HYMANS ROBERTSON

London Borough of Croydon Pension Fund

Actuarial Valuation as at 31 March 2014 for IAS19 purposes

April 2014

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Fellow of the Institute and Faculty of Actuaries

For and on behalf of Hymans Robertson LLP

PUBLIC SECTOR

Contents

1 Introduction and summary

Scope

1 I have been instructed by the Administering Authority named in the accompanying Results Schedule to undertake pension expense calculations for the Employer named in the Results Schedule, for the purpose of complying with International Accounting Standard 19 'Employee Benefits' ("IAS19") ("the Accounting Standard") for the period ending 31 March 2014. The instruction is set out in the Terms of Engagement letter (see Results Schedule for date of signature). These calculations relate principally to the Employer's participation in the London Borough of Croydon Pension Fund ("the Fund") which is part of the Local Government Pension Scheme ("the LGPS"). See paragraph 15 for further details.

2 These figures are prepared in accordance with our understanding of the latest version of IAS19, as last amended on 16 June 2011. This amendment included changes to IAS19 that took effect from 1 January 2013 for accounting periods ending on or after 31 December 2013. My calculations and advice, in this report and the accompanying Results Schedule, have been carried out in accordance with the Pensions Technical Actuarial Standard adopted by the Financial Reporting Council, which came into effect on 1 January 2013 (version 2), and other TASs: see 4.1. This report does not constitute an audit opinion in relation to the Fund. This constitutes a "valuation exercise", as the results of my calculations will be formalised in the Employer's financial statements.

3 Under accounting guidance, employers are expected to disclose the sensitivity of the valuation to key assumptions, and the required information is contained in section 4 of this report.

Results

4 The results of our calculations for the period ended 31 March 2014 and the projected defined benefit cost for the year ended 31 March 2015 are set out in the Results Schedule.

5 The significant changes that have taken place during the year for a typical employer in the Fund are that:

- the deficit has reduced due to changes to assumptions and strong asset returns;
- this has been partially offset by falling real bond yields; and
- the projected defined benefit cost for next year has fallen slightly due to a lower net interest cost.

6 Please let me know if the Employer wishes to discuss the contents of this report or if, having considered the results, the Employer wishes to consider alternative assumptions. Note that this is likely to incur additional fees. As noted above, the impact of varying certain key assumptions is illustrated in section 4.

Reliances and limitations

7 This report (including the accompanying Results Schedule) is provided to the Employer solely for the purpose of complying with the Accounting Standard for the period ending 31 March 2014. 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. However, a copy of this report may be passed to the Employer's auditor to be used solely for the purpose of their audit.

8 We accept no liability to any third party unless we have expressly accepted such liability in writing.

9 Note that the methodology of the Accounting Standard, in conjunction with the Fund's investment strategy, means that the surplus or deficit identified in this report can vary significantly over short periods of time. This means that the results set out should not be taken as being applicable at any date other than 31 March 2014.

10 The figures presented in this report are prepared only for the purposes of IAS19 and have no validity in other circumstances. In particular, they are not relevant for calculations undertaken for funding purposes, for accounting under any other standard, for bulk transfers or for other statutory purposes under LGPS Regulations.

11 The last formal valuation of the Fund was carried out as at 31 March 2013. We have projected the results of this valuation forward using approximate methods. Further comments in relation to this can be found in section 2.

12 The data with which we have been provided for this exercise is summarised in section 3. Where year-end information is not readily available, we have assumed that actual experience since 31 March 2013 has been in line with our expectations at that valuation.

13 The projected defined benefit cost calculations for the year to 31 March 2015 may be used for the purpose of any interim financial reporting during the year to 31 March 2015. However, subsequent adjustments may be necessary to take account of:

- any material events, such as curtailments, settlements or the discontinuance of the Employer's participation in the Fund;
- any changes to accounting practices; or
- any changes to the Fund.

14 The LGPS is a defined benefit statutory scheme, administered in accordance with the Local Government Pension Scheme Regulations 2013. It is contracted out of the State Second Pension.

