid by 30 April 2019
- £3.3M – due to be paid by 30 April 2020
- £1.5M – due to be paid by 30 April 2021

The Company was also required to pay Salary Sacrifice Funding Obligation Contributions (as defined in the Statement of Funding Principles).

Ongoing Funding Obligation Contributions paid

As agreed, the Ongoing Funding Obligation Contributions were recalculated annually as at each 31 October. The following Ongoing Funding Obligation Contributions were actually paid:

- £34.3M in March 2016
- £43.9M in March 2017
- £0.247M in October 2017
- £3.8M in April 2019

Notable changes since the previous actuarial valuation

Changes to the Plan since the previous actuarial valuation are summarised below.

- **Bulk transfer**

  A bulk transfer took place in 2017 to the Electronic Data Systems Retirement Plan ('the EDS Plan'). The transfer out of the Plan was agreed on a basis that was broadly cost neutral on the technical provisions assumptions.

- **Investment strategy**

  The Plan has continued to de-risk in line with the pre-agreed de-risking strategy and now invests 12.4% in growth assets and 87.6% in protections assets. The de-risking strategy has been set such that 10% will be invested in growth assets and 90% in protections assets by the time the Plan is 102% funded on the technical provisions.

- **Cessation of contracting out**

  The Plan ceased to be contracted-out of the State's second tier pension arrangements with effect from 6 April 2016, when the ability of schemes to remain contracted-out terminated. Following the cessation of contracting out member contributions were increased.

- **GMP equalisation**

  The High Court ruled on 26 October 2018 that pension schemes are required to equalise benefits for the effect of gender-based inequalities in Guaranteed Minimum Pensions (GMPs). The Trustee is currently working with its advisers and the Company on how best to adjust benefits to reflect this ruling.

Data and benefits valued

Key information on the membership data used and the benefits valued in the actuarial valuation are summarised here.

The Plan has continued to become increasingly mature with the proportion of pensioners increasing.

The membership numbers are shown graphically below. Further details can be found in Appendix B.

Membership profile of the Plan

Members are entitled to benefits defined in the Rules. A summary of the benefits is included in Appendix C.

Benefits have been valued in line with those payable under the Rules and making the following allowances:

- **GMP equalisation**

  An approximate allowance for equalising GMPs has been made by adding 0.6% to the Plan's technical provisions. This includes an approximate allowance for both past and future benefit payments. This is a change in approach from that adopted at the previous actuarial valuation

- **Discretionary benefits**

  No allowance has been made for the granting of discretionary benefits in future

Funding objectives and investment strategy

The Trustee's funding objective is to hold assets which are at least equal to the technical provisions (i.e. to meet the statutory funding objective).

Funding objective

A key factor in setting the funding objective is the Trustee's assessment of the covenant supporting the Plan. The Trustee commissioned Lincoln Pensions to carry out an independent review of the covenant and this concluded that the overall covenant supporting the Plan was "slightly strong". The covenant strength rating is weaker than when assessed for the previous actuarial valuation and this has been taken into account in setting the assumptions to be adopted for the technical provisions and in agreeing the recovery plan.

Investment strategy

The asset allocation as at the actuarial valuation date is described in Appendix D.

The Trustee's investment strategy is set out in its statement of investment principles. In summary the Trustee's strategy is that as the funding level improves, the investment strategy will be de-risked. The de-risking strategy has been set such that 10% will be invested in growth assets and 90% in protection assets by the time the Plan is 102% funded on the technical provisions. The investment strategy at the date of signing this report is to invest 12.4% in growth assets and 87.6% in protection assets. Interest-rate and inflation hedges are also used to reduce the sensitivity of the funding level to changes in both of these.

Summary of assumptions

The Trustee and the Company have agreed the assumptions used to calculate the technical provisions and the cost of future benefit accrual. The table below summarises the key assumptions, together with those used for the previous actuarial valuation, and the reasons for any change. Further details of all of the assumptions are set out in the Statement of Funding Principles dated 23 January 2020.

