HYMANS ROBERTSON

London Borough of Croydon Pension Fund

Actuarial Valuation as at 31 March 2013 for IAS19 purposes

April 2013

Richard Warden

Fellow of the Institute and Faculty of Actuaries

For and on behalf of Hymans Robertson LLP

PUBLIC | SECTOR

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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 2013. 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 December 2004. However we are aware of changes to IAS19 which will take effect next year, and these are reflected in the projected net pension cost for 2013/14: see paragraphs 4.15 and 5.13. 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 I have assumed that the Employer wishes to adopt the option set out in paragraphs 93A-93D of IAS19 to recognise actuarial gains and losses through a Statement of Recognised Income and Expense (SoRIE), in the period in which they occur. We expect that the Employer and the auditor will use the advice in this report for the purposes of IAS19.

4 The Employer should also, as required in paragraph 120A(g) of IAS19, indicate whether the entire expense is reflected in operating expense, or whether the 'financing' items are reflected in an appropriate entry below operating profits. 'Financing' items are the interest cost and expected return on assets (see Glossary, Appendix 1). 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

5 The results of our calculations for the period ended 31 March 2013 and the projected net pension cost for the year ended 31 March 2014 are set out in the Results Schedule.

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

- the deficit has increased due to falling real bond yields;
- this has been partially offset by strong asset returns;
- the projected pension expense for next year has also risen due to falling bond yields; and
- the expected return on assets assumption for 2013/14 has reduced due to the changes to IAS19 that come into effect next year.

7 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

8 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 2013. 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.

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

10 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 2013.

11 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.

12 The last formal valuation of the Fund was carried out as at 31 March 2010. We have projected the results of this valuation forward using approximate methods. Further comments in relation to this can be found in section 2.

13 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 2010 has been in line with our expectations at that valuation.

14 The projected pension expense calculations for the year to 31 March 2014 may be used for the purpose of any interim financial reporting during the year to 31 March 2014. 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.

15 The LGPS is a defined benefit statutory scheme, administered in accordance with the Local Government Pension Scheme (Benefits, Membership and Contributions) Regulations 2007, the Local Government Pension Scheme (Administration) Regulations 2008 and the Local Government Pension Scheme (Transitional Provisions) Regulations 2008. It is contracted out of the State Second Pension.

16 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.

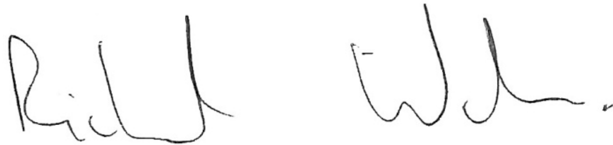
[1] The Local Government (Early Termination of Employment) (Discretionary Compensation) (England and Wales) Regulations 2000 were revoked on 1 October 2006. However, this revocation had no effect on any benefits granted under those Regulations.

17 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

26 April 2013

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 2010. We have projected the results of this valuation forward to 31 March 2013 using approximate methods (unless otherwise stated in the Results Schedule). The roll-forward allows for:

- changes in financial assumptions;
- additional benefit accrual;
- 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 2013 (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 2013 and the revenue account to 31 March 2013, no allowance is made for the effect of and changes in the membership profile since 31 March 2010 (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 2010, the Employer should discuss with its auditor whether an investigation into the effect on the balance sheet and service cost for 2012/2013 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 early retirements on grounds of redundancy or efficiency 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 2010 valuation to 31 March 2013 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 2013.
- 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.

3 Data and information used

Benefit changes

1 The pension expense for the period to 31 March 2013 and the projected pension expense for the year to 31 March 2014 allow for the current LGPS benefit design, implemented for service from 1 April 2008. 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. See section 5 regarding Pensions Reform.

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 2010 for the purpose of the formal funding valuation at that date (or, for employers which have joined the Fund after 31 March 2010, 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 2012 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 1 April 2012 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 2013.

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 post-retirement mortality assumptions that I recommend this year are the S1NMA and S1NFA year of birth tables with medium cohort improvements and a 1% p.a. underpin, applied from 2010. These standard tables are published by the Continuous Mortality Investigation (CMI) of the actuarial profession.

5 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 2010. 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

6 The financial assumptions used to calculate the components of the pension expense for the year ended 31 March 2013 were those from the beginning of the year (i.e. 31 March 2012) and have not been changed during the year. My recommended assumptions at 31 March 2013 for disclosure of the funded status under the Accounting Standard as at 31 March 2013 are summarised below along with those at 31 March 2012.

