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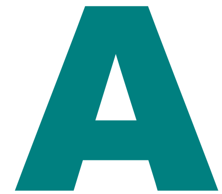

Pensions Committee

Date: **WEDNESDAY, 22 MARCH 2017**

Time: **7.00 PM**

Venue: **COMMITTEE ROOM 3 - CIVIC CENTRE, HIGH STREET, UXBRIDGE UB8 1UW**

Meeting Details: Members of the Public and Press are welcome to attend this meeting

Councillors on the Committee

Philip Corthorne (Chairman)
Michael Markham (Vice-Chairman)
Peter Davis
Beulah East
Tony Eginton

Published: Tuesday, 14 March 2017

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Agenda

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2 Declarations of Interest in matters coming before this meeting

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Agenda Item 3

PART II - Minutes

HILLINGDON
LONDON

Pensions Committee

7 December 2016

Meeting held at Committee Room 5- Civic Centre, High Street, Uxbridge UB8 1UW

	Committee Members Present: Councillors Philip Corthorne (Chairman), Michael Markham (Vice-Chairman), Peter Davis, Beulah East and Tony Eginton. **Also Present:** Catherine McFadyen and Stacey McLean (Actuaries - Hymans Robertson). **Pensions Board Members:** Roger Hackett and Venetia Rogers. **LBH Officers Present:** Tunde Adekoya, Ken Chisholm, Sian Kunert, Nancy Le Roux and Khalid Ahmed.	
23.	**DECLARATIONS OF INTEREST IN MATTERS COMING BEFORE THIS MEETING** Councillor Philip Corthorne declared a Non-Pecuniary Interest in all agenda items because he was a deferred member of the Local Government Pension Scheme. He remained in the room during discussion on the item. Councillor Tony Eginton declared a Non-Pecuniary Interest in all agenda items as he was a retired member of the Local Government Pension Scheme. He remained in the room during discussion on the item.	
24.	**MINUTES OF THE MEETINGS HELD ON 21 SEPTEMBER 2016** Agreed as an accurate record.	
25.	**TO CONFIRM THAT ITEMS MARKED PART I WILL BE CONSIDERED IN PUBLIC AND THOSE MARKED PART II WILL BE CONSIDERED IN PRIVATE** It was agreed that Agenda Items 9 and 10 would be considered in private.	
26.	**LONDON BOROUGH OF HILLINGDON PENSION FUND - 2016 VALUATION** Catherine McFadyen and Stacey McLean of Hymans Robertson attended the meeting and gave the Committee a presentation on the Pension Fund 2016 valuation results. Valuations of Pension Funds took place to:	

- comply with legislation,
- to set employer contribution rates,
- To determine money needed to meet accrued liabilities,
- To calculate solvency (the funding level).
- Monitor experience against assumptions and
- Manage risks to the Fund and to employers.

The Committee was provided with details of the objective of the valuation which was to assess how much money did the Pension Fund need, and how should this be invested in order to be able to meet the promised benefits of members.

The process was a balancing act between expected investment returns, contributions required from employers and balancing the risk to the Pension Fund.

Reference was made to the fund valuation results for 2016 which indicated that total liabilities were £1,079m and assets were £810m, which resulted in a deficit of £269m.

Asset returns had been greater than expected since 2013, however, the outlook was not optimistic. In relation to UK bond yields, the expectation of future returns was lower than in 2013.

Discussion took place on the assumptions made and Members were informed that the investment strategy for the Fund was cautious with the strategy being prudent.

Reference was made to trends in the membership of the Fund. There had been an increase in the membership of the Fund, there had been fewer ill health retirements and early leavers than expected and the number of deaths had been in line with assumptions.

In conclusion, for most Employers, funding levels were similar to 2013 and there was upwards pressure on contributions as expected future asset returns had fallen.

RESOLVED:

(1) That the information provided by the actuaries be noted, together with the valuation results for the Hillingdon Pension Fund.

27. DRAFT FUNDING STRATEGY STATEMENT

Members were informed that the Fund was required under legislation to maintain and publish a Funding Strategy Statement.

The purpose of the Funding Strategy Statement was:

- to establish a clear and transparent fund-specific strategy which would identify how employers' pension liabilities were best met going forward;

		Action By:
	• to support the regulatory framework to maintain as nearly constant employer contribution rates as possible; and • to take a prudent longer-term view of funding those liabilities. The Committee asked that the draft Funding Strategy Statement be reported back to the Committee after the consultation with scheme employers. **RESOLVED:** **(1) That approval be given to the draft Funding Strategy Statement for consultation with scheme employers, subject to the minor drafting clarifications detailed in the appendix.**	
28.	**INVESTMENT STRATEGY AND FUND MANAGER PERFORMANCE** The report provided Members with an overview of fund performance and asset allocation as at 30 September 2016, together with an update on recent investment decisions and progress of the London CIV. In summary the total size of the Fund was £890m at 30 September 2016, which was an increase from £845m at the end of the previous quarter. An update was given on the progress of the London CIV which was resulting in some savings in fees. However, reference was made to the legal and technical difficulties in bringing passive managers into the London CIV structure. Members were informed that the company structure and model the CIV had been created on, did not enable insurance development to be put onto the platform. The CIV was working on a number of projects which were looking at other asset classes and progress was being made in a number of areas. **RESOLVED:** **(1) That discussion took place on the Fund performance update and the information provided on mandates and Fund Managers was noted.** **(2) That the follow up activity to previous decisions and progress in the development of the London CIV was noted.**	
29.	**PENSIONS ADMINISTRATION REPORT** The Committee was provided with an update on the progress made in the new administration of the London Borough of Hillingdon Fund of the Local Government Pension Scheme. Members were informed that new processes and procedures had been established and a good working relationship had been established	

		Action By:
	between the Surrey and Hillingdon teams. The first pensioner payroll in November had been completed with few errors. However, reference was made to both teams having to work closely to resolve a backlog of 2,200 cases which were on hold in the Capita system. These cases had only come to light after the transfer of the administration of the pension's scheme and most of the cases related to outstanding transfers, deferred benefit calculations and personal detail changes. Officers said they would provide a breakdown of the categories the backlog of cases fell into. **RESOLVED:** **(1) That the update in the report be noted.**	**Ken Chisholm**
30.	**INVESTMENT STRATEGY AND FUND MANAGER PERFORMANCE** *This item was discussed as a Part II item without the press or public present as the information under discussion contained confidential or exempt information as defined by law in the Local Government (Access to Information) Act 1985. This was because it discussed 'information relating to the financial or business affairs of any particular person (including the authority holding that information)' (paragraph 3 of the schedule to the Act).* The Committee was provided with an update report on each of the Pension Fund's current managers and mandates, together with a detailed Market Background paper produced by the Pension Fund Advisor. **RESOLVED:** **(1) That the information be noted, together with the performance of Fund Managers.**	
31	**PENSION FUND RISK REGISTER** *This item was discussed as a Part II item without the press or public present as the information under discussion contained confidential or exempt information as defined by law in the Local Government (Access to Information) Act 1985. This was because it discussed 'information relating to the financial or business affairs of any particular person (including the authority holding that information)' (paragraph 3 of the schedule to the Act).* The report provided details of the main risks to the Pension Fund which enabled the Committee to monitor and review. **RESOLVED:** **(1) That the Committee considered the Risk Register and noted the measures which were being taken to mitigate the indentified risks.**	

	The meeting, which commenced at 7.00pm closed at 8.10pm

These are the minutes of the above meeting. For more information on any of the resolutions please contact Khalid Ahmed on 01895 250833. Circulation of these minutes is to Councillors, Officers, the Press and Members of the Public.

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2016 ACTUARIAL VALUATION RESULTS

Contact Officers	Nancy le Roux, 01895 250353
Papers with this report	*2016 Draft Actuarial Valuation Report*

INFORMATION

The triennial revaluation of the Pension Fund has now been completed and the results documented in the attached report are consistent with the presentation to Committee in December by Catherine McFadyen, the Fund Actuary. The results are still draft at this stage as there remain some final discussions with a couple of scheme employers to agree their contribution rates. The report will be finalised by 31 March 2017.

RECOMMENDATION

It is recommended that Pensions Committee:

1. **Approve the Funding Strategy Statement for the London Borough of Hillingdon Pension Fund.**
2. **Agree the draft Triennial Valuation Report and note the future employer contribution rates.**

SUMMARY OF THE VALUATION RESULTS

Funding position

The table below summarises the funding position of the Fund as at 31 March 2016 in respect of benefits earned by members up to this date (along with a comparison at the last formal valuation at 31 March 2013).

Past Service Position	**31 March 2013 (£m)**	**31 March 2016 (£m)**
Past Service Liabilities	949	1,079
Market Value of Assets	683	810
Surplus / (Deficit)	(266)	(269)
Funding Level	**72%**	**75%**

The improvement in funding position between 2013 and 2016 is mainly due to strong investment performance over the inter-valuation period. The liabilities have also increased due to a reduction in the future expected investment return, although this has been partially been offset by lower than expected pay and benefit growth (both over the inter-valuation period and continuing in the long term).

Contribution rates

The table below summarises the whole fund Primary and Secondary Contribution rates at this triennial valuation. These rates are the payroll weighted average of the underlying individual employer primary and the total of employer secondary rates expressed as a monetary amount, calculated in accordance with the Regulations and CIPFA guidance.

Primary Rate (%) 01.04.17 - 31.03.20	Secondary rate (£) 2017/18	2018/19	2019/20
19.5%	**£5,369,000**	**£5,612,000**	**£7,015,000**

The Primary rate above includes an allowance for administration expenses of 0.7% of pay. The employee average contribution rate is 6.4% of pay.

At the previous formal valuation at 31 March 2013, a different regulatory regime was in force. Therefore a contribution rate that is directly comparative to the rates above is not provided.

Broadly, contributions required to be made by employers in respect of new benefits earned by members (the primary contribution rate) have increased as future expected investment returns have fallen. Changes to employer contributions targeted to fund the deficit have been variable across employers.

The minimum contributions to be paid by each employer from 1 April 2017 to 31 March 2020 are shown in the Rates and Adjustment Certificate in **Appendix H** of the attached Draft Actuarial Valuation Report.

FUNDING STRATEGY STATEMENT

- Following agreement of the results the valuation the Funding Strategy Statement (FSS) of the fund has been revised and is included with this report for Committee approval prior to publication.

- The FSS sets out how the Council, in its role as Administering Authority, has balanced the conflicting aims of affordability, stability and prudence in the approach to funding the scheme's liabilities.

- Committee approved the draft FSS in December for consultation with scheme employers. No comments were received back from employers and so the FSS is now brought to Committee for final approval.

London Borough of Hillingdon Pension Fund

2016 Actuarial Valuation

DRAFT Valuation Report

March 2017

Catherine McFadyen

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

Craig Alexander

For and on behalf of Hymans Robertson LLP

Hymans Robertson LLP has carried out an actuarial valuation of the London Borough of Hillingdon Pension Fund ("the Fund") as at 31 March 2016, details of which are set out in the report dated 16 February 2017 ("the Report"), addressed to the Administering Authority of the Fund, London Borough of Hillingdon ("the Client"). The Report was prepared for the sole use and benefit of our Client and not for any other party; and Hymans Robertson LLP makes no representation or warranties to any third party as to the accuracy or completeness of the Report.

The Report was not prepared for any third party and it will not address the particular interests or concerns of any such third party. The Report is intended to advise our Client on the past service funding position of the Fund at 31 March 2016 and employer contribution rates from 1 April 2017, and should not be considered a substitute for specific advice in relation to other individual circumstances.

As this Report has not been prepared for a third party, no reliance by any party will be placed on the Report. It follows that there is no duty or liability by Hymans Robertson LLP (or its members, partners, officers, employees and agents) to any party other than the named Client. Hymans Robertson LLP therefore disclaims all liability and responsibility arising from any reliance on or use of the Report by any person having access to the Report or by anyone who may be informed of the contents of the Report.

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Executive summary

We have carried out an actuarial valuation of the London Borough of Hillingdon Pension Fund ('the Fund') as at 31 March 2016. The results are presented in this report and are briefly summarised below.

Funding position

The table below summarises the funding position of the Fund as at 31 March 2016 in respect of benefits earned by members up to this date (along with a comparison at the last formal valuation at 31 March 2013).

Past Service Position	31 March 2013 (£m)	31 March 2016 (£m)
Past Service Liabilities	949	1,079
Market Value of Assets	683	810
Surplus / (Deficit)	(266)	(269)
Funding Level	**72%**	**75%**

The improvement in funding position between 2013 and 2016 is mainly due to strong investment performance over the inter-valuation period. The liabilities have also increased due to a reduction in the future expected investment return, although this has been partially been offset by lower than expected pay and benefit growth (both over the inter-valuation period and continuing in the long term).

Contribution rates

The table below summarises the whole fund Primary and Secondary Contribution rates at this triennial valuation. These rates are the payroll weighted average of the underlying individual employer primary and the total of employer secondary rates expressed as a monetary amount, calculated in accordance with the Regulations and CIPFA guidance.

Primary rate (%)	Secondary rate (£)		
1 April 2017 - 31 March 2020	2017/18	2018/19	2019/20
19.5%	£5,369,000	£5,612,000	£7,015,000

The Primary rate above includes an allowance for administration expenses of 0.7% of pay. The employee average contribution rate is 6.4% of pay.

At the previous formal valuation at 31 March 2013, a different regulatory regime was in force. Therefore a contribution rate that is directly comparative to the rates above is not provided.

Broadly, contributions required to be made by employers in respect of new benefits earned by members (the primary contribution rate) have increased as future expected investment returns have fallen. Changes to employer contributions targeted to fund the deficit have been variable across employers.

The minimum contributions to be paid by each employer from 1 April 2017 to 31 March 2020 are shown in the Rates and Adjustment Certificate in **Appendix H**.

1 Introduction

We have carried out an actuarial valuation of the London Borough of Hillingdon Pension Fund ("the Fund") as at 31 March 2016 under Regulation 62 of The Local Government Pension Scheme Regulations 2013 ("the Regulations"). The purpose of the valuation is to assess the value of the assets and liabilities of the Fund as at 31 March 2016 and to calculate the required rate of employers' contributions payable to the Fund for the period from 1 April 2017 to 31 March 2020.

Valuation Report

This report records the high level outcomes of the actuarial valuation as at 31 March 2016. The valuation report is prepared by the actuary to the Fund and is addressed to London Borough of Hillingdon as the Administering Authority to the Fund.

Component reports

This document is part of an "aggregate" report, i.e. it is the culmination of various "component" reports and discussions, in particular:

- Correspondence relating to data including the Data Report (to be issued in due course);
- The Initial Results report (dated 30 November 2016) which outlined the whole fund results;
- The formal agreement by the Administering Authority of the actuarial assumptions used in this document, at a meeting on 3 November 2016;
- The contribution modelling carried out for employers, as detailed in our report and presentation to the Administering Authority on 3 November 2016;
- The Funding Strategy Statement, confirming the different contribution rate setting approaches for different types of employer depending on circumstances.

2 Valuation Approach

The valuation is a planning exercise for the Fund, to assess the monies needed to meet the benefits owed to its members as they fall due. As part of the valuation process the Fund reviews its funding strategy to ensure that an appropriate contribution plan and investment strategy is in place.

It is important to realise that the actual cost of the pension fund (i.e. how much money it will ultimately have to pay out to its members in the form of benefits) is unknown. This cost will not be known with certainty until the last benefit is paid to the last pensioner. The purpose of this valuation is to estimate what this cost will be, so that the Fund can then develop a funding strategy to meet it.

Setting the funding strategy for an open defined benefit pension fund such as London Borough of Hillingdon Pension Fund is complex. Firstly, the time period is very long; benefits earned in the LGPS today will be paid out over a period of the next 80 years or more and it remains open to new joiners and accrual of benefits. Secondly, the LGPS remains a defined benefit scheme so there are significant uncertainties in the final cost of the benefits to be paid. Finally, in order to reduce employer costs, London Borough of Hillingdon Pension Fund invests in a return seeking investment strategy which can result in high levels of asset volatility.

Such a valuation can only ever be an estimate – as the future cannot be predicted with certainty. However, as actuaries, we can use our understanding of the Fund and the factors that affect it to set the pace of funding in conjunction with the Administering Authority. The pace of this funding can vary according to the level of prudence that is built into the valuation method and assumptions.

The valuation approach adopted recognises the uncertainties and risks posed to funding by the factors discussed above and follows the process outlined below.

Step 1: The Fund sets a funding target (or funding basis) which defines the target amount of assets to be held to meet the future cashflows. The assumptions underlying the funding target are discussed further in the next section. A measurement is made at the valuation date to compare the assets held with the funding target.

Step 2: The Fund sets the time horizon over which the funding target is to be reached.

Step 3: The Fund sets contributions that give a sufficiently high likelihood of meeting the funding target over the set time horizon. More detail on this risk based approach to setting contribution rates can be found in **Appendix C**.

For this valuation, as for the previous valuation, our calculations identify separately the expected cost of members' benefits in respect of scheme membership completed before the valuation date ("past service") and that which is expected to be completed after the valuation date ("future service").

Past service

The principal measurement here is the comparison of the funding position at the valuation date against the funding target. The market value of the Fund's assets as at the valuation date are compared against the value placed on the Fund's liabilities in today's terms (calculated using a market-based approach). By maintaining a link to the market in both cases, this helps ensure that the assets and liabilities are valued in a consistent manner. Our calculation of the Fund's liabilities also explicitly allows for expected future pay and pension increases. The assumptions used in the assessment of the funding position at the valuation date are detailed in the next section.

The funding level is the ratio of assets to liabilities at the valuation date. A funding level of less/more than 100% implies that there is a deficit/surplus in the Fund at the valuation date against the funding target.

Funding plans are set to eliminate any deficit (or surplus) over the set time horizon and therefore get back to a funding level of 100%. To do so, additional contributions may be required to be paid into the Fund; these contributions are known as the “secondary rate”.

Future service

In addition to benefits that have already been earned by members prior to the valuation date, employee members will continue to earn new benefits in the future. The cost of these new benefits must be met by both employers and employees. The employers’ share of this cost is known as the “primary rate”.

The primary rates for employers are determined with the aim of meeting the funding target in respect of these new benefits at the end of the set time horizon with an appropriate likelihood of success. The primary rate will depend on the profile of the membership (amongst other factors). For example, the rate is higher for older members as there is less time to earn investment returns before the member’s pension comes into payment.

The methodology for calculating the primary rate will also depend on whether an employer is open or closed to new entrants. A closed employer will have a higher rate as we must allow for the consequent gradual ageing of the workforce.

For the reasons outlined above regarding the uncertainty of the future, there is no guarantee that the amount paid for the primary rate will be sufficient to meet the cost of the benefits that accrue. Similarly, there is no guarantee that the secondary contributions will result in a 100% funding level at the end of the time horizon. Further discussion of this uncertainty is set out in **Appendix C**.

3 Assumptions

Due to the long term nature of the Fund, assumptions about the future are required to place a value of the benefits earned to date (past service) and the cost of benefits that will be earned in the future (future service).

Broadly speaking, our assumptions fall into two categories when projecting and placing a value on the future benefit payments and accrual – demographic and financial.

Demographic assumptions typically try to forecast **when** benefits will come into payment and what form these will take. For example, when members will retire (e.g. at their normal retirement age or earlier), how long they will then survive and whether a dependant's pension will be paid. In this valuation of the Fund, we use a single agreed set of demographic assumptions which is set out below and in more detail in **Appendix E**.

Financial assumptions typically try to anticipate the **size** of these benefits. For example, how large members' final salaries will be at retirement and how their pensions will increase over time. In addition, the financial assumptions also help us to estimate how much all these benefits will cost the Fund in today's money by making an assumption about the return on the Fund's investments in the future.

For measuring the funding position, the liabilities of the Fund are reported on a single constant set of financial assumptions about the future, based on financial market data as at 31 March 2016.

However, when we assess the required employer contributions to meet the funding target, we use a model that calculates the contributions required under 5000 different possible future economic scenarios. Under these 5000 different economic scenarios, key financial assumptions about pension increases and Fund investment returns vary across a wide range. More information about these types of assumptions is set out in **Appendix F**.

Financial assumptions

Discount rate

In order to place a current value on the future benefit payments from the Fund, an assumption about future investment returns is required in order to "discount" future benefit payments back to the valuation date. In setting the discount rate the Fund is determining the extent to which it relies on future investment returns required to meet benefit payments in excess of the monies already held at the valuation date.

For a funding valuation such as this, the discount rate is required by the Regulations to incorporate a degree of prudence. The discount rate is therefore set by taking into account the Fund's current and expected future investment strategy and, in particular, how this strategy is expected to outperform the returns from Government bonds over the long term. The additional margin for returns in excess of that available on Government bonds is called the Asset Outperformance Assumption (AOA).

The selection of an appropriate AOA is a matter of judgement and the degree of risk inherent in the Fund's investment strategy should always be considered as fully as possible.

There has been a downward shift in the expected returns on many asset classes held by the Fund since the 2013 valuation. Following modelling, analysis and discussion reported in the "2016 Valuation AOA Assumption Analysis" document dated 2 February 2016, the Fund is satisfied that an AOA of 1.8% p.a. is a prudent assumption for the purposes of this valuation.

Price inflation / pension increases

Pension (both in payment and deferment) benefit increases and the revaluation of career-average earnings are in line with Consumer Price Index (CPI) inflation. As there continues to be no deep market for CPI linked financial instruments, the Fund derives the expected level of future CPI with reference to the Retail Price Index (RPI).

Due to further analysis of the CPI since 2013, the Fund expects the average long term difference between RPI and CPI to be 1.0% p.a. compared with 0.8% p.a. at the 2013 valuation.

At the previous valuation, the assumption for RPI was derived from market data as the difference between the yield on long-dated fixed interest and index-linked government bonds. At this valuation, the Fund continues to adopt a similar approach.

Salary increases

Due to the change to a CARE scheme from 2014, there is now a closed group of membership in the Fund with benefits linked to final salary. The run-off of this final salary linked liability was modelled, taking into account the short-term restrictions in public sector pay growth.

The results of this modelling and analysis were reported in the "2016 Valuation Pay Growth Assumption" document. Based on the results of this modelling the Fund set a salary growth assumption of RPI-0.6%. This reflects both short term pay constraints and the belief that general economic growth and hence pay growth may be at a lower level than historically experienced for a prolonged period of time.

Note that this assumption is made in respect of the general level of salary increases (e.g. as a result of inflation and other macroeconomic factors). We also make a separate allowance for expected pay rises granted in the future as a result of promotion. This assumption takes the form of a set of tables which model the expected promotional pay awards based on each member's age and class. Please see **Appendix E**.

A summary of the financial assumptions underpinning the target funding basis and adopted during the assessment of the liabilities of the Fund as at 31 March 2016 (alongside those adopted at the last valuation for comparison) are shown below.

Financial assumptions	31 March 2013	31 March 2016
Discount rate		
Return on long-dated gilts	3.0%	2.2%
Asset Outperformance Assumption	1.6%*	1.8%**
Discount rate	**4.6%**	**4.0%**
Benefit increases		
Retail Prices Inflation (RPI)	3.3%	3.2%
Assumed RPI/CPI gap	(0.8%)*	(1.0%)**
Benefit increase assumption (CPI)	**2.5%**	**2.1%**
Salary increases		
Retail Prices Inflation (RPI)	3.3%	3.2%
Increases in excess of RPI	0.0%*	(0.6%)**
Salary increase assumption	**3.3%**	**2.6%**

**Arithmetic addition*

***Geometric addition*

Demographic assumptions

Longevity

The main demographic assumption to which the valuation results are most sensitive is that relating to the longevity of the Fund's members. For this valuation, the Fund has adopted assumptions which give the following sample average future life expectancies for members:

	31 March 2013	31 March 2016
Male		
Pensioners	22.7 years	22.6 years
Non-pensioners	24.3 years	24.0 years
Female		
Pensioners	24.7 years	24.6 years
Non-pensioners	26.9 years	26.5 years

Further details of the longevity assumptions adopted for this valuation can be found in **Appendix E**. Note that the figures for actives and deferreds assume that they are aged 45 at the valuation date.