Assumption	Previous actuarial valuation	This actuarial valuation	Rationale for change/comments
Discount rate	Single equivalent yield equal to the forward UK gilt curve plus 0.7% p.a.	Single equivalent yield equal to: The forward UK gilt curve plus an addition of: ▪ 1.0% p.a. to the forward rates commencing before 31 October 2030 ▪ 0.5% p.a. to the forward rates commencing on or after 31 October 2030	Given Lincoln Pensions' conclusion that the covenant supporting the Plan has deteriorated from "Fairly Strong" to "Slightly Strong", the Trustee concluded that it was appropriate to amend the discount rate to reduce the reliance on the employer covenant over time
RPI inflation	The proportion of RPI linked liabilities hedged are valued in line with market implied RPI. The remainder of the RPI linked liabilities are valued assuming RPI equals 3.00% p.a.	No change	99% of RPI linked liabilities were hedged as at 31 October 2018

CPI inflation	RPI Inflation less 0.9% p.a.	RPI inflation less: ▪ 0.9% p.a. for deriving assumptions relating to pension revaluations in deferment ▪ 0.8% p.a. for deriving assumptions relating to pension increases in payment	Updated in light of the Chancellor announcing he is to commence a consultation in January 2020 on aligning RPI with CPIH at some point between 2025 and 2030
Salary inflation	2.5% p.a.	3.0% p.a.	Reflects the Company's accounting assumption as at 31 October 2018 and is supported by recent experience
Pension increases:	Consistent with inflation assumptions and allowing for Aon's best-estimate of future inflation uncertainty	No change	N/A
Basic State Pension increases	4.0% p.a.	No change	N/A
Post-retirement mortality assumption - base table	SAPS S2 Light tables with 98% (male) and 91% (female) scaling factors	SAPS S3 Light tables with 109% (male) and 102% (female) scaling factors	Reflects latest analysis of the Plan's membership

Post-retirement mortality assumption - projection	CMI_2016 projections with a long-term improvement rate of 1.25% p.a. and a period smoothing parameter (S_K) of 8.0	CMI_2018 projections with a long-term rate of 1.25% p.a., a period smoothing parameter (S_K) of 7.0, and an initial addition to mortality improvements parameter (A) of 0.5% p.a.	Reflects updated data and research
Expense Reserve	Nil (an allowance was made for expenses when calculating the Ongoing Funding Obligation contributions)	1.5% of liabilities	Allowance for expenses now included in technical provisions rather than being covered on a pay as you go basis
GMP Equalisation	No allowance	Increase the liabilities by 0.6% until equalisation is complete	Estimated cost of equalisation assuming that GMP equalisation is implemented using method C2 of the Lloyds Bank court judgement
CETVs on retirement	No allowance	15% of active and deferred members transfer out on retirement	Reflects recent experience

As for the previous actuarial valuation, the technical provisions have been calculated using the projected unit method. This method, with a one year control period, has also been used to calculate the cost of future benefit accrual.

Past service results

The Trustee's technical provisions and resulting funding position are shown below.

	Technical Provisions (£M)
Value of past service benefits for:	
Actives	121.2
Deferreds	743.7
Pensioners	919.0
Expenses	26.8
Value of liabilities	1,810.7
Value of assets	1,790.4
Past service surplus/(deficit)	(20.3)
Funding Level	98.9%

The key assumptions are the discount and inflation rate. The sensitivity of the technical provisions to changes in these key assumptions in isolation is as follows:

