

# Hays Pension Scheme

Actuarial valuation as at 30 June 2018

Scheme funding report

7 December 2018

Richard Shackleton

Fellow of the Institute of Actuaries  
For and on behalf of Hymans Robertson LLP



# Contents

## Scheme funding report

Page

1	The results of the valuation	1
2	What would happen if the scheme was wound up?	3
3	Changes since the previous valuation	4
4	Risk management	5

## Appendices

- Appendix A: Methodology and assumptions
- Appendix B: Data – benefits, membership and assets
- Appendix C: Technical provisions certificate
- Appendix D: Reliances and limitations

# 1 The results of the valuation

I carried out an actuarial valuation of the Hays Pension Scheme ('the Scheme') as at 30 June 2018 ('the valuation date') and this is my report on the results of the valuation. This is a scheme funding report.

## Funding objectives

The Trustee is required to adopt a 'statutory funding objective'. The statutory funding objective is that the Scheme must have 'sufficient and appropriate' assets to meet the expected cost of providing members' past service benefits which we refer to as 'technical provisions'. The 'statement of funding principles' sets out the Trustee's policy for meeting the statutory funding objective.

The Trustee also has a long-term objective to have sufficient funds to be able to buy out the Scheme with insurers by 2032. This is set out in a Memorandum of Understanding agreed with the Company.

## Summary of results

The Scheme's funding position as at 30 June 2018 is shown below alongside the position at the last valuation for comparison.

	Previous valuation 30 June 2015	This valuation 30 June 2018
<b>Assets</b> <i>See the Trustee's Report and Accounts as at the valuation date for further details</i>	<b>628.6</b>	<b>802.6</b>
<b>Technical provisions liabilities</b> <i>An estimate of the amount needed to pay benefits, using the assumptions specified by the Trustee's (see appendix A)</i>	<b>723.5</b>	<b>846.1</b>
Active liabilities	0.0	0.0
Deferred liabilities	480.6	544.5
Pensioner liabilities	232.9	276.5
Expenses	10.0	20.0
Additional reserve for GMP liabilities notified by HMRC*	0.0	5.1
<b>Surplus/(deficit)</b> <i>Technical Provisions less assets</i>	<b>(94.9)</b>	<b>(43.6)</b>
<b>Funding level</b> <i>Assets divided by Technical Provisions</i>	<b>87%</b>	<b>95%</b>

\*These are additional GMP liabilities which have been identified as part of the ongoing GMP reconciliation with HMRC. They are not in respect of GMP equalisation.

The technical provisions deficit have decreased from £94.9m in the last valuation to £43.6m at this valuation. The key factors which have contributed to this change are:

- deficit contributions paid into the Scheme;
- excess returns on assets and slightly lower inflation, somewhat offset by a fall in gilt yields leading to an increase in liabilities;
- more deaths than expected over the period and revised mortality assumptions which result in a lower value being placed on the liabilities;

- offset to some extent by a revised discount rate assumption which reflects the de-risking of the Scheme, and a higher reserve for Scheme expenses.

Changes since the previous valuation are covered in more detail in section 3.

### **Contributions**

Following discussions it has been agreed the Employer will pay:

- deficit contributions of £15.2m p.a. from 1 July 2018 onwards, increasing by 3% p.a. on each 1 July. The Company has indicated an intention to continue these payments until 30 June 2028, although full funding on Technical Provisions is expected to be achieved by 31 May 2021.

An expense reserve of £20m has been allowed for in the liabilities.

### **Post valuation changes**

In August 2018, the Scheme entered into a buy-in contract with Canada Life, covering the majority of the pensioner population. The funding impact of this was to increase the deficit on the Technical Provisions basis by c£8m. This has been taken into account when agreeing contributions with the Company. The buy-in transaction was completed in August 2018.

## 2 What would happen if the scheme was wound up?

The results in the previous section of the report were prepared on the assumption that the Scheme will continue to operate with the financial backing of the Employer (Hays Plc). If the Employer were no longer able to support the Scheme, it may then be necessary to 'wind up' the pension scheme. This would involve selling the Scheme's investments and using the proceeds to buy annuities from an insurance company. The insurance company would then be responsible for paying pensions to members and their dependants. I have, therefore, estimated the cost of securing members' benefits in this way, had the Scheme wound up on the valuation date.