Other demographic assumptions

We are in the unique position of having a very large local authority data set from which to derive our other demographic assumptions. We have analysed the trends and patterns that are present in the membership of local authority funds and tailored our demographic assumptions to reflect LGPS experience.

Details of the other demographic assumptions adopted by the Fund are set out in **Appendix E**.

Further comments on the assumptions

As required for Local Government Pension Scheme valuations, our approach to this valuation must include a degree of prudence. This has been achieved by explicitly allowing for a margin of prudence in the AOA.

For the avoidance of doubt, we believe that all other proposed assumptions represent the "best estimate" of future experience. This effectively means that there is a 50% chance that future experience will be better or worse than the chosen assumption.

Taken as a whole, we believe that our proposed assumptions are more prudent than the best estimate.

The actuarial assumptions underlying the Scheme Advisory Board's Key Performance Indicators are viewed as best estimate. Using these best estimate assumptions, the assessed funding position as at 31 March 2016 would have been 88%.

Assets

We have taken the assets of the Fund into account at their bid value as informed to us by the Administering Authority. We have also included an allowance for the expected future payments in respect of early retirement strain and augmentation costs granted prior to the valuation date in the value of assets, for consistency with the liabilities and with the previous valuation. We have calculated the total value of these expected future payments to be £0 at 31 March 2016.

In our opinion, the basis for placing a value on members' benefits is consistent with that for valuing the assets - both are related to market conditions at the valuation date.

4 Results

The Administering Authority has prepared a Funding Strategy Statement which sets out its funding objectives for the Fund. In broad terms, the main valuation objectives are to hold sufficient assets in the Fund to meet the assessed cost of members' accrued benefits on the target funding basis ("the Funding Objective") and to set employer contributions which ensure both the long term solvency and the long term cost efficiency of the Fund ("the Contribution Objective").

Funding Position Relative to Funding Target

In assessing the extent to which the Funding Objective was met at the valuation date, we have used the actuarial assumptions described in the previous section of this report for the target funding basis and the funding method also earlier described. The table below compares the value of the assets and liabilities at 31 March 2016. The 31 March 2013 results are also shown for reference.

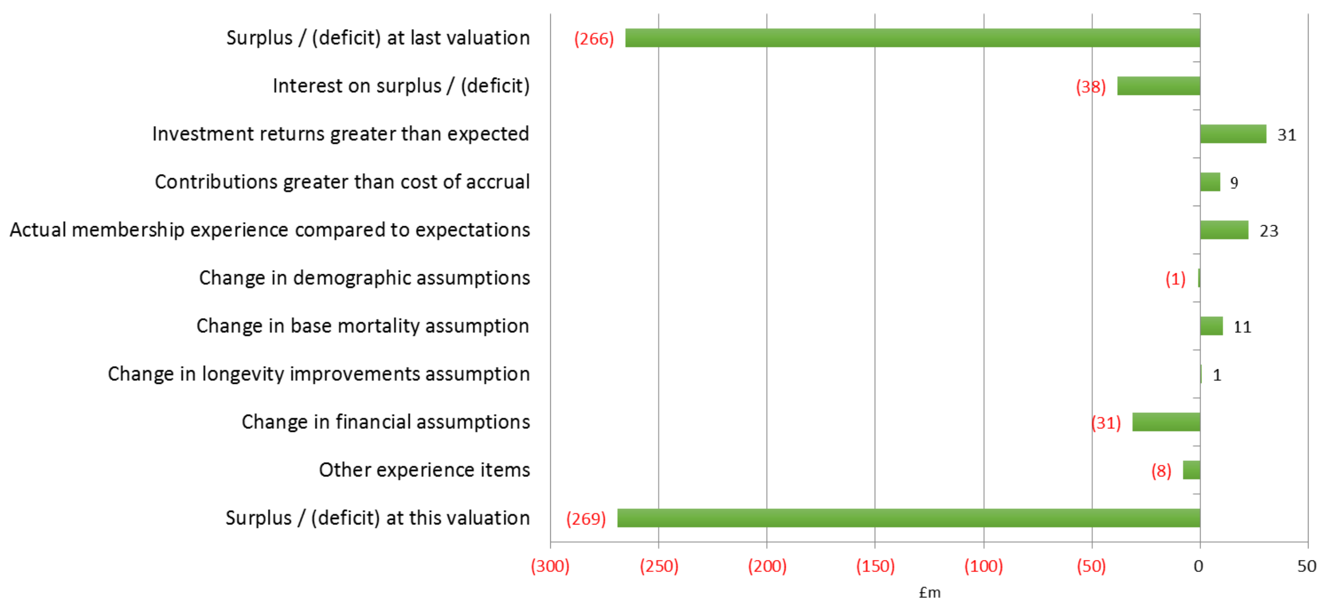
A funding level of 100% would correspond to the Funding Objective being met at the valuation date.

Valuation Date	31 March 2013	31 March 2016
Past Service Liabilities	**(£m)**	**(£m)**
Employees	324	322
Deferred Pensioners	196	235
Pensioners	428	523
Total Liabilities	**949**	**1,079**
Assets	**683**	**810**
Surplus / (Deficit)	**(266)**	**(269)**
Funding Level	**72%**	**75%**

The Funding Objective was not met: there was a shortfall of assets relative to the assessed cost of members' benefits on the target funding basis of £269m.

Summary of changes to the funding position

The chart below illustrates the factors that caused the changes in the funding position between 31 March 2013 and 31 March 2016:



Further comments on some of the items in this chart:

- There is an interest cost of £38m. This is broadly three years of compound interest at 4.6% p.a. applied to the previous valuation deficit of £266m (and can be thought of as the investment return that would have been achieved on the extra assets the Fund would have held if fully funded).
- Investment returns being higher than expected since 2013 lead to a gain of £31m. This is roughly the difference between the actual three-year return (19.0%) and expected three-year return (14.4%) applied to the whole fund assets from the previous valuation of £683m, with a further allowance made for cashflows during the period.

  The membership experience of the Fund has differed to the assumptions made at the 2013 valuation. The table below summarises the significant factors that underlie these differences

	Expected	Actual	Difference	Impact
Pre-retirement experience				
Early leavers (no.of lives)	3,271	1,787	(1,484)	Negative
Ill-health retirements* (no.of lives)	113	30	(83)	Positive
Salary increases (p.a.)**	3.9%			
Post-retirement experience				
Benefit increases (p.a.)	2.5%	1.3%	(1.2%)	Positive
Pensions ceasing (£m)	2.1	2.0	(0.1)	Negative

**Tier1 and Tier 2 ill-health retirements only*

***Due to inconsistencies between the 2013 formal valuation salary data and the 2016 formal valuation salary data, we were unable to perform any meaningful salary increase experience analysis.*

- Fewer members than expected opted into the 50:50 section of the Scheme. This increased the deficit by around £6m.
- The impact of the change in demographic assumptions has been a loss of around £1m.
- The change in mortality assumptions (baseline and improvements) has given rise to a gain of £12m.
- The change in financial conditions since the previous valuation has led to a loss of £31m. The decrease in the real discount rate between 2013 and 2016 has led to a loss of around £111m. This has been offset by the increase to the AOA (c£30m gain), an increase in the assumed gap between RPI and CPI (c£30m gain) and a reduction in the expected future salary growth for benefits linked to final salary (c£20m gain).
- Other experience items, such as changes in the membership data, have served to increase the deficit at this valuation by around £8m.

Employer Contribution Rates

The Contribution Objective is achieved by setting employer contributions which are likely to be sufficient to meet both the cost of new benefits accruing and to address any funding deficit relative to the funding target over the agreed time horizon. A secondary objective is to maintain where possible relatively stable employer contribution rates.

For each employer in the Fund, to meet the Contribution Objective, a primary contribution rate has been calculated in order to fund the cost of new benefits accruing in the Fund. Additionally, if required, a secondary contribution rate has also been calculated to target a fully funded position within the employer's set time horizon. These rates have been assessed using a financial model that assesses the funding outcome for the employer under 5000 different possible future economic scenarios where the key financial assumptions about pension increases and investment returns vary. The employer contribution rates have been set to achieve the funding target over the agreed time

horizon and with the appropriate likelihood of success. The time horizon and the likelihood parameters vary by employer according to each employer's characteristics. These parameters are set out in the Funding Strategy Statement and have been communicated to employers. More information about the methodology used to calculate the contribution rates is set out in **Appendix C**.

The employer contributions payable from 1 April 2017 are given in **Appendix H**, and these have been devised in line with the Funding Strategy Statement.

The table below summarises the whole fund Primary and Secondary Contribution rates at this valuation. These rates are the payroll weighted average of the underlying individual employer primary and the total of employer secondary rates expressed as a monetary amount, calculated in accordance with the Regulations and CIPFA guidance.

Primary rate (%)	Secondary rate (£)		
1 April 2017 - 31 March 2020	2017/18	2018/19	2019/20
19.5%	£5,369,000	£5,612,000	£7,015,000

The Primary rate above excludes employee contributions but includes an allowance for administration expenses of 0.7% of pay. The average employee contribution rate is 5.7%. Note that the employee contribution rate includes any additional contributions being paid by employees as at 31 March 2016 into the Fund.

The table below shows the Fund "Common Contribution rate' as at 31 March 2013 for information purposes. **Although note that the change in regulatory regime and guidance on contribution rates means that a direct comparison to the whole fund rate at 2016 is not appropriate.**

Contribution Rates	31 March 2013 (% of pay)
Employer future service rate (incl. expenses)	18.9%
Past Service Adjustment	9.8%
Total employer contribution rate (incl. expenses)	**28.7%**
Employee contribution rate	6.4%
Expenses	0.6%

5 Risk Assessment

The valuation results depend critically on the actuarial assumptions that are made about the future of the Fund. If all of the assumptions made at this valuation were exactly borne out in practice then the results presented in this document would represent the true cost of the Fund as it currently stands at 31 March 2016.

However, no one can predict the future with certainty and it is unlikely that future experience will exactly match the assumptions. The future therefore presents a variety of risks to the Fund and these should be considered as part of the valuation process. In particular:

- The main risks to the financial health of the Fund should be **identified**.
- Where possible, the financial significance of these risks should be **quantified**.
- Consideration should be given as to how these risks can then be **controlled** or **mitigated**.
- These risks should then be **monitored** to assess whether any mitigation is actually working.

This section investigates the potential implications of the actuarial assumptions not being borne out in practice.

Set out below is a brief assessment of the main risks and their effect on the valuation past service funding position results.

Sensitivity of past service funding position results to changes in assumptions

The table below gives an indication of the sensitivity of the funding position to small changes in two of the main financial assumptions used:

Discount Rates	Benefit Increases & CARE Revaluation			
(£m)	2.5%	2.1%	1.7%	
3.4%	1,262	1,191	1,124	Liabilities (£m)
	810	810	810	Assets (£m)
	(452)	(381)	(314)	(Deficit) (£m)
	64%	68%	72%	Funding Level
4.0%	1,143	1,079	1,019	Liabilities (£m)
	810	810	810	Assets (£m)
	(333)	(269)	(209)	(Deficit) (£m)
	71%	75%	80%	Funding Level
4.6%	1,037	979	925	Liabilities (£m)
	810	810	810	Assets (£m)
	(227)	(169)	(114)	(Deficit) (£m)
	78%	83%	88%	Funding Level

The valuation results are also very sensitive to unexpected changes in future longevity. All else being equal, if longevity improves in the future at a faster pace than allowed for in the valuation assumptions, the funding level will decline and the required employer contribution rates will increase.

Recent medical advances, changes in lifestyle and a greater awareness of health-related matters have resulted in life expectancy amongst pension fund members improving in recent years at a faster pace than was originally foreseen. It is unknown whether and to what extent such improvements will continue in the future.

For the purposes of this valuation, we have selected assumptions that we believe make an appropriate allowance for future improvements in longevity, based on the actual experience of the Fund since the previous valuation.

The table below shows how the valuation results at 31 March 2016 are affected by adopting different longevity assumptions.

	Peaked improvements (£m)	Non-peaked improvements (£m)
Liabilities	1,079	1,103
Assets	810	810
(Deficit)	(269)	(293)
Funding Level	**75%**	**73%**

The "further improvements" are a more cautious set of improvements that, in the short term, assume the 'cohort effect' of strong improvements in life expectancy currently being observed amongst a generation born around the early and mid 1930s will continue to strengthen for a few more years before tailing off. This is known as "non-peaked".

This is not an exhaustive list of the assumptions used in the valuation. For example, changes to the assumed level of withdrawals and ill health retirements will also have an effect on the valuation results.

Note that the tables show the effect of changes to each assumption in isolation. In reality, it is perfectly possible for the experience of the Fund to deviate from more than one of our assumptions simultaneously and so the precise effect on the funding position is therefore more complex. Furthermore, the range of assumptions shown here is by no means exhaustive and should not be considered as the limits of how extreme experience could actually be.

Sensitivity of contribution rates to changes in assumptions

The employer contribution rates are dependent on a number of factors including the membership profile, current financial conditions, the outlook for future financial conditions, and demographic trends such as longevity. Changes in each of these factors can have a material impact on the contribution rates (both primary and secondary rates). We have not sought to quantify the impact of differences in the assumptions because of the complex interactions between them.

Investment risk

The Fund holds some of its assets in return seeking assets such as equities to help reduce employers' costs. However, these types of investments can result in high levels of asset volatility. Therefore, there is a risk that future investment returns are below expectations and the funding target is not met. This will require additional contributions from employers to fund any deficit.

Whilst the Fund takes steps to ensure that the level of investment risk is managed and monitored via strategy reviews and performance monitoring, it can never be fully mitigated.

Regulatory risk

One further risk to consider is the possibility of future changes to Regulations that could materially affect the benefits that members become entitled to. It is difficult to predict the nature of any such changes but it is not inconceivable that they could affect not just the cost of benefits earned after the change but could also have a retrospective effect on the past service position.

Managing the risks

Whilst there are certain things, such as the performance of investment markets or the life expectancy of members, that are not directly within the control of the pension fund, that does not mean that nothing can be done to understand them further and to mitigate their effect. Although these risks are difficult (or impossible) to eliminate, steps can be taken to manage them.

Ways in which some of these risks can be managed could be:

- Set aside a specific reserve to act as a cushion against adverse future experience (possibly by selecting a set of actuarial assumptions that are deliberately more prudent).
- Take steps internally to monitor the decisions taken by members (e.g. 50:50 scheme take-up, commutation) and employers (e.g. relating to early / ill health retirements or salary increases) in a bid to curtail any adverse impact on the Fund.
- Pooling certain employers together at the valuation and then setting a single (pooled) contribution rate that they will all pay. This can help to stabilise contribution rates (at the expense of cross-subsidy between the employers in the pool during the period between valuations).
- Carrying out a review of the future security of the Fund's employers (i.e. assessing the strength of employer covenants) and ultimately their ability to continue to pay contributions or make good future funding deficits.
- Carry out a bespoke analysis of the longevity of Fund members and monitor how this changes over time, so that the longevity assumptions at the valuation provide as close a fit as possible to the particular experience of the Fund.
- Undertake an asset-liability modelling exercise that investigates the effect on the Fund of possible investment scenarios that may arise in the future. An assessment can then be made as to whether long term, secure employers in the Fund can stabilise their future contribution rates (thus introducing more certainty into their future budgets) without jeopardising the long-term health of the Fund.
- Purchasing ill health liability insurance to mitigate the risk of an ill health retirement impacting on solvency and funding level of an individual employer where appropriate.
- Monitoring different employer characteristics in order to build up a picture of the risks posed. Examples include membership movements, cash flow positions and employer events such as cessations.
- Regularly reviewing the Fund's membership data to ensure it is complete, up to date and accurate.

6 Related issues

The Fund's valuation operates within a broader framework, and this document should therefore be considered alongside the following:

- the Funding Strategy Statement, which in particular highlights how different types of employer in different circumstances have their contributions calculated;
- the Investment Strategy Statement from if ready (e.g. the discount rate must be consistent with the Fund's asset strategy);
- the general governance of the Fund, such as meetings of the Pensions Committee, decisions delegated to officers, the Fund's business plan, etc;
- the Fund's risk register; and
- the information the Fund holds about the participating employers.

Further recommendations

Valuation frequency

Under the provisions of the LGPS regulations, the next formal valuation of the Fund is due to be carried out as at 31 March 2019. In light of the uncertainty of future financial conditions, we recommend that the financial position of the Fund (and for individual employers in some cases) is monitored by means of interim funding reviews in the period up to this next formal valuation. This will give early warning of changes to funding positions and possible revisions to funding plans.

Investment strategy and risk management

We recommend that the Administering Authority continues to regularly review its investment strategy and ongoing risk management programme.

New employers joining the Fund

Any new employers or admission bodies joining the Fund should be referred to the Fund Actuary for individual calculation as to the required level of contribution. Depending on the number of transferring members the ceding employer's rate may also need to be reviewed.

Additional payments

Employers may make voluntary additional contributions to recover any funding shortfall over a shorter period, subject to agreement with the Administering Authority and after receiving the relevant actuarial advice.

Further sums should be paid to the Fund by employers to meet the capital costs of any unreduced early retirements, reduced early retirements before age 60 and/or augmentation (i.e. additional membership or additional pension) using the methods and factors issued by me from time to time or as otherwise agreed.

In addition, payments may be required to be made to the Fund by employers to meet the capital costs of any ill-health retirements that exceed those allowed for within our assumptions.

Cessations and bulk transfers

Any employer who ceases to participate in the Fund should be referred to us in accordance with Regulation 64 of the Regulations.

Please notify us if there are any bulk movement of scheme members:

- involving 10 or more scheme members being transferred from or to another LGPS fund, or
- involving 2 or more scheme members being transferred from or to a non-LGPS pension arrangement.

7 Reliances and limitations

Scope

This document has been requested by and is provided to London Borough of Hillingdon in its capacity as Administering Authority to the London Borough of Hillingdon Pension Fund. It has been prepared by Hymans Robertson LLP to fulfil the statutory obligations in accordance with regulation 62 of the Regulations. None of the figures should be used for accounting purposes (e.g. under FRS102 or IAS19) or for any other purpose (e.g. a termination valuation under Regulation 64).

This document should not be released or otherwise disclosed to any third party without our prior written consent, in which case it should be released in its entirety. Hymans Robertson LLP accepts no liability to any other party unless we have expressly accepted such liability.

The results of the valuation are dependent on the quality of the data provided to us by the Administering Authority for the specific purpose of this valuation. We will be issuing a separate report confirming that the data provided is fit for the purposes of this valuation and have commented on the quality of the data provided. The data used in our calculations is as per our report which will be issued in due course. However, if any material issues with the data provided are identified at a later date, then the results stated in this report may change.

Actuarial Standards

The following Technical Actuarial Standards[1] are applicable in relation to this report and have been complied with where material:

- TAS R – Reporting;
- TAS D – Data;
- TAS M – Modelling; and
- Pensions TAS.

Catherine McFadyen

Fellow of the Institute and Faculty of Actuaries

For and on behalf of Hymans Robertson LLP

16 February 2017

[1] 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.

Appendix A: About the pension fund

The purpose of the Fund is to provide retirement and death benefits to its members. It is part of the Local Government Pension Scheme (LGPS) and is a multi-employer defined benefit pension scheme.

For more details please refer to the Fund's Funding Strategy Statement.

Defined benefit pension scheme

In a defined benefit scheme such as this, the nature of retirement benefits that members are entitled to is known in advance. For example, it is known that members will receive a pension on retirement that is linked to their salary (final salary and/or career average) and pensionable service (for service before 1 April 2014) according to a pre-determined formula.

However, the precise cost to the Fund of providing these benefits is **not** known in advance. The estimated cost of these benefits represents a liability to the Fund and assets must be set aside to meet this. The relationship between the value of the liabilities and the value of the assets must be regularly assessed and monitored to ensure that the Fund can fulfil its core objective of providing its members with the retirement benefits that they have been promised.

Liabilities

The Fund's liabilities are the benefits that will be paid in the future to its members (and their dependants).

The precise timing and amount of these benefit payments will depend on future experience, such as when members will retire, how long they will live for in retirement and what economic conditions will be like both before and after retirement. Because these factors are not known in advance, assumptions must be made about future experience. The valuation of these liabilities must be regularly updated to reflect the degree to which actual experience has been in line with these assumptions.

Assets

The Fund's assets arise from the contributions paid by its members and their employers and the investment returns that they generate. The way these assets are invested is of fundamental importance to the Fund. The selection, monitoring and evolution of the Fund's investment strategy are key responsibilities of the Administering Authority.

As the estimated cost of the Fund's liabilities is regularly re-assessed, this effectively means that the amount of assets required to meet them is a moving target. As a result, at any given time the Fund may be technically in surplus or in deficit.

A contribution strategy must be put in place which ensures that each of the Fund's employers pays money into the Fund at a rate which will target the cost of its share of the liabilities in respect of benefits already earned by members and those that will be earned in the future.

The long-term nature of the Fund

The pension fund is a long-term commitment. Even if it were to stop admitting new members today, it would still be paying out benefits to existing members and dependants for many decades to come. It is therefore essential that the various funding and investment decisions that are taken now recognise this and come together to form a coherent long-term strategy.

In order to assist with these decisions, the Regulations require the Administering Authority to obtain a formal valuation of the Fund every three years. Along with the Funding Strategy Statement, this valuation will help determine the funding objectives that will apply from 1 April 2017.

Appendix B: Summary of the Fund's benefits

Provided below is a brief summary of the non-discretionary benefits that we have taken into account for active members at this valuation. This should not be taken as a comprehensive statement of the exact benefits to be paid. For further details please see the Regulations.

