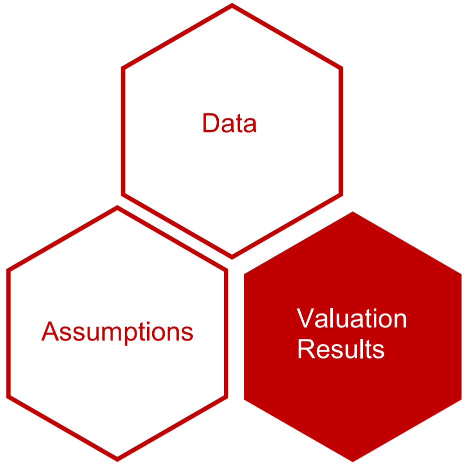

Actuarial valuation at 31 March 2019
Summary of results

Teesside Pension Fund

Prepared for	Middlesbrough Borough Council as Administering Authority to the Teesside Pension Fund
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Date	13 January 2020

Empower Results®

Contents

Introduction and purpose

This paper was commissioned by the Administering Authority. Its purpose is to set out the initial results of the actuarial valuation of the Teesside Pension Fund (the Fund) as at 31 March 2019. It also sets out the results of the previous valuation of the Fund at 31 March 2016.

Purpose

The paper covers initial calculations of:

- The proposed target level of assets that we have discussed as being appropriate to meet the benefits that members have already earned (i.e. the past service liabilities).
- The contributions required to bring the assets in line with the proposed target and to pay for the benefits that members will earn in the Fund in the future.

This document is intended to allow the Committee to consider the actuarial method and assumptions for the valuation and possible employer contribution requirements arising from the valuation.

This report is a summary of the results of the 2019 valuation. Our previous report " Actuarial valuation at 31 March 2019 – initial results" dated 15 October 2019 contains more information about the data, assumptions and uncertainties in respect of the valuation. When read together with that report, this summary document complies with 'Technical Actuarial Standard 100: Principles for Technical Actuarial Work' ('TAS 100') and 'Technical Actuarial Standard 300: Pensions' ('TAS 300').

The report has been prepared under the terms of the Client Services Agreement between the Administering Authority and Aon Hewitt Limited on the understanding that it is solely for the benefit of the addressee.

Results of the previous valuation

The results of the previous valuation as at 31 March 2016 were as follows:

- The Fund's assets were £3,133.1M and the value of the liabilities was £3,122.0M, which corresponds to a surplus of £11.1M, and a funding ratio of 100%.
- The assessed employer cost of future service benefits was 15.7% of pay across the Fund as a whole.
- A reduction in contributions of 0.1% of pay was calculated to be required to return the Fund to 100% funded over 20 years.

Total employer contributions were certified as follows:

Year from 1 April	% of Pensionable Pay	Aggregate monetary contributions (£M)
2017	15.5	0.79
2018	15.7	0.81
2019	15.9	0.83

In addition, average members' contributions were 6.4% of Pensionable Pay.

Past service results

The initial results are shown below alongside the results from the previous valuation at 31 March 2016. Details of the data and assumptions are set out in Appendices A and B respectively.

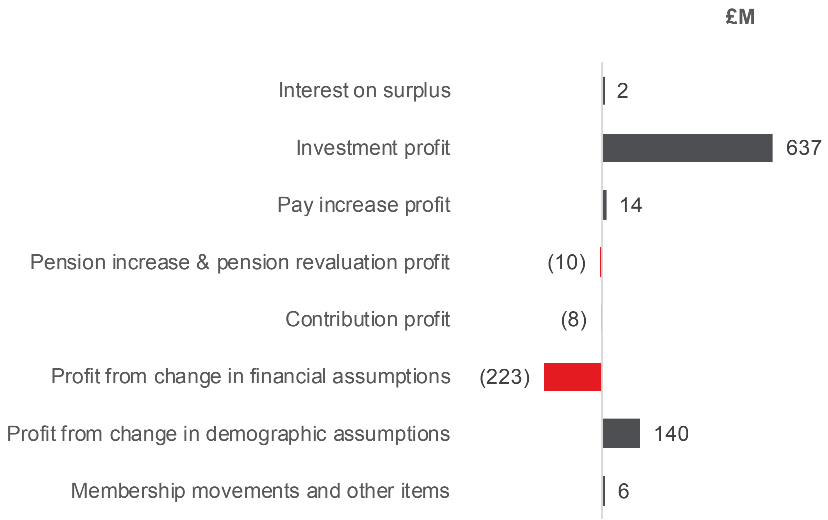
	Previous valuation results	Initial 2019 valuation results
Probability of funding success (PoFS)	*70%*	*75%*
Discount rate for scheduled body funding target	*4.7%*	*4.45%*
Value of past service benefits for:		
Actives	£1,142.0M	£1,206.2M
Deferreds	£529.2M	£615.3M
Pensioners	£1,450.8M	£1,697.5M
Total value of past service liabilities	£3,122.0M	£3,519.0M
Value of assets	£3,133.1M	£4,088.1M
Past service surplus/(deficit)	£11.1M	£569.1M
Funding ratio	100%	116%