### Summary of results

£m	Previous valuation 30 June 2015	This valuation 30 June 2018
<b>Assets</b> <i>See the Trustee's' Report and Accounts as at the valuation date for further details</i>	628.6	802.6
<b>Solvency liabilities</b> <i>Estimated cost of buying annuities from an insurance company</i>	1,038.0	1,050.0
<b>Expenses</b> <i>Expenses of winding up the scheme</i>	48.0	30.0
<b>Surplus/(deficit)</b> <i>Solvency liabilities less assets</i>	(409.4)	(247.5)
<b>Funding level</b> <i>Assets divided by technical provisions</i>	61%	76%

On a wind-up further funds may be recovered from the employer under section 75 of the Pension Act 1995 and the employer debt regulations. The impact of any such recovery has been ignored in this assessment. If the assets on a wind-up are insufficient to secure the benefits in full, then a statutory priority order applies.

- Benefits corresponding to those covered by the PPF would be met first (either by 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.

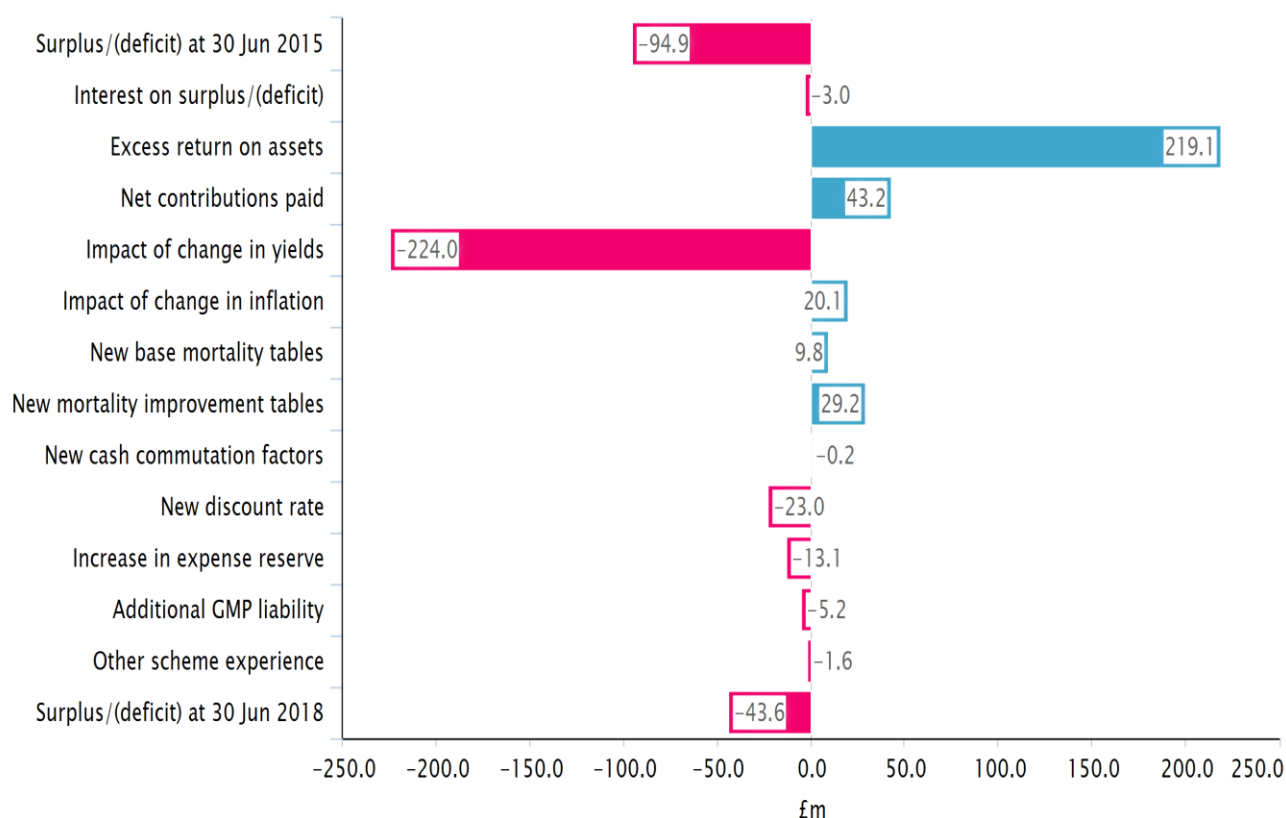
### Why are the solvency liabilities different to the technical provisions?

The assumptions used to estimate the solvency liabilities differ from those used to calculate the technical provisions (see Appendix A). This is because they are intended to reflect the assumptions which would be used by an insurer to calculate the cost of the annuities they sell.