<table>
<tr><th>Provision</th><th>Benefit Structure To 31 March 2008</th><th>Benefit Structure From 1 April 2008</th><th>Benefit Structure From 1 April 2014</th></tr>
<tr><td>Normal retirement age (NRA)</td><td>Age 65.</td><td>Age 65.</td><td>Equal to the individual member's State Pension Age (minimum 65).</td></tr>
<tr><td>Earliest retirement age (ERA) on which immediate unreduced benefits can be paid on voluntary retirement</td><td colspan="2">As per NRA (age 65).
Protections apply to active members in the scheme immediately prior to 1 October 2006 who would have been entitled to immediate payment of unreduced benefits prior to 65, due to:
The benefits relating to various segments of scheme membership are protected as set out in Schedule 2 to the Local Government Pension Scheme (Transitional Provisions) Regulations 2008 and associated GAD guidance.</td><td>As per NRA (minimum age 65).
Protections apply to active members in the scheme for pensions earned up to 1 April 2014, due to:
a) Accrued benefits relating to pre April 2014 service at age 65.
b) Continued 'Rule of 85' protection for qualifying members.
c) Members within 10 yrs of existing NRA at 1/4/12 – no change to when they can retire and no decrease in pension they receive at existing NRA.</td></tr>
<tr><td>Member contributions</td><td>Officers - 6% of pensionable pay
Manual Workers – 5% of pensionable pay if has protected lower rates rights or 6% for post 31 March 1998 entrants or former entrants with no protected rights.</td><td>Banded rates (5.5%-7.5%) depending upon level of full-time equivalent pay. A mechanism for sharing any increased scheme costs between employers and scheme members is included in the LGPS regulations.</td><td>Banded rates (5.5%-12.5%) depending upon level of actual pay.</td></tr>
<tr><td>Pensionable pay</td><td colspan="2">All salary, wages, fees and other payments in respect of the employment, excluding non-contractual overtime and some other specified amounts.
Some scheme members may be covered by special agreements.</td><td>Pay including non-contractual overtime and additional hours.</td></tr>
<tr><td>Final pay</td><td colspan="2">The pensionable pay in the year up to the date of leaving the scheme. Alternative methods used in some cases, e.g. where there has been a break in service or a drop in pensionable pay.
Will be required for the statutory underpin and in respect of the final salary link that may apply in respect of certain members of the CARE scheme who have pre April 2014 accrual.</td><td>N/A</td></tr>
</table>

Provision	Benefit Structure To 31 March 2008	Benefit Structure From 1 April 2008	Benefit Structure From 1 April 2014
Period of scheme membership	Total years and days of service during which a member contributes to the Fund. (e.g. transfers from other pension arrangements, augmentation, or from April 2008 the award of additional pension). For part time members, the membership is proportionate with regard to their contractual hours and a full time equivalent). Additional periods may be granted dependent on member circumstances.		N/A
Normal retirement benefits at NRA	Annual Retirement Pension - 1/80th of final pay for each year of scheme membership. Lump Sum Retirement Grant - 3/80th of final pay for each year of scheme membership.	Scheme membership from 1 April 2008: Annual Retirement Pension - 1/60th of final pay for each year of scheme membership. Lump Sum Retirement Grant – none except by commutation of pension.	Scheme membership from 1 April 2014: Annual Retirement Pension - 1/49th of pensionable pay (or assumed pensionable pay) for each year of scheme membership revalued to NRA in line with CPI. Lump Sum Retirement Grant - none except by commutation of pension.
Option to increase retirement lump sum benefit	In addition to the standard retirement grant any lump sum is to be provided by commutation of pension (within overriding HMRC limits). The terms for the conversion of pension in to lump sum is £12 of lump sum for every £1 of annual pension surrendered.	No automatic lump sum. Any lump sum is to be provided by commutation of pension (within overriding HMRC limits). The terms for the conversion of pension in to lump sum is £12 of lump sum for every £1 of annual pension surrendered.	No automatic lump sum. Any lump sum is to be provided by commutation of pension (within overriding HMRC limits). The terms for the conversion of pension in to lump sum is £12 of lump sum for every £1 of annual pension surrendered.
Voluntary early retirement benefits (non ill-health)	On retirement after age 60, subject to reduction on account of early payment in some circumstances (in accordance with ERA protections).		On retirement after age 55, subject to reduction on account of early payment in some circumstances (in accordance with ERA protections).
Employer's consent early retirement benefits (non ill-health)	On retirement after age 55 with employer's consent. Benefits paid on redundancy or efficiency grounds are paid with no actuarial reduction. Otherwise, benefits are subject to reduction on account of early payment, unless this is waived by the employer.		Benefits paid on redundancy or efficiency grounds are paid with no actuarial reduction. Employer's consent is no longer required for a member to retire from age 55. However, benefits are subject to reduction on account of early payment, unless this is waived by the employer.

Provision	Benefit Structure To 31 March 2008	Benefit Structure From 1 April 2008	Benefit Structure From 1 April 2014
Ill-health benefits	As a result of permanent ill-health or incapacity. Immediate payment of unreduced benefits. Enhancement to scheme membership, dependent on actual membership. Enhancement seldom more than 6 years 243 days.	As a result of permanent ill-health or incapacity and a reduced likelihood of obtaining gainful employment (local government or otherwise) before age 65. Immediate payment of unreduced benefits. Enhanced to scheme membership, dependent on severity of ill health. 100% of prospective membership to age 65 where no likelihood of undertaking any gainful employment prior to age 65; 25% of prospective membership to age 65 where likelihood of obtaining gainful employment after 3 years of leaving, but before age 65; or 0% of prospective membership where there is a likelihood of undertaking gainful employment within 3 years of leaving employment	As a result of permanent ill-health or incapacity and a reduced likelihood of obtaining gainful employment (local government or otherwise) before NRA. Immediate payment of unreduced benefits. Enhanced to scheme membership, dependent on severity of ill health. 100% of prospective membership to age NRA where no likelihood of undertaking any gainful employment prior to age NRA; 25% of prospective membership to age NRA where likelihood of obtaining gainful employment after 3 years of leaving, but before age NRA; or 0% of prospective membership where there is a likelihood of undertaking gainful employment within 3 years of leaving employment

<table>
<tr><th>Provision</th><th>Benefit Structure To 31 March 2008</th><th>Benefit Structure From 1 April 2008</th><th>Benefit Structure From 1 April 2014</th></tr>
<tr><td>Flexible retirement</td><td>After 5th April 2006, a member who has attained the age of 50, with his employer's consent, reduces the hours he works, or the grade in which he is employed, may elect in writing to the appropriate Administering Authority that such benefits may, with his employer's consent, be paid to him notwithstanding that he has not retired from that employment.

Benefits are paid immediately and subject to actuarial reduction unless the reduction is waived by the employer.</td><td colspan="2">A member who has attained the age of 55 and who, with his employer's consent, reduces the hours he works, or the grade in which he is employed, may make a request in writing to the appropriate Administering Authority to receive all or part of his benefits,

Benefits are paid immediately and subject to actuarial reduction unless the reduction is waived by the employer.</td></tr>
<tr><td>Pension increases</td><td colspan="3">All pensions in payment, deferred pensions and dependant's pensions other than benefits arising from the payment of additional voluntary contributions are increased annually. Pensions are increased partially under the Pensions (Increases) Act and partially in accordance with statutory requirements (depending on the proportions relating to pre 88 GMP, post 88 GMP and excess over GMP).</td></tr>
<tr><td>Death after retirement</td><td>A spouse's or civil partner's pension of one half of the member's pension (generally post 1 April 1972 service for widowers' pension and post 6 April 1988 for civil partners) is payable; plus

If the member dies within five years of retiring and before age 75 the balance of five years' pension payments will be paid in the form of a lump sum; plus

Children's pensions may also be payable.</td><td colspan="2">A spouse's, civil partner's or nominated cohabiting partner's pension payable at a rate of 1/160th of the member's total membership multiplied by final pay (generally post 1 April 1972 service for widowers' pension and post 6 April 1988 for civil partners and nominated cohabiting partners) is payable; plus

If the member dies within ten years of retiring and before age 75 the balance of ten years' pension payments will be paid in the form of a lump sum; plus

Children's pensions may also be payable.</td></tr>
</table>

Provision	Benefit Structure To 31 March 2008	Benefit Structure From 1 April 2008	Benefit Structure From 1 April 2014
Death in service	A lump sum of two times final pay; plus A spouse's or civil partner's pension of one half of the ill-health retirement pension that would have been paid to the scheme member if he had retired on the day of death (generally post 1 April 1972 service for widowers' pension and post 6 April 1988 for civil partners); plus Children's pensions may also be payable.	A lump sum of three times final pay; plus A spouse's, civil partner's or cohabiting partner's pension payable at a rate of 1/160th of the member's total (augmented to age 65) membership (generally post 1 April 1972 service for widowers' pension and post 6 April 1988 for civil partners and nominated cohabiting partners), multiplied by final pay; plus Children's pensions may also be payable.	
Leaving service options	If the member has completed three months' or more scheme membership, deferred benefits with calculation and payment conditions similar to general retirement provisions; or A transfer payment to either a new employer's scheme or a suitable insurance policy, equivalent in value to the deferred pension; or If the member has completed less than three months' scheme membership, a return of the member's contributions with interest, less a State Scheme premium deduction and less tax at the rate of 20%.		If the member has completed two years or more scheme membership, deferred benefits with calculation and payment conditions similar to general retirement provisions; or A transfer payment to either a new employer's scheme or a suitable insurance policy, equivalent in value to the deferred pension; or If the member has completed less than two years scheme membership, a return of the member's contributions with interest, less a State Scheme premium deduction and less tax at the rate of 20%.
State pension scheme	From 6th of April 2016, the Fund will no longer be contracted out of the State Second Pension. Until that date, the benefits payable to each member were guaranteed to be not less than those required to enable the Fund to be contracted-out.		
Assumed pensionable pay	N/A		This applies in cases of reduced contractual pay (CPP) resulting from sickness, child related and reserve forces absence, whereby the amount added to the CPP is the assumed pensionable pay rather than the reduced rate of pay actually received.
50/50 option	N/A		Optional arrangement allowing 50% of main benefits to be accrued on a 50% employee contribution rate.

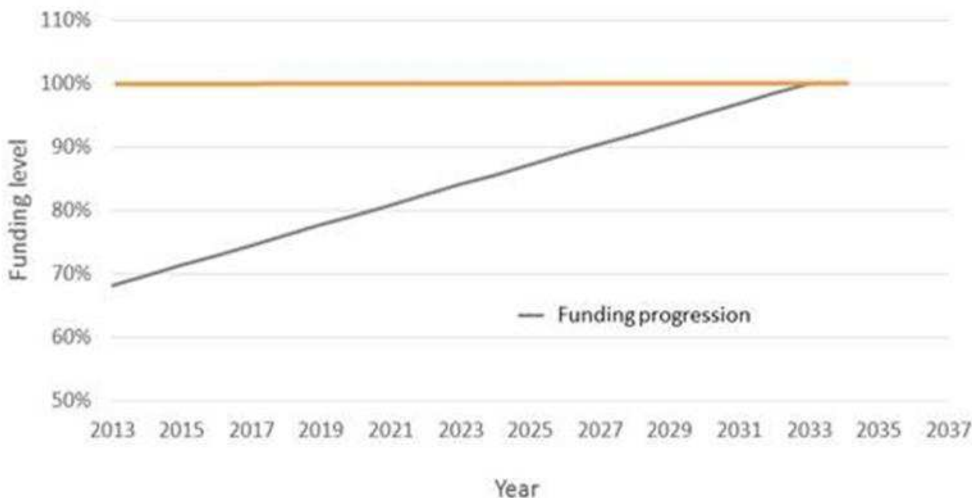
Note: Certain categories of members of the Fund are entitled to benefits that differ from those summarised above.

Discretionary benefits

The LGPS Regulations give employers a number of discretionary powers. The effect on benefits or contributions as a result of the use of these provisions as currently contained within the Local Government Pension Scheme Regulations has been allowed for in this valuation to the extent that this is reflected in the membership data provided. No allowance has been made for the future use of discretionary powers that will be contained within the scheme from 1 April 2017.

Appendix C: Risk based approach to setting contribution rates

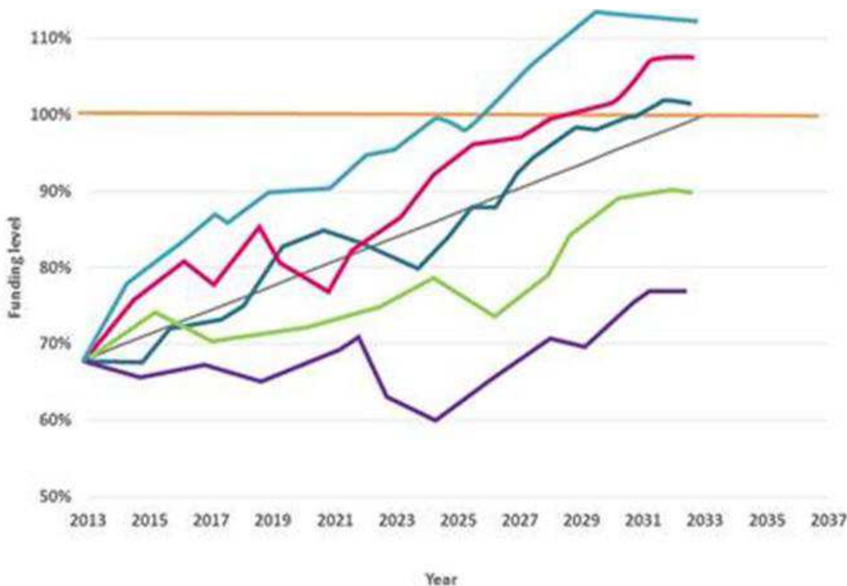
At previous valuations we have set contribution rates by calculating them using a single set of assumptions about the future economic conditions (a 'deterministic' method). By using this deterministic method, there is an implicit assumption that the future will follow expectations (i.e. the financial assumptions used in the calculation) and the employer will return to full funding via one 'journey'. This approach is summarised in the illustrative chart below.



However, pension funding is uncertain as:

- the Fund's assets are invested in volatile financial markets and therefore they go up and down in value; and
- the pension benefits are linked to inflation which again can go up and down in value over time.

One single set of assumptions are very unlikely to actually match what happens, and therefore, the funding plan originally set out will not evolve in line with the single journey shown above. The actual evolution of the funding position could be one of many different 'journeys', and a sample of these are given below.



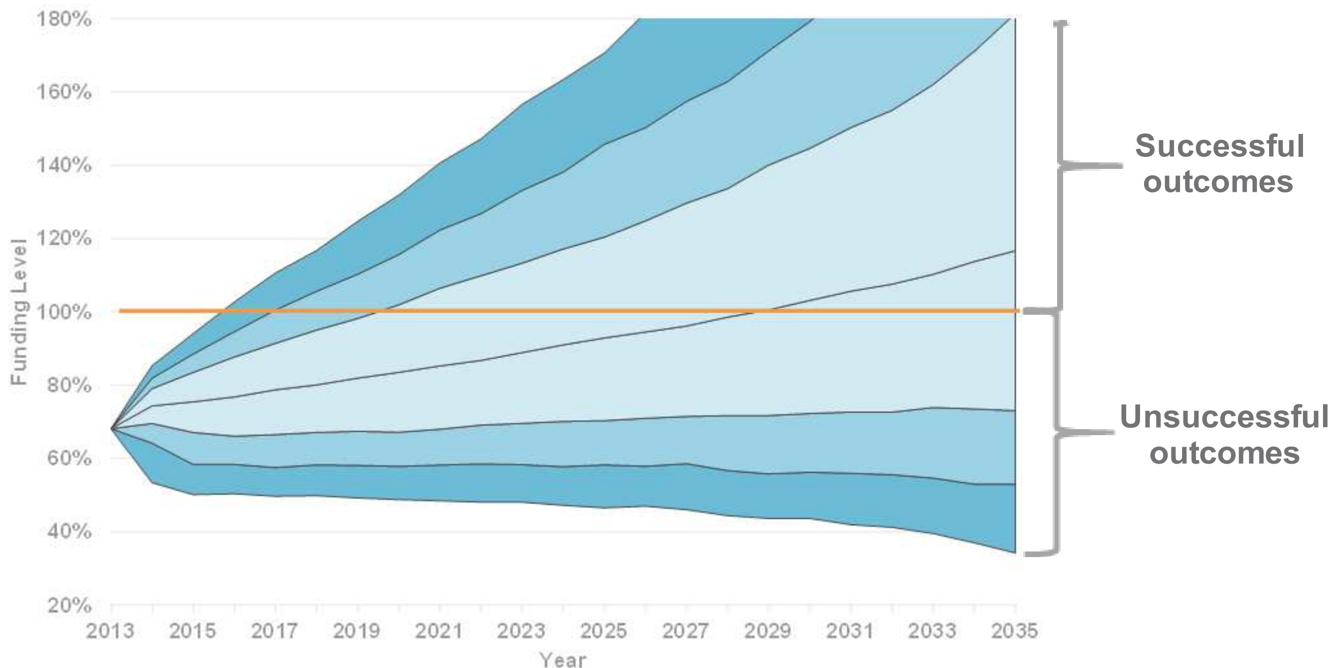
The inherent uncertainty in pension funding creates a risk that a funding plan will not be a success i.e. the funding target will not be reached over the agreed time period.

This risk can never be fully mitigated whilst invested in volatile assets and providing inflation linked benefits, however the main disadvantage of the traditional deterministic method is that it does not allow the Fund, employer, regulators or actuary to assess and understand the risk associated with the proposed funding plan and the likelihood of its success, or otherwise.

Risk Based Approach

At this valuation, we have adopted a 'risk based' approach when setting contribution rates. This approach considers thousands of simulations (or 'journeys') to be projected of how each employer's assets and liabilities may evolve over the future until we have a distribution of funding outcomes (ratio of assets to liabilities). Each simulation represents a different possible journey of how the assets and liabilities could evolve and they will vary due to assumptions about investment returns, inflation and other financial factors. Further technical detail about the methodology underlying these projections is set out in **Appendix F**.

Once we have a sufficient number of outcomes to form a statistically credible distribution (we use 5,000 outcomes), we can examine what level of contribution rate gives an appropriate likelihood of meeting an employer's funding target (usually a 100% funding level) within the agreed timeframe ('time horizon') (i.e. a sufficient number of successful outcomes). The picture below shows a sample distribution of outcomes for an employer.



Having this 'funnel' of outcomes allows the Fund to understand the likelihood of the actual outcome being higher or lower than a certain level. For example, there is 2/3rds chance the funding level will be somewhere within the light shaded area, and there is a 1 in 100 chance that the funding level will be outside the funnel altogether. Using this 'probability distribution', we then set a contribution rate that leads to a certain amount of funding outcomes being successful (e.g. 2/3rds).

Further detail on the likelihoods used in employer's funding plans is set out in the Fund's Funding Strategy Statement.

Appendix D: Data

This section contains a summary of the membership, investment and accounting data provided by the Administering Authority for the purposes of this valuation (the corresponding membership and investment data from the previous valuation is also shown for reference). For further details of the data, and the checks and amendments performed in the course of this valuation, please refer to our separate data report.

Membership data – whole fund

Employee members

	31 March 2013		31 March 2016		
	Number	Pensionable Pay* (£000)	Number	Pensionable Pay* (£000)	CARE Pot (£000)
Total employee membership	6,731	126,783	8,276	144,382	4,417

*actual pay (not full-time equivalent)

Deferred pensioners

	31 March 2013		31 March 2016	
	Number	Deferred pension (£000)	Number	Deferred pension (£000)
Total deferred membership	6,119	11,055	7,248	12,788

The figures above also include any “frozen refunds” and “undecided leavers” members at the valuation date.

Current pensioners, spouses and children

	31 March 2013		31 March 2016	
	Number	Pension (£000)	Number	Pension (£000)
Members	4,662	25,016	5,061	30,764
Dependants	722	1,936	763	2,492
Children	51	80	53	79
Total pensioner members	**5,435**	**27,033**	**5,877**	**33,334**

Note that the membership numbers in the table above refer to the number of records provided to us and so will include an element of double-counting in respect of any members who are in receipt (or potentially in receipt of) more than one benefit.

Membership Profile	Average Age (years)		FWL (years)	
	2013	2016	2013	2016
Employees (CARE)	-	48.8	8.9	8.9
Employees (Final Salary)	51.9	52.6		
Deferred Pensioners	51.3	52.4	-	-
Pensioners	67.3	68.4	-	-

The average ages are weighted by liability.

The expected future working lifetime (FWL) indicates the anticipated length of time that the average employee member will remain as a contributor to the Fund. Note that it allows for the possibility of members leaving, retiring early or dying before retirement.

Assets at 31 March 2016

A summary of the Fund's assets provided by the Administering Authority (excluding members' money-purchase Additional Voluntary Contributions) as at 31 March 2016 and 31 March 2013 is as follows:

Asset class	31 March 2013 (Market Value) (£000)	Allocation %	31 March 2016 (Market Value) (£000)	Allocation %
UK equities	209	31%	175	22%
UK fixed interest gilts	2	0%	2	0%
UK corporate bonds	38	6%	52	6%
UK index-linked gilts	35	5%	56	7%
Overseas equities	217	32%	288	36%
Overseas bonds	89	13%	86	11%
Property	46	7%	106	13%
Cash and net current assets	46	7%	45	6%
Total	**683**	**100%**	**810**	**100%**

Accounting data – revenue account for the three years to 31 March 2016

Consolidated accounts (£000)	Year to			Total
	31 March 2014	31 March 2015	31 March 2016	
Income				
Employer - normal contributions	25,246	27,466	28,888	81,600
Employer - additional contributions	12	0	0	12
Employer - early retirement and augmentation strain contributions	1,000	731	998	2,729
Employee - normal contributions	8,133	8,410	8,370	24,913
Employee - additional contributions	708	776	1,012	2,496
Transfers In Received (including group and individual)	750	1,164	2,744	4,658
Other Income	0	0	0	0
Total Income	**35,849**	**38,547**	**42,012**	**116,408**
Expenditure				
Gross Retirement Pensions	28,114	29,862	31,597	89,573
Lump Sum Retirement Benefits	6,105	4,521	7,598	18,224
Death in Service Lump sum	529	65	581	1,175
Death in Deferment Lump Sum	0	0	0	0
Death in Retirement Lump Sum	0	0	0	0
Gross Refund of Contributions	0	21	98	119
Transfers out (including bulk and individual)	2,890	1,345	2,602	6,837
Fees and Expenses	746	843	1,015	2,604
Total Expenditure	**38,384**	**36,657**	**43,491**	**118,532**
Net Cashflow	**-2,535**	**1,890**	**-1,479**	**-2,124**
Assets at start of year	**683,052**	**726,536**	**802,300**	**683,052**
Net cashflow	**-2,535**	**1,890**	**-1,479**	**-2,124**
Change in value	**46,019**	**73,874**	**9,466**	**129,359**
Assets at end of year	**726,536**	**802,300**	**810,287**	**810,287**
Approximate rate of return on assets	**6.7%**	**10.2%**	**1.2%**	**19.0%**

Note that the figures above are based on the Fund accounts provided to us for the purposes of this valuation, which were fully audited at the time of our valuation calculations.

Appendix E: Assumptions

Financial assumptions

Financial assumptions	31 March 2013 (% p.a.)	31 March 2016 (% p.a.)
Discount rate	4.6%	4.0%
Price inflation	3.3%	3.2%
Pay increases*	3.3%	2.6%
Pension increases:	2.5%	2.1%
pension in excess of GMP	2.5%	2.1%
post-88 GMP	2.5%	2.1%
pre-88 GMP	0.0%	0.0%
Revaluation of deferred pension	2.5%	2.1%
Revaluation of accrued CARE pension	2.5%	2.1%
Expenses	0.6%	0.7%

*An allowance is also made for promotional pay increases (see table below).

Mortality assumptions

Longevity assumptions	31 March 2016
Longevity - baseline	Vita
Longevity - improvements	
CMI Model version used	CMI_2013
Starting rates	CMI calibration based on data from Club Vita using the latest available data as at January 2014.
Long term rate of improvement	Period effects: 1.25% p.a. for men and women. Cohort effects: 0% p.a. for men and for women.
Period of convergence	Period effects: CMI model core values i.e. 10 years for ages 50 and below and 5 years for those aged 95 and above, with linear transition to 20 years for those aged between 60 and 80. Cohort effects: CMI core i.e. 40 years for those born in 1950 or later declining linearly to 5 years for those born in 1915 or earlier.
Proportion of convergence remaining at mid point	50%

As a member of Club Vita, the baseline longevity assumptions that have been adopted at this valuation are a bespoke set of VitaCurves that are specifically tailored to fit the membership profile of the Fund. These curves are based on the data the Fund has provided us with for the purposes of this valuation. Full details of these are available on request.

We have used a longevity improvement assumption based on the industry standard projection model calibrated with information from our longevity experts in Club Vita. The starting point for the improvements has been based on observed death rates in the Club Vita data bank over the period up to 2012.

We have used the 2013 version of the Continuous Mortality Investigation (CMI) longevity improvements model, instead of the more recent 2015 version, as we do not believe the increased mortality experience factored into the

2015 model is the start of a new trend. We believe it is more appropriate to use the 2013 version of the model for the 2016 valuation.

In the short term we have assumed that the improvements in life expectancy observed up to 2010 will start to tail off immediately, resulting in life expectancy increasing less rapidly than has been seen over the last decade or two. This could be described as assuming that improvements have 'peaked'.

In the longer term we have assumed that increases in life expectancy will stabilise at a rate of increase of 0.9 years per decade for men and women. This is equivalent to assuming that longer term mortality rates will fall at a rate of 1.25% p.a. for men and women.