Note that the results above are based on the known position as at the date of this report. The final results may differ as queries are resolved and funding targets are finalised for employers.

Reasons for change in past service position

The initial valuation results show that the surplus of £11.1M in the Fund at the previous valuation has become a surplus of £569.1M at this valuation (before allowance for possible liabilities arising from the McCloud judgement).

The chart below shows the key elements of gain or loss leading to this change. Bars to the right of the centre line show sources of gain relative to the 2016 position, whilst those to the left show losses.



As the chart shows, the main factors which have led to an improvement in the funding position are:

- Investment returns above the discount rate adopted at the 2016 valuation
- Changes to the demographic assumptions (particularly longevity)

These have been partially offset by the following main factors which on their own have reduced the funding position:

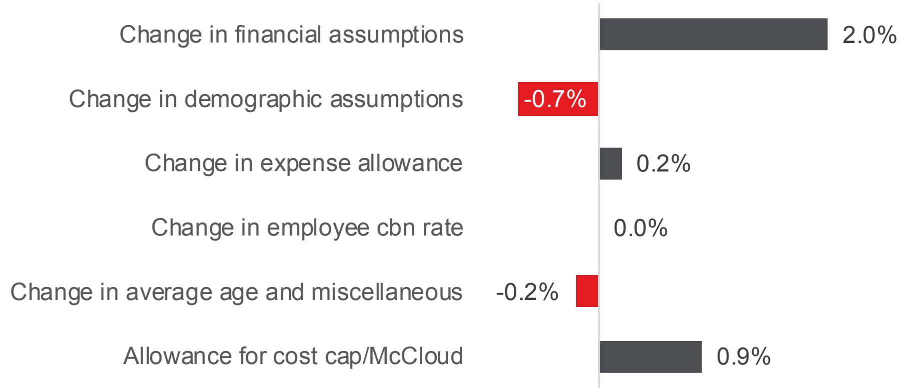
- The change in the financial assumptions (principally the fall in the discount rate relative to inflation)

Aggregate Primary Contribution Rate

The cost of benefits that members will earn in the Fund are shown below, alongside the results from the previous valuation.

% of Pensionable Pay	Previous valuation results	Initial 2019 results
Value of benefits accruing	21.5	22.6
Death in service lump sum	0.3	0.2
Expenses	0.4	0.6
***Less* member contributions**	(6.5)	(6.4)
Net Employer cost pre McCloud (Primary contribution rate)	15.7	17.0
Allowance for McCloud/Cost Management	n/a	0.9

The cost of future benefits at this valuation has increased significantly (as a percentage of Pensionable Pay) since the previous valuation. The main reasons for this are shown below.



As the chart shows, the main factor which has led to an increase in the primary contribution rate is the change in the financial assumptions (principally the fall in the discount rate relative to inflation).

This has been partially offset by the reduction in the allowance for longevity improvements (and other demographic assumptions) which has reduced the cost of benefits accruing.

Adding in allowance for the possible cost of the McCloud judgement / Cost Management further increases the cost.

Total Employer Contributions

In addition to the primary contributions set out in the previous section, we also need to consider the secondary contributions required to restore the funding position to 100%. The aggregate required contributions across the Fund as a whole, comprising primary and secondary contributions, are as set out below, alongside the results from the previous valuation.