15 This report and the Results Schedule deal principally with pension benefits provided via the LGPS. However, the Accounting Standard also requires the disclosure of any additional liabilities, for example, those in respect of additional pensions paid on retirement under the Discretionary Payment Regulations ("compensatory added years pensions")[1]. I have only valued such additional liabilities, which would not be covered in the formal LGPS funding valuation, to the extent that they have been notified to me and are summarised in the Results Schedule.

[1] The Local Government (Early Termination of Employment) (Discretionary Compensation) (England and Wales) Regulations 2000 were revoked on 1 October 2006. However, this revocation had no effect on any benefits granted under those Regulations.

16 I have not been notified by the auditor to the Employer of the materiality limits which apply to the Employer and I have therefore prepared these figures using methods which are as accurate as is feasible using the data made available to me and the timescale within which the report is required.

Next steps

The information set out in this report and Results Schedule should be included in a disclosure note in the Employer's report and accounts. Please let me know if the Employer would like us to assist in drafting this note.

I would be pleased to discuss this report with the Employer and its auditors.

Richard Warden FFA

For and on behalf of Hymans Robertson LLP

24 April 2014

2 Approach

Valuation method

1 As required under the Accounting Standard we have used the projected unit credit method of valuation.

2 No allowance has been made for administration expenses in the present value of the defined benefit obligation, or the balance sheet. Expenses are allowed for by way of increase in the current service cost.

3 The last formal valuation of the Fund was carried out as at 31 March 2013. We have projected the results of this valuation forward to 31 March 2014 using approximate methods (unless otherwise stated in the Results Schedule). The roll-forward allows for:

- changes in financial assumptions;
- additional benefit accrual;
- actual pension increase orders;
- estimated cash flows over the period; and
- membership information as summarised in Section 3.

4 In order to assess the value of the Employer's liabilities in the Fund as at 31 March 2014 (unless otherwise stated in the Results Schedule), I have rolled forward the value of the Employer's liabilities calculated at the latest formal valuation, allowing for the different financial assumptions required under the Accounting Standard at the accounting date. In calculating the current service cost I have allowed for changes in the Employer's pensionable payroll as estimated from either contribution or payroll information provided. In calculating the asset share, I have rolled forward the Employer's share of the assets allocated as at the latest valuation, allowing for investment returns (estimated where necessary), the effect of contributions paid into, and estimated benefits paid from, the Fund by the Employer and its employees.

5 In preparing the balance sheet at 31 March 2014 and the defined benefit cost to 31 March 2014, no allowance is made for the effect of and changes in the membership profile since 31 March 2013 (unless otherwise stated in the Results Schedule). The principal reason for this is that insufficient information is available to allow me to make any such adjustment. However, for most employers, the effect is likely to be immaterial in actuarial terms. If there have been significant changes (e.g. a large number of new entrants) since 31 March 2013, the Employer should discuss with its auditor whether an investigation into the effect on the balance sheet and service cost for 2013/2014 is required.

6 Whilst the liabilities calculated under the Accounting Standard include an allowance for some premature retirements on grounds of ill-health, there is no allowance for unreduced early retirements other than those actual cases of which I have been notified.

7 It is not possible to assess the accuracy of the estimated rolled-forward liability shown in the Results Schedule without conducting a full valuation. Such a valuation is generally not practical in the time available to meet the Employer's reporting requirements. The estimated liability will not reflect differences in demographic experience from that assumed (e.g. pensioner longevity) or the impact of differences between aggregate changes in salary and pension and changes for specific individuals.

8 Whilst we have no reason to believe that the approximations used in rolling forward the 31 March 2013 valuation to 31 March 2014 introduce any undue distortion in the results, the Employer and its auditors may wish to consider the size of the Fund's assets and liabilities in relation to the Employer's materiality limits. The Results Schedule will state if a full valuation has been carried out instead of a roll-forward.

9 For employers whose separate membership of the Fund started during the year:

- The Results Schedule relates to the part year from date of joining to 31 March 2014.
- The initial asset allocation used for accounting purposes (and in calculation of the opening funding level) will supersede any initial asset allocation previously quoted. However, if the calculations carried out in the past (contribution rate, etc) were based on final data and final assumptions as at the date of joining then the initial asset allocation used will be in line with that which was previously quoted.
- The liability value reported in the Results Schedule will differ from those in any previous reports related to the employer due to the different assumptions adopted under the Accounting Standard, compared to funding assumptions used for setting contribution rates etc.