However, we have assumed that above age 90 improvements in mortality are hard to achieve, and so the long term rate of improvement declines between ages 90 and 120 so that no improvements are seen at ages 120 and over. The initial rate of mortality is assumed to decline steadily above age 98.

Other demographic valuation assumptions

Retirements in normal health	We have adopted the retirement age pattern assumption as specified by the Scheme Advisory Board for preparing Key Performance Indicators. Further details about this assumption are available on request.
Retirements in ill health	Allowance has been made for ill-health retirements before Normal Pension Age (see table below).
Withdrawals	Allowance has been made for withdrawals from service (see table below).
Family details	A varying proportion of members are assumed to be married (or have an adult dependant) at retirement or on earlier death. For example, at age 60 this is assumed to be 90% for males and 85% for females. Husbands are assumed to be 3 years older than wives.
Commutation	65% of future retirements elect to exchange pension for additional tax free cash up to HMRC limits for service to 1 April 2008 (equivalent 85% for service from 1 April 2008).
50:50 option	5% of members (uniformly distributed across the age, service and salary range) will choose the 50:50 option.

The tables below show details of the assumptions actually used for specimen ages. The promotional pay scale is an annual average for all employees at each age. It is in addition to the allowance for general pay inflation described above. For membership movements, the percentages represent the probability that an individual at each age leaves service within the following twelve months. The abbreviations FT and PT refer to full-time and part-time respectively.

Males

Age	Salary Scale	Incidence per 1000 active members per annum						
		Death Before Retirement	Withdrawals		Ill Health Tier 1		Ill Health Tier 2	
		FT & PT	FT	PT	FT	PT	FT	PT
20	105	0.21	219.73	439.47	0.00	0.00	0.00	0.00
25	117	0.21	145.14	290.28	0.00	0.00	0.00	0.00
30	131	0.26	102.98	205.93	0.00	0.00	0.00	0.00
35	144	0.30	80.46	160.88	0.12	0.09	0.10	0.07
40	150	0.51	64.78	129.48	0.20	0.15	0.16	0.12
45	157	0.85	60.85	121.60	0.44	0.33	0.35	0.27
50	162	1.36	50.16	100.12	1.13	0.85	1.14	0.85
55	162	2.13	39.50	78.88	4.42	3.32	2.56	1.92
60	162	3.83	35.20	70.28	7.78	5.84	2.20	1.65
65	162	6.38	0.00	0.00	14.78	11.09	0.00	0.00

Please note that the withdrawal figures include tier 3 ill health.

Females

Age	Salary Scale	Incidence per 1000 active members per annum						
		Death Before Retirement	Withdrawals		Ill Health Tier 1		Ill Health Tier 2	
		FT & PT	FT	PT	FT	PT	FT	PT
20	105	0.12	151.58	252.63	0.00	0.00	0.00	0.00
25	117	0.12	101.99	169.97	0.12	0.09	0.10	0.07
30	131	0.18	85.50	142.46	0.16	0.12	0.13	0.10
35	144	0.30	73.79	122.91	0.32	0.24	0.26	0.19
40	150	0.48	61.42	102.26	0.48	0.36	0.39	0.29
45	157	0.77	57.31	95.41	0.65	0.48	0.51	0.39
50	162	1.13	48.32	80.35	1.21	0.91	1.22	0.92
55	162	1.49	36.05	60.02	4.48	3.36	2.60	1.95
60	162	1.90	29.06	48.31	9.51	7.14	2.69	2.01
65	162	2.44	0.00	0.00	17.09	12.82	0.00	0.00

Please note that the withdrawal figures include tier 3 ill health.

Appendix F: Technical appendix for contribution rate modelling

This appendix is provided for readers seeking to understand the technical methodology used in assessing the employer contribution rates.

In order to assess the likelihood of the employer's section of the Fund achieving full funding we have carried out stochastic asset liability modelling (ALM) that takes into account the main characteristics and features of each employer's share of the Fund's assets and liabilities. For stabilised employers a full ALM, known as comPASS has been used. For other employers a simplified ALM, known as TARGET has been used. Please refer to the Funding Strategy Statement to determine which method has been applied for each employer.

The following sections provide more detail on the background to the modelling.

Cash flows

In projecting forward the evolution of each employer's section of the Fund, we have used anticipated future benefit cashflows. These cashflows have been generated using the membership data provided for the formal valuation as at 31 March 2016, the demographic and financial assumptions used for the valuation and make an allowance for future new joiners to the Fund (if any employer is open to new entrants).

For comPASS we have estimated future service benefit cash flows and projected salary roll for new entrants (where appropriate) after the valuation date such that payroll remains constant in real terms (i.e. full replacement) unless otherwise stated. There is a distribution of new entrants introduced at ages between 25 and 65, and the average age of the new entrants is assumed to be 40 years. All new entrants are assumed to join and then leave service at SPA, which is a much simplified set of assumptions compared with the modelling of existing members. The base mortality table used for the new entrants is an average of mortality across the LGPS and is not specific to the Fund, which is another simplification compared to the modelling of existing members. TARGET uses a similar but simplified approach to generating new entrants. Nonetheless, we believe that these assumptions are reasonable for the purposes of the modelling given the highly significant uncertainty associated with the level of new entrants.

We do not allow for any variation in actual experience away from the demographic assumptions underlying the cashflows. Variations in demographic assumptions (and experience relative to those assumptions) can result in significant changes to the funding level and contribution rates. We allow for variations in inflation (RPI or CPI as appropriate), inflation expectations (RPI or CPI as appropriate), interest rates, yield curves and asset class returns. Cashflows into and out of the Fund are projected forward in annual increments and are assumed to occur in the middle of each financial year (April to March). Investment strategies are assumed to be rebalanced annually.

Asset liability model (comPASS)

These cashflows, and the employer's assets, are projected forward using stochastic projections of asset returns and economic factors such as inflation and bond yields. These projections are provided by the Economic Scenario Service (ESS), our (proprietary) stochastic asset model, which is discussed in more detail below.

In the modelling we have assumed that the Fund will undergo valuations every three years and a contribution rate will be set that will come into force one year after the simulated valuation date. For 'stabilised' contributions, the rate at which the contribution changes is capped and floored. There is no guarantee that such capping or flooring will be appropriate in future; this assumption has been made so as to illustrate the likely impact of practical steps that may be taken to limit changes in contribution rates over time.

Unless stated otherwise, we have assumed that all contributions are made and not varied throughout the period of projection irrespective of the funding position. In practice the contributions are likely to vary especially if the funding level changes significantly.

Investment strategy is also likely to change with significant changes in funding level, but we have not considered the impact of this.

In allowing for the simulated economic scenarios, we have used suitable approximations for updating the projected cashflows. The nature of the approximations is such that the major financial and investment risks can be broadly quantified. However, a more detailed analysis would be required to understand fully the implications and appropriate implementation of a very low risk or 'cash flow matched' strategy.

We would emphasise that the returns that could be achieved by investing in any of the asset classes will depend on the exact timing of any investment/disinvestment. In addition, there will be costs associated with buying or selling these assets. The model implicitly assumes that all returns are net of costs and that investment/disinvestment and rebalancing are achieved without market impact and without any attempt to 'time' entry or exit.

Asset liability model (TARGET)

TARGET uses a similar, but simplified, modelling approach to that used for comPASS.

Contribution rates are inputs to the model and are assumed not to vary throughout the period of projection, with no valuation every three years or setting of 'stabilised' contribution rates.

In allowing for the simulated economic scenarios, we have used more approximate methods for updating the projected cash flows. The nature of the approximations is such that the major financial and investment risks can be broadly quantified.

When projecting forward the assets, we have modelled a proxy for the Fund's investment strategy by simplifying their current benchmark into growth (UK equity) and non-growth (index-linked gilts) allocations, and then adjusting the volatility of the resultant portfolio results to approximately reflect the diversification benefit of the Fund's investment strategy.

Economic Scenario Service

The distributions of outcomes depend significantly on the Economic Scenario Service (ESS), our (proprietary) stochastic asset model. This 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 market for CPI linked instruments is not well developed and our model for expected CPI in particular may be subject to additional model uncertainty as a consequence. The output of the model is also affected by other more subtle effects, such as the correlations between economic and financial variables.

Our expectation (i.e. the average outcome) is that long term real interest rates will gradually rise from their current low levels. Higher long-term yields in the future will mean a lower value placed on liabilities and therefore our median projection will show, all other things being equal, an improvement in the current funding position (because of the mismatch between assets and liabilities). The mean reversion in yields also affects expected bond returns.

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.

Expected Rate of Returns and Volatilities

The following figures have been calculated using 5,000 simulations of the Economic Scenario Service, calibrated using market data as at 31 March 2016. All returns are shown net of fees. Percentiles refer to percentiles of the 5,000 simulations and are the annualised total returns over 5, 10 and 20 years, except for the yields which refer to the (simulated) yields in force at that time horizon. Only a subset of the asset classes are shown below.

The current calibration of the model indicates that a period of outward yield movement is expected. For example, over the next 20 years our model expects the 17 year maturity annualised real (nominal) interest rate to rise from -1.0% (2.2%) to 0.8% (4.0%).

		Annualised total returns												
		Index Linked Gilts (long dated)	UK Equity	Overseas Equity	Private Equity	Property	Senior Loans	Diversified Credit	Absolute Return Bonds (near zero duration)	Diversified Alternatives	Hedge Funds	Inflation	17 year real yield	17 year yield
5 years	16th %'ile	-2.9%	-3.7%	-5.6%	-7.2%	-3.8%	-0.8%	0.2%	-2.6%	-2.0%	-3.7%	1.2%	-1.6%	1.7%
	50th %'ile	0.5%	4.5%	4.1%	5.3%	2.0%	2.2%	2.3%	2.0%	2.6%	2.1%	2.6%	-0.7%	3.0%
	84th %'ile	4.1%	12.7%	14.3%	19.4%	8.3%	5.3%	4.5%	6.8%	7.5%	8.2%	4.2%	0.2%	4.5%
10 years	16th %'ile	-1.8%	-1.1%	-2.6%	-3.4%	-1.8%	0.7%	1.3%	-0.8%	-0.1%	-1.3%	1.4%	-1.5%	1.9%
	50th %'ile	0.3%	5.0%	4.6%	5.9%	2.8%	3.1%	3.0%	2.6%	3.4%	3.0%	2.8%	-0.3%	3.5%
	84th %'ile	2.7%	11.1%	12.1%	16.0%	7.5%	5.6%	4.7%	6.2%	7.2%	7.5%	4.5%	0.9%	5.5%
20 years	16th %'ile	-1.0%	1.3%	0.2%	0.3%	0.1%	2.1%	2.4%	1.0%	1.8%	0.7%	1.7%	-0.7%	2.3%
	50th %'ile	0.5%	5.9%	5.6%	7.0%	3.7%	4.2%	4.0%	3.6%	4.5%	4.1%	3.0%	0.8%	4.0%
	84th %'ile	2.2%	10.7%	11.2%	14.0%	7.6%	6.5%	5.8%	6.5%	7.5%	7.8%	4.4%	2.3%	6.3%
	Dispersion (1 yr)	9%	16%	19%	29%	14%	6%	6%	10%	10%	12%	1%		

Appendix G: Events since valuation date

Post-valuation events

These valuation results are in effect a snapshot of the Fund as at 31 March 2016. Since that date, various events have had an effect on the financial position of the Fund. Whilst we have not explicitly altered the valuation results to allow for these events, a short discussion of these "post-valuation events" can still be beneficial in understanding the variability of pension funding.

In the period from the valuation date to early March 2017, the Fund assets have returned around 15%. However, global expectations for future asset returns have fallen in light of events such as the Brexit vote, which have helped place a correspondingly higher value on the liabilities.

Overall, employer contributions continue to be subject to upwards pressure as a result of post-valuation events.

It should be noted that the above is for information only: the figures in this report have all been prepared using membership data, audited asset information and market-based assumptions all as at 31 March 2016. In particular, we do not propose amending any of the contribution rates listed in the Rates & Adjustments Certificate on the basis of these market changes, and all employer contribution rates are based on valuation date market conditions. In addition, these rates are finalised within a risk-measured framework as laid out in the Fund's Funding Strategy Statement (FSS). We do not propose altering the FSS or valuation calculations to include allowance for post-valuation date market changes since a long term view has been taken.

Other events

Other than investment conditions changes above, I am not aware of any material changes at whole fund level or events occurring since the valuation date.

Appendix H: Rates and adjustments certificate

In accordance with regulation 62(4) of the Regulations we have made an assessment of the contributions that should be paid into the Fund by participating employers for the period 1 April 2017 to 31 March 2020 in order to maintain the solvency of the Fund.

The method and assumptions used to calculate the contributions set out in the Rates and Adjustments certificate are detailed in the Funding Strategy Statement dated TBC and our report on the actuarial valuation dated TBC.

The required minimum contribution rates are set out below.

Employer code	Employer/Pool name	Primary Rate (%) 1 April - 31 March 2020	Secondary Rate (%/£)			Total Contribution Rate (%/£)		
			2017/18	2018/19	2019/20	2017/18	2018/19	2019/20
1	London Borough of Hillingdon Pool	19.4%	3.7%	3.7%	4.7%	23.1%	23.1%	24.1%
64	Heathrow Travel Care	23.9%	-5.0%	-5.0%	-5.0%	18.9%	18.9%	18.9%
66	Hillingdon & Ealing Citizens Advice	18.8%	6.4%	6.4%	6.4%	25.2%	25.2%	25.2%
85	Uxbridge College	19.6%	2.2%	4.2%	5.8%	21.8%	23.8%	25.4%
112	MITIE (Ex-Dalkia Services) [*note 1]	29.5%	-29.5%	-29.5%	-29.5%	0.0%*	0.0%*	0.0%*
116	Greenwich Leisure Limited [**note 2]	26.2%	-26.2%	-26.2%	-26.2%	0.0%	0.0%**	0.0%**
203	Servest Group Limited	29.0%	0.0%	0.0%	0.0%	29.0%	29.0%	29.0%
244	Taylor Shaw (Whiteheath Infants and Nursery Schoo	27.7%	1.9%	1.9%	1.9%	29.6%	29.6%	29.6%
256	Bellrock (Haydon Academy)	31.6%	15.4%	15.4%	15.4%	47.0%	47.0%	47.0%
107	Stockley Academy	19.8%	1.2%	1.2%	1.2%	21.0%	21.0%	21.0%
108	Harefield Academy	19.7%	2.6%	2.6%	2.6%	22.3%	22.3%	22.3%
179	Ryefield Academy	19.7%	9.2%	9.2%	9.2%	28.9%	28.9%	28.9%
206	Wood End Academy	19.7%	3.3%	3.3%	3.3%	23.0%	23.0%	23.0%
207	Guru Nanak Academy Trust	20.2%	2.2%	2.2%	2.2%	22.4%	22.4%	22.4%
208	Belmore Academy	20.0%	4.1%	4.1%	4.1%	24.1%	24.1%	24.1%
212	Barnhill Academy	20.2%	4.7%	4.7%	4.7%	24.9%	24.9%	24.9%
213	Bishop Ramsey Academy	20.9%	4.3%	4.3%	4.3%	25.2%	25.2%	25.2%
214	Bishopshalt Academy	21.0%	7.8%	7.8%	7.8%	28.8%	28.8%	28.8%
215	Cranford Academy	20.3%	4.5%	4.5%	4.5%	24.8%	24.8%	24.8%
216	Douay Martyrs Academy	21.5%	5.4%	5.4%	5.4%	26.9%	26.9%	26.9%
217	Haydon Academy	21.1%	4.0%	4.0%	4.0%	25.1%	25.1%	25.1%
218	Northwood Academy	21.4%	2.4%	2.4%	2.4%	23.8%	23.8%	23.8%
219	Queensmead Academy	20.0%	1.8%	1.8%	1.8%	21.8%	21.8%	21.8%
221	Swakeleys Academy	20.9%	3.0%	3.0%	3.0%	23.9%	23.9%	23.9%
222	Uxbridge Academy	19.1%	2.4%	2.4%	2.4%	21.5%	21.5%	21.5%
223	Vyners Academy	20.7%	5.0%	5.0%	5.0%	25.7%	25.7%	25.7%
224	Willows Academy	20.5%	12.0%	12.0%	12.0%	32.5%	32.5%	32.5%
233	Nanaksar Primary (Guru Nanak)	19.9%	0.5%	0.5%	0.5%	20.4%	20.4%	20.4%
234	John Locke Academy	18.4%	0.7%	0.7%	0.7%	19.1%	19.1%	19.1%
236	Charville Academy	20.0%	4.3%	4.3%	4.3%	24.3%	24.3%	24.3%
237	Coteford Junior Academy	22.0%	5.1%	5.1%	5.1%	27.1%	27.1%	27.1%
238	Rusilip High Academy	21.1%	4.8%	4.8%	4.8%	25.9%	25.9%	25.9%
239	Pinkwell	20.2%	6.4%	6.4%	6.4%	26.6%	26.6%	26.6%
240	Hillingdon Primary	19.8%	3.7%	3.7%	3.7%	23.5%	23.5%	23.5%
241	Lake Farm Park Academy	18.5%	0.4%	0.4%	0.4%	18.9%	18.9%	18.9%
260	Heathrow Aviation Engineering	18.7%	0.1%	0.1%	0.1%	18.8%	18.8%	18.8%
-	Eden Academy Trust	18.9%	2.8%	2.8%	2.8%	21.7%	21.7%	21.7%
-	Orchard Hill College Academy Trust	19.9%	9.7%	9.7%	9.7%	29.6%	29.6%	29.6%
-	Rosedale Hewens Academy Trust	19.6%	4.3%	4.3%	4.3%	23.9%	23.9%	23.9%
-	Frays Academy Trust	20.3%	4.6%	4.6%	4.6%	24.9%	24.9%	24.9%
105	Cucina Restaurants Ltd (Haydon Academy)	tbc	tbc	tbc	tbc	tbc	tbc	tbc
243	Caterplus	tbc	tbc	tbc	tbc	tbc	tbc	tbc
248/249	Taylor Shaw (Frithwood and Hillside)	tbc	tbc	tbc	tbc	tbc	tbc	tbc
250	Taylor Shaw (West Drayton)	tbc	tbc	tbc	tbc	tbc	tbc	tbc
257	Churchill CSS (Catering)	tbc	tbc	tbc	tbc	tbc	tbc	tbc

* note 1 – The contribution rate for this employer has been set to 0% for 2017/18 on the understanding that the employer is due to cease its participation in the Fund on 30 October 2017. Should, for any reason, the employer continue to participate in the Fund beyond this date, an actuarial reassessment of the employer contribution rate payable will be undertaken immediately.

** note 2 – The contribution rate for this employer has been set to 0% for 2017/18. This is as a result of the employer's current ongoing funding position and on the understanding that the employer is due to cease its participation in the Fund in September 2019. An actuarial assessment will be undertaken in March 2018 in order to determine whether the 0% remains appropriate for 2018/19. A similar assessment will be undertaken in March 2019 to determine whether 0% is appropriate for 2019/20.

Academy Trusts	
Eden Academy Trust	
205	Eden Academy - Grangewood
227	Eden Academy - Moorcroft
242	Eden Academy - Pentland Field School
255	Eden Academy - Central Staff
Orchard Hill College Academy Trust	
226	Hillingdon Tuition Centre
245	Young Peoples Academy
259	The Skills Hub
Rosedale Hewens Academy Trust	
225	Hewens Academy
230	Hewens Academy - Brookside
235	Hewens Academy - Mellow Lane
Frays Academy Trust	
117	St Martin's
209	Cowley St Laurence - Frays
228	St Matthews - Frays
229	Laurel Lane - Frays

Signature:

Date: XX March 2017

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London Borough of Hillingdon Pension Fund

Funding Strategy Statement

March 2017

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1 Introduction

1.1 What is this document?

This is the Funding Strategy Statement (FSS) of the London Borough of Hillingdon Pension Fund ("the Fund"), which is administered by London Borough of Hillingdon, ("the Administering Authority").

It has been prepared by the Administering Authority in collaboration with the Fund's actuary, Hymans Robertson LLP, and after consultation with the Fund's employers and investment adviser. It will be effective from 23 March 2017.

1.2 What is the London Borough of Hillingdon Pension Fund?

The Fund is part of the national Local Government Pension Scheme (LGPS). The LGPS was set up by the UK Government to provide retirement and death benefits for local government employees, and those employed in similar or related bodies, across the whole of the UK. The Administering Authority runs the London Borough of Hillingdon Fund, in effect the LGPS for the London Borough of Hillingdon area, to make sure it:

- receives the proper amount of contributions from employees and employers, and any transfer payments;
- invests the contributions appropriately, with the aim that the Fund's assets grow over time with investment income and capital growth; and
- uses the assets to pay Fund benefits to the members (as and when they retire, for the rest of their lives), and to their dependants (as and when members die), as defined in the LGPS Regulations. Assets are also used to pay transfer values and administration costs.

The roles and responsibilities of the key parties involved in the management of the Fund are summarised in Appendix B.

1.3 Why does the Fund need a Funding Strategy Statement?

Employees' benefits are guaranteed by the LGPS Regulations, and do not change with market values or employer contributions. Investment returns will help pay for some of the benefits, but probably not all, and certainly with no guarantee. Employees' contributions are fixed in those Regulations also, at a level which covers only part of the cost of the benefits.

Therefore, employers need to pay the balance of the cost of delivering the benefits to members and their dependants.

The FSS focuses on how employer liabilities are measured, the pace at which these liabilities are funded, and how employers or pools of employers pay for their own liabilities. This statement sets out how the Administering Authority has balanced the conflicting aims of:

- prudence in the funding basis
- affordability and stabilitiy of employers contributions, and
- transparency of processes.

There are also regulatory requirements for an FSS, as given in Appendix A.

The FSS is a summary of the Fund's approach to funding its liabilities, and this includes reference to the Fund's other policies; it is not an exhaustive statement of policy on all issues. The FSS forms part of a framework which includes:

- the LGPS Regulations;
- the Rates and Adjustments Certificate (confirming employer contribution rates for the next three years) which can be found in an appendix to the formal valuation report;
- actuarial factors for valuing individual transfers, early retirement costs and the costs of buying added service; and
- the Fund's Investment Strategy Statement (see Funding strategy and links to Investment strategy Section 4)

1.4 How does the Fund and this FSS affect me?

This depends who you are:

- a member of the Fund, i.e. a current or former employee, or a dependant: the Fund needs to be sure it is collecting and holding enough money so that your benefits are always paid in full;
- an employer in the Fund (or which is considering joining the Fund): you will want to know how your contributions are calculated from time to time, that these are fair by comparison to other employers in the Fund, and in what circumstances you might need to pay more. Note that the FSS applies to all employers participating in the Fund;
- an Elected Member whose council participates in the Fund: you will want to be sure that the council balances the need to hold prudent reserves for members' retirement and death benefits, with the other competing demands for council money;
- a Council Tax payer: your council seeks to strike the balance above, and also to minimise cross-subsidies between different generations of taxpayers.

1.5 What does the FSS aim to do?

The FSS sets out the objectives of the Fund's funding strategy, such as:

- to ensure the long-term solvency of the Fund, using a prudent long term view. This will ensure that sufficient funds are available to meet all members'/dependants' benefits as they fall due for payment;
- to ensure that employer contribution rates are reasonably stable where appropriate;
- to minimise the long-term cash contributions which employers need to pay to the Fund, by recognising the link between assets and liabilities and adopting an investment strategy which balances risk and return (**NB** this will also minimise the costs to be borne by Council Tax payers);
- to reflect the different characteristics of different employers in determining contribution rates. This involves the Fund having a clear and transparent funding strategy to demonstrate how each employer can best meet its own liabilities over future years; and
- to use reasonable measures to reduce the risk to other employers and ultimately to the Council Tax payer from an employer defaulting on its pension obligations.