Period Ended	31 Mar 2013 % p.a.	31 Mar 2012 % p.a.
Pension Increase Rate	2.8%	2.5%
Salary Increase Rate*	4.6%	4.3%
Expected Return on Assets	4.5%	5.6%
Discount Rate	4.5%	4.8%

*Salary increases are assumed to be 1.0% p.a. until 31 March 2015 reverting to the long term assumption shown thereafter.

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

7 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 a starting point is the yield available on a basket of AA-rated bonds with long terms to maturity (the iBoxx Sterling Corporates AA Over 15 Years Index). I am aware, however, that the constituents of the iBoxx Over 15 Years Index have durations that are somewhat shorter than those for the pension liabilities of a typical employer in the LGPS (which I estimate to be around 17 years from the most recent valuation, based on a discount rate of 6.1% p.a.). In 2012, I carried out some checks to assess whether the iBoxx Over 15 Years Index remained appropriate for use in the accounting calculations for LGPS funds. As a result, we revised our approach to setting the discount rate as at 31 March 2012.

8 My assessment considered the single average gilt yield which gives the same present value as the (Bank of England nominal) gilt curve applied to the cash flows of a typical LGPS employer, plus the mean 'credit spread' applying to AA corporate bonds within the iBoxx over 15 years index. I concluded that this single average gilt yield when added to the mean credit spread on AA corporate bonds was not consistent with the iBoxx Index yield at the same date. Therefore my recommended discount rate is not equal to the iBoxx Index yield at the accounting date and this is consistent with the approach taken last year. Where we have been instructed to use different assumptions from those recommended, details are given in the Results Schedule.

Retail Price Inflation (RPI) assumption

9 In previous years, the RPI assumption (which the assumptions for salary growth and pension increases rely on) was derived by considering the difference in the yields available on fixed interest and index linked Government bonds[4].

10 For consistency with the assessment described in paragraph 4.8 and 4.9 above, my recommended RPI assumption is derived from the Bank of England implied inflation curve and is set equal to the average rate appropriate for the cashflows of a typical LGPS employer.

[4] Historically, the yields on the FTSE Actuaries UK Gilt Over 15 Years Index and the FTSE Actuaries Index – Linked Gilts (3% Inflation) Over 15 Years Index were compared.

Pension increase assumption

11 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

12 I have taken into account the Government's public sector pay restraints (originally announced in June 2010 and extended as per the November 2011 announcement). My recommended salary increase assumption is therefore 1% p.a. until 31 March 2015, reverting to RPI plus 1% p.a. thereafter. This is consistent with the approach we took last year.

Expected return on assets

13 The expected return on assets is based on the long-term future expected investment return for each asset class as at the beginning of the period (i.e. as at 31 March 2012 for the year to 31 March 2013, or date of joining the fund if later).

14 The Accounting Standard requires that the expected return on assets is set by the Employer having taken actuarial advice. Details of the expected returns I recommend as at 31 March 2013, along with comparative figures as at 31 March 2012 are set out below.

Period Ended	31 Mar 2013 % p.a.	31 Mar 2012 % p.a.
Equities	4.5%	6.4%
Bonds	4.5%	4.6%
Property	4.5%	4.4%
Cash	4.5%	3.5%

The expected return on assets assumption as at 31 March 2013 has been set equal to the discount rate (as per the forthcoming revised version of IAS19).

15 Further details of the derivation of the expected rates of return (as at 31 March 2012) are set out in Appendix 2.

16 The assumed returns are net of investment expenses. The expected return on plan assets shown in the table above does not include a deduction for the expected administration costs of the Fund: these are reflected in the current service cost instead.

17 For employers which have joined the Fund since the latest formal valuation, details of the expected returns are given in section 2 of the Results Schedule.

Reasonableness of assumptions

18 There is a range of actuarial assumptions which are acceptable under the requirements of the Accounting Standard, particularly in respect of the expected return on equities. 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

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

20 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.

21 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.

22 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.

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

24 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

25 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.

27 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.

28 The main risk to the Employer is that it determines assumptions that are more prudent (for example a lower net discount rate, lower expected returns on assets, 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.

29 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.

30 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

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.

2 Details of any such retirements are summarised in Section 1 of the Results Schedule and any Past Service Costs are set out in the Revenue Account figures 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 other elements such as redundancy lump sums.

Curtailments

3 My calculations take into account the cost arising from early payment (i.e. before “Rule of 85” age) of accrued pensions (including augmentations) in respect of any redundancies effected during the period ended 31 March 2013.