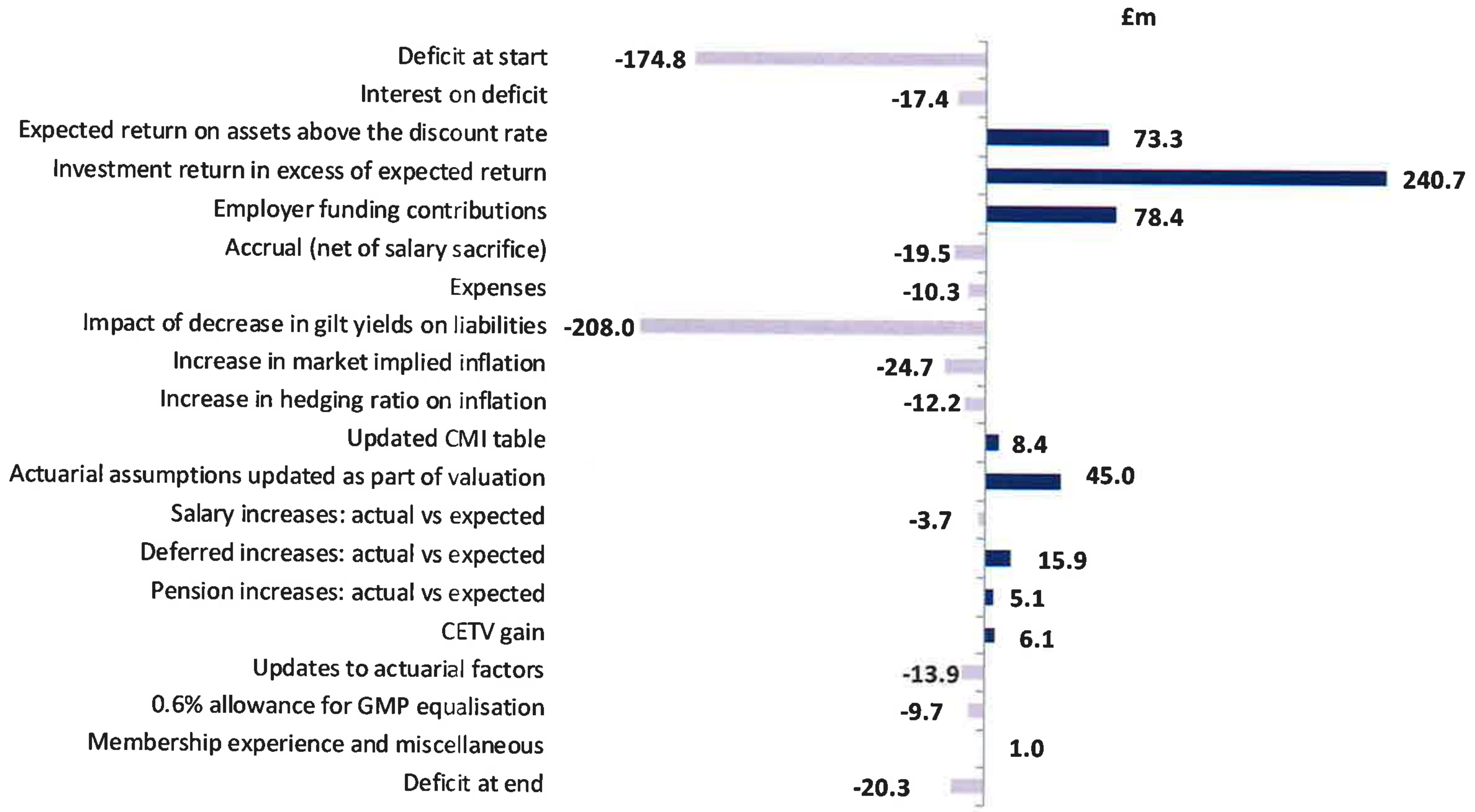
- A 0.25% p.a. decrease in the discount rate increases the technical provisions by £75M
- A 0.25% p.a. increase in the RPI inflation assumption (also allowing for the consequent impact on the assumptions derived directly from that assumption) increases the technical provisions by £30M

In practice the Trustee has implemented interest-rate and inflation hedges to minimise the impact on the funding level if either of these changes.

The Trustee and the Company agreed not to allow for post actuarial valuation date experience when setting the contributions in this actuarial valuation.

Reasons for change in past service funding position

The past service results show that the deficit of £174.8M in the Plan at the previous actuarial valuation has become a deficit of £20.3M at this actuarial valuation. The chart below quantifies the key reasons for this change:



The analysis shows that the main factors affecting the funding position since the previous actuarial valuation have been:

- Ongoing Funding Obligation Contributions paid, which have reduced the deficit
- Investment returns being greater than expected, which have reduced the deficit
- Changes in market conditions, in particular falling gilt yields, which have increased the deficit
- Changes to the actuarial valuation assumptions agreed as part of the actuarial valuation, which have decreased the deficit

Recovery plan

Following discussions, the Trustee and the Company have agreed a recovery plan as described below.

The recovery plan is designed to eliminate the deficit at the actuarial valuation date relative to the technical provisions by the end of the recovery period (which is by 31 October 2020) through a combination of additional contributions and investment returns above the discount rate used to calculate the technical provisions.

The other assumptions underlying the recovery plan are the same as for the technical provisions.

Full details of the agreed contributions are set out in the later section of this report.

Future service results

The table below shows the cost at the actuarial valuation date of benefits that members will earn in the Plan in future.

	% Annual Salaries
Value of benefits accruing	45.1%
Less member contributions	(11.9%)
Net cost to the Company	33.2%

A handful of active members with HMRC protection receive lump sum death benefits from the Plan, but the Company pays the insurance premium of these directly so the cost is not included in the above.

The key assumptions are the discount and inflation rate. The sensitivity of the cost of future benefit accrual to changes in these key assumptions in isolation is as follows:

- A 0.25% p.a. decrease in the discount rate increases the value of benefits accruing to 47.5% of Annual Salaries.
- A 0.25% p.a. increase in the RPI inflation assumption (also allowing for the consequent impact on the assumptions derived directly from that assumption) increases the value of benefits accruing to 46.6% of Annual Salaries

Solvency position

The statutory estimate of the Plan's solvency position is set out below.