1.6 How do I find my way around this document?

In Section 2 there is a brief introduction to some of the main principles behind funding, i.e. deciding how much an employer should contribute to the Fund from time to time.

In Section 3 we outline how the Fund calculates the contributions payable by different employers in different situations.

In Section 4 we show how the funding strategy is linked with the Fund's investment strategy.

In the Appendices we cover various issues in more detail if you are interested:

A. the regulatory background, including how and when the FSS is reviewed,

B. who is responsible for what,

C. what issues the Fund needs to monitor, and how it manages its risks,

D. some more details about the actuarial calculations required,

E. the assumptions which the Fund actuary currently makes about the future,

F. a glossary explaining the technical terms occasionally used here.

If you have any other queries please contact pensions@hillingdon.gov.uk .

2 Basic Funding issues

(More detailed and extensive descriptions are given in Appendix D).

2.1 How does the actuary measure the required contribution rate?

In essence this is a three-step process:

1. Calculate the ultimate funding target for that employer, i.e. the ideal amount of assets it should hold in order to be able to pay all its members' benefits. See Appendix E for more details of what assumptions we make to determine that funding target;

2. Determine the time horizon over which the employer should aim to achieve that funding target. See the table in 3.3 and Note (c) for more details;

3. Calculate the employer contribution rate such that it has at least a given probability of achieving that funding target over that time horizon, allowing for different likelihoods of various possible economic outcomes over that time horizon. See 2.3 below, and the table in 3.3 Note (e) for more details.

2.2 What is each employer's contribution rate?

This is described in more detail in Appendix D. Employer contributions are normally made up of two elements:

a) the estimated cost of benefits being built up each year, after deducting the members' own contributions and including administration expenses. This is referred to as the "*Primary rate*", and is expressed as a percentage of members' pensionable pay; plus

b) an adjustment for the difference between the Primary rate above, and the actual contribution the employer needs to pay, referred to as the "*Secondary rate*". In broad terms, payment of the Secondary rate will aim to return the employer to full funding over an appropriate period (the "time horizon"). The Secondary rate may be expressed as a percentage of pay and/or a monetary amount in each year.

The rates for all employers are shown in the Fund's Rates and Adjustments Certificate, which forms part of the formal Actuarial Valuation Report. Employers' contributions are expressed as minima, with employers able to pay contributions at a higher rate. Account of any higher rate will be taken by the Fund actuary at subsequent valuations, i.e. will be reflected as a credit when next calculating the employer's contributions.

2.3 What different types of employer participate in the Fund?

Historically the LGPS was intended for local authority employees only. However over the years, with the diversification and changes to delivery of local services, many more types and numbers of employers now participate. There are currently more employers in the Fund than ever before, a significant part of this being due to new academies.

In essence, participation in the LGPS is open to public sector employers providing some form of service to the local community. Whilst the majority of members will be local authority employees (and ex-employees), the majority of participating employers are those providing services in place of (or alongside) local authority services: academy schools, contractors, housing associations, charities, etc.

The LGPS Regulations define various types of employer as follows:

Scheduled bodies - councils, and other specified employers such as academies and further education establishments. These must provide access to the LGPS in respect of their employees who are not eligible to join another public sector scheme (such as the Teachers Scheme). These employers are so-called because they are specified in a schedule to the LGPS Regulations.

It is now possible for Local Education Authority schools to convert to academy status, and for other forms of school (such as Free Schools) to be established under the academies legislation. All such **academies (or Multi Academy Trusts)**, as employers of non-teaching staff, become separate new employers in the Fund. As academies are defined in the LGPS Regulations as "Scheduled Bodies", the Administering Authority has no discretion over whether to admit them to the Fund, and the academy has no discretion whether to continue to allow its non-teaching staff to join the Fund. There has also been guidance issued by the DCLG regarding the terms of academies' membership in LGPS Funds.

Other employers are able to participate in the Fund via an admission agreement, and are referred to as 'admission bodies'. These employers are generally those with a "community of interest" with another scheme employer – **community admission bodies** ("CAB") or those providing a service on behalf of a scheme employer – **transferee admission bodies** ("TAB"). CABs will include housing associations and charities, TABs will generally be contractors. The Fund is able to set its criteria for participation by these employers and can refuse entry if the requirements as set out in the Fund's admissions policy are not met. (NB The terminology CAB and TAB has been dropped from recent LGPS Regulations, which instead combine both under the single term 'admission bodies'; however, we have retained the old terminology here as we consider it to be helpful in setting funding strategies for these different employers.

2.4 How does the measured contribution rate vary for different employers?

All three steps above are considered when setting contributions (more details are given in Section 3 and Appendix D).

1. The **funding target** is based on a set of assumptions about the future, (e.g. investment returns, inflation, pensioners' life expectancies). However, if an employer is approaching the end of its participation in the Fund then its funding target may be set on a more prudent basis, so that its liabilities are less likely to be spread among other employers after its cessation;

2. The **time horizon** required is, in broad terms, the period over which any deficit is to be recovered. A shorter period will lead to higher contributions, and vice versa (all other things being equal). Employers may be given a lower time horizon if they have a less permanent anticipated membership, or do not have tax-raising powers to increase contributions if investment returns under-perform; and

3. The **probability of achieving** the funding target over that time horizon will be dependent on the Fund's view of the strength of employer covenant and its funding profile. Where an employer is considered to be weaker, or potentially ceasing from the Fund, then the required probability will be set higher, which in turn will increase the required contributions (and vice versa).

For some employers it may be agreed to pool contributions, see 3.4.

Any costs of non ill-health early retirements must be paid by the employer, see 3.6.

Costs of ill-health early retirements are covered in 3.7 and 3.8.

.

2.5 How is a deficit (or surplus) calculated?

An employer's "funding level" is defined as the ratio of:

- the market value of the employer's share of assets (see Appendix D, section D5, for further details of how this is calculated), to
- the value placed by the actuary on the benefits built up to date for the employer's employees and ex-employees (the "liabilities"). The Fund actuary agrees with the Administering Authority the assumptions to be used in calculating this value.

If this is less than 100% then it means the employer has a shortfall, which is the employer's deficit; if it is more than 100% then the employer is said to be in surplus. The amount of deficit or shortfall is the difference between the asset value and the liabilities value.

It is important to note that the deficit/surplus and funding level are only measurements at a particular point in time, on a particular set of assumptions about the future. Whilst we recognise that various parties will take an interest in these measures, for most employers the key issue is how likely it is that their contributions will be sufficient to pay for their members' benefits (when added to their existing asset share and anticipated investment returns).

In short, deficits and funding levels are short term measures, whereas contribution-setting is a longer term issue.

2.6 How does the Fund recognise that contribution levels can affect council and employer service provision, and council tax?

The Administering Authority and the Fund actuary are acutely aware that, all other things being equal, a higher contribution required to be paid to the Fund will mean less cash available for the employer to spend on the provision of services. For instance:

- Higher Pension Fund contributions may result in reduced council spending, which in turn could affect the resources available for council services, and/or greater pressure on council tax levels;
- Contributions which Academies pay to the Fund will therefore not be available to pay for providing education; and
- Other employers will provide various services to the local community, perhaps through housing associations, charitable work, or contracting council services. If they are required to pay more in pension contributions to the LGPS then this may affect their ability to provide the local services at a reasonable cost.

Whilst all this is true, it should also be borne in mind that:

- The Fund provides invaluable financial security to local families, whether to those who formerly worked in the service of the local community who have now retired, or to their families after their death;
- The Fund must have the assets available to meet these retirement and death benefits, which in turn means that the various employers must each pay their own way. Lower contributions today will mean higher contributions tomorrow: deferring payments does not alter the employer's ultimate obligation to the Fund in respect of its current and former employees;
- Each employer will generally only pay for its own employees and ex-employees (and their dependants), not for those of other employers in the Fund;

- The Fund strives to maintain reasonably stable employer contribution rates where appropriate and possible. However, a recent shift in regulatory focus means that solvency within each generation is considered by the Government to be a higher priority than stability of contribution rates;
- The Fund wishes to avoid the situation where an employer falls so far behind in managing its funding shortfall that its deficit becomes unmanageable in practice: such a situation may lead to employer insolvency and the resulting deficit falling on the other Fund employers. In that situation, those employers' services would in turn suffer as a result;
- Council contributions to the Fund should be at a suitable level, to protect the interests of different generations of council tax payers. For instance, underpayment of contributions for some years will need to be balanced by overpayment in other years; the council will wish to minimise the extent to which council tax payers in one period are in effect benefitting at the expense of those paying in a different period.

Overall, therefore, there is clearly a balance to be struck between the Fund's need for maintaining prudent funding levels, and the employers' need to allocate their resources appropriately. The Fund achieves this through various techniques which affect contribution increases to various degrees (see 3.1). In deciding which of these techniques to apply to any given employer, the Administering Authority takes a view on the financial standing of the employer, i.e. its ability to meet its funding commitments and the relevant time horizon.

The Administering Authority will consider a risk assessment of that employer using a knowledge base which is regularly monitored and kept up-to-date. This database will include such information as the type of employer, its membership profile and funding position, any guarantors or security provision, material changes anticipated, etc.

For instance, where the Administering Authority has reasonable confidence that an employer will be able to meet its funding commitments, then the Fund will permit options such as stabilisation (see 3.3 Note (b)), a longer time horizon relative to other employers, and/or a lower probability of achieving their funding target. Such options will temporarily produce lower contribution levels than would otherwise have applied. This is permitted in the expectation that the employer will still be able to meet its obligations for many years to come.

On the other hand, where there is doubt that an employer will be able to meet its funding commitments or withstand a significant change in its commitments, then a higher funding target, and/or a shorter deficit recovery period relative to other employers, and/or a higher probability of achieving the target may be required.

The Fund actively seeks employer input, including to its funding arrangements, through various means: see Appendix A.

3 Calculating contributions for individual Employers

3.1 General comments

A key challenge for the Administering Authority is to balance the need for stable, affordable employer contributions with the requirement to take a prudent, longer-term view of funding and ensure the solvency of the Fund. With this in mind, the Fund's three-step process identifies the key issues:

1. What is a suitably (but not overly) prudent funding target?
2. How long should the employer be permitted to reach that target? This should be realistic but not so long that the funding target is in danger of never actually being achieved.
3. What probability is required to reach that funding target? This will always be less than 100% as we cannot be certain of future market movements. Higher probability "bars" can be used for employers where the Fund wishes to reduce the risk that the employer ceases leaving a deficit to be picked up by other employers.

These and associated issues are covered in this Section.

The Administering Authority recognises that there may occasionally be particular circumstances affecting individual employers that are not easily managed within the rules and policies set out in the Funding Strategy Statement. Therefore the Administering Authority may, at its sole discretion, direct the actuary to adopt alternative funding approaches on a case by case basis for specific employers.

3.2 The effect of paying lower contributions

In limited circumstances the Administering Authority may permit employers to pay contributions at a lower level than is assessed for the employer using the three step process above. At their absolute discretion the Administering Authority may:

- extend the time horizon for targeting full funding;
- adjust the required probability of meeting the funding target;
- permit an employer to participate in the Fund's stabilisation mechanisms;
- permit extended phasing in of contribution rises or reductions;
- pool contributions amongst employers with similar characteristics; and/or
- accept some form of security or guarantee in lieu of a higher contribution rate than would otherwise be the case.

Employers which are permitted to use one or more of the above methods will often be paying, for a time, contributions less than required to meet their funding target, over the appropriate time horizon with the required likelihood of success. Such employers should appreciate that:

- their true long term liability (i.e. the actual eventual cost of benefits payable to their employees and ex-employees) is not affected by the pace of paying contributions;
- lower contributions in the short term will be assumed to incur a greater loss of investment returns on the deficit. Thus, deferring a certain amount of contribution may lead to higher contributions in the long-term; and

it may take longer to reach their funding target, all other things being equal. Overleaf (3.3) is a summary of how the main funding policies differ for different types of employer, followed by more detailed notes where necessary. Section 3.4 onwards deals with various other funding issues which apply to all employers.

3.3 The different approaches used for different employers

Type of employer	Scheduled Bodies			Community Admission Bodies and Designating Employers		Transferee Admission Bodies (TAB)	
Sub-type	**Local Authorities**	**Colleges**	**Academies**	**Open to new entrants**	**Closed to new entrants**	**Standard**	**Pass-Through**
Funding Target Basis used	Ongoing, assumes long-term Fund participation (see Appendix E)			Ongoing, but may move to "gilts basis" - see Note (a)		Ongoing, assumes fixed contract term in the Fund (see Appendix E)	Ongoing, as per letting authority
Primary rate approach	(see Appendix D – D.2)						The contribution rate set for pass-through arrangements let by the London Borough of Hillingdon is 26% of pay. This rate may change at the absolute discretion of the London Borough of Hillingdon and the Admin. Authority.
Stabilised contribution rate?	Yes - see Note (b)	No	No	No	No	No	As per letting authority.
Maximum time horizon – Note (c)	25 years	20 years	20 years	20 years	FWL	Outstanding contract term or FWL, whichever is shorter	As per letting authority
Secondary rate – Note (d)	% of payroll	% of payroll	% of payroll	% of payroll	Monetary amount	% of payroll	None
Treatment of surplus	Covered by stabilisation arrangement	Preferred approach: contributions kept at primary rate. However, secondary rate reductions may be permitted by the Admin. Authority.		Preferred approach: contributions kept at primary rate. However, secondary rate reductions may be permitted by the Admin. Authority.		Set secondary contributions to target 100% funding level by contract end date.	As per letting authority

Probability of achieving target – Note (e)	At least 70% subject to management of downside risk.	75%	75%	75%	75%	75%	N/A
Phasing of contribution changes	Covered by stabilisation arrangement	3 years subject to Administering Authority Discretion - Note (e)	None - Note (e)	None -Note (e)	None - Note (e)	None – Note (e)	N/A
Review of rates – Note (f)	Administering Authority reserves the right to review contribution rates and amounts, and the level of security provided, at regular intervals between valuations					Particularly reviewed in last 3 years of contract	Administering Authority reserves the right to review contribution rates and amounts, and the level of security provided, at regular intervals between valuations
New employer	n/a	n/a	Note (g)	Note (h)		Notes (h) & (i)	
Cessation of participation: cessation debt payable	Cessation is assumed not to be generally possible, as Scheduled Bodies are legally obliged to participate in the LGPS. In the rare event of cessation occurring (machinery of Government changes for example), the cessation debt principles applied would be as per Note (j).			Can be ceased subject to terms of admission agreement. Cessation debt will be calculated on a basis appropriate to the circumstances of cessation – see Note (j).		Participation is assumed to expire at the end of the contract. Cessation debt (if any) calculated on ongoing basis will be due from the TAB. The Letting Authority will be liable for future deficits and contributions arising after the cessation date.	Participation is assumed to expire at the end of the contract. The Letting Authority will be liable for any cessation debt, future deficits and contributions arising.

Note (a) (Basis for CABs and Designating Employers closed to new entrants)

In the circumstances where:

- the employer is a Designating Employer, or an Admission Body but not a Transferee Admission Body, and
- the employer has no guarantor, and
- the admission agreement is likely to terminate, or the employer is likely to lose its last active member, within a timeframe considered appropriate by the Administering Authority to prompt a change in funding,

the Administering Authority may set a higher funding target (e.g. using a discount rate set equal to gilt yields) by the time the agreement terminates or the last active member leaves, in order to protect other employers in the Fund. This policy will increase regular contributions and reduce, but not entirely eliminate, the possibility of a final deficit payment being required from the employer when a cessation valuation is carried out.

The Administering Authority also reserves the right to adopt the above approach in respect of those Designating Employers and Admission Bodies with no guarantor, where the strength of covenant is considered to be weak but there is no immediate expectation that the admission agreement will cease or the Designating Employer alters its designation.

Note (b) (Stabilisation)

Stabilisation is a mechanism where employer contribution rate variations from year to year are kept within a pre-determined range, thus allowing those employers' rates to be relatively stable. The Administering Authority, on the advice of the Fund Actuary, believes that stabilising contributions can still be viewed as a prudent longer-term approach. However, employers whose contribution rates have been "stabilised" should be aware of the risks of this approach and should consider making additional payments to the Fund if possible.

This stabilisation mechanism allows short term investment market volatility to be managed so as not to cause volatility in employer contribution rates, on the basis that a long term view can be taken on net cash inflow, investment returns and strength of employer covenant.

The current stabilisation mechanism applies if:

- the employer satisfies the eligibility criteria set by the Administering Authority (see below) and;
- there are no material events which cause the employer to become ineligible, e.g. significant reductions in active membership (due to outsourcing or redundancies), or changes in the nature of the employer (perhaps due to Government restructuring).

On the basis of extensive modelling carried out for the 2016 valuation exercise (see Section 4), the stabilised details are as follows:

Employer	Year Ending 31 March 2018	Year Ending 31 March 2019	Year Ending 31 March 2020	Thereafter
London Borough of Hillingdon	No increase	No increase	+1% of pay	Max increase +1% in any year Max decrease of -1% in any year

The stabilisation criteria and limits will be reviewed at the 31 March 2019 valuation, to take effect from 1 April 2020.

Note (c) (Maximum time horizon)

The maximum time horizon starts at the commencement of the revised contribution rate (1 April 2017 for the 2016 valuation). The Administering Authority would normally expect the same period to be used at successive triennial valuations, but would reserve the right to propose alternative time horizons, for example where there were no new entrants.

Note (d) (Secondary rate)

For employers where stabilisation is not being applied, the Secondary contribution rate for each employer covering the three year period until the next valuation will often be set as a percentage of salaries. However, the Administering Authority reserves the right to amend these rates between valuations and/or to require these payments in monetary terms instead, for instance where:

- the employer is relatively mature, i.e. has a large Secondary contribution rate (e.g. above 15% of payroll), or
- there has been a significant reduction in payroll due to outsourcing or redundancy exercises, or
- the employer has closed the Fund to new entrants.

Note (e) (Probability of achieving funding target)

Each employer has its funding target calculated, and a relevant time horizon over which to reach that target. Contributions are set such that, combined with the employer's current asset share and anticipated market movements over the time horizon, the funding target is achieved with a given minimum probability. A higher required probability bar will give rise to higher required contributions, and vice versa.

The way in which contributions are set using these three steps, and relevant economic projections, is described in further detail in Appendix D.

Different probabilities are set for different employers depending on their nature and circumstances: in broad terms, a higher probability will apply due to one or more of the following:

- the Fund believes the employer poses a greater funding risk than other employers,
- the employer does not have tax-raising powers;
- the employer does not have a guarantor or other sufficient security backing its funding position; and/or
- the employer is likely to cease participation in the Fund in the short or medium term.

Note (f) (Regular Reviews)

Such reviews may be triggered by significant events including but not limited to: significant reductions in payroll, altered employer circumstances, Government restructuring affecting the employer's business, or failure to pay contributions or arrange appropriate security as required by the Administering Authority.

The result of a review may be to require increased contributions (by strengthening the actuarial assumptions adopted and/or moving to monetary levels of deficit recovery contributions), and/or an increased level of security or guarantee.

Note (g) (New Academy conversions)

At the time of writing, the Fund's policies on academies' funding issues are as follows:

i. The new academy will be regarded as a separate employer in its own right and will not be pooled with other employers in the Fund. The only exception is where the academy is part of a Multi Academy Trust (MAT) in which case the academy's figures will be calculated as below but can be combined with those of the other academies in the MAT;

ii. The new academy's past service liabilities on conversion will be calculated based on its active Fund members on the day before conversion. For the avoidance of doubt, these liabilities will include all past service of those members, but will exclude the liabilities relating to any ex-employees of the school who have deferred or pensioner status;

iii. The new academy will be allocated an initial asset share from the ceding council's assets in the Fund. This asset share will be calculated using the estimated funding position of the ceding council at the date of academy conversion. The share will be based on the active members' funding level, having first allocated assets in the council's share to fully fund deferred and pensioner members. The asset allocation will be based on market conditions and the academy's active Fund membership on the day prior to conversion;

iv. The new academy's initial contribution rate will be calculated using market conditions, the council funding position and, membership data, all as at the day prior to conversion;

The Fund's policies on academies are subject to change in the light of any amendments to DCLG guidance. Any changes will be notified to academies, and will be reflected in a subsequent version of this FSS. In particular policy (iv) will be reconsidered at each valuation.

Note (h) (New Admission Bodies)

With effect from 1 October 2012, the LGPS 2012 Miscellaneous Regulations introduced mandatory new requirements for all Admission Bodies brought into the Fund from that date. Under these Regulations, all new Admission Bodies will be required to provide some form of security, such as a guarantee from the letting employer, an indemnity or a bond. The security is required to cover some or all of the following:

- the strain cost of any redundancy early retirements resulting from the premature termination of the contract;
- allowance for the risk of asset underperformance;
- allowance for the risk of a fall in gilt yields;
- allowance for the possible non-payment of employer and member contributions to the Fund; and/or
- the current deficit.

Transferee Admission Bodies: For all TABs, the security must be to the satisfaction of the Administering Authority as well as the letting employer, and will be reassessed on an annual basis. See also Note (i) below.

Community Admission Bodies: The Administering Authority will only consider requests from CABs (or other similar bodies, such as section 75 NHS partnerships) to join the Fund if they are sponsored by a Scheduled Body with tax raising powers, guaranteeing their liabilities and also providing a form of security as above.

The above approaches reduce the risk, to other employers in the Fund, of potentially having to pick up any shortfall in respect of Admission Bodies ceasing with an unpaid deficit.

Note (i) (New Transferee Admission Bodies)

A new TAB usually joins the Fund as a result of the letting/outsourcing of some services from an existing employer (normally a Scheduled Body such as a council or academy) to another organisation (a "contractor"). This involves the TUPE transfer of some staff from the letting employer to the contractor. Consequently, for the duration of the contract, the contractor is a new participating employer in the Fund so that the transferring employees maintain their eligibility for LGPS membership. At the end of the contract the employees revert to the letting employer or to a replacement contractor.

Ordinarily, the TAB would be set up in the Fund as a new employer with responsibility for all the accrued benefits of the transferring employees; in this case, the contractor would usually be assigned an initial asset allocation equal to the past service liability value of the employees' Fund benefits. The quid pro quo is that the contractor is then expected to ensure that its share of the Fund is also fully funded at the end of the contract: see Note (j).

The Fund also allows the adoption of a simple pass through approach to lettings/outsourcings in some situations. This refers to an arrangement where the letting employer retains responsibility for liabilities on all of the service earned by members (both transferring past service and service accrued during the contract period) and the contractor is only liable to pay an agreed contribution plan and there is no potential termination payment. Additionally the contractor has no defined benefit pension liability in the LGPS, only a responsibility to pay the agreed contributions. Therefore, the contractor should have no need to prepare a defined benefit pension disclosure for their accounts in respect of LGPS liabilities in the Fund. The contribution rate payable by the contractor will be calculated by the Fund actuary prior to the start of the contract.

Whilst the contractor will not be liable for defined benefit pension liabilities, they will be responsible for additional pension costs arising through factors that would be within its own control. These typically relate to strains arising due to: excessive salary growth; early payment of benefit on unreduced terms; and augmentation of benefit. All risk sharing arrangements will be fully documented in the services contract.

The Admission Agreement may ensure that some element of risk transfers to the contractor where it relates to their decisions and it is unfair to burden the letting employer with that risk. For example, the contractor will typically be responsible for pension costs that arise from:

- above average pay increases, including the effect in respect of service prior to the contract commencement; and
- redundancy and early retirement decisions.

The London Borough of Hillingdon has a standard pass-through contribution rate of 26% of pay for contracts let by London Borough of Hillingdon. This rate applies to contracts which cover less than 300 staff and is available at the absolute discretion of the London Borough of Hillingdon.