4 Details of any such retirements are summarised in Section 1 of the Results Schedule and any Curtailment Costs are set out in the Revenue Account figures in Section 4 of the Results Schedule.

Settlements

5 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 2013, other than as set out in the Results Schedule.

Gains and losses

6 As noted in Section 1, we have assumed the employer wishes to adopt the option under IAS19 to immediately recognise actuarial gains and losses, through a Statement of Recognised Income and Expense, in the period in which they occur.

Actual Asset return

7 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

8 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 2012 (or following the date of joining for new employers), other than as set out in the Results Schedule.

Recognition of surplus/deficit

9 The Accounting Standard imposes a limit on the maximum amount of surplus which can be recognised on the employer’s balance sheet. 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.

10 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

11 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

12 CIPFA's Code of Practice on Local Authority Accounting 2012/13 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.

Changes to Accounting Standards

13 The International Accounting Standards Board (IASB) published a revised IAS19 on 16 June 2011. These new changes will be applicable for reporting under this standard for years beginning on or after 1 January 2013. We have not allowed for these future amendments in our assumptions and calculations for 2012/2013, but we have allowed for them in the projection of the 2013/14 pension expense.

Under IAS8 we are required to disclose the impact of future accounting standard changes. In terms of the new changes to IAS19, section 4 of the Results Schedule shows the impact of the changes on our 2012/13 reports as a note to the disclosures. For our 2013/14 accounts, we will then be retrospectively restating the 2012/13 income statement.

Public Sector Pensions Reform

14 The Government has made various announcements on the future of the LGPS. No final Regulation have yet been laid as to the extent of the reform to the LGPS. However, a timetable for implementing a new scheme in England and Wales with effect from April 2014 has been established. The projected current service cost shown in this year's report based on the current scheme and makes no allowance for the 2014 scheme. The impact of the new scheme will not be known until we carry out a full valuation.

Appendix 1 – Glossary of 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
Current service cost	The increase in the present value of the defined benefit obligation resulting from employee service in the current period.
Curtailment	Occurs when an entity either: is demonstrably committed to make a material reduction in the number of employees covered by a defined benefit plan; or amends the terms of a plan such that a material element of future service by current employees will no longer qualify for benefits, or will qualify only for reduced benefits.
Expected return on assets	The expected increase during a period in the value of assets, based on values and long term expected returns as at the start of the period. For further details of the derivation of this assumption for the 2012/13 accounting year, see Appendix 2.
Interest cost	The increase during a period in the present value of a defined benefit obligation which arises because the benefits are one period closer to payment.

Past service cost	The increase in the present value of the defined benefit obligation for employee service in prior periods, resulting in the current period from the introduction of, or changes to, post-employment benefits or other long-term employee benefits. Past service cost may either be positive (where benefits are introduced or improved) or negative (where existing benefits are reduced).
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.
Vested employee benefits	Employee benefits that are not conditional on future employment.

Appendix 2 - Long-term expected return assumptions

IAS19 requires employers with defined benefit pension obligations to disclose the expected return on pension fund assets as a credit against interest costs on the liabilities in the "other finance income" element of the Revenue Account. IAS19[5] states:

The expected return on plan assets is based on market expectations, at the beginning of the period, for returns over the entire life of the related obligation.

The asset return assumptions under IAS19 are the responsibility of the company directors or equivalent. The figures shown in our standard IAS19 report for Fund employers are based on our recommended return assumptions which we derived from the Hymans Robertson Asset Model (HRAM), the proprietary stochastic asset model developed and maintained by Hymans Robertson LLP. (NB From next year this assumption will no longer apply, as the new IAS19 in effect uses the discount rate instead).

Asset model

The HRAM type of model is known as an economic scenario generator and uses probability distributions to project a range of possible outcomes for the future behaviour of asset returns and economic variables. Some of the parameters of the model are dependent on the current state of financial markets and are updated each month (for example, the current level of equity market volatility) while other more subjective parameters do not change with different calibrations of the model.

Key subjective assumptions are:

- the average excess equity return over the risk free asset (tending to approximately 3% p.a. as the investment horizon is increased),
- the volatility of equity returns (approximately 18% p.a. over the long term) and the level and volatility of yields, credit spreads, inflation and expected (breakeven) inflation, which affect the projected value placed on the liabilities and bond returns.
- The output of the model is also affected by other more subtle effects, such as the correlations between economic and financial variables.