	Solvency (£M)
Value of past service benefits for	
Actives	167.5
Deferreds	989.0
Pensioners	1,006.4
Expenses	31.9
Value of liabilities (solvency estimate)	2,194.8
Value of assets	1,790.4
Surplus/(Deficit)	(404.4)
Solvency ratio	81.6%

This solvency estimate represents the estimated cost of purchasing annuities as at the actuarial valuation date from an insurance company to meet the Plan's benefits. The assumptions include an allowance for the expenses of winding-up the Plan. Further details and the assumptions used in the solvency estimate are summarised in Appendix E.

The solvency estimate is higher than the technical provisions, the broad reasons for which are set out below:

- Insurers will typically hold less risky assets which provide lower investment returns than are expected to be achieved on the Plan's assets
- Insurers typically hold larger margins, for example by assuming that members will live longer than is assumed in calculating the technical provisions
- Insurers need to cover costs, including administering the benefits, and also make a profit
- Allowance is made for the cost of winding up the Plan

In practice, if the Plan were to be discontinued with no solvent employer then the assets are unlikely to be sufficient to provide the benefits in full. If this were the case then:

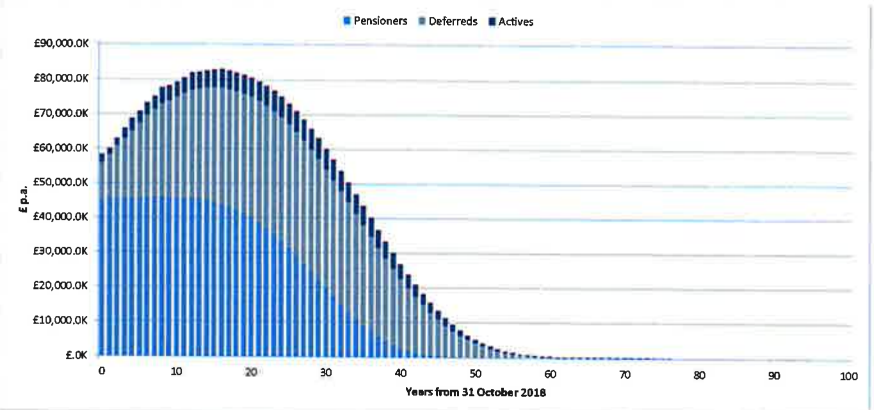
- Benefits corresponding to those covered by the PPF would be met first (either through the PPF or, if there were sufficient funds, by securing these benefits with an insurance company)
- Any remaining assets would be used to secure part of the remaining benefits with an insurance company

The proportion of full benefits provided will vary from member to member and may be higher or lower than the statutory estimate of solvency ratio quoted above.

Funding and investment risks

The funding level is likely to exhibit volatility. This is discussed below.

The benefit payments from the Plan are expected to be made for a very long period – the chart below shows the projected cashflows on the technical provisions basis for the Plan.



The Plan faces a number of key risks which could affect its future cashflows and funding position, including:

- Funding risk – the risk that the technical provisions are set too low and prove insufficient to meet the liabilities (e.g. in the event of unexpected discontinuance)
- Investment risks – the risk that investment returns are lower than assumed in the actuarial valuation, and also that the assets are volatile and move out of line with the liabilities, so the funding position is volatile
- Liquidity risk – the risk that cashflows are higher than expected as members commute more than is assumed or take transfer values, possibly leading to the sale of assets at inopportune times
- Longevity risk – the risk that Plan members live for longer than assumed and that pensions would therefore need to be paid for longer
- Inflation risk – the risk that inflation is higher than assumed, increasing the pensions that need to be paid
- Sponsor risk - this is the risk that the sponsor is no longer willing or able to support the Plan to fund the recovery plan and any future losses that arise
- Other risks – issues relating to climate change and other environmental risks as well as long-term uncertainty around geopolitical, societal and technological shifts may also impact on the funding, investments and sponsor covenant of the Plan

Actions taken by the Trustee to mitigate risks include:

- Adopting a diversified investment strategy
- Investing in liability driven investments, so that changes in the value of the liabilities will be largely matched by changes in the asset values, thus reducing the funding volatility

Agreed contributions and projections

The Ongoing Funding Obligation Contributions are determined using the approach set out in the statement of funding principles.

Ongoing Funding Obligation Contributions are calculated as:

- Cost of new benefits accruing in excess of salary sacrifice contributions; plus
- Amortisation of deficit (see below); less
- Additional expected return on assets above the discount rate used to value the technical provisions

The amortisation of deficit is calculated as set out as follows:

- Any deficit below 85% of the technical provisions will be amortised over 1 year
- Any deficit between 85% and 95% of the technical provisions will be amortised over 3 years
- Any deficit between 95% and 100% of the technical provisions will be amortised over 5 years

Assumptions for the calculation of Ongoing Funding Obligation Contributions are:

- The technical provisions will continue to be calculated according to the method and assumptions as at set out in the Statement of Funding Principles dated 23 January 2020
- Future experience from the date of the actuarial valuation will be in line with the assumptions underlying the Technical Provisions as at that date, except that the future investment returns during the recovery period will be equal to 3.60% p.a. throughout
- Ongoing administration expenses and levies payable by the Plan are equal to £2,000,000 p.a.
- The above returns are assumed to apply to both existing assets and future contributions held in respect of final salary liabilities

Agreed contributions

Since the date of the actuarial valuation as at 31 October 2018, the Employer paid £3,800,000 into the Plan in April 2019.