Basis	Previous valuation	Initial 2019 valuation results
Primary contribution rate (% of pay) pre McCloud/Cost Management	**15.7**	**17.0**
Recovery (spreading) period	20 years	22 years*
Secondary contributions (% of pay) (targeting 105% funding position at 2019)	(0.1)	(4.8)
Total contributions (equivalent % of pay) pre McCloud/Cost Management	15.6	12.2
Allowance for possible cost of McCloud/Cost Cap	*n/a*	*0.9*
Total contributions allowing for approximate possible cost of McCloud/Cost Management	**15.6**	**13.1**

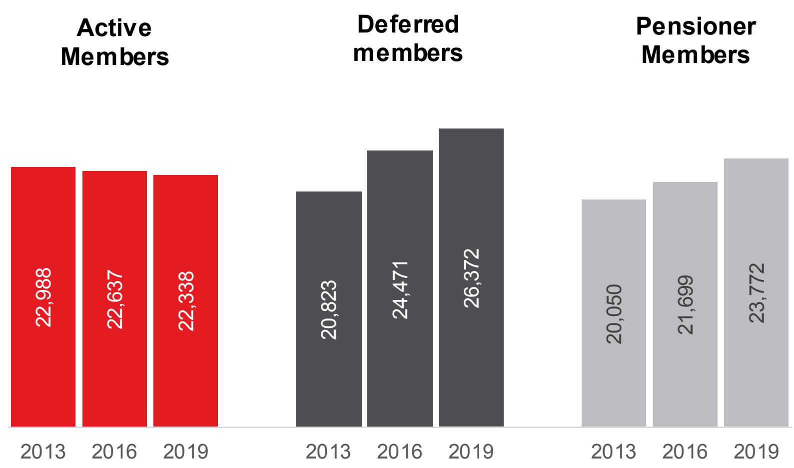
* In the 2019 valuation the recovery period for employers in surplus has been increased from 20 years to 22 years, which is a more prudent approach to take for employers in surplus and generally helps stabilise contribution rates in the 2019 valuation.

Appendix A – Data

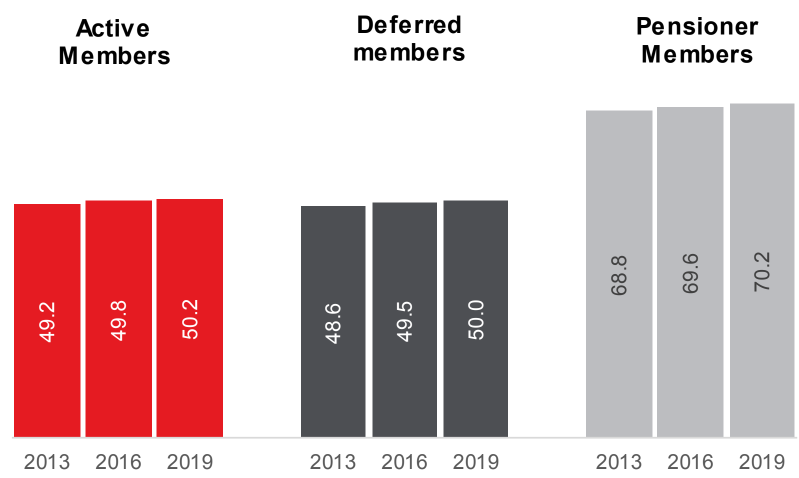
The results in this report are based on membership data as at 31 March 2019 supplied to us by Paul Mudd on 16 August 2019, and asset data taken from the Pension Fund Accounts for the year to 31 March 2019.

The charts below show how the membership profile of the Fund has changed over the past three valuations.

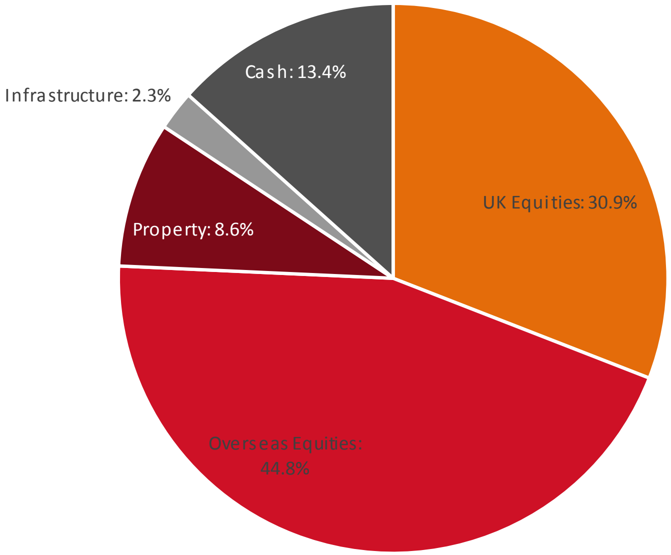
Number of members



Average age (weighted by pension size)



The chart below shows the approximate split of the Fund's assets of £4,088.1m between the different asset classes on the valuation date.