While the model allows for the possibility of scenarios that would be extreme by historical standards, including very significant downturns in equity markets, large systemic and structural dislocations are not captured by the model. Such events are unknowable in effect, magnitude and nature, meaning that the most extreme possibilities are not necessarily captured within the distributions of results.

Given the context of this modelling, we have not undertaken any sensitivity analysis to assess how different the results might be with alternative calibrations of the economic scenario generator.

We would be happy to provide fuller information about the scenario generator, and the sensitivities of the results to some of the parameters, on request.

Expected rate of returns

The expected returns shown in this report have been calculated using 5,000 simulations of HRAM, calibrated using market data as at a recent date.

[5] Paragraph 106

Please note that whilst we comment that the returns shown are “expected”, this identifies the level at which 50% of all possible outcomes will be above and 50% will be below – this does not mean that the return quoted is in any way the “most likely” outcome.

General risk warnings

Please note the value of investments, and income from them, may fall as well as rise. This includes equities, government or corporate bonds, and property, whether held directly or in a pooled or collective investment vehicle. Further, investments in developing or emerging markets may be more volatile and less marketable than in mature markets.

Exchange rates may also affect the value of an overseas investment. As a result, an investor may not get back the amount originally invested. Past performance is not necessarily a guide to future performance.

Appendix 3 – Briefing Note on Assumptions

briefing note

LOCAL GOVERNMENT FRS17 / IAS19 — March 2013

Local Government Pension Scheme: Accounting Assumptions for 31 March 2013

Steven Scott
Actuary

"We recommend that each employer should discuss the proposed assumptions with their auditor."

We receive a significant number of queries from employers and auditors about the assumptions underlying their FRS17/IAS19 results.

This briefing note has been prepared by Steven Scott of Hymans Robertson's Public Sector Practice specifically for employers participating in the LGPS to outline our approach to deriving these assumptions. We recommend that this paper is shared with all employers within the Fund which have March year ends. This will allow employers to discuss our approach with their auditors and identify any issues in advance of the FRS17/IAS19 exercise. We hope this will limit the number of queries and also minimise any rework required at a late stage in the process - both of which could incur additional costs.

At the middle of February 2013, the change to the net discount rate over the period from 31 March 2012 was a fall of around 0.3% p.a. This could increase balance sheet liabilities by around 5-10%. Over the same period, asset returns have been greater than expected and this may go some way to offset any increase in liabilities. Ultimately the impact could vary significantly between individual employers and any market movements between now and 31 March 2013 could change this further.

For the avoidance of doubt, the approach to assumption setting outlined in this briefing note applies to both IAS19 and FRS17 disclosures (unless otherwise stated). We also propose that the same approach be adopted for unfunded liabilities.

Full adoption of the forthcoming changes to IAS19 will be put in place for March 2014 IAS19 reports. The projected pension expense for the 2013/14 year will incorporate the IAS19 changes (which will be shown in 31 March 2013 reports).

Background to FRS17/IAS19 assumptions

As for any actuarial calculation, the value of the liabilities for FRS17/IAS19 purposes is heavily dependent on the assumptions underpinning the calculations. If they are not already, employers should be aware that, ultimately, they are responsible for the assumptions used.

FRS17 states:

The assumptions underlying the valuation should be mutually compatible and lead to the best estimate of the future cash flows that will arise under the scheme liabilities. The assumptions are ultimately the responsibility of the directors (or equivalent) but should be set upon advice given by an actuary.

Any assumptions that are affected by economic conditions (financial assumptions) should reflect market expectations at the balance sheet date.

For a number of reasons, principally cost and employer timescales, we have historically recommended a standard set of assumptions as at a given date for all employers within the LGPS. (This is subject to any specific guidelines for any group of employers, such as Government agencies who follow the Financial Reporting Manual guidance). However, FRS17/IAS19 has become increasingly important to employers and we understand that auditors' guidance now requires them to go beyond simply accepting the actuary's calculations as the work of an expert.

We welcome the greater interest in the assumptions being taken by employers and their auditors. However, in order to maintain service standards and contain costs, our default approach is that reports for all employers with the same year-end are processed using the same assumptions. We believe that this approach remains appropriate for the majority of employers, particularly local authorities and other public sector bodies.

Corporate entities for whom FRS17/IAS19 affects decision-making may take a different view; the additional costs associated with adopting bespoke assumptions are possibly worthwhile for them. It should also be noted that Hymans Robertson fees for LGPS employers are a fraction of those for sponsoring employers of stand-alone private sector schemes; this is due to the efficiencies and economies of scale which Hymans Robertson has put in place for your benefit.