In respect of amortisation of deficit and future accrual of benefits, the Company is not required to pay any further contributions.

This is because the Trustee and the Company anticipate that over the period the new schedule of contributions is in place, the April 2019 contribution, together with investment returns, will be sufficient to meet the cost of benefits in excess of Salary Sacrifice Funding Obligation Contributions being earned and the funding shortfall without any further Company contributions being required.

The actual Ongoing Funding Obligation Contributions paid will be recalculated each 31 October.

The Company will also pay Salary Sacrifice Funding Obligation Contributions.

Member contributions will continue at various rates as specified in the schedule of contributions, with DC AVCs payable in addition.

The contributions above are set out in a new schedule of contributions. As agreed, my certification of the schedule of contributions will be based on the position at the effective date of the actuarial valuation.

Projections

I estimate that, by the next actuarial valuation, these contributions will have:

- Increased the technical provisions funding level to about 101%
- Increased the solvency level to about 84%

These estimates assume that:

- The experience of the Plan between the two valuation dates is in line with the assumptions underlying the technical provisions and recovery plan as set out above
- The assumptions underlying the technical provisions and solvency measures remain as set out above

Next steps

Actions required to finalise the actuarial valuation process are summarised below.

The next steps are:

- For the Trustee to provide a copy of this report to the Company within 7 days
- To submit the actuarial valuation summary and supporting documentation to the recovery plan to the Pensions Regulator via Exchange
- To provide a summary funding statement to members by 30 April 2020 i.e. within 18 months of the actuarial valuation date

Checklist

The actuarial valuation process is complete when all of the following have been agreed and are in place:

- This scheme funding report, including my certification of the technical provisions
- Recovery plan
- Schedule of contributions, including my actuarial certification of the adequacy of the schedule of contributions

Appendix A – Legal framework and alternative presentation

Legal framework

This report is produced in compliance with:

- General Rule 4.2 of the Rules
- Section 224 of the Pensions Act 2004
- The terms of the Scheme Actuary Agreement effective from 1 October 2006 between the Trustee and me, on the understanding that it is solely for the benefit of the addressee

Alternative presentation including defined contribution benefits

Defined contribution benefits (i.e. DC AVCs) amounted to £8.3M as at the actuarial valuation date. If these benefits are included in the valuation:

- The value of the assets is £1,798.7M
- The technical provisions are £1,819.0M (funding level of 98.9%)
- The value of the solvency liabilities is £2,203.1M (solvency ratio 81.6%)

Appendix B – Membership data

The results in this report are based on membership data which is summarised below.

Active members	Number	Average age	Total Annual Salaries (£000 pa)	Average Annual Salaries (£ pa)	Average service (years)
2015	384	52	22,986	59,859	24
2018	169	54	10,566	62,521	27

Deferred members	Number	Average age	Total pension (£000 pa)	Average pension (£ pa)
2015	6,423	53	35 211	5,482
2018	5,479	55	30 391	5,547

Pensioners	Number	Average age	Total pension (£000 pa)	Average pension (£ pa)
2015	3,646	67	33 573	9,208
2018	4,426	69	42 958	9,706

- The average service for active members includes any transferred-in service
- The deferred pension amounts shown above include revaluations up to the actuarial valuation date
- The pensioners include dependants including dependent children
- Average age figures shown are un-weighted
- The data is correct at 31 July of the relevant year, but note that the 2015 membership data was adjusted to allow for 18 members who became deferred on 1 September 2015 as a result of having their employment transferred to the HP Inc group of companies. The 2018 data excludes 35 members who transferred out of the Plan after 31 July 2018 and before 1 November 2018.

I have conducted high level checks on the membership data provided and I am satisfied with its adequacy for the purpose of this actuarial valuation.

Appendix C – Benefits Valued

A summary of the key details of the Plan benefits considered in this actuarial valuation is set out below.

The Plan benefit structure is summarised below. Different benefit structures apply for some members, in particular members who left pensionable service in the past.