Changes to IAS19

10 In June 2011 the International Accounting Standards Board (IASB) issued a new version of IAS19. This applies to financial years starting on or after 1 January 2013.

11 The key change is that the interest cost and expected return on assets components of profit are now combined into a net figure. In effect this means that the expected return has been replaced by a figure that would be applicable if the expected return on assets assumption was equal to the discount rate. An employer can therefore no longer show higher profits where a scheme invests in assets expected to generate higher returns (or lower profits where it invests in assets expected to generate lower returns).

12 Whilst some disclosure requirements have been removed new requirements have been added. The additions include:

- Enhanced descriptions of the nature of the scheme, the regulatory regime under which it operates, third parties responsible for scheme governance, and the risks posed to the employer.
- Figures illustrating the sensitivity of the scheme’s pension liabilities to changes in actuarial assumptions.
- Information about the profile of the scheme’s liabilities, including the weighted average duration of the pension obligation (see appendix 1).
- Details of a scheme’s funding policy, including the expected contributions to the scheme for the next year.
- A more detailed breakdown of scheme assets. The aim of this change is to split assets into classes that distinguish the nature and risk of those assets and to provide a detailed breakdown showing those with a quoted price in an active market and those that do not.

13 The information provided in the results schedule complies with these requirements (unless otherwise stated).

3 Data and information used

Benefit changes

1 The pension expense for the period to 31 March 2014 allows for the LGPS benefit design implemented for service from 1 April 2008 to 31 March 2014. The projected pension expense for the year to 31 March 2015 allows for the new LGPS benefit design (CARE), implemented for service from 1 April 2014. The figures are based on my understanding of the provisions of the Fund and are subject to change as any changes are made to the Fund.

Data sources

2 Our calculations are based on the following information and documents, all provided by the Administering Authority:

- the individual membership data submitted as at 31 March 2013 for the purpose of the formal funding valuation at that date (or, for employers which have joined the Fund after 31 March 2013, membership data as at the date of joining). Alternatively, if the Results Schedule states that a roll-forward approach has not been used, the individual membership data submitted for this accounting purpose;
- the individual pensioner member data in respect of LGPS unfunded pensions and Teachers' pensions where appropriate;
- the latest numbers of employees, deferred pensioners and pensioners;
- actual payroll information up to the latest available date;
- employer and employee contributions up to the latest available date and payroll data if available (in order to estimate contribution income and pensionable payroll for the accounting period)[2];
- the actual split of Fund assets as at the latest available date;
- the actual Fund returns provided up to the latest available date;
- the bid value of the Fund assets as at the latest available date; and
- any new early retirements from 1 April 2013 to the latest available date on unreduced pensions which are not anticipated in the normal employer service cost (e.g. non ill-health retirements before the earliest retirement age at which all the member's benefits can be taken unreduced), as set out in Section 1 of the Results Schedule.

Employer membership data

3 The membership data as at the last valuation (or at date of joining, for new employers), from which this year's results are rolled forward and the latest available membership data is summarised in the Results Schedule.

4 Details of the new early retirements from 31 April 2013 to the latest available date not allowed for in the formal valuation or the assumptions are summarised in the Results Schedule.

Assets and investment returns

5 Details of the return on the Fund over the year and the Fund's assets at the year-end are set out in the Results Schedule.

[2] Benefit expenditure is estimated from the data used for the previous formal valuation. I have assumed that all other income and expenditure (e.g. individual transfers) do not have a material impact on the estimated asset share as at 31 March 2014.

Unfunded benefits

6 Details of any unfunded benefits are set out in the Results Schedule.

Additional comments

7 Any specific comments on the data provided in respect of the Employer are set out in the Results Schedule.

4 Actuarial assumptions

Reliances and limitations

1 My advice to the Employer on the assumptions (and resulting draft disclosures) to be adopted for the purpose of the Accounting Standard is compliant with the Pensions Technical Actuarial Standard, TAS D – Data, TAS M – Modelling and TAS R – Reporting [3]. This report, the attached Results Schedule and our briefing note (which is attached to this report as an appendix) comprise the totality of my advice on the assumptions: these documents show my recommendations, and the Results Schedule will show if I have been instructed by the Employer to use different assumptions.