An employer in the Fund and its auditor may decide that they wish to use a different approach to setting just the **financial assumptions** (e.g. discount rate) for accounting purposes. In this case we will normally be able to accommodate this, although it will lead to an increase in costs. It will, however, still be possible to prepare the report as part of a batch and so will still be cheaper than a fully bespoke report.

If an employer wishes to use different financial assumptions, then it is essential that we are made aware of their desired approach to assumption setting prior to 31 March 2013. If we are informed after this date, we will have to process the report individually and the employer will not benefit from reduced fees from being part of a group.

Any different approach to **demographic assumptions** (e.g. life expectancy) will be more time-consuming to adopt, and so a further increase in fees will result.

To assist employers in assessing whether they wish to accept our recommended assumptions, we have set out below the rationale for our recommendations for each of the principal assumptions.

Discount Rate

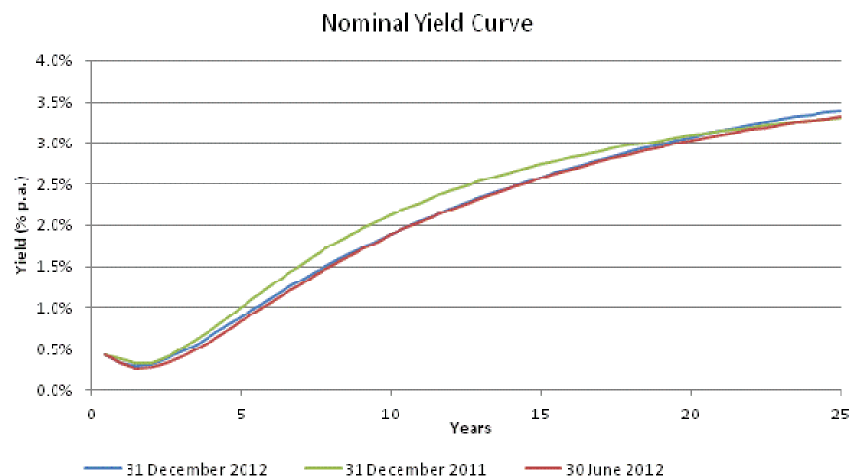
FRS17 (and in effect IAS19 also) state that liabilities should be discounted at a rate equivalent to the "current rate of return available on a high quality corporate bond of equivalent currency and term to the scheme liabilities". It further defines a high quality corporate bond as one that "has been rated at the level of AA or equivalent status".

To that end we have previously recommended a discount rate based on the yield available on a basket of AA-rated bonds (iBoxx Sterling Corporates AA over 15 year Index). Based on this, the discount rate as at 31 December 2012 was 4.1%.

We are aware, however, that the constituents of the iBoxx over 15 year index have terms that are somewhat shorter than those for the pension liabilities of a typical employer in the LGPS (which we estimate to be around 17 years from the most recent valuations, based on a discount rate of 6.1% p.a.). In 2012, we looked into alternative indices in order to determine if the iBoxx over 15 year index remained the most appropriate for use in FRS17/IAS19 calculations for LGPS funds. In particular, we looked at the yields available on UK Government bonds where longer maturity yields are available. As a result of this, we revised our approach to setting the discount rate as at 31 March 2012. Our approach is outlined in detail below.

Yield on UK Government bonds

The chart below shows the nominal spot yields for a Government - backed loan (i.e. the yield to maturity of a zero coupon bond) at various maturities at 31 December 2011, 30 June 2012 and 31 December 2012.



Source: Bank of England (31 December 2012)

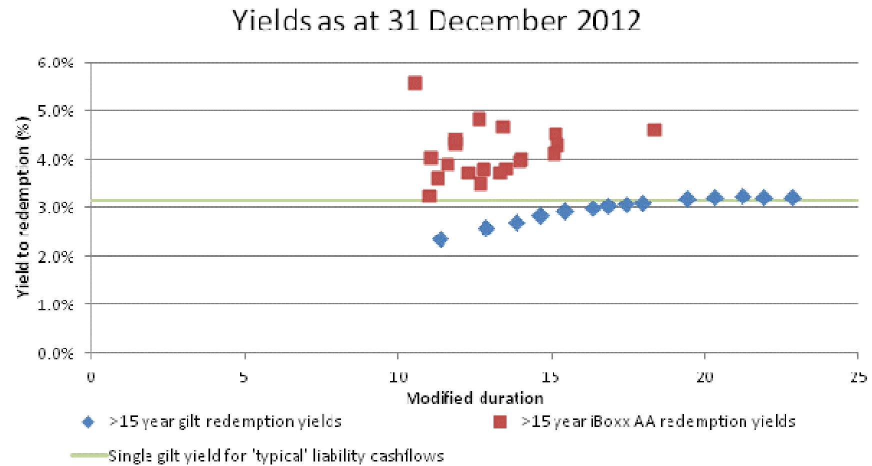
Applying the anticipated future cash flows for a typical LGPS employer, and deriving an equivalent single bond yield at a current date, suggests a yield of around 3.2% p.a. would be appropriate as at 31 December 2012. This differs from the Fixed Interest Gilt Yield Index (Over 15 years) of 3.0% p.a. as at 31 December 2012.