Normal Pension Date	A member's 65th birthday. Members can retire with an unreduced pension from age 60, with no Company or Trustee consent required
Pensionable Salary	Pensionable Salary is the annual basic salary on 1 July each year, less an amount equal to 1.5 times the annual Basic State Pension for a single person at that date
Pensionable Service	Complete continuous years and months of service as a member of the Plan, including Pensionable Service credited to the member under the Digital Pension Plan before 1 October 2006
Final Pensionable Salary	Final Pensionable Salary is the best average of member's Pensionable Salary during any 12 consecutive months in the 5 years before leaving Pensionable Service
Normal retirement pension	On normal retirement, a member paying higher rate contributions receives a pension calculated as: 1/50 of a member's Final Pensionable Salary for Pensionable Service to 1 July 1988 plus 1/60 of a member's Final Pensionable Salary for Pensionable Service from 1 July 1988 For members who have chosen to pay lower contributions, a range of lower accrual rates apply

Death after retirement	If a member dies within five years of retiring, a lump sum equal to the balance of five years' pension payments, less any pension payments for a spouse to the end of that period; plus A spouse's pension of 60% of the member's pension that would have been payable if the member had not taken a commutation lump sum. Dependants' and children's pensions may also be payable
Death in service	A spouse's pension of 60% of the prospective pension the member would have received had they continued in service until Normal Pension Age, but based on Pensionable Salary at the date of death. Dependants' and children's pensions may also be payable. The lump sum payable on death in service is now provided from a separate trust
Death in deferment	A spouse's pension of 60% of the member's pension revalued to the date of death, and a lump sum benefit of a refund of member contributions
Pension increases in payment	Pensions in excess of GMP relating to pensionable service before 6 April 1997 receive increases at the discretion of the Company. Pensions relating to pensionable service from 6 April 1997 to 30 June 2005 are subject to guaranteed increases in line with the Retail Prices Index capped at 5% per annum. Pensions relating to pensionable service after 30 June 2005 are subject to guaranteed increases in line with the Retail Prices Index capped at either 2.5% per annum or 5% per annum depending on member election. GMP accrued between 6 April 1988 and 5 April 1997 is increased in line with GMP Increase Orders (currently in line with the Consumer Prices Index up to a maximum of 3% per annum)
Pension increases in deferment	GMP is increased in deferment at a rate fixed at the date of leaving service. Benefits in excess of GMP are increased in line with statutory deferred increase orders, subject to maximum increase of 5% per annum for the period of deferment. For members who left service before 1 January 1991, increases to non-GMP benefit may be restricted below this level. For service after 5 April 2009, the maximum increase is 2.5% p.a. for the period of deferment
Transferred-in benefits	Transferred-in benefits are treated the same as normal scheme benefits with the exception of members with transfers-in prior to 1/7/88 which have a minimum pension age of 65.

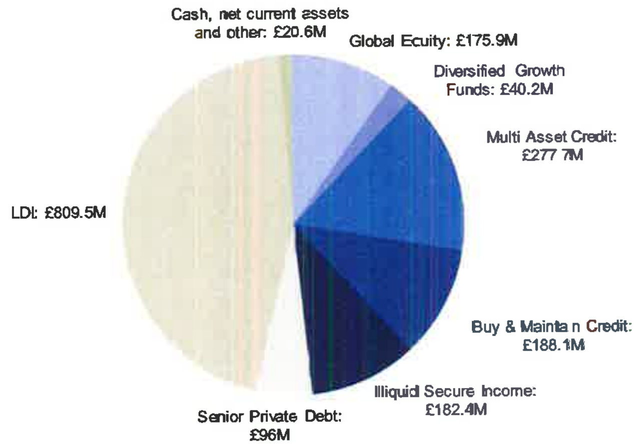
State Pension Scheme	The Plan was contracted out on a "Reference Scheme" basis until 5 April 2016
AVCs	Members of the Plan may choose to pay Additional Voluntary Contributions (AVCs) in order to purchase additional benefits. Members can pay In-Plan AVCs to secure additional Plan pension as a percentage of Final Pensionable Salary or can pay Investment Option AVCs which are invested separately from the other assets of the Plan
Notes	Certain categories of members of the Plan are entitled to different benefits from those summarised above

Appendix D – Assets

Information on the assets used in this actuarial valuation is covered here.

The audited accounts for the Plan for the year ended 31 October 2018 show the assets were £1,798.7M, of which £8.3M related to DC AVC assets.

The chart shows how the balance of the assets of £1,790.4M was broadly invested as at the actuarial valuation date.



Appendix E – Assumptions for solvency estimate

The key assumptions used in calculating the solvency estimate are summarised below.

The solvency estimate has been calculated in line with statutory requirements. I have taken into account the investment strategies that a life assurance company is likely to use to back its annuity business and the resulting pricing we would expect to see under the market conditions at the valuation date, taking into account the size of the Plan.