Accounting principles

2 I have been advised of the accounting principles adopted by the Employer in preparing its accounts (see Results Schedule). The report and Results Schedule have been prepared in line with my understanding of the relevant guidance. The Employer should confirm adherence of the guidance with its auditor.

Responsibility

3 The assumptions are ultimately the responsibility of the directors (or equivalent) based on actuarial advice. Where we have been instructed to use different assumptions to those recommended, details are given in the Results Schedule.

Demographic assumptions

4 The mortality assumptions adopted for this year's exercise are consistent with those used for the formal funding valuation as at 31 March 2013. Please refer to the valuation report for further information.

5 The post-retirement mortality assumptions that I recommend this year are in line with our Club Vita analysis which was carried out for the formal funding valuation as at 31 March 2013. These are a bespoke set of VitaCurves that are specifically tailored to fit the membership profile of the Fund and are based on the data provided to us for the purposes of the last formal valuation. Improvements have been applied that are in line with the CMI 2010 model assuming the rate of longevity improvements has reached a peak and will converge to a long term rate of 1.25% p.a.

6 The other demographic assumptions which I recommend are adopted (e.g. commutation, pre-retirement mortality) are the same as those used for the formal funding valuation as at 31 March 2013. Full details of these assumptions are set out in the formal valuation report.

[3] Technical Actuarial Standards (TASs) are issued by the Financial Reporting Council (FRC) and set standards for certain items of actuarial work, including the information and advice contained in this report.

Financial assumptions

7 The financial assumptions used to calculate the components of the pension expense for the year ended 31 March 2014 were those from the beginning of the year (i.e. 31 March 2013) and have not been changed during the year. My recommended assumptions at 31 March 2014 for disclosure of the funded status under the Accounting Standard as at 31 March 2014 are summarised below along with those at 31 March 2013.

Period Ended	Weighted Average Duration Short 31 Mar 2014 % p.a.	Medium 31 Mar 2014 % p.a.	Long 31 Mar 2014 % p.a.	31 Mar 2013 % p.a.
Pension Increase Rate	2.6%	2.8%	2.9%	2.8%
Salary Increase Rate	3.4%	3.6%	3.7%	4.6%
Discount Rate	4.1%	4.3%	4.3%	4.5%

For employers that have joined the Fund since the latest formal valuation, details of the financial assumptions at the date of joining are given in Section 2 of the Results Schedule.

Discount rate

8 IAS19 states that the discount rate used to place a value on the liabilities should be "determined by reference to market yields at the end of the reporting period on high quality corporate bonds". It further states that "the currency and term of the corporate bonds shall be consistent with the currency and estimated term of the post-employment benefit obligations". To that end I have previously recommended a single discount rate for all LGPS employers broadly equivalent to the yield available on a basket of AA rated bonds with a duration similar to that of a 'typical' LGPS employer.

My previous approach to setting the discount rate was to identify the yield available on UK Government bonds (of appropriate duration) and add to this the mean credit spread. This spread was determined by comparing yields available on the constituents of the iBoxx AA over 15 year index with the Government bond yields at equivalent duration.

My approach to setting the recommended discount rate as at 31 March 2014 has changed in two key ways;

1) Rather than construct the discount rate as the yield on Government bonds plus a measure of the credit spread, it will be derived from a Corporate bond yield curve constructed from yields on high quality bonds.

2) The recommended discount rate for each employer will recognise the weighted average duration (or term) of the benefit obligation for each separate employer.

I have adopted an approach whereby a Corporate Bond yield curve is constructed based on the constituents of the iBoxx £ Corporates AA index and using the UBS delta curve fitting methodology.

Separate discount rates are then set (and corresponding RPI/CPI inflation assumptions – see below) for individual employers, dependent on their own weighted average duration. Each employer is allocated to a duration category, as defined below:

Weighted average duration	Discount rate category
Less than 17 years	Short
Between 17 and 23 years	Medium
More than 23 years	Long

The weighted average duration used to identify the appropriate category for each employer is that determined at the most recent actuarial valuation and shown in Section 3 of the Results Schedule.