Credit spreads

Government bonds are more secure than AA corporate bonds. Thus, the yield on Government bonds is lower than on AA corporate bonds to reflect the lower default risk. In order to compare our Government bond yield of 3.2% p.a. with the yield derived from the iBoxx AA index, we have to determine a suitable addition (the 'credit spread') to the yield which will reflect the extra risk involved in using AA corporate bond yields.

In order to determine this addition to the Government yields, we considered the yield for each stock within the iBoxx AA over 15 year index and the corresponding over 15 year Government bond index.

The chart below shows these yields:



This chart indicates a range of 'credit spreads' of between 0.7% p.a. and 3.0% p.a. with a mean spread of around 1.3% p.a. This would suggest a credit spread of 1.3% p.a. would be appropriate as at 31 December 2012.

Discount Rate

This leads to a discount rate for IAS19/FRS17 purposes of 4.5% p.a. (being 3.2% gilt yield plus 1.3% credit spread) as at 31 December 2012, which is appreciably higher than the over 15 year iBoxx index yield of 4.1% at the same date.

We are comfortable adopting this approach despite the higher resulting discount rate than the iBoxx AA index. This is consistent with the approach taken last year, and we observed a similar difference between our discount rate and the iBoxx index yield during 2012. We believe that this approach (i.e. giving the 4.5% p.a. discount rate) remains appropriate for FRS17/IAS19 purposes.

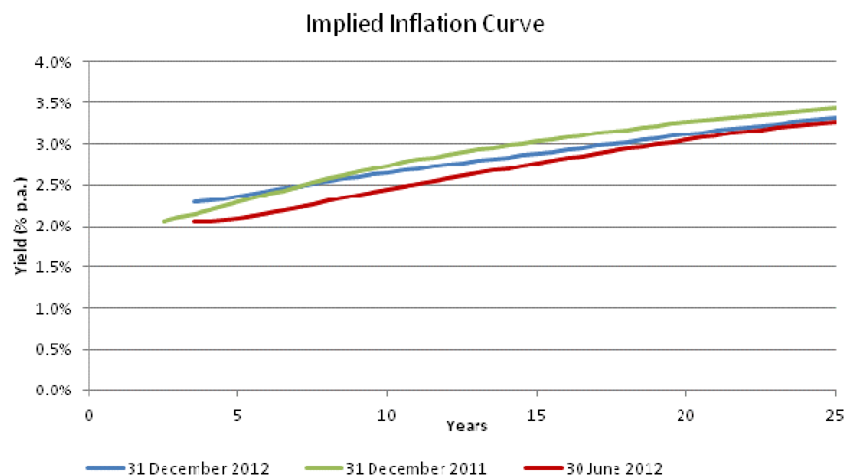
We will of course keep this position under review with particular attention to the position as at 31 March 2013.

We have discussed the above approach with the Audit Commission and their advisors and they have not raised any concerns with this.

Retail Prices Inflation

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.

The chart below show the Bank of England implied inflation curve over a range of maturities at 31 December 2012, 30 June 2012 and 31 December 2011. The rate appropriate for the typical LGPS future cash flows is 3.2% p.a. as at 31 December 2012. The implied inflation curve is derived from the yields on both fixed and index linked gilt yields, and so is consistent with the average gilt yield underpinning the discount rate.



Pension Increases

In the June 2010 Emergency Budget, the Chancellor announced that public sector pension increases will from now on be linked to the Consumer Prices Index (CPI) rather than the RPI. The Government has since formally implemented this proposal, and a legal challenge to this was rejected.

Therefore, as in previous FRS17/IAS19 exercises, the assumption regarding future pension increases for the March 2013 FRS17/IAS19 will be linked to CPI.