The solvency estimate has been calculated using a basis that produces values consistent with our experience of bulk annuity quotations and the general levels of pricing in the market as at the date of valuation. Please note the results are a guide and should not be viewed as a quotation. The true cost of insurance can only be determined by obtaining quotations from providers active in the market and following completion of wind-up.

### 3 Changes since the previous valuation

Since the previous actuarial valuation of the Scheme, there have been changes to the scheme membership, the value of its investments, the economic environment in which the Scheme operates and the valuation assumptions. These changes have affected the Scheme's funding position as follows:



The analysis shows the main factors affecting the funding position since the last valuation have been as follows:

- deficit contributions paid into the Scheme;
- the fall in gilt yields leading to an increase in liabilities; however this was more than offset by excess returns on assets and lower inflation expectations;
- more deaths than expected over the period and revised mortality assumptions which result in a lower value being placed on the liabilities;
- a revised discount rate assumption which reflects the de-risking of the Scheme
- an increased reserve for Scheme expenses

## 4 Risk management

In the previous section, I showed the extent to which the assumptions made at the previous valuation did not reflect actual experience over the period since the last actuarial valuation. In this section I discuss the key risks to the Scheme and the potential implications of the actuarial assumptions not being met in the future.

### Funding, investment and covenant risks

The Trustee should understand the risks to their funding plans, particularly those related to funding, investment and the employer covenant.

Risk	How the Trustee manage this risk
<p><i>Employer covenant</i></p> <p>The Employer may not be able to continue to pay contributions or make good deficits in the future. The impact of this scenario is considered in section 2 of this report.</p>	<p>The Trustees commissioned a formal Employer covenant review by EY as part of the valuation, to get a sufficiently accurate assessment of Employer support. This concluded that covenant of the Employer was strong and therefore could pay the required contributions and underwrite Scheme risks.</p> <p>It was also noted that the covenant position had improved since the assessment made for the 2015 actuarial valuation, the cash flow position was very strong and there were very few items to be paid for from the cash flow and no amortisation of debt.</p>
<p><i>Investment</i></p> <p>If future investment returns are lower than allowed for in the valuation assumptions, assets will not grow in value as expected, and the funding level will fall. <b>This places greater reliance on the employer covenant since the employer would need to help put scheme funding back on track.</b></p>	<p>The Trustee manages this risk by using prudent assumptions in the valuation, by monitoring investment risks and performance, and also keeping the investment strategy under regular review.</p> <p>The risk in the investment strategy has also been incrementally reduced over time.</p>
<p><i>Funding</i></p> <p>Over time, the funding position will depend on the extent to which future experience matches the assumptions made. In particular, if life expectancy improves at a faster pace than allowed for in the valuation assumptions, then pensions will need to be paid for longer, so the liabilities will increase and the funding level will fall.</p>	<p>The Trustee has adopted Scheme specific mortality base tables derived using Hymans Robertson's Club Vita data bank which allows the Trustee to use the best available information when setting longevity assumptions.</p> <p>By incorporating an allowance for future longevity improvements in the actuarial assumptions the Trustee can lessen the future adverse impact of such improvements.</p> <p>Subsequent to the valuation the Trustee entered into a buy-in policy covering the vast majority of pensioner liabilities. This removes the longevity risk for this part of the membership.</p>

### Other risks

There are a range of further risks which the Trustee keep under review. These include the development of legislation relating to pensions and the impact of options offered to members.

There is also an increasing body of evidence demonstrating that resource and environment ('R&E') issues pose risks and opportunities to the companies that sponsor pension schemes to investment portfolios and to the wider economy (with implications for funding assumptions). R&E risks include factors such as rising and/or volatile energy prices, resource shortages, property damage (e.g. flooding, storms) and air, water and land pollution (e.g. clean-up costs, health effects, reputational damage).

These risks exist and may prove to be material. Given the lack of relevant quantitative information available specifically relevant to the Scheme, I have not explicitly incorporated such risks in these valuation results. The Trustees may wish to seek direct advice on these risks (e.g. from Hymans Robertson regarding future investment markets and/or longevity, or from a covenant adviser regarding the sponsoring employer).