Retail Price Inflation (RPI) assumption

9 This assumption is typically derived from yields available on fixed interest and index linked government bonds, and should be consistent with the derivation of the discount rate.

For consistency with the assessment described in paragraph 4.8 above, my recommended RPI inflation assumption for each discount rate category defined above has been identified at appropriate durations from the Bank of England implied inflation curve as at 31 March 2014.

Pension increase assumption

10 The pension increase assumption, as with the accounting exercise in the previous year, will be in line with the Consumer Prices Index (CPI). The CPI assumption will be calculated as RPI less 0.8% p.a., with RPI being calculated as outlined above.

Salary increase assumption

11 The salary increase assumption has been set to be consistent with the most recent formal valuation. As at 31 March 2014, the long term pay growth assumption is equal to RPI. An additional allowance has also been made for promotional salary increases.

Reasonableness of assumptions

12 There is a range of actuarial assumptions which are acceptable under the requirements of the Accounting Standard. I consider that the assumptions above are within the acceptable range and are thus consistent with the requirements of the Accounting Standard. Where I have been instructed by the employer to use different assumptions, these are shown in the Results Schedule: it is possible that these fall outside the range which I consider to be acceptable.

Sensitivity to assumptions

13 Accounting guidance requires disclosure of the sensitivity of the results to the methods and assumptions used.

14 The costs of a pension arrangement require estimates regarding future experience. The financial assumptions used for reporting under the Accounting Standard are the responsibility of the directors (or similar) of the Employer. These assumptions are largely prescribed at any point and reflect market conditions at the reporting date. Changes in market conditions that result in changes in the net discount rate (essentially the difference between the discount rate and the assumed rates of increase of salaries, deferred pension revaluation or pensions in payment), can have a significant effect on the value of the liabilities reported.

15 A reduction in the net discount rate will increase the assessed value of liabilities as a higher value is placed on benefits paid in the future. A rise in the net discount rate will have an opposite effect of similar magnitude.

16 There is also uncertainty around life expectancy of the UK population. The value of current and future pension benefits will depend on how long they are assumed to be in payment.

17 The disclosures have been prepared using longevity assumptions as per paragraph 5. Based on these assumptions, average life expectancies at age 65 are shown in the Results Schedule.

18 Details of the effect on the Fund of the changes in the above assumptions are displayed in the Schedule of Results (Section 6 – Sensitivity Analysis).

Risks and uncertainties

19 There are risks and uncertainties associated with whatever assumptions are adopted. The Accounting Standard requires the assumptions to be determined on a 'best estimate' basis. However, the assumptions are in effect projections of future investment returns and demographic experience many years into the future and there is inevitably a great deal of uncertainty inherent in what constitutes 'best estimate' with such projections. For the purpose of this report, I have interpreted best estimate to mean that the proposed assumptions are 'neutral': there is in my opinion an equal chance of actual experience being better or worse than the assumptions proposed.

20 It is also important to note that the Accounting Standard requires the discount rate to be set with reference to the yields on high quality corporate bonds irrespective of the actual investment strategy of the Fund. As such, the figures illustrated in the Results Schedule are unlikely to reflect either the actual eventual cost of providing the benefits or the likely level of contributions to fund the Employer's obligations to the Fund. Also, the balance sheet position may change significantly due to relative changes in the equity and bond markets at the reporting date.

21 The main risk to the Employer is that it determines assumptions that are more prudent (for example a lower net discount rate, higher longevity) than its peers, leading to a relatively poorer reported financial position. The Employer therefore needs to take into account both the requirement for a 'best estimate' set of assumptions and the commercial need not to overstate the pension liabilities.

22 There is also a risk that the Employer determines assumptions which are less prudent than its peers. This does not have an impact on the underlying cost of the Fund nor the level of contributions that will be derived from future funding valuations. However, analysts and other users of the accounts may take a view that the Employer is understating its pension liabilities if it uses weaker assumptions and this may have adverse consequences.