Appendix B - Assumptions

Financial assumptions

Assumption	2016 valuation	2019 valuation
Main scheduled body funding target:		
Probability of funding success	70%	75%
Discount rate	4.70%	4.45%
Ongoing orphan funding target:		
In service discount rate	n/a	4.45%
Left service discount rate	n/a	3.00%
Exit basis funding target:		
Discount rate	n/a	1.30%
RPI inflation	3.10%	3.20%
CPI inflation (pension increases / CARE revaluation)	2.00%	2.10%
Post 88 GMP pension increases	1.80%	1.90%
Pay inflation	3.00%	3.10%

Demographic assumptions

Assumption	2016 valuation	2019 valuation
Pre-retirement mortality assumption – base table **Males** **Females**	50% of S2PMA 50% of S2PFA	40% of S2NMA 40% of S2NFA
Post-retirement mortality assumption – base table		
Actives and deferreds retiring in normal health **Males** **Females**	100% of S2PMA 100% of S2PFA	110% of S2NMA 110% of S2NFA
Contingents of current actives and deferreds: **Males** **Females**	100% of S2PMA 100% of S2PFA	120% of S2NMA 120% of S2NFA
Pensioners retiring in normal health and dependants **Males** **Females**	100% of S2PMA 100% of S2PFA	105% of S2NMA 110% of S2NFA
Ill health pensioners **Males** **Females**	110% of S2IMA 110% of S2IFA	110% of S2IMA 105% of S2IFA
Contingents of current pensioners **Males** **Females**	100% of S2PMA 100% of S2PFA	110% of S2NMA 110% of S2NFA
Mortality assumption – future improvements	CMI 2014 core projections with long-term improvement rate of 1.5% p.a.	CMI 2018 core projections with long-term improvement rate of 1.50% p.a. s_k of 7.5 and parameter A of 0.0.
Withdrawals	Allowance for withdrawals from service based on experience of the fund. On withdrawal, members are assumed to leave with a deferred pension in the Fund.	Allowance for withdrawals from service based on experience of the fund. On withdrawal, members are assumed to leave with a deferred pension in the Fund.
Promotional salary increases	Allowance for age-related promotional increases	Allowance for age-related promotional increases.

Assumption	2016 valuation	2019 valuation
Ill-health early retirements	Allowance for retirements due to ill-health based on experience of the fund. Proportions into the different benefit tiers are: Tier 1 - 80% Tier 2 - 10% Tier 3 - 10%	Allowance for retirements due to ill-health based on experience of the fund. Proportions into the different benefit tiers are: Tier 1 - 85% Tier 2 - 10% Tier 3 - 5%
Commutation	Each member is assumed to surrender pension on retirement, such that the total cash received is 80% of the permitted maximum.	Each member is assumed to surrender pension on retirement, such that the total cash received is 80% of the permitted maximum.
Family details	Each man is assumed to be three years older than his wife/partner. 80% of non-pensioners are assumed to be married or have a spouse, civil partner or co-habitee ('partner') at retirement or earlier death. 80% of pensioners are assumed to be married or have a partner at age 65. No allowance for children's pensions.	Each man is assumed to be three years older than his wife/partner. 80% of non-pensioners are assumed to be married or have a spouse, civil partner or co-habitee ('partner') at retirement or earlier death. 80% of pensioners are assumed to be married or have a partner at age 65. No allowance for children's pensions.
Take up of 50:50 scheme	All members are assumed to remain in the scheme they are in at the date of the valuation.	All members are assumed to remain in the scheme they are in at the date of the valuation.
Retirement age		
Group 1 and Group 2 members (fully and taper protected members)	Rule of 85 age (Ro85 age)	63
Group 3 members (Ro85 age = 60)	65	63
Group 3 members (Ro85 age > 60)	65	65
Group 4 members (Joiners pre 1 April 2014)	65	65
Group 4 members (Joiners post 31 March 2014)	State pension age	State pension age
	Any part of a member's pension payable from a later age than the assumed retirement age will be reduced.	