Note (j) (Admission Bodies Ceasing)

Notwithstanding the provisions of the Admission Agreement, the Administering Authority may consider any of the following as triggers for the cessation of an admission agreement with any type of body:

- Last active member ceasing participation in the Fund (NB recent LGPS Regulation changes mean that the Administering Authority has the discretion to defer taking action for up to three years, so that if the employer acquires one or more active Fund members during that period then cessation is not triggered. The current Fund policy is that this is left as a discretion and may or may not be applied in any given case);

- The insolvency, winding up or liquidation of the Admission Body;
- Any breach by the Admission Body of any of its obligations under the Agreement that they have failed to remedy to the satisfaction of the Fund;
- A failure by the Admission Body to pay any sums due to the Fund within the period required by the Fund; or
- The failure by the Admission Body to renew or adjust the level of the bond or indemnity, or to confirm an appropriate alternative guarantor, as required by the Fund.

On cessation, the Administering Authority will instruct the Fund actuary to carry out a cessation valuation to determine whether there is any deficit or surplus. Where there is a deficit, payment of this amount in full would normally be sought from the Admission Body; where there is a surplus it should be noted that current legislation does not permit a refund payment to the Admission Body.

For non-Transferee Admission Bodies whose participation is voluntarily ended either by themselves or the Fund, or where a cessation event has been triggered, the Administering Authority must look to protect the interests of other ongoing employers. The actuary will therefore adopt an approach which, to the extent reasonably practicable, protects the other employers from the likelihood of any material loss emerging in future:

a) Where there is a guarantor for future deficits and contributions, the cessation valuation will normally be calculated using the ongoing basis as described in Appendix E;

b) Alternatively, it may be possible to simply transfer the former Admission Body's liabilities and assets to the guarantor, without needing to crystallise any deficit. This approach may be adopted where the employer cannot pay the contributions due, and this is within the terms of the guarantee;

c) Where a guarantor does not exist then, in order to protect other employers in the Fund, the cessation liabilities and final deficit will normally be calculated using a "gilts cessation basis", which is more prudent than the ongoing basis. This has no allowance for potential future investment outperformance above gilt yields, and has added allowance for future improvements in life expectancy. This could give rise to significant cessation debts being required.

Under (a) and (c), any shortfall would usually be levied on the departing Admission Body as a single lump sum payment. If this is not possible then the Fund would look to any bond, indemnity or guarantee in place for the employer.

In the event that the Fund is not able to recover the required payment in full, then the unpaid amounts fall to be shared amongst all of the other employers in the Fund. This may require an immediate revision to the Rates and Adjustments Certificate affecting other employers in the Fund, or instead be reflected in the contribution rates set at the next formal valuation following the cessation date.

As an alternative, where the ceasing Admission Body is continuing in business, the Fund at its absolute discretion reserves the right to enter into an agreement with the ceasing Admission Body. Under this agreement the Fund would accept an appropriate alternative security to be held against any deficit, and would carry out the cessation valuation on an ongoing basis: deficit recovery payments would be derived from this cessation debt. This approach would be monitored as part of each triennial valuation: the Fund reserves the right to revert to a "gilts cessation basis" and seek immediate payment of any funding shortfall identified. The Administering Authority may need to seek legal advice in such cases, as the Body would have no contributing members.

3.4 Pooled contributions

From time to time, with the advice of the Actuary, the Administering Authority may set up pools for employers with similar or complementary characteristics. This will always be in line with its broader funding strategy.

Schools, under the control of the Council, are generally pooled with their funding Council. This does not apply to Academies or specialist or independent schools.

Smaller Transferee Admission Bodies may be pooled with the letting employer, provided all parties (particularly the letting employer) agree.

Employers who are permitted to enter (or remain in) a pool at the 2016 valuation will not normally be advised of their individual contribution rate unless agreed by the Administering Authority.

Community Admission Bodies that are deemed by the Administering Authority to have closed to new entrants are not usually permitted to participate in a pool.

3.5 Additional flexibility in return for added security

The Administering Authority may permit greater flexibility to the employer's contributions if the employer provides added security to the satisfaction of the Administering Authority.

Such flexibility includes a reduced rate of contribution, an extended time horizon, or permission to join a pool with another body (e.g. the Local Authority).

Such security may include, but is not limited to, a suitable bond, a legally-binding guarantee from an appropriate third party, or security over an employer asset of sufficient value.

The degree of flexibility given may take into account factors such as:

- the extent of the employer's deficit;
- the amount and quality of the security offered;
- the employer's financial security and business plan; and
- whether the admission agreement is likely to be open or closed to new entrants.

3.6 Non ill health early retirement costs

It is assumed that members' benefits are payable from the earliest age that the employee could retire without incurring a reduction to their benefit (and without requiring their employer's consent to retire). (**NB** the relevant age may be different for different periods of service, following the benefit changes from April 2008 and April 2014). Employers are required to pay additional contributions ('strain') wherever an employee retires before attaining this age. The actuary's funding basis makes no allowance for premature retirement except on grounds of ill-health.

3.7 Ill health early retirement costs

In the event of a member's early retirement on the grounds of ill-health, a funding strain will usually arise, which can be very large. Such strains are currently met by each employer, although individual employers may elect to take external insurance (see 3.8 below).

Admitted Bodies may have an 'ill health allowance'; Scheduled Bodies may have this also, depending on their agreement terms with the Administering Authority. The Fund may monitor each employer's ill health experience on an ongoing basis. If the cumulative cost of ill health retirement in any financial year exceeds the allowance at the previous valuation, the employer could be charged additional contributions on the same basis as apply for non ill-health cases. Details will be included in each separate Admission Agreement.

3.8 External Ill health insurance

If an employer provides satisfactory evidence to the Administering Authority of a current external insurance policy covering ill health early retirement strains, then the employer's contribution to the Fund each year is reduced by the amount of that year's insurance premium, so that the total contribution is unchanged. There is then no need for monitoring of allowances.

The employer must keep the Administering Authority notified of any changes in the insurance policy's coverage or premium terms, or if the policy has ceased.

3.9 Employers with no remaining active members

In general an employer ceasing in the Fund, due to the departure of the last active member, will pay a cessation debt on an appropriate basis (see 3.3, Note (j)) and consequently have no further obligation to the Fund. Thereafter it is expected that one of two situations will eventually arise:

a) The employer's asset share runs out before all its ex-employees' benefits have been paid. In this situation the other Fund employers will be required to contribute to pay all remaining benefits: this will be done by the Fund actuary apportioning the remaining liabilities on a pro-rata basis at successive formal valuations;

b) The last ex-employee or dependant dies before the employer's asset share has been fully utilised. In this situation the remaining assets would be apportioned pro-rata by the Fund's actuary to the other Fund.

c) In exceptional circumstances the Fund may permit an employer with no remaining active members to continue contributing to the Fund. This would require the provision of a suitable security or guarantee, as well as a written ongoing commitment to fund the remainder of the employer's obligations over an appropriate period. The Fund would reserve the right to invoke the cessation requirements in the future, however. The Administering Authority may need to seek legal advice in such cases, as the employer would have no contributing members.

3.10 Policies on bulk transfers

Each case will be treated on its own merits, but in general:

- The Fund will not pay bulk transfers greater than the lesser of (a) the asset share of the transferring employer in the Fund, and (b) the value of the past service liabilities of the transferring members;
- The Fund will not grant added benefits to members bringing in entitlements from another Fund unless the asset transfer is sufficient to meet the added liabilities; and
- The Fund may permit shortfalls to arise on bulk transfers if the Fund employer has suitable strength of covenant and commits to meeting that shortfall in an appropriate period. This may require the employer's Fund contributions to increase between valuations.

4 Funding strategy and links to investment strategy

4.1 What is the Fund's investment strategy?

The Fund has built up assets over the years, and continues to receive contribution and other income. All of this must be invested in a suitable manner, which is the investment strategy.

Investment strategy is set by the administering authority, after consultation with the employers and after taking investment advice. The precise mix, manager make up and target returns are set out in the Statement of Investment Principles (being replaced by an Investment Strategy Statement under new LGPS Regulations), which is available to members and employers.

The investment strategy is set for the long-term, but is reviewed from time to time. Normally a full review is carried out as part of each actuarial valuation, and is kept under review annually between actuarial valuations to ensure that it remains appropriate to the Fund's liability profile.

The same investment strategy is currently followed for all employers.

4.2 What is the link between funding strategy and investment strategy?

The Fund must be able to meet all benefit payments as and when they fall due. These payments will be met by contributions (resulting from the funding strategy) or asset returns and income (resulting from the investment strategy). To the extent that investment returns or income fall short, then higher cash contributions are required from employers, and vice versa

Therefore, the funding and investment strategies are inextricably linked.

4.3 How does the funding strategy reflect the Fund's investment strategy?

In the opinion of the Fund actuary, the current funding policy is consistent with the current investment strategy of the Fund. The asset outperformance assumption contained in the discount rate (see Appendix E3) is within a range that would be considered acceptable for funding purposes; it is also considered to be consistent with the requirement to take a "prudent longer-term view" of the funding of liabilities as required by the UK Government (see Appendix A1).

However, in the short term – such as the three yearly assessments at formal valuations – there is the scope for considerable volatility and there is a material chance that in the short-term and even medium term, asset returns will fall short of this target. The stability measures described in Section 3 will damp down, but not remove, the effect on employers' contributions.

The Fund does not hold a contingency reserve to protect it against the volatility of equity investments.

4.4 How does this differ for a large stable employer?

The Actuary has developed four key measures which capture the essence of the Fund's strategies, both funding and investment:

Prudence - the Fund should have a reasonable expectation of being fully funded in the long term;

Affordability – how much can employers afford;

Stewardship – the assumptions used should be sustainable in the long term, without having to resort to overly optimistic assumptions about the future to maintain an apparently healthy funding position; and

Stability – employers should not see significant moves in their contribution rates from one year to the next, to help provide a more stable budgeting environment.

The key problem is that the key objectives often conflict. For example, minimising the long term cost of the scheme (i.e. keeping employer rates affordable) is best achieved by investing in higher returning assets e.g. equities. However, equities are also very volatile (i.e. go up and down fairly frequently in fairly large moves), which conflicts with the objective to have stable contribution rates.

Therefore, a balance needs to be maintained between risk and reward, which has been considered by the use of Asset Liability Modelling: this is a set of calculation techniques applied by the Fund's actuary to model the range of potential future solvency levels and contribution rates.

The Actuary was able to model the impact of these four key areas, for the purpose of setting a stabilisation approach (see 3.3 Note (b)). The modelling demonstrated that retaining the present investment strategy, coupled with constraining employer contribution rate changes as described in 3.3 Note (b), struck an appropriate balance between the above objectives. In particular the stabilisation approach currently adopted meets the need for stability of contributions without jeopardising the Administering Authority's aims of prudent stewardship of the Fund.

Whilst the current stabilisation mechanism is to remain in place until 2020, it should be noted that this will need to be reviewed following the 2019 valuation.

4.5 Does the Fund monitor its overall funding position?

The Administering Authority monitors the investment performance quarterly and reports this to the regular Pensions Committee meetings.

5 Statutory reporting and comparison to other LGPS Funds

5.1 Purpose

Under Section 13(4)(c) of the Public Service Pensions Act 2013 ("Section 13"), the Government Actuary's Department must, following each triennial actuarial valuation, report to the Department of Communities & Local Government (DCLG) on each of the LGPS Funds in England & Wales. This report will cover whether, for each Fund, the rate of employer contributions are set at an appropriate level to ensure both the solvency and the long term cost efficiency of the Fund.

This additional DCLG oversight may have an impact on the strategy for setting contribution rates at future valuations.

5.2 Solvency

For the purposes of Section 13, the rate of employer contributions shall be deemed to have been set at an appropriate level to ensure solvency if:

(a) the rate of employer contributions is set to target a funding level for the Fund of 100%, over an appropriate time period and using appropriate actuarial assumptions (where appropriateness is considered in both absolute and relative terms in comparison with other funds); and either

(b) employers collectively have the financial capacity to increase employer contributions, and/or the Fund is able to realise contingent assets should future circumstances require, in order to continue to target a funding level of 100%; or

(c) there is an appropriate plan in place should there be, or if there is expected in future to be, a material reduction in the capacity of fund employers to increase contributions as might be needed.

5.3 Long Term Cost Efficiency

The rate of employer contributions shall be deemed to have been set at an appropriate level to ensure long term cost efficiency if:

i. the rate of employer contributions is sufficient to make provision for the cost of current benefit accrual,

ii. with an appropriate adjustment to that rate for any surplus or deficit in the Fund.

In assessing whether the above condition is met, DCLG may have regard to various absolute and relative considerations. A relative consideration is primarily concerned with comparing LGPS pension funds with other LGPS pension funds. An absolute consideration is primarily concerned with comparing Funds with a given objective benchmark.

Relative considerations include:

1. the implied deficit recovery period; and
2. the investment return required to achieve full funding after 20 years.

Absolute considerations include:

1. the extent to which the contributions payable are sufficient to cover the cost of current benefit accrual and the interest cost on any deficit;
2. how the required investment return under "relative considerations" above compares to the estimated future return being targeted by the Fund's current investment strategy;

3. the extent to which contributions actually paid have been in line with the expected contributions based on the extant rates and adjustment certificate; and
4. the extent to which any new deficit recovery plan can be directly reconciled with, and can be demonstrated to be a continuation of, any previous deficit recovery plan, after allowing for actual Fund experience.

DCLG may assess and compare these metrics on a suitable standardised market-related basis, for example where the local funds' actuarial bases do not make comparisons straightforward.

Appendix A – Regulatory framework

A1 Why does the Fund need an FSS?

The Department for Communities and Local Government (DCLG) has stated that the purpose of the FSS is:

*"to establish a **clear and transparent fund-specific strategy** which will identify how employers' pension liabilities are best met going forward;*

*to support the regulatory framework to maintain **as nearly constant employer contribution rates as possible**; and*

*to take a **prudent longer-term view** of funding those liabilities."*

These objectives are desirable individually, but may be mutually conflicting.

The requirement to maintain and publish a FSS is contained in LGPS Regulations which are updated from time to time. In publishing the FSS the Administering Authority has to have regard to any guidance published by Chartered Institute of Public Finance and Accountancy (CIPFA) (most recently in 2016) and to its Statement of Investment Principles / Investment Strategy Statement.

This is the framework within which the Fund's actuary carries out triennial valuations to set employers' contributions and provides recommendations to the Administering Authority when other funding decisions are required, such as when employers join or leave the Fund. The FSS applies to all employers participating in the Fund.

A2 Does the Administering Authority consult anyone on the FSS?

Yes. This is required by LGPS Regulations. It is covered in more detail by the most recent CIPFA guidance, which states that the FSS must first be subject to "consultation with such persons as the authority considers appropriate", and should include "a meaningful dialogue at officer and elected member level with council tax raising authorities and with corresponding representatives of other participating employers".

In practice, for the Fund, the consultation process for this FSS was as follows:

a) A draft version of the FSS was issued to all participating employers in January for comment;

b) Comments will be requested within 30 days;

c) No comments were received during the consultation period the FSS and the document was finalised for agreement at Pensions Committee on 22 March 2017, following which it will be published.

A3 How is the FSS published?

The FSS is published on the website at http://horizon.hillingdon.gov.uk/article/14880/Local-Government-Pension-Scheme and copies are made available on request.

A4 How often is the FSS reviewed?

The FSS is reviewed in detail at least every three years as part of the triennial valuation. This version is expected to remain unaltered until it is consulted upon as part of the formal process for the next valuation in 2019.

It is possible that (usually slight) amendments may be needed within the three year period. These would be needed to reflect any regulatory changes, or alterations to the way the Fund operates (e.g. to accommodate a new class of employer). Any such amendments would be consulted upon as appropriate:

- trivial amendments would be simply notified at the next round of employer communications,
- amendments affecting only one class of employer would be consulted with those employers,
- other more significant amendments would be subject to full consultation.

In any event, changes to the FSS would need agreement by the Pensions Committee and would be included in the relevant Committee Meeting minutes.

A5 How does the FSS fit into other Fund documents?

The FSS is a summary of the Fund's approach to funding liabilities. It is not an exhaustive statement of policy on all issues, for example there are a number of separate statements published by the Fund including the Statement of Investment Principles/Investment Strategy Statement, Governance Strategy and Communications Strategy. In addition, the Fund publishes an Annual Report and Accounts with up to date information on the Fund.

These documents can be found on the web at http://horizon.hillingdon.gov.uk/article/14880/Local-Government-Pension-Scheme.

Appendix B – Responsibilities of key parties

The efficient and effective operation of the Fund needs various parties to each play their part.

B1 The Administering Authority should:-

1. operate the Fund as per the LGPS Regulations;
2. effectively manage any potential conflicts of interest arising from its dual role as Administering Authority and a Fund employer;
3. collect employer and employee contributions, and investment income and other amounts due to the Fund;
4. ensure that cash is available to meet benefit payments as and when they fall due;
5. pay from the Fund the relevant benefits and entitlements that are due;
6. invest surplus monies (i.e. contributions and other income which are not immediately needed to pay benefits) in accordance with the Fund's Statement of Investment Principles/Investment Strategy Statement (SIP/ISS) and LGPS Regulations;
7. communicate appropriately with employers so that they fully understand their obligations to the Fund;
8. take appropriate measures to safeguard the Fund against the consequences of employer default;
9. manage the valuation process in consultation with the Fund's actuary;
10. provide data and information as required by the Government Actuary's Department to carry out their statutory obligations (see Section 5);
11. prepare and maintain a FSS and a SIP/ISS, after consultation;
12. notify the Fund's actuary of material changes which could affect funding (this is covered in a separate agreement with the actuary); and
13. monitor all aspects of the fund's performance and funding and amend the FSS and SIP/ISS as necessary and appropriate.

B2 The Individual Employer should:-

1. deduct contributions from employees' pay correctly;
2. pay all contributions, including their own as determined by the actuary, promptly by the due date;
3. have a policy and exercise discretions within the regulatory framework;
4. make additional contributions in accordance with agreed arrangements in respect of, for example, augmentation of scheme benefits, early retirement strain; and
5. notify the Administering Authority promptly of all changes to its circumstances, prospects or membership, which could affect future funding.

B3 The Fund Actuary should:-

1. prepare valuations, including the setting of employers' contribution rates. This will involve agreeing assumptions with the Administering Authority, having regard to the FSS and LGPS Regulations, and targeting each employer's solvency appropriately;
2. provide data and information as required by the Government Actuary's Department to carry out their statutory obligations (see Section 5);

3. provide advice relating to new employers in the Fund, including the level and type of bonds or other forms of security (and the monitoring of these);
4. prepare advice and calculations in connection with bulk transfers and individual benefit-related matters;
5. assist the Administering Authority in considering possible changes to employer contributions between formal valuations, where circumstances suggest this may be necessary;
6. advise on the termination of employers' participation in the Fund; and
7. fully reflect actuarial professional guidance and requirements in the advice given to the Administering Authority.

B4 Other parties:-

1. investment advisers (either internal or external) should ensure the Fund's SIP/ISS remains appropriate, and consistent with this FSS;
2. investment managers, custodians and bankers should all play their part in the effective investment (and dis-investment) of Fund assets, in line with the SIP/ISS;
3. auditors should comply with their auditing standards, ensure Fund compliance with all requirements, monitor and advise on fraud detection, and sign off annual reports and financial statements as required;
4. governance advisers may be appointed to advise the Administering Authority on efficient processes and working methods in managing the Fund;
5. legal advisers (either internal or external) should ensure the Fund's operation and management remains fully compliant with all regulations and broader local government requirements, including the Administering Authority's own procedures;
6. the Department for Communities and Local Government (assisted by the Government Actuary's Department) and the Scheme Advisory Board, should work with LGPS Funds to meet Section 13 requirements.

Appendix C – Key risks and controls

C1 Types of risk

The Administering Authority has an active risk management programme in place. The measures that it has in place to control key risks are summarised below under the following headings:

financial;

demographic;

regulatory; and

governance.

C2 Financial risks

Risk	Summary of Control Mechanisms
Fund assets fail to deliver returns in line with the anticipated returns underpinning the valuation of liabilities over the long-term.	Only anticipate long-term returns on a relatively prudent basis to reduce risk of under-performing. Assets invested on the basis of specialist advice, in a suitably diversified manner across asset classes, geographies, managers, etc. Analyse progress at three yearly valuations for all employers. Inter-valuation roll-forward of liabilities between valuations at whole Fund level.
Inappropriate long-term investment strategy.	Overall investment strategy options considered as an integral part of the funding strategy. Used asset liability modelling to measure 4 key outcomes. Chosen option considered to provide the best balance.
Fall in risk-free returns on Government bonds, leading to rise in value placed on liabilities.	Stabilisation modelling at whole Fund level allows for the probability of this within a longer term context. Inter-valuation monitoring, as above. Some investment in bonds helps to mitigate this risk.
Active investment manager under-performance relative to benchmark.	Quarterly investment monitoring analyses market performance and active managers relative to their index benchmark.
Pay and price inflation significantly more than anticipated.	The focus of the actuarial valuation process is on real returns on assets, net of price and pay increases. Inter-valuation monitoring, as above, gives early warning. Some investment in bonds also helps to mitigate this

Risk	Summary of Control Mechanisms
	risk. Employers pay for their own salary awards and should be mindful of the geared effect on pension liabilities of any bias in pensionable pay rises towards longer-serving employees.
Effect of possible increase in employer's contribution rate on service delivery and admission/scheduled bodies	An explicit stabilisation mechanism has been agreed as part of the funding strategy. Other measures are also in place to limit sudden increases in contributions.
Orphaned employers give rise to added costs for the Fund	The Fund seeks a cessation debt (or security/guarantor) to minimise the risk of this happening in the future. If it occurs, the Actuary calculates the added cost spread pro-rata among all employers – (see 3.9).

C3 Demographic risks

Risk	Summary of Control Mechanisms
Pensioners living longer, thus increasing cost to Fund.	Set mortality assumptions with some allowance for future increases in life expectancy. The Fund Actuary has direct access to the experience of over 50 LGPS funds which allows early identification of changes in life expectancy that might in turn affect the assumptions underpinning the valuation.
Maturing Fund – i.e. proportion of actively contributing employees declines relative to retired employees.	Continue to monitor at each valuation, consider seeking monetary amounts rather than % of pay and consider alternative investment strategies.
Deteriorating patterns of early retirements	Employers are charged the extra cost of non ill-health retirements following each individual decision. Employer ill health retirement experience is monitored, and insurance is an option.
Reductions in payroll causing insufficient deficit recovery payments	In many cases this may not be sufficient cause for concern, and will in effect be caught at the next formal valuation. However, there are protections where there is concern, as follows: Employers in the stabilisation mechanism may be brought out of that mechanism to permit appropriate contribution increases (see Note (b) to 3.3).

Risk	Summary of Control Mechanisms
	For other employers, review of contributions is permitted in general between valuations (see Note (f) to 3.3) and may require a move in deficit contributions from a percentage of payroll to fixed monetary amounts.

C4 Regulatory risks

Risk	Summary of Control Mechanisms
Changes to national pension requirements and/or HMRC rules e.g. changes arising from public sector pensions reform.	The Administering Authority considers all consultation papers issued by the Government and comments where appropriate. The results of the most recent reforms were built into the 2013 valuation. Any changes to member contribution rates or benefit levels will be carefully communicated with members to minimise possible opt-outs or adverse actions.
Time, cost and/or reputational risks associated with any DCLG intervention triggered by the Section 13 analysis (see Section 5).	Take advice from Fund Actuary on position of Fund as at prior valuation, and consideration of proposed valuation approach relative to anticipated Section 13 analysis.
Changes by Government to particular employer participation in LGPS Funds, leading to impacts on funding and/or investment strategies.	The Administering Authority considers all consultation papers issued by the Government and comments where appropriate. Take advice from Fund Actuary on impact of changes on the Fund and amend strategy as appropriate.