However, this estimate is only a guide. The true position can only be established by conducting a competitive buy-out auction and fully defining the scope and likely cost of a wind-up process for the Plan.

The basis used is described on the next page.

Solvency estimate

This considers the position if:

- The Plan were discontinued on the valuation date
- Member benefits were crystallised and, for active members, were based on their Pensionable Service and Salary at the valuation date
- Discretionary benefits were suspended permanently
- The assets were used to buy immediate and deferred annuities from an insurer

The solvency estimate is a regulatory requirement and also provides a useful benchmark against which the Trustee and others can assess the prudence of other funding measures.

Assumption	Solvency
Pre-retirement discount rate	Aon Bulk Annuity Market Monitor yield curve for non-pensioners
Post-retirement discount rate	Aon Bulk Annuity Market Monitor yield curve for pensioners or non-pensioners as appropriate
RPI inflation	Break-even RPI curve (swap pricing)
CPI inflation	RPI inflation less 0.6% pa
Salary inflation	N/A
Post-retirement mortality assumption - base table	SAPS S2 Light with scaling factors of 104% for males and 89% for females
Post-retirement mortality assumption - projection	CMI 2017 core projections with Sk=8 and long-term rate of 1.75% p.a.
Pre-retirement mortality assumption	70% of AX92 Ultimate tables
Withdrawals	None
Early Retirements	None
Commutation	None

Family details	▪ 94% of male members are assumed to be married at retirement or earlier death. It is assumed that the member is three years older than his spouse and that the spouse is female ▪ 75% of female members are assumed to be married at retirement or earlier death. It is assumed that the member is one year younger than the spouse and that the spouse is male
Expenses	The reserve for expenses allows for deductions to allow for the cost of forced sales of assets, an allowance for the management expenses associated with winding up and an estimate of the per member charges expected to be levied by an insurance company on buy-out. All of these allowances for expenses are presented as additions to the liabilities as the regulations require the assets to be shown at audited market value.
Discretionary benefits	No allowance made
GMP equalisation reserve	0.6% of liabilities

Appendix F – Certificate of technical provisions

Actuarial certificate given for the purposes of Regulation 7(4)(a) of the Occupational Pension Schemes (Scheme Funding) Regulations 2005

Hewlett-Packard Limited Retirement Benefits Plan: Digital Section

Calculation of technical provisions

I certify that, in my opinion, the calculation of the scheme's technical provisions as at 31 October 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 Trustee of the Plan and set out in the Statement of Funding Principles dated 23 January 2020.

Signature:		Date:	23/1/20
Name:	David Eteen FIA	Address:	Aon Hewitt Limited Verulam Point Stations Way St Albans AL1 5HE
Qualification	Fellow of the Institute and Faculty of Actuaries		

AppendixG – Glossary

Control period
This is the period of time from the valuation date that is considered when calculating the future service cost for schemes still open to accrual.

Deficit
This is the funding target less the value of assets. If the value of assets is greater than the funding target, then the difference is called the surplus.

Discount rate
This is used to place a present value on a future payment. A 'risk-free' discount rate is usually derived from the investment return achievable by investing in government gilt-edged stock. A discount rate higher than the 'risk-free' rate is often used to allow for some of the extra investment return that is expected by investing in assets other than gilts.

Discretionary benefits
Benefits that are not guaranteed under a scheme's rules and which are only granted to members at the discretion of the trustees and/or the sponsor.

Funding level
This is the ratio of the value of assets to the funding target.

Funding target
An assessment of the present value of the benefits that will be paid from the scheme in the future, normally based on pensionable service prior to the valuation date. Often, the funding target is equal to the technical provisions.

Gilt yield curve
The term-dependent yields on gilts derived from fixed-interest gilts published by the Bank of England which is extended by Aon Hewitt for years beyond those published.

Guaranteed Minimum Pensions (GMPs)
Most schemes that were contracted out of the State Earnings Related Pension Scheme (SERPS) before April 1997 have to provide a pension for service before that date at least equal to the Guaranteed Minimum Pension (GMP). This is approximately equal to the SERPS pension that the member would have earned had the scheme not been contracted out. GMPs ceased to build up on 6 April 1997 when the legislation changed.

Hedging
A liability is said to be hedged if a scheme holds investments which respond in the same way as it does to changes in the risk being hedged (eg interest rates or inflation). Gilts and swaps are examples of investments which are commonly used to hedge liabilities.

Limited Price Indexation (LPI)
The Pensions Act 1995 required schemes to provide a minimum level of annual increase to pensions in payment. The minimum level is the smaller of 5% and the increase in inflation* and applies to the pension earned from 6 April 1997 to 5 April 2005. With effect from 6 April 2005, the cap for statutorily required LPI for future service was reduced from 5% to 2.5%.