## Employer

### Sensitivity of key assumptions

Scenario	Funding position surplus/(deficit)	Comments
Base case	(43.6)	This is the technical provisions position.
0.25% p.a. decrease in pre-retirement discount rate	(59.5)	The Trustee should have regard to the employer's ability and willingness to support the funding and investment risks within the Scheme. If the risks being run appear to be too great then the Trustee could target reaching a lower risk position by reducing the assumed investment returns within the discount rate.
0.25% p.a. decrease in post-retirement discount rate	(76.1)	As for the pre-retirement discount, the post retirement discount rate could also be reduced if the level of risk within the Scheme appears to be too high.  Note that
Scenario	Funding position surplus/(deficit)	Comments
0.25% p.a. increase in future inflation	(69.8)	For illustrative purposes I have shown the position if inflation-linked benefit increases linked to RPI or CPI grow at a faster rate. The Scheme has hedged broadly 100% of its technical provision's inflation exposure. However, the funding position shown makes no allowance for changes in asset values as the disclosed technical provisions position must use the market value of assets. In practice your hedging assets would be expected to increase in value, by broadly £26m, in this scenario.
0.25% p.a. decrease to RPI/CPI 'gap'	(55.8)	The assumption for CPI is rather subjective due to a lack of CPI related instruments which can be invested in. If CPI increases are greater than assumed then the funding position will deteriorate.



Broadly a 1 year increase in life expectancy at retirement age	(77.4)	The valuation results are sensitive to changes in future life expectancy. If longevity improves in the future at a faster pace than allowed for in the valuation assumptions then the funding position will deteriorate. In practice, the impact would be mitigated somewhat by an offsetting increase in the value placed on the buy-in policy which the Trustee entered into subsequent to the valuation date.
--	--------	--

### Longer-term projection

If the actuarial assumptions were borne out over the period from the date of this valuation to the next, then, provided employer contributions are paid at the rates shown in Section 1 of this report, the funding level would be expected to have increased to around 100% in c4 years, and the solvency level to have increased to around 80%.

## Appendix A: Methodology and assumptions

### A1. Methodology

Using the actuarial assumptions set by the Trustee I have estimated the payments which will be made from the Scheme throughout the future lifetimes of deferred pensioners, pensioners and their dependants. I then calculate the amount of money which, if invested now, would be sufficient to make these payments in future, assuming that future investment returns are in line with the assumed discount rate. This is the technical provisions. I compare these technical provisions with the value of the assets. The ratio of the asset value to the technical provisions is known as the 'funding level'. If the funding level is more than 100% there is a 'surplus'; if it is less than 100% there is a 'deficit'.

It is a requirement of the legislation that an 'accrued benefits funding method' must be used for valuing the technical provisions. In their application to technical provisions, such methods vary in only one material respect: the extent to which future pensionable pay growth is anticipated for employee members – which is not relevant for this Scheme.

### A2. Assumptions

The Trustee and Hays Pension Scheme are responsible for setting the funding assumptions for the actuarial valuation as at 30 June 2018. The assumptions adopted as at 30 June 2018 are set out in the statement of funding principles dated 17 December 2018.

	Technical provisions 30 June 2015	Technical provisions 30 June 2018	Long term objective 30 June 2018
<b>Key financial assumptions</b>			
<b>RPI increases</b>	Market implied RPI curve	Market implied RPI curve	Market implied RPI curve
<b>CPI increases</b>	RPI curve less 0.8% p.a.	RPI curve less 0.8% p.a.	RPI curve less 0.8% p.a.
<b>Pension increases</b>	LPI Pension Increases curves derived from RPI, adjusted for the impact of the cap and floor	LPI Pension Increases curves derived from RPI, adjusted for the impact of the cap and floor	LPI Pension Increases curves derived from RPI, adjusted for the impact of the cap and floor
<b>Discount rate (pre and post retirement)</b>	Market implied gilt yield curve plus 0.875% p.a.	Market implied gilt yield curve plus 0.75% p.a.	Market implied gilt yield curve
<b>Key demographic assumptions</b>			