C5 Governance risks

Risk	Summary of Control Mechanisms
Administering Authority unaware of structural changes in an employer's membership (e.g. large fall in employee members, large number of retirements) or not advised of an employer closing to new entrants.	The Administering Authority has a close relationship with employing bodies and communicates required standards e.g. for submission of data. The Actuary may revise the rates and Adjustments certificate to increase an employer's contributions between triennial valuations Deficit contributions may be expressed as monetary amounts.
Actuarial or investment advice is not sought, or	The Administering Authority maintains close contact

Risk	Summary of Control Mechanisms
is not heeded, or proves to be insufficient in some way	with its specialist advisers. Advice is delivered via formal meetings involving Elected Members, and recorded appropriately. Actuarial advice is subject to professional requirements such as peer review.
Administering Authority failing to commission the Fund Actuary to carry out a termination valuation for a departing Admission Body.	The Administering Authority requires employers with Best Value contractors to inform it of forthcoming changes. Community Admission Bodies' memberships are monitored and, if active membership decreases, steps will be taken.
An employer ceasing to exist with insufficient funding or adequacy of a bond.	The Administering Authority believes that it would normally be too late to address the position if it was left to the time of departure. The risk is mitigated by: Seeking a funding guarantee from another scheme employer, or external body, where-ever possible (see Notes (h) and (j) to 3.3). Alerting the prospective employer to its obligations and encouraging it to take independent actuarial advice. Vetting prospective employers before admission. Where permitted under the regulations requiring a bond to protect the Fund from various risks. Requiring new Community Admission Bodies to have a guarantor. Reviewing bond or guarantor arrangements at regular intervals (see Note (f) to 3.3). Reviewing contributions well ahead of cessation if thought appropriate (see Note (a) to 3.3).

Appendix D – The calculation of Employer contributions

In Section 2 there was a broad description of the way in which contribution rates are calculated. This Appendix considers these calculations in much more detail.

All three steps above are considered when setting contributions (more details are given in Section 3 and Appendix D:

1. The **funding target** is based on a set of assumptions about the future, eg investment returns, inflation, pensioners' life expectancies. However, if an employer is approaching the end of its participation in the Fund then it's funding target may be set on a more prudent basis, so that it's liabilities are less likely to be spread among other employers after it's cessation of participation;

2. The **time horizon** required is, in broad terms, the period over which any deficit is to be recovered. A shorter period will lead to higher contributions, and vice versa (all other things being equal). Employers may be given a lower time horizon if they have a less permanent anticipated membership, or do not have tax-raising powers to increase contributions if investment returns under-perform;

3. The required **probability of achieving** the funding target over that time horizon will be dependent on the Fund's view of the strength of employer covenant and its funding profile. Where an employer is considered to be weaker, or potentially ceasing from the Fund, then the required probability will be set higher, which in turn will increase the required contributions (and vice versa).

The calculations involve actuarial assumptions about future experience, and these are described in detail in Appendix E.

D1 What is the difference between calculations across the whole Fund and calculations for an individual employer?

Employer contributions are normally made up of two elements:

a) the estimated cost of ongoing benefits being accrued, referred to as the "Primary contribution rate" (see D2 below); plus

b) an adjustment for the difference between the Primary rate above, and the actual contribution the employer needs to pay, referred to as the "Secondary contribution rate" (see D3 below).

The contribution rate for each employer is measured as above, appropriate for each employer's funding position and membership. The whole Fund position, including that used in reporting to DCLG (see section 5), is calculated in effect as the sum of all the individual employer rates. DCLG currently only regulates at whole Fund level, without monitoring individual employer positions.

D2 How is the Primary contribution rate calculated?

The Primary element of the employer contribution rate is calculated with the aim that these contributions will meet benefit payments in respect of members' **future** service in the Fund. This is based upon the cost (in excess of members' contributions) of the benefits which employee members earn from their service each year.

The Primary rate is calculated separately for all the employers, although employers within a pool will pay the contribution rate applicable to the pool as a whole. The Primary rate is calculated such that it is projected to:

1. meet the required funding target for all future years' accrual of benefits*, excluding any accrued assets,

2. within the determined time horizon (see note 3.3 Note (c) for further details),

3. with a sufficiently high probability, as set by the Fund's strategy for the category of employer (see 3.3 Note (e) for further details).

* The projection is for the current active membership where the employer no longer admits new entrants, or additionally allows for new entrants where this is appropriate.

The projections are carried out using an economic modeller developed by the Fund's actuary Hymans Robertson: this allows for a wide range of outcomes as regards key factors such as asset returns (based on the Fund's investment strategy), inflation, and bond yields. The measured contributions are calculated such that the proportion of outcomes meeting the employer's funding target (by the end of the time horizon) is equal to the required probability.

The approach includes expenses of administration to the extent that they are borne by the Fund, and includes allowances for benefits payable on death in service and on ill health retirement.

D3 How is the Secondary contribution rate calculated?

The combined Primary and Secondary rates aim to achieve the employer's funding target, within the appropriate time horizon, with the relevant degree of probability.

For the funding target, the Fund actuary agrees the assumptions to be used with the Administering Authority – see Appendix E. These assumptions are used to calculate the present value of all benefit payments expected in the future, relating to that employer's current and former employees, based on pensionable service to the valuation date only (i.e. ignoring further benefits to be built up in the future).

The Fund operates the same target funding level for all employers of 100% of its accrued liabilities valued on the ongoing basis, unless otherwise determined (see Section 3).

The Secondary rate is calculated as the balance over and above the Primary rate, such that the total is projected to:

1. meet the required funding target relating to combined past and future service benefit accrual, including accrued asset share (see D5 below)
2. within the determined time horizon (see 3.3 Note (c) for further details)
3. with a sufficiently high probability, as set by the Fund's strategy for the category of employer (see 3.3 Note (e) for further details).

The projections are carried out using an economic modeller developed by the Fund Actuary Hymans Robertson: this allows for a wide range of outcomes as regards key factors such as asset returns (based on the Fund's investment strategy), inflation, and bond yields. The measured contributions are calculated such that the proportion of outcomes with at least 100% solvency (by the end of the time horizon) is equal to the required probability.

D4 What affects a given employer's valuation results?

The results of these calculations for a given individual employer will be affected by:

1. past contributions relative to the cost of accruals of benefits;
2. different liability profiles of employers (e.g. mix of members by age, gender, service vs. salary);
3. the effect of any differences in the funding target, i.e. the valuation basis used to value the employer's liabilities;
4. any different time horizons;

5. the difference between actual and assumed rises in pensionable pay;
6. the difference between actual and assumed increases to pensions in payment and deferred pensions;
7. the difference between actual and assumed retirements on grounds of ill-health from active status;
8. the difference between actual and assumed amounts of pension ceasing on death;
9. the additional costs of any non ill-health retirements relative to any extra payments made; and/or
10. differences in the required probability of achieving the funding target.

D5 How is each employer's asset share calculated?

The Administering Authority does not account for each employer's assets separately. Instead, the Fund's actuary is required to apportion the assets of the whole Fund between the employers, at each triennial valuation.

This apportionment uses the income and expenditure figures provided for certain cash flows for each employer. This process adjusts for transfers of liabilities between employers participating in the Fund, but does make a number of simplifying assumptions. The split is calculated using an actuarial technique known as "analysis of surplus".

Actual investment returns achieved on the Fund between each valuation are applied proportionately across all employers, to the extent that employers in effect share the same investment strategy. Transfers of liabilities between employers within the Fund occur automatically within this process, with a sum broadly equivalent to the reserve required on the ongoing basis being exchanged between the two employers.

The Fund actuary does not allow for certain relatively minor events, including but not limited to:

1. the actual timing of employer contributions within any financial year;
2. the effect of the premature payment of any deferred pensions on grounds of incapacity.

These effects are swept up within a miscellaneous item in the analysis of surplus, which is split between employers in proportion to their liabilities.

The methodology adopted means that there will inevitably be some difference between the asset shares calculated for individual employers and those that would have resulted had they participated in their own ring-fenced section of the Fund.

The asset apportionment is capable of verification but not to audit standard. The Administering Authority recognises the limitations in the process, but it considers that the Fund actuary's approach addresses the risks of employer cross-subsidisation to an acceptable degree.

Appendix E – Actuarial assumptions

E1 What are the actuarial assumptions?

These are expectations of future experience used to place a value on future benefit payments ("the liabilities"). Assumptions are made about the amount of benefit payable to members (the financial assumptions) and the likelihood or timing of payments (the demographic assumptions). For example, financial assumptions include investment returns, salary growth and pension increases; demographic assumptions include life expectancy, probabilities of ill-health early retirement, and proportions of member deaths giving rise to dependants' benefits.

Changes in assumptions will affect the measured funding target. However, different assumptions will not of course affect the actual benefits payable by the Fund in future.

The combination of all assumptions is described as the "basis". A more optimistic basis might involve higher assumed investment returns (discount rate), or lower assumed salary growth, pension increases or life expectancy; a more optimistic basis will give lower funding targets and lower employer costs. A more prudent basis will give higher funding targets and higher employer costs.

E2 What basis is used by the Fund?

The Fund's standard funding basis is described as the "ongoing basis", which applies to most employers in most circumstances. This is described in more detail below. It anticipates employers remaining in the Fund in the long term.

However, in certain circumstances, typically where the employer is not expected to remain in the Fund long term, a more prudent basis applies: see Note (a) to 3.3.

E3 What assumptions are made in the ongoing basis?

a) Investment return / discount rate

The key financial assumption is the anticipated return on the Fund's investments. This "discount rate" assumption makes allowance for an anticipated out-performance of Fund returns relative to long term yields on UK Government bonds ("gilts"). There is, however, no guarantee that Fund returns will out-perform gilts. The risk is greater when measured over short periods such as the three years between formal actuarial valuations, when the actual returns and assumed returns can deviate sharply.

Given the very long-term nature of the liabilities, a long term view of prospective asset returns is taken. The long term in this context would be 20 to 30 years or more.

For the purpose of the triennial funding valuation at 31 March 2016 and setting contribution rates effective from 1 April 2017, the Fund actuary has assumed that future investment returns earned by the Fund over the long term will be 1.8% per annum greater than gilt yields at the time of the valuation (this was 1.6% per annum at the 2013 valuation). In the opinion of the Fund actuary, based on the current investment strategy of the Fund, this asset out-performance assumption is within a range that would be considered acceptable for the purposes of the funding valuation.

b) Salary growth

Pay for public sector employees is currently subject to restriction by the UK Government until 2020. Although this "pay freeze" does not officially apply to local government and associated employers, it has been suggested that they are likely to show similar restraint in respect of pay awards. Based on long term historical analysis of the membership in LGPS funds, and continued austerity measures, the salary increase assumption at the 2016 valuation has been set to be a blended rate combined of:

1. 1% p.a. until 31 March 2020, followed by

2. retail prices index (RPI) per annum p.a. thereafter.

This is a change from the previous valuation, which assumed a flat assumption of RPI per annum. The change has led to a reduction in the funding target (all other things being equal).

c) Pension increases

Since 2011 the consumer prices index (CPI), rather than RPI, has been the basis for increases to public sector pensions in deferment and in payment. Note that the basis of such increases is set by the Government, and is not under the control of the Fund or any employers.

As at the previous valuation, we derive our assumption for RPI from market data as the difference between the yield on long-dated fixed interest and index-linked government bonds. This is then reduced to arrive at the CPI assumption, to allow for the "formula effect" of the difference between RPI and CPI. At this valuation, we propose a reduction of 1.0% per annum. This is a larger reduction than at 2013, which will serve to reduce the funding target (all other things being equal). (Note that the reduction is applied in a geometric, not arithmetic, basis).

d) Life expectancy

The demographic assumptions are intended to be best estimates of future experience in the Fund based on past experience of LGPS funds which participate in Club Vita, the longevity analytics service used by the Fund, and endorsed by the actuary.

The longevity assumptions that have been adopted at this valuation are a bespoke set of "VitaCurves", produced by the Club Vita's detailed analysis, which are specifically tailored to fit the membership profile of the Fund. These curves are based on the data provided by the Fund for the purposes of this valuation.

It is acknowledged that future life expectancy and, in particular, the allowance for future improvements in life expectancy, is uncertain. There is a consensus amongst actuaries, demographers and medical experts that life expectancy is likely to improve in the future. Allowance has been made in the ongoing valuation basis for future improvements in line with the 2013 version of the Continuous Mortality Investigation model published by the Actuarial Profession and a 1.25% per annum minimum underpin to future reductions in mortality rates. This is a similar view on life expectancy as was taken at the previous valuation.

The approach taken is considered reasonable in light of the long term nature of the Fund and the assumed level of security underpinning members' benefits.

e) General

The same financial assumptions are adopted for most employers, in deriving the funding target underpinning the Primary and Secondary rates: as described in (3.3), these calculated figures are translated in different ways into employer contributions, depending on the employer's circumstances.

The demographic assumptions, in particular the life expectancy assumption, in effect vary by type of member and so reflect the different membership profiles of employers.

Appendix F – Glossary

Actuarial assumptions/basis	The combined set of assumptions made by the actuary, regarding the future, to calculate the value of **the funding target**. The main assumptions will relate to the **discount rate**, salary growth, pension increases and longevity. More prudent assumptions will give a higher target value, whereas more optimistic assumptions will give a lower value.
Administering Authority	The council with statutory responsibility for running the Fund, in effect the Fund's "trustees".
Admission Bodies	Employers where there is an Admission Agreement setting out the employer's obligations. These can be Community Admission Bodies or Transferee Admission Bodies. For more details (see 2.3).
Covenant	The assessed financial strength of the employer. A strong covenant indicates a greater ability (and willingness) to pay for pension obligations in the long run. A weaker covenant means that it appears that the employer may have difficulties meeting its pension obligations in full over the longer term.
Discount rate	The annual rate at which future assumed cashflows (in and out of the Fund) are discounted to the present day. This is necessary to provide a **funding target** which is consistent with the present day value of the assets. A lower discount rate gives a higher target value, and vice versa. It is used in the calculation of the **Primary and Secondary rates**.
Employer	An individual participating body in the Fund, which employs (or used to employ) **members** of the Fund. Normally the assets and **funding target** values for each employer are individually tracked, together with its **Primary rate** at each **valuation**.
Funding target	The actuarially calculated present value of all pension entitlements of all **members** of the Fund, built up to date. This is compared with the present market value of Fund assets to derive the **deficit**. It is calculated on a chosen set of **actuarial assumptions**.
Gilt	A UK Government bond, ie a promise by the Government to pay interest and capital as per the terms of that particular gilt, in return for an initial payment of capital by the purchaser. Gilts can be "fixed interest", where the interest payments are level throughout the gilt's term, or "index-linked" where the interest payments vary each year in line with a specified index (usually RPI). Gilts can be bought as assets by the Fund, but their main use in funding is as an objective measure of solvency.
Guarantee / guarantor	A formal promise by a third party (the guarantor) that it will meet any pension obligations not met by a specified employer. The presence of a guarantor will mean, for instance, that the Fund can consider the employer's **covenant** to be as strong as its guarantor's.
Letting employer	An employer which outsources or transfers a part of its services and workforce to another employer (usually a contractor). The contractor will pay towards the LGPS benefits accrued by the transferring members, but ultimately the obligation to pay

for these benefits will revert to the letting employer. A letting employer will usually be a local authority, but can sometimes be another type of employer such as an Academy.

LGPS The Local Government Pension Scheme, a public sector pension arrangement put in place via Government Regulations, for workers in local government. These Regulations also dictate eligibility (particularly for Scheduled Bodies), members' contribution rates, benefit calculations and certain governance requirements. The LGPS is divided into 101 Funds which map the UK. Each LGPS Fund is autonomous to the extent not dictated by Regulations, e.g. regarding investment strategy, employer contributions and choice of advisers.

Maturity A general term to describe a Fund (or an employer's position within a Fund) where the members are closer to retirement (or more of them already retired) and the investment time horizon is shorter. This has implications for investment strategy and, consequently, funding strategy.

Members The individuals who have built up (and may still be building up) entitlement in the Fund. They are divided into actives (current employee members), deferreds (ex-employees who have not yet retired) and pensioners (ex-employees who have now retired, and dependants of deceased ex-employees).

Primary contribution rate The employer contribution rate required to pay for ongoing accrual of active members' benefits (including an allowance for administrative expenses). See Appendix D for further details.

Profile The profile of an employer's membership or liability reflects various measurements of that employer's **members**, ie current and former employees. This includes: the proportions which are active, deferred or pensioner; the average ages of each category; the varying salary or pension levels; the lengths of service of active members vs their salary levels, etc. A membership (or liability) profile might be measured for its **maturity** also.

Rates and Adjustments Certificate A formal document required by the LGPS Regulations, which must be updated at least every three years at the conclusion of the formal **valuation**. This is completed by the actuary and confirms the contributions to be paid by each employer (or pool of employers) in the Fund for the three year period until the next valuation is completed.

Scheduled Bodies Types of employer explicitly defined in the LGPS Regulations, whose employers must be offered membership of their local LGPS Fund. These include Councils, colleges, universities, academies, police and fire authorities etc, other than employees who have entitlement to a different public sector pension scheme (e.g. teachers, police and fire officers, university lecturers).

Secondary contribution rate The difference between the employer's actual and **Primary contribution rates**. In broad terms, this relates to the shortfall of its asset share to its **funding target**. See Appendix D for further details.

Stabilisation Any method used to smooth out changes in employer contributions from one year to the next. This is very broadly required by the LGPS Regulations, but in practice is

particularly employed for large stable employers in the Fund. Different methods may involve: probability-based modelling of future market movements; longer deficit recovery periods; higher discount rates; or some combination of these.

Valuation	An actuarial investigation to calculate the liabilities, future service contribution rate and common contribution rate for a Fund, and usually individual employers too. This is normally carried out in full every three years (last done as at 31 March 2016), but can be approximately updated at other times. The assets value is based on market values at the valuation date, and the liabilities value and contribution rates are based on long term bond market yields at that date also.

INVESTMENT STRATEGY AND FUND MANAGER PERFORMANCE (Part I)

Contact Officers	Sian Kunert, 01895 556578 Scott Jamieson David O'Hara, KPMG

Papers with this report	Northern Trust Performance Report Draft Investment Strategy Statement

SUMMARY

This is the main report which focuses on the investment of the Fund's assets. The report includes an overview of fund performance as at 30 December 2016, an update on recent investment decisions, and progress of the London CIV. It is timely following each valuation of the Fund that a review of the Fund's Investment Strategy is undertaken and this will form the main part of the discussions at the meeting. Following those discussions, the draft Investment Strategy Statement will be considered and, subject to any drafting amendments, members asked to approve.

The total size of the fund was £931m at 31 December 2016 an increase from £890m at the end of last quarter, with an overall investment return over the quarter was 3.85%, giving rise to relative out-performance of the benchmark by 1.03%.

Included with this report is the Northern Trust performance report and in Part II there is an update on each Fund Manager and detailed current market backdrop. These papers all form background reading to inform Committee and to aid discussion.

RECOMMENDATIONS

It is recommended that Pensions Committee:

1. **Discuss and agree the revised investment strategy for the Fund and the target Strategic Asset Allocation;**
2. **Approve, subject to any agreed amendment, an initial version of the Investment Strategy Statement, which will then be published and circulated to Pensions Board for comment;**
3. **Discuss the Fund performance update and agree any required decisions in respect of mandates or Fund Managers;**
4. **Delegate the implementation of any decisions to the Officer and Advisor - Investment Strategy Group;**
5. **Note the follow up activity to previous investment decisions and progress in the development of the London CIV.**

INFORMATION

1. Fund Performance

Over the last quarter to 31 December 2016, the Fund returned 3.85% (5.96% to September 2016) against the fund benchmark of 2.78% (5.16% September 2016) resulting in an outperformance for the quarter. The value of the Fund increased over the quarter by £34.1m, to bring the fund balance to £930.7m as at 31 December 2016.

Period of measurement	Fund Return %	Benchmark %	Arithmetic Excess
Quarter	3.85	2.78	+1.07
1 Year	17.81	14.83	+2.98
3 Year	9.29	8.46	+0.83
5 Year	10.19	9.14	+1.05
Since Inception (09/1995)	7.17	7.00	+0.17

In continuation of Q3 returns the most notable outperformance on investments in the quarter were produced by the LCIV Ruffer DGF fund and UK Value Equities held by UBS, with the biggest underperformance by Newton Global Income Equities.

Outperformance over a one year rolling period was 17.81% compared to the benchmark of 14.83%, also in part from the over performance of UBS UK Equity and Ruffer Funds.

During the quarter the SSGA mandate was terminated and transferred to LGIM and the fund received £14.3m in cash distributions from the M&G Private Credit Fund.

2. Market and Financial climate overview

The global economy has performed well over the last quarter despite the uncertainty of Brexit, instability in Europe and the election of President Trump. This positive trend looks to remain over the short-term with financial markets continuing to price in growth following fiscal and monetary stimulus. The FTSE All share was up in the quarter and has risen 16.8% over the year, whilst UK economic data is still positive with the latest quarter's estimate for UK GDP coming in ahead of market expectations at 0.7%.

The fall in sterling is expected to have a paradoxical impact going forward by boosting exports but weakening consumer spending through imported inflation. The devaluation in currency should assist the economy rebalance away from the usual negative contribution from net trade to GDP growth, through this weaker domestic demand and improvement in exports.

Over the medium-term the potential for protectionism in the US and the rise of populist sentiment within Europe could dampen global growth and investment activity levels through continued uncertainty, but in the meantime, investment returns and economic growth remain positive.

3. Investment Strategy and the Investment Strategy Statement

Following each valuation it is timely to undertake a review of the investment strategy of the Fund. The Fund's advisors, David O'Hara (KPMG) and Scott Jamieson (Independent) will be making a presentation to Committee on the current investment strategy and strategic asset allocation and leading Committee through a discussion on potential changes to the strategy and asset allocation Committee may wish to consider, in light of the valuation

results and the suggestion that it may be worth considering reducing the risk exposure of the Fund. A few slides to set out the background to introduce the discussion will be forwarded by email to Committee members in advance of the meeting.

Following agreeing any revisions to the investment strategy, Committee will then be asked to review the draft Investment Strategy Statement. The Local Government Pension Scheme (Management and Investment of Funds) Regulations 2016, effective from 1 November 2016, require an Investment Strategy Statement (ISS) to be in place by 1 April 2017 and replaces the Statement of Investment Principles. The fund is required to invest all money in accordance with this Investment Strategy Statement that is not immediately required to make payments.

Under the new LGPS Investment Regulations the strategic asset allocation remains the responsibility of the Pension Committee and will continue to be the key strategic tool for the Committee to manage the fund to obtain the return targets as required in the Funding Strategy Statement.

The investment strategy statement required under the regulations must include -

a) A requirement to invest money in a wide variety of investments;
b) The authority's assessment of the suitability of particular investments and types of investments;
c) The authority's approach to risk, including the ways in which risks are to be measured and managed;
d) The authority's approach to pooling investments, including the use of collective investment vehicles and shared services;
e) The authority's policy on how social, environmental or corporate governance considerations are taken into account in the selection, non-selection, retention and realisation of investments; and
f) The authority's policy on the exercise of rights (including voting rights) attaching to investments.

The ISS must also set out the maximum percentage of the fund held in any asset class or investment.

Consultation is required over the content of the fund's investment strategy with those the fund considers appropriate. The fund has consulted and taken proper advice from the investment advisors and independent advisor and the ISS will be taken to the next Local Pensions Board in April as a representative group for fund members. The ISS will be updated regularly along with each strategy review. The draft ISS is attached to this item as an appendix for discussion and approval.