We have in the past estimated that CPI would be approximately 0.8% below RPI. Taking account of how this gap is expected to change in the future, our current best estimate of the gap (taking into account differences in the way CPI and RPI are calculated) remains a reduction of 0.8%. This would give an assumption at 31 December 2012 of 2.4% p.a.

Longevity Assumptions

The assumptions that we recommend for the FRS17/IAS19 2013 exercise for Funds are unchanged from last year. Therefore this year's longevity assumptions will continue to be based on the last formal funding valuation (please refer to the valuation report for your own fund for further information).

Other Assumptions

These are summarised on the next two pages, covering the main assumptions not already covered above.

Assumptions	FRS17/IAS19 Requirements	Scope for Judgement	Our Recommendation
Salary Growth (a higher assumption gives a higher liability value)	*The rate of increase in salaries and the discount rate must reflect the same rate of general inflation.*	The expected rate of growth in real pensionable pay (i.e. in excess of inflation) should be consistent with employer's long-term remuneration policy or objectives. Subject to being able to justify the assumption used, there is scope for judgement here. Taking a margin out of the inflation assumption could also help to reduce the allowance for earnings growth.	We have taken into account the Government's public sector pay restraints (originally announced in June 2010 and extended as per the November 2011 announcement). This will vary from Fund to Fund, but our recommended salary increase assumption is 1% p.a. for the next 2 years until 31 March 2015, reverting to RPI plus 1% p.a. or 1.5% p.a. thereafter, plus an allowance for promotional salary increases. Based on market conditions as at 31 December 2012, the rate beyond 2015 would be 4.2% p.a. or 4.7% p.a. plus an allowance for promotional salary increases.
Expected Return on Assets (affects only the net interest charge/ credit in 2012/13)	*The average rate of return, including both income and changes in fair value, expected over the remaining life of the related obligation on the actual assets held by the scheme.*	The return on bonds is assumed to be in line with redemption yields so the scope for judgement here is limited. However, nearly all LGPS employers have an equity-biased investment strategy, and there is no corresponding measure for the return on equities, or other growth assets such as property. There is thus scope for judgement in FRS17 cases. **Due to IAS19 changes taking place in 2013/14, this assumption no longer applies after 2012/13. However, it still applies for FRS17**.	Our recommended expected return on assets is taken from our proprietary asset model, further details of which are available on request. The model parameters are calibrated to market conditions on a monthly basis. We are happy to discuss the assumptions further with employers. At 31 December 2012 the expected return on UK equities was 6.2% p.a. **In line with the forthcoming changes to IAS19, the Expected Return on Assets assumption for 2013/14 will be based on the discount rate. For the avoidance of doubt this only affects the projected pension expense in 2013/14 and not the pension expense for 2012/13.**

Demographic assumptions

Assumptions	FRS17/IAS19Requirements	Scope for Judgement	Our Recommendation
Commutation (a higher allowance for commutation will reduce the value of the liabilities)	*The assumptions underlying the valuation should be mutually compatible and lead to the best estimate of the future cash flows that will arise under the scheme liabilities*	Best estimate is not defined in FRS17/ IAS19 so there is scope for actuarial judgement.	We have gathered data on commutation over the period since this option became available to LGPS members. Although this data will inevitably be limited[1], we believe that it is essential for any assumptions to have an evidential base. For all funds, we expect to use the same commutation assumption as adopted for the last formal funding valuation. Further details of the assumptions made for the Fund/Employer will be detailed in the FRS17/IAS19 disclosures.
Other demographic assumptions, e.g. withdrawal, ill-health early retirements, proportions of deaths leaving a dependant, etc	As above	As Above	Our recommendations will be as for previous years, i.e. the same assumptions as adopted for the most recent formal funding valuation. Collectively, these are intended to be best estimate and are derived from specific past experience of LGPS funds.

[1] Commutation has only been an option since April 2006 (England, Wales and Northern Ireland) or October 2006 (Scotland)

Putting them all together

FRS17 and IAS19 do not require that every individual assumption is a *best estimate.* The Directors (or equivalent) of the organisation should be satisfied that the combined effect of the assumptions is reasonable as a whole.

Surplus limits / IFRIC14

It may seem unusual to talk of surpluses in current market conditions, but we do expect to see a few employers whose IAS19/FRS17 balance sheet shows a surplus (net asset) position. These employers are often contractors who were set up fully funded in the midst of adverse market conditions.