<b>Longevity base tables</b>	2015 VITA tables	2018 VITA tables	2018 VITA tables
<b>Longevity future improvements</b>	CMI 2013 model with a long term rate of improvement of 1.5% p.a., assuming improvements had yet to peak	CMI 2017 model calibrated to Club VITA experience with increased smoothing (Sk=8) to moderate reaction to most recent data; long term rate of improvement of 1.5% p.a. assuming improvements have now peaked	CMI 2017 model calibrated to Club VITA experience with increased smoothing (Sk=8) to moderate reaction to most recent data; long term rate of improvement of 1.5% p.a. assuming improvements have now peaked
<b>Pre-retirement longevity base tables</b>	2015 VITA tables	PNXA00 standard tables	PNXA00 standard tables
<b>Early retirement</b>	All members are assumed to retire at the earliest age each tranche can be taken unreduced.		
<b>Late retirement</b>	No allowance is made for late retirement because the terms are broadly cost neutral. Members above normal retirement age are assumed to retire immediately.		
<b>Ill health retirements</b>	No allowance		
<b>Cash commutation</b>	Members assumed to exchange 60% of the maximum allowable amount of their pension for a cash lump sum at retirement		
<b>Transfers out</b>	No allowance		
<b>Expenses</b>	Expense reserve of £10m	Expense reserve of £20m	Expense reserve of £20m
<b>Dependants</b>	Actual spousal information where available (principally for pensioners included in the buy-in). Where data is not available, 80% of members are assumed to have a dependant at retirement or earlier death. Male members are assumed to be 5 years older than their female dependants and female members are assumed to be 5 years younger than their male dependants.		
<b>GMP equalisation</b>	The Lloyds judgement of November 2018, has determined that GMP's accrued over the period 17 May 1990 to 5 April 1997, need to be equalised. The details of how this should be done are being worked through, and as such we have not allowed for this in the valuation. Please see commentary in appendix B.		

### A3. Solvency assumptions

With the exception of the following changes I have used the same demographic and financial assumptions as for assessing the technical provisions

- The solvency position excludes the impact of the buy-in completed in August 2018 as this occurred after the valuation date.
- I have used a discount rate based on Swap market curves -0.15% p.a. pre and post retirement for deferred members, and a discount rate based on Swap market curve +0.6% p.a. for pensioners.
- Inflation has been set in line with implied inflation from Swap market curves.
- I have assumed that future CPI inflation is 0.7% p.a. less than future RPI inflation. The gap is smaller than used for technical provisions because there is no deep and liquid market for CPI linked assets that insurers could use to hedge CPI in their annuity book and so they need to hold additional reserves for CPI risk.
- I have used the same longevity base tables as for assessing the technical provisions as these are intended to reflect the expected future experience of the Scheme's membership; I would expect an insurer to take account of the Scheme's demographics in a similar way. Future improvements have been assumed as CMI 2016 model with increased smoothing ( $Sk=8$ ) to moderate reaction to most recent data; long term rate of improvement of 1.5% p.a. assuming improvements have now peaked.
- Within the liabilities I have allowed for insurer expenses in line with our understanding for transactions of this size.
- No allowance has been made for members commuting pensions for a cash lump sum on retirement.
- No allowance has been made for discretionary benefits.

## Appendix B: Data – benefits, membership and assets

### B.1 Benefits

The Scheme benefits that I have taken into account for the valuation are set out in the Scheme's trust deed and rules dated 12 June 2012 and the closure deed dated 29 June 2012.

Around 2% relate to a DC section of the Scheme ("the EPS DC section") that has a DB underpin. These assets and liabilities are included in the valuation at an aggregate level. No account has been taken of this underpin at an individual level, and as such the shortfall may ultimately be greater than shown in this valuation, but any difference is not expected to be material.

There is no history of providing discretionary benefits (i.e. benefits or increases to benefits in excess of those payable under the scheme's rules) and I have made no allowance for such discretionary benefits in the valuation.

The outcome of the Llyods case in October 2018 was that schemes will have to equalise GMP accrued between 17 May 1990 and 5 April 1997. Further details are expected from the court with regard to historic payments, including transfers out of the Scheme, and those to deceased members - and guidance is expected to be issued by the DWP. Because of the ongoing uncertainty, and work to quantify the impact of GMP equalisation we have not yet been able to put a value on the increase to the liabilities that will result. A typical estimate of the additional liabilities that could arise as a result of GMP equalisation is 10-20% of the GMP liability in respect of post 16 May 1990 service. Therefore, the additional liability in respect of GMP equalisation for the Scheme could be c£7-15m at 30 June 2018. However, please note that this is a broad estimate only and does not represent a minimum or maximum.

## B.2 Membership.

The membership data as at the valuation date is summarised below:

Status	30 June 2015			30 June 2018		
	Number	Pensions	Average age	Number	Pensions	Average age
Deferred	5,326	£22.3m p.a.	51.3	4,572	£19.0m p.a.	52.4
Pensioner	2,541	£11.9m p.a.	67.5	2,750	£12.8m p.a.	68.7
<b>Total</b>	<b>7,867</b>			<b>7,322</b>		

The Scheme membership has changed since the previous valuation; members have left the Scheme, retired and died. Whilst membership changes were anticipated at the previous valuation, the actual changes have inevitably not exactly matched the assumptions made at the previous valuation.