*Until 2010, inflation for the purpose of this minimum was defined with reference to changes in the Retail Prices Index. From 2011, inflation was defined with reference to changes in the Consumer Prices Index.

Pension Protection Fund (PPF)
The PPF was established with effect from 6 April 2005. The PPF will normally take over the assets of a pension scheme in the event of its employer becoming insolvent and the scheme having insufficient assets to provide the PPF benefits. The PPF will not provide the scheme benefits in full. The PPF is financed by a levy on most defined benefit pension schemes. The PPF benefits are broadly 100% of benefits for pensioners over normal retirement age and 90% of benefits up to a cap for all other members. Pension increases granted on benefits are at lower levels than apply in many schemes, in particular, benefits earned before 6 April 1997 would not be given any pension increases within the PPF.

Present value
Actuarial valuations involve projections of pay, pensions and other benefits into the future. To express the value of the projected benefits in terms of a cash amount at the valuation date, the projected amounts are discounted back to the valuation date by a discount rate. This value is known as the present value. For example, if the discount rate was 6% a year and if we had to pay a lump sum of £1,060 in one year's time the present value would be £1,000.

Projected Unit Method
One of the common methods used by actuaries to calculate actuarial liabilities and contribution rates. This method allows for full projected future increases to pay through to retirement or withdrawal.

Prudent
Prudent assumptions are assumptions that, if a scheme continues on an ongoing basis, are more likely to overstate than understate the amount of money actually required to meet the cost of the benefits.

Recovery plan
Where a valuation shows a funding shortfall against the technical provisions, trustees must prepare a recovery plan setting out how they plan to meet the statutory funding objective.

RPI inflation curve
The term-dependent RPI inflation expectations derived from fixed-interest and index-linked gilts published by the Bank of England which is extended by Aon for years beyond those published.

Schedule of contributions
Trustees of pension schemes must prepare and maintain a schedule of contributions. This shows the dates and amounts of contributions due from the employer and members. Under the Pensions Act 2004 the schedule must be put in place within 15 months of the valuation date.

Solvency ratio
This is the ratio of the market value of a scheme's assets to the estimated cost of securing a scheme's liabilities in the event of the discontinuance of the scheme.

The Statement of Funding Principles
The Pensions Act 2004 requires trustees to prepare (and from time to time review and if necessary revise) a written statement of their policy for securing that the statutory funding objective is met. This is referred to as a statement of funding principles.

Statutory estimate of solvency
This is the difference between the market value of a scheme's assets and the estimated cost of securing a scheme's liabilities in the event of the discontinuance of the scheme.

Statutory funding objective
Under the Pensions Act 2004, every scheme is subject to the statutory funding objective, which is to have sufficient and appropriate assets to cover its technical provisions.

Swap yield curve
The term-dependent yields on fixed-interest swaps derived by Aon from market data.

Surplus
This is the value of assets less the funding target. If the funding target is greater than the value of assets, then the difference is called a deficit.

Technical provisions
This is the present value of the benefits members are entitled to based on pensionable service to the valuation date, assessed using the assumptions agreed between a scheme's trustees and the company. It generally allows for projected future increases to pay through to retirement or date of leaving service.

Transfer value
Members generally have a legal right to transfer their benefits to another pension arrangement before they retire. In taking a transfer, members give up their benefits in a scheme, and a sum of money (called the transfer value) is paid into another approved pension scheme; this is used to provide pension benefits on the terms offered in that scheme.

Withdrawal
Members may leave a pension scheme before their normal retirement age (typically because they leave employment with the sponsor). When they do so, their accrued benefits will no longer be linked to future salary increases (where applicable), and will instead be linked to future inflation. Benefits will still be payable at normal retirement age.

Report Framework

This report has been prepared in accordance with the framework below.

TAS compliant

This report, and the work relating to it, complies with 'Technical Actuarial Standard 100: Principles for Technical Actuarial Work' ('TAS 100') and 'Technical Actuarial Standard 300: Pensions' ('TAS 300').

The compliance is on the basis that the Trustee is the addressee and the only user and that the report is only to be used as a summary of the outcome of the actuarial valuation. If you intend to make any other decisions after reviewing this report, please let me know and I will consider what further information I need to provide to help you make those decisions.

The report has been requested by the Trustee. It has been prepared under the terms of the Scheme Actuary Agreement between the Trustee and Aon Hewitt Limited on the understanding that it is solely for the benefit of the addressee.

This report should be read in conjunction with the Statement of Funding Principles dated 23 January 2020.