23 I have not addressed any risks to the Fund itself. Such advice would generally be given to the Administering Authority by the Fund Actuary through the actuarial valuation process.

5 Miscellaneous matters

Past service costs (including curtailments)

1 Past service costs can arise from the Employer awarding discretionary benefits e.g. added years augmentation or allowing LGPS employees to retire on unreduced benefits before attaining their “Rule of 85” age (subject to a minimum of age 60 and a maximum age of 65) on grounds of efficiency or redundancy.

2 Details of any such retirements are summarised in Section 1 of the Results Schedule and any past service costs are set out in Section 4 of the Results Schedule. These represent the difference between an active member reserve and the actual early retirement reserve both calculated at the time of early retirement based on year-end assumptions. Note that these costs relate only to LGPS benefits and not to other elements such as redundancy lump sums.

Settlements

3 My calculations do not take account of any liabilities being settled at a cost materially different to the Accounting Standard reserve during the period ended 31 March 2014, other than as set out in the Results Schedule.

Actual Asset return

4 It is worth noting that the expected asset return plus the gain/loss on assets will not always equal the actual return shown on the results schedule. This will typically arise due to the ‘recalibration’ at each formal funding valuation.

Bulk transfers

5 My calculations do not take account of any bulk transfers (in or out) since the Employer’s previous Accounting Standard valuation as at 31 March 2013 (or following the date of joining for new employers), other than as set out in the Results Schedule.

Recognition of surplus/deficit

6 The Accounting Standard imposes a limit on the maximum amount of surplus which can be recognised on the employer’s balance sheet (the ‘asset ceiling’). In broad terms, surplus can only be recognised to the extent that it is no greater than the present value of the liability expected to arise from future service by current and future scheme members less the value of future employee contributions. Where this situation **may** apply, this is indicated on the front page of the Results Schedule and further calculations may be required before publishing the results in the employer’s formal accounts.

7 My understanding is that the Employer has a “constructive obligation” to fund any deficit allocated to its share of the Fund and it should therefore fully recognise the whole of any deficit.

Deferred tax

8 No allowance has been made for deferred tax, and the appropriate treatment in respect of this should be agreed with the Employer’s auditors.

Results and disclosures

9 CIPFA's Code of Practice on Local Authority Accounting 2013/14 requires administering authorities of LGPS funds that prepare pension fund accounts to disclose what IAS26 refers to as the actuarial present value of promised retirement benefits. IAS26 relates to the Fund’s own financial statements, as opposed to the accounts prepared by the participating employers in the Fund. I have provided full details regarding this requirement to the Fund’s Administering Authority.

Appendix 1 – Glossary of technical terms

Actuarial gains and losses	Over a reporting period, these consist of: experience adjustments (the effects of differences between the previous actuarial assumptions and what has actually occurred, including reflection of any funding valuation which has taken place since the last report; and the effects of changes in actuarial assumptions (split between financial and demographic)
Current service cost	The increase in the present value of the defined benefit obligation resulting from employee service in the current period.
Net defined benefit liability (asset)	The present value of the defined benefit obligation less the fair value of the plan assets (adjusted for the asset ceiling).
Net interest income (expense)	The change during the period in the net defined benefit liability (asset) that arises from the passage of time. This includes allowance for interest on the current service cost.

Past service cost	The change in the present value of the defined benefit obligation for employee service in prior periods, resulting from a plan amendment (the introduction or withdrawal of, or changes to, a defined benefit plan) or a curtailment (a significant reduction by the entity in the number of employees covered by the plan).
Present value of defined benefit obligation	The present value, without deducting any plan assets, of expected future payments required to settle the obligation resulting from employee service in the current and prior periods.
Settlement	Occurs when an entity enters into a transaction that eliminates all further legal or constructive obligation for part or all of the benefits provided under a defined benefit plan, for example, when a lump-sum cash payment is made to, or on behalf of, plan participants in exchange for their rights to receive specified post-employment benefits.
Weighted average duration	The weighted average time until payment of all expected future discounted cashflows, determined based on membership and the financial and demographic assumptions as at the most recent actuarial valuation. The shorter the duration, the more 'mature' the employer.

Appendix 2 – Briefing Note on Assumptions