The pensions shown in the table above are as at the valuation date for pensioner members and deferred pensioners. Average age in the table are weighted by liability.

The data has been provided by the Trustee via the scheme administrator. We have carried out some high level checks to be comfortable that the data is broadly consistent with that provided for the last valuation but I have relied on the accuracy of this information provided. I have no reason to doubt that the membership data provided is materially complete and correct.

## B.3 Assets

The Scheme's assets include additional voluntary contributions (AVCs) paid by members. At retirement, these funds are used to buy benefits for members on a money-purchase basis, with no possibility of profit or loss for the Scheme. In my valuation I have excluded these assets and the corresponding liability. The market value of assets at the valuation date (excluding insured money purchase Additional Voluntary Contribution funds) was £803m as shown in the audited accounts for the Scheme for the period ending on the valuation date.

The Trustee's investment strategy as at the valuation date was as follows:

Asset class	Allocation as at 30 June 2018 (£m)	Allocation as at 30 June 2018 (%)
Equities	86.6	10.8%
Global Multi-Asset Credit	63.4	7.9%
Property	52.6	6.5%
Corporate Bonds	222.7	27.7%
Absolute return and cash	110.1	13.7%
LDI portfolio	258.4	32.2%
Insured annuity policies	8.8	1.1%
<b>Total</b>	<b>802.6</b>	<b>100%</b>

Hedge ratio: 77.0% inflation risk, 75.0% interest rates risk Full details of the Trustee's investment strategy are contained in the Scheme's Statement of Investment Principles.

## Appendix C: Technical provisions certificate

My certification of the calculation of the technical provisions is included below. I am also required to certify the adequacy of the contribution rates set out in the schedule of contributions. That certificate is appended to the contribution schedule.

Actuarial certification of the calculation of technical provisions as required by regulation 7(4)(a) of the Occupational Pension Schemes (Scheme Funding) Regulations 2005

Name of scheme: Hays Pension Scheme

Calculation of technical provisions

I certify that, in my opinion, the calculation of the scheme's technical provisions as at 30 June 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 Scheme and set out in the statement of funding principles dated 17 December 2018.

Signature

Date 17 December 2018

Name Richard Shackleton

Qualification Fellow of the Institute of Actuaries

Name of Employer Hymans Robertson LLP

Address One London wall

London

EC2Y 5EA



## Appendix D: Reliances and limitations

### Purpose of the valuation

This valuation has been carried out to comply with the statutory requirements of Part 3 of the Pensions Act 2004, which requires trustees to periodically obtain an actuarial valuation, defined as “a written report, prepared and signed by the actuary, valuing the scheme's assets and calculating its technical provisions”.

### Addressee

This report is addressed to the Trustee's of the Scheme which commissioned the work and is provided solely for its purposes in the management of the Scheme and in particular to fulfil its statutory obligations and requirements of the Scheme governing documents. It should not be used for any other purpose. It should not be released or otherwise disclosed to any third party except as required by law or with our prior written consent, in which case it should be released in its entirety. The Trustee is obliged to pass a copy of the report to the Employer within 7 days. Neither I nor Hymans Robertson LLP accept any liability to any party other than the Trustee's unless we have expressly accepted such liability in writing.

### Compliance

This report complies with the requirements of the following Technical Actuarial Standards (TASs): TAS 100 and TAS 300.

The following communications are also relevant to this report:

- Assumptions Advice report dated 11 June 2018
- Club Vita reports dated October 2017 and September 2018
- Preliminary results report dated 4 October 2018
- Document titled “Hays Pension Scheme – responses to Company questions’ – issued on 14 November 2018”

### Resource & environment risks

The weight given to resource & environment (R&E) issues should depend on a scheme's circumstances, including its funding position and maturity, its investment strategy and its employer's industry sector. These risks exist and may prove to be material. Given the lack of relevant quantitative information available specifically relevant to the Scheme, I have not explicitly incorporated such risks in these valuation results.

### Covenant risk

I have not advised on factors particular to the Employer, or the Employer's industry. I am not, in my opinion, best qualified to advise the Trustee on these Employer-related matters. The Trustee commissioned a formal covenant review by EY as part of the valuation to get an assessment of Employer support.