For such employers, please note that:

- both IAS19 (where IFRIC14 applies) and FRS17 currently contain provisions to limit the amount of surplus recognised in the balance sheet;
- this limit will depend on various factors such as whether the employer is closed to new entrants or not, how the surplus compares to the service cost, and what contributions the employer is duty bound to pay to the Fund;
- if there is a surplus then further checks are required to see if the limit applies; if so, then changes are needed to the calculations and disclosures. These tasks are outside our standard pricing approach. Therefore, where a surplus exists at 31 March, we will simply flag this to the employer in the first place and await further instructions: any subsequent work would require separate agreement on timescales and fees.

FRS17 or IAS19?

Many larger employers, such as local authorities, are required to account for pension costs under IAS19 instead of FRS17. Many other bodies will also report on an IAS basis, and so it is important we are instructed whether to adopt IAS19 or FRS17 for each employer.

IAS19 (Revised)

IAS19 is changing for accounting years starting on or after 1 January 2013 and this will affect the budgeted pension expense for the next financial year. The key change affecting LGPS employers relates to the expected return on assets. Advance credit for anticipated outperformance of return seeking assets (such as equities) will no longer be permitted. The expected return on assets is currently credited to profit and loss, however from 2013 this is effectively replaced with an equivalent figure calculated using the discount rate (as opposed to that calculated using the Expected Return on Assets assumption). There is no impact of this change on the accounts covering the 2012/13 financial year. The changes will be implemented in the 2013/14 financial year, so the projected 2013/14 pension expense shown will include this change.

The changes to IAS19 will be retrospectively applied for the 2012/13 financial year, at the time the 2013/14 accounts are prepared. This is in accordance with IAS 8. Essentially, this means that the 2012/13 income statement disclosed in the 2013/14 accounts will be rebased onto the IAS19 (Revised) reporting basis. Our 2012/13 IAS19 reports will state the impact of the IAS19 changes on the revenue account for the 2012/13 financial year, as a note to the disclosures.

Disclosure of whole fund liabilities

IAS26 relates to the Funds' own financial statements, as opposed to the accounts prepared by the participating employers in each Fund. Our recommendation to our Fund clients will be as stated in IAS26 para 17(b)(i), ie giving a note of the actuarial present value of benefits as at the accounting date (on FRS17/IAS19 assumptions, not the Fund's funding assumptions).

Where requested, we will provide a short IAS26 report to the Administering Authority.

Next steps

Unless otherwise advised, any FRS17/IAS19 reports commissioned by employers through the Administering Authority will be based on our default recommended assumptions.

Our recommended assumptions are intended to fully comply with FRS17 and IAS19. As prescribed we have aimed for best estimate assumptions and have not tried to be prudent. We have agreed our approach with the Audit Commission.

The Administering Authority should issue this Briefing Note to all employers in the Fund with a March year end.

Are our proposed assumptions suitable for all employers? We know that different employers have different maturity profiles, i.e. broadly younger or older membership than others. This could sometimes lead to a different view on the discount rate and inflation rate. We have discussed this point with the Audit Commission and they are satisfied that, for the great majority of CIPFA employers, our approach is perfectly reasonable. For the minority of employers with a younger membership profile, our approach still gives suitable "real discount rates", i.e. the gap between discount rate and inflation.

We recommend that each employer should discuss the proposed assumptions with their auditor. We would be delighted to tailor any of the assumptions to the needs of individual employers.

If the employer wishes to use different financial assumptions only we will be able to do so as part of the main batch of reports for a small extra fee if this is communicated to us prior to 31 March 2013.

However, if the employer wishes to commission a fully bespoke report with changes to non-financial assumptions or if changes are requested after the accounting date, this will require preparation outside of the main bulk of the reports. This will fall outside of our standard fee scale and timetable.

If an employer wishes to use an assumption setting approach which differs from those specified in this Briefing Note, then it is essential that they advise us through the Administering Authority as soon as possible and no later than 31 March 2013. This will ensure that we are able to carry out the reports in the most cost effective manner.

This communication has been compiled by Hymans Robertson LLP, and is based upon their understanding of legislation and events as at [date] 2012. It is designed to be a general information summary and may be subject to change. It is not a definitive analysis of the subject covered or specific to the circumstances of any particular employer, pension scheme or individual. The information contained is not intended to constitute advice, and should not be considered a substitute for specific advice in relation to individual circumstances. Where the subject of this document involves legal issues you may wish to take legal advice. Hymans Robertson LLP accepts no liability for errors or omissions or reliance on any statement or opinion.

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