4. Investment decision updates

This section of the report provides an update to Members on activity by officers to implement previous decisions taken by Pensions Committee. At the meeting in September 2016, Pensions Committee agreed to liquidate the GMO mandate and the funds reinvest in a mix of passive funds through LGIM. The Investment strategy group agreed a balance of passive funds in which to move the GMO funds to invest at a lower

cost than the premium of investing in the current DGF in the current economic market. This was completed on 22 February 2017 with all funds transferred totalling £62.25m.
The mix of passive funds has been allocated as follows:

Fund	% weight
Global equities (£ hedged)	25
Long dated UK corporate bonds	25
Emerging market equity	25
Over 15y UK Index-linked	25

This mix of passive funds is expected to return Gilts plus 2.6% which is slightly lower than the expected return from DGFs, however this will help trim the Funds risk relative to liabilities and will be managed at a significantly lower cost.

In addition, in relation to the cashflow of the Fund, having received distributions of £14.3m from M&G the fund was holding excess cash of £15m above that required to meet the immediate payments of the fund. Under delegated authority and in line with the LGPS Investment regulations to ensure all cash is invested, £15m was invested into the JPMorgan Bond fund during the week commending 27 February. This investment reduces the funds counterparty and bail in risk from holding large cash balances. The JP Morgan Bond fund is a mix of credit instruments including EM debt and High Yield bonds. Allocation to this fund is in line with the strategic asset allocation and the fund is liquid, making transition of the cash into this fund cost effective. JP Morgan's mandate as a result of this addition is now valued at £54m. The fund manager charges 30bps for assets under management (AUM) and the fund is performing as expected with returns of 8.9% (+3.4% above the market) in the past year. There is currently no equivalent passive option for this type of investment.

5. LCIV update

In the past quarter the London CIV (LCIV) has opened an additional sub fund - LCIV NW Real Return Fund managed by Newton which launched 16 December 2016, bringing the total to 6 active sub funds.

Sub funds available on the platform currently are:
- Global equity funds (Allianz and Baillie Gifford)
- Diversified growth Funds (DGF)/Absolute Return funds (Ruffer, Pyrford, Baillie Gifford and Newton)

Currently, the CIV are working on launching 2 further funds in May 2017 which will be global equity quality managed by Newton and UK equity managed by Majedie. Discussions are ongoing in relation to Global equities managed by Longview.

Once these mandates are in place, this will end the creation of sub funds as a result of consolidation of current mandates across boroughs. Future sub funds will be brought on line from direct procurement exercises by the London CIV, established as best in class for their asset type

The first such exercise is a Global Equity manager procurement process and the first three Global Equity sub funds have been agreed to go ahead. These are for an Income manager, an Emerging Markets manager and a Sustainable manager. The CIV will begin procedures to bring these funds onto the platform and produce information to boroughs to consider investing within these funds once they have been launched.

The next steps for the CIV are income generation products including traditional Fixed Income to support the many funds which are faced with negative cashflows. The CIV are working with the Investment Advisory Committee to consider a range of fixed income and cashflow generating products Funds may wish to access later next year.

Hillingdon Fund Investment with the London CIV

The Hillingdon Pension Fund currently invests in Ruffer with CIV holdings totalling £104m at 31 December 2016.

The London CIV carried out extensive work over the past year in relation to passive funds and negotiated fees with LGIM and Blackrock on behalf of the funds. As London Boroughs benefited from lower management fees from the negotiations and the increased buying power of the CIV, it was agreed by the London CIV joint committee that Funds will pay 0.5bp of AUM from April 2017 to recover the costs associated with the passive funds negotiations and to support he continued working relationship and build up the reporting requirements as laid out by government of these passive funds via the pools.

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NORTHERN
TRUST

London Borough of Hillingdon

Investment Risk & Analytical Services

December 31, 2016

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Client Commentary

Total Scheme Commentary

Over 2016 the global economy has seen respectable growth, when using the performance of equity markets as a guide, although that performance varies greatly when currency returns are factored in. The strength of the global economy is viewed sceptically by many given that the same concerns persist; instability in Europe, unpredictability at the Fed and uncertainty in the Emerging Markets. Equity markets performed admirably in light of the number of surprises 2016 threw at them; Brexit, election of President Trump and the Italian resistance to constitutional reform to name just a few poll confounding results. OPEC finalised its production cut commencing in January, sending oil prices higher in December and boosting oil exporting nations. Globally, Financials gained most value over quarter four but Oil & Gas was the top sector over 2016. Health Care lost most value over both quarter four and 2016 as a whole. The expected negative impacts of Brexit on the UK economy, apart from the hammering that Sterling took, are yet to be felt. Q3 GDP, the first post Brexit figure, came in at 0.5%, beating expectations. The FTSE All Share was up 3.9% (GBP) over the fourth quarter and is now ahead over one year by 16.8% (GBP). Despite significant movements in exchange rates, inflation remains relatively low given the circumstances, with the CPI for 12 months coming in at 1.6% in December. In the UK, yields settled significantly higher for the quarter but down for the year, the 10-year Gilt finishing at 1.24% up from 0.75% in Q3 and down from 1.96% at the end of 2015. The FTSE All Stock Index returned -3.43% for Q4 and 10.10% for 2016 and the Merrill Lynch Sterling Non-Gilts returned -2.77% for the quarter and 10.60 for the year.

Against this backdrop the London Borough of Hillingdon returned 3.85% which leads to an outperformance of 103 basis points against the Total Plan benchmark of 2.78%. In monetary terms this is a growth in assets of £34.1 million and the value of the combined scheme now stands at £930.7 million as at 31st December 2016. This period the SSGA mandates were terminated and the capital used to fund a new Legal & General balanced mandate, while £14.3 million of distributions from M&G was transferred to the Cash Account. Looking further into the analysis the results seen were driven by selection effects, the most notable being UBS UK Equity impact of 91 bps, with M&G adding a further 44 bps, this was partly offset by Newton, detracting -45 bps. While within allocation, with weights closely in line with the strategic position leading to a minimal impact.

With all four quarters of 2016 showing both positive absolute and relative figures the Scheme posts a return of 17.81% for the full year, which is 2.60% ahead of the benchmark of 14.83%. The largest impact once again comes from selection, the most significant in UBS UK Equity (+1.47%) coupled with Ruffer (+1.29%), although these are slightly offset by the negative effect from Newton (-0.56%). While allocation has a negative impact coming from underweighting the now terminated State Street Gilts and Newton, while overweighting Premira. While over the longer periods, the Scheme continues to outperform, producing a return of 9.29% over three year versus 8.46%, while for 5 years we see figures of 10.19% versus 9.14% per annum. Then since inception in September 1995, the Fund remains ahead of target by 16 basis points with an annualised return of 7.17% against exactly 7%.

Manager Commentary

AEW UK

In contrast to the previous period, in the latest quarter AEW UK Property overturned the previous quarter's losses by returning 3.58%, relatively this is a 1.25% outperformance when compared to the IPD UK PPFI All Balanced Funds index figure of 2.30%. Then with positive absolute returns in all but one period since inception and only three quarters in the red on a relative basis, growth ahead of benchmark is seen in all longer periods. For the rolling one year a return of 6.63% against the benchmark of 4.25% translates as a 2.28% relative return. Then in the short period since inception in June 2014, the fund return is 11.33%, leading to an outperformance of 1.02% when compared to the IPD figure of 10.21%.

GMO Global

In the fourth quarter the GMO Global mandate produced the largest loss in asset value with a return of -1.24% leading to an underperformance of -1.42% when measured against the OECD CPI G7 (GBP) Index figure of 0.18%. Thanks to the good results in Q3 an outperformance of 0.55% is still seen for the one year period, with figures of 2.12% versus 1.55%. However, driven by the Q3 results in 2015, in the short period since the start of November 2014 when the fund incepted, a return of -0.99% against the benchmark of 0.65% leads to a shortfall of -1.62%.

JP Morgan

During the latest quarter JP Morgan was the only other mandate (along with GMO) to see a fall in value, posting -0.33% leading to an underperformance of -1.20% when compared to the 0.89% target for the 3 Month LIBOR + 3% p.a. Although with good results in the three other quarters in 2016, the one year return of 8.09% is ahead of the 3.62% target by 4.31%. Then despite dipping just below the benchmark over the three years with 3.31% vs 3.59%, in just over 5 years since the mandate funded their return of 3.90% is 25 basis points above the target return of 3.64% on an annualised basis.

Legal & General

At the end of October 2016 the Legal & General mandate was funded from the proceeds of the terminated SSGA mandates, it is measured against a custom fixed weight blended benchmark consisting of FTSE equity indices, FTSE Index Linked and iBoxx UK Non-Gilts. In the short 2 month period since inception, they demonstrate the passive strategy by returning 0.85% against 0.88% for the benchmark.

SSGA Balanced / SSGA Gilts

During the fourth quarter both SSGA mandates were terminated with the funds being transferred to the new Legal & General mandate.

Client Commentary (cntd)

Manager Commentary

London CIV Ruffer

This quarter the London CIV Ruffer portfolio produced a 2.05% return, compared to the LIBOR 3 Month GBP figure of 0.10%, this leads to a relative return of 1.94%. This is now five consecutive quarters of positive absolute and relative returns, meaning the one year period exhibits a growth of 12.66% against the target of 0.56%. Then with only three quarter's in the red in the last five years, outperformance remains in the longer periods. This is seen in a three year return of 7.21% versus 0.56%, then similarly for the five years with figures of 7.25% against 0.63%, culminating in since inception (May 2010) figures of 6.73% versus 0.67% per annum, which translates as a relative return of 6.02%.

M&G Investments

In the latest quarter M&G demonstrates both the highest absolute and relative return with their growth of 13.57% against the 3 Month LIBOR +4% p.a. target of 1.08%, an outperformance of 12.3%. With three consecutive quarter's of outperformance, the full year return leads the benchmark by 15.51%, coming from figures of 20.71% against 4.50%. Over the three and five year the account registers figures of 11.21% vs 4.55% and 8.91% vs 4.61% respectively; since inception (May 2010) return falls slightly to 7.78% pa whilst the benchmark is 4.67% pa. Although the since inception Internal Rate of Return moves further ahead of target with a figure of 9.02% opposed to the comparator of 4.41%.

Macquarie

Over the last three months, Macquarie produced a growth of 3.29%, against the 0.83% for the 3 Month LIBOR +3% p.a. translates as an outperformance of 2.44%. With ten consecutive quarters of positive absolute and relative returns, outperformance is seen in all longer periods. Over 2016 a growth of 29.13% beats the target of 3.50% by 24.76%, the highest relative return over this period; similarly the three year result of 16.60% versus 3.55% also exhibits the best relative return at 12.61%. The annualised return over 5 years falls to 7.06%, but still ahead of the 3.60% seen for the benchmark; then since inception (September 2010) the 3.76% is just ahead of the target of 3.66%. Although the since inception Internal Rate of Return for this portfolio jumps to 13.12%, which is ahead of the benchmark figure of 3.57%.

Newton

In the fourth quarter of 2016 Newton produced a return of 3.72%, although this was a relative return of -3.05% when compared to the 6.98% seen for the FTSE World Index +2%. With three consecutive quarter's of underperformance, they fall -1.09% short of the benchmark over the calendar year, generated from figures of 30.13% versus 31.56%. Then with nine underperforming quarters over the last twelve the three year return falls just short with figures of 16.02% versus 16.56%; then since inception in January 2013, the fund return of 14.98% falls short of the yardstick of 16.45% by -1.26% on an annualised basis.

Manager Commentary

Private Equity

Over the latest period private equity assets show positive absolute returns, LGT continued their 3 year run of growth with a figure of 3.97%, while Adam Street posted 8.96%. Over the longer periods, the outlook over which private equity investments should be measured, returns remain positive. Over one and three years they both exhibit some of the highest returns seen, Adam Street posts 28.47% and 23.57%, while LGT is 31.59% and 18.49% respectively, while the proxy benchmark of MSCI AC World +4% p.a. shows 33.40% and 18.49%. While over five years both see a slight fall with Adam Street at 17.30%, while LGT posts 13.87% against the benchmark of 17.61%. Then since their respective inceptions in January 2005 and May 2004, Adam Street drops to 6.88% pa, while LGT sees a slight dip to 10.55%.

Premira Credit

The Premira Credit Fund saw a growth of 2.56% over the final quarter of 2016, this compares favourably with the 3 Month LIBOR +4% p.a. target of 1.08% over the quarter. Coupled with the previous period's results, the one year is ahead of target with figures of 6.89% versus 4.50%, creating an outperformance of 2.29%. Then since the start of December 2014 when the fund incepted, the fund posts a return of 9.98% against the benchmark of 4.47%, leading to a relative position of 5.27%.

UBS

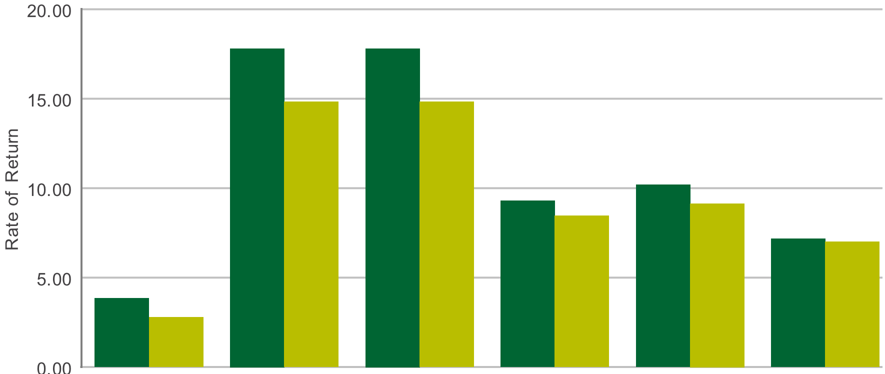
During Q4 the UBS UK Equity investments returned of 11.45% compared to the FTSE All Share figure of 3.89%, generating an outperformance of 7.28%. Looking into the attribution analysis, selection was the main driver with all but one sector showing positive effects, the most notable being the 1.55% from Financials and 1.18% from Basis Materials. Within allocation, also all but one sector adds value, the most significant being underweight Consumer Goods (1.16%), slightly negated by the cash drag. With all 4 quarters in the black the one year figures of 30.99% vs 16.75% leads to a relative return of 12.20%. This is attributable to both allocation and selection, the biggest impacts come from both overweighting Basis Materials (3.41%) and selection in the sector (3.30%); while the largest negative impact was once again the drag from the 2% cash exposure. This feeds into the longer time periods, with three and five years ahead of the index, culminating in a since inception return of 10.30% versus 8.87% on an annualised basis.

UBS Property

In the latest period the UBS Property assets overturned the previous two quarter's absolute losses with a growth of 1.68%, although against the IPD UK PPFI All Balanced Funds index figure of 2.30% still translates as a relative return of -0.61%. This feeds into the one year numbers, with a full year return of 1.38% falling -1.38% behind the IPD target of 2.80%. Although the previous good run of results prior to the last three quarters leads to high absolute returns staying ahead of the IPD target over the longer periods, peaking over the three year with a return of 12.40% against 10.65%. Then since inception, in March 2006, the

Executive Summary

LONDON BOROUGH OF HILLINGDON TOTAL FUND GROSS OF FEES



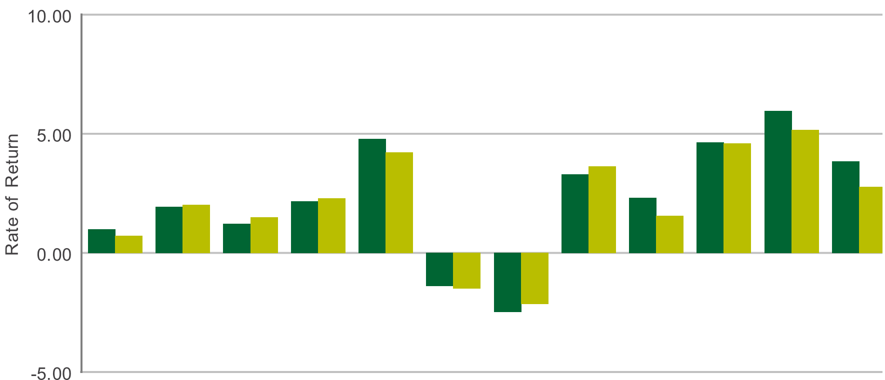
	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Fund	3.85	17.81	17.81	9.29	10.19	7.17
Index	2.78	14.83	14.83	8.46	9.14	7.00

Index: Total Plan Benchmark

Risk Statistics	3 Yrs	5 Yrs
Return	9.29	10.19
Index Return	8.46	9.14
Excess Return	0.83	1.05
Standard Deviation	5.09	5.35
Index Standard Deviation	4.89	5.00
Tracking Error	1.14	1.10
Information Ratio	0.72	0.96
Sharpe Ratio	1.70	1.76
Index Sharpe Ratio	1.59	1.67
Sortino Ratio	-	3.30
Treynor Ratio	8.51	8.98
Jensen's Alpha	0.67	0.60
Relative Volatility (Beta)	1.01	1.05
R Squared	0.95	0.96

Index: Total Plan Benchmark. Risk Free Index: JP Morgan 3 month Cash (GBP)
Category: Total Fund Gross of Fees.

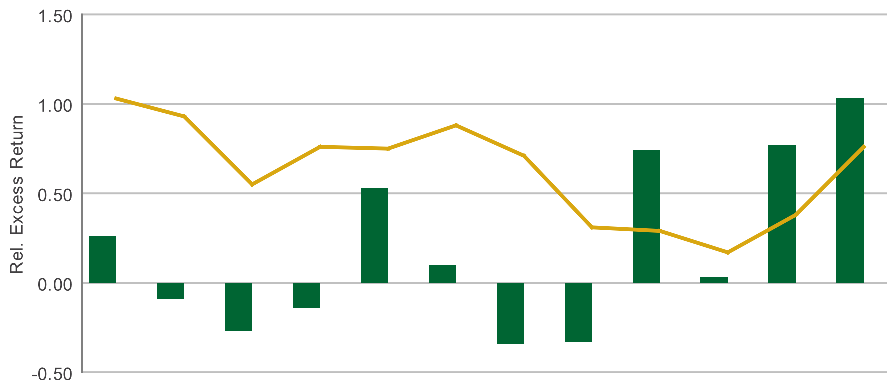
LONDON BOROUGH OF HILLINGDON ROLLING QUARTERS TOTAL FUND GROSS OF FEES



	Q1 '14	Q2 '14	Q3 '14	Q4 '14	Q1 '15	Q2 '15	Q3 '15	Q4 '15	Q1 '16	Q2 '16	Q3 '16	Q4 '16
Fund	0.99	1.93	1.23	2.16	4.78	-1.39	-2.48	3.30	2.32	4.64	5.96	3.85
Index	0.73	2.02	1.50	2.30	4.23	-1.49	-2.14	3.64	1.56	4.60	5.16	2.78

Index: Total Plan Benchmark

LONDON BOROUGH OF HILLINGDON ROLLING QUARTERS TOTAL FUND GROSS OF FEES



	Q1 '14	Q2 '14	Q3 '14	Q4 '14	Q1 '15	Q2 '15	Q3 '15	Q4 '15	Q1 '16	Q2 '16	Q3 '16	Q4 '16
3M R.Excess	0.26	-0.09	-0.27	-0.14	0.53	0.10	-0.34	-0.33	0.74	0.03	0.77	1.03
3Y R.Excess	1.03	0.93	0.55	0.76	0.75	0.88	0.71	0.31	0.29	0.17	0.38	0.76

Index: Total Plan Benchmark

Investment Hierarchy

Account/Group -% Rate of Return	Ending Market Value GBP	Ending Weight	Three Months Port	Three Months Index	Three Months Relative Excess	Year to Date Port	Year to Date Index	Year to Date Relative Excess	One Year Port	One Year Index	One Year Relative Excess
London Borough of Hillingdon	930,748,900	100.00	3.85	2.78	1.03	17.81	14.83	2.60	17.81	14.83	2.60
Total Plan Benchmark											
AEW UK	46,730,459	5.02	3.58	2.30	1.25	6.63	4.25	2.28	6.63	4.25	2.28
LBH22 AEW Benchmark											
GMO Global	60,319,132	6.48	-1.24	0.18	-1.42	2.12	1.55	0.55	2.12	1.55	0.55
LBH23 GMO Global											
JP Morgan	38,695,892	4.16	-0.33	0.89	-1.20	8.09	3.62	4.31	8.09	3.62	4.31
LBH15 BM JP Morgan BM											
Legal & General Invest Mngmt	215,052,876	23.11	-	-	-	-	-	-	-	-	-
LBH26 L&G Benchmark											
London CIV Ruffer	104,451,447	11.22	2.05	0.10	1.94	12.66	0.56	12.03	12.66	0.56	12.03
LBH11 Ruffer Benchmark											
M&G Investments	31,320,084	3.37	13.57	1.08	12.36	20.71	4.50	15.51	20.71	4.50	15.51
LBH10 3 Month Libor GBP +4%Pa											
Macquarie	26,844,879	2.88	3.29	0.83	2.44	29.13	3.50	24.76	29.13	3.50	24.76
LBH14 Macquarie Libor +3%											
Newton	131,743,855	14.15	3.72	6.98	-3.05	30.13	31.56	-1.09	30.13	31.56	-1.09
LBH19 FTSE World Index +2%											
Premira Credit	34,940,082	3.75	2.56	1.08	1.47	6.89	4.50	2.29	6.89	4.50	2.29
LBH24 Premira											
UBS	126,606,807	13.60	11.45	3.89	7.28	30.99	16.75	12.20	30.99	16.75	12.20
LBH04 UBS Benchmark											
UBS Property	67,755,726	7.28	1.68	2.30	-0.61	1.38	2.80	-1.38	1.38	2.80	-1.38
LBH06 UBS Property Benchmark											
Adam Street	19,290,336	2.07	8.96	7.16	1.69	28.47	33.40	-3.70	28.47	33.40	-3.70
Adam Street PE Bmark											
LGT	9,701,461	1.04	3.97	7.16	-2.98	31.59	33.40	-1.36	31.59	33.40	-1.36
LGT PE Bmark											

Category: **Total Fund Gross of Fees**

Investment Hierarchy(2)

	Three Years			Five Years			Inception to Date			
Account/Group -% Rate of Return	Port	Index	Relative Excess	Port	Index	Relative Excess	Port	Index	Relative Excess	Inception Date
London Borough of Hillingdon Total Plan Benchmark	9.29	8.46	0.76	10.19	9.14	0.96	7.17	7.00	0.16	30/09/1995
AEW UK LBH22 AEW Benchmark	-	-	-	-	-	-	11.33	10.21	1.02	30/06/2014
GMO Global LBH23 GMO Global	-	-	-	-	-	-	-0.99	0.65	-1.62	31/10/2014
JP Morgan LBH15 BM JP Morgan BM	3.31	3.59	-0.28	3.90	3.63	0.26	3.90	3.64	0.25	08/11/2011
Legal & General Invest Mngmt LBH26 L&G Benchmark	-	-	-	-	-	-	0.85	0.88	-0.02	31/10/2016
London CIV Ruffer LBH11 Ruffer Benchmark	7.21	0.56	6.62	7.25	0.63	6.57	6.73	0.67	6.02	28/05/2010
M&G Investments LBH10 3 Month Libor GBP +4%Pa	11.21	4.55	6.37	8.91	4.61	4.12	7.78	4.67	2.97	31/05/2010
Macquarie LBH14 Macquarie Libor +3%	16.60	3.55	12.61	7.06	3.60	3.33	3.76	3.66	0.09	30/09/2010
Newton LBH19 FTSE World Index +2%	16.02	16.56	-0.46	-	-	-	14.98	16.45	-1.26	24/01/2013
Premira Credit LBH24 Premira	-	-	-	-	-	-	9.98	4.47	5.27	30/11/2014
UBS LBH04 UBS Benchmark	7.72	6.05	1.57	14.05	10.11	3.59	10.30	8.87	1.32	31/12/1988
UBS Property LBH06 UBS Property Benchmark	12.40	10.65	1.59	9.13	8.18	0.88	3.46	3.29	0.16	31/03/2006
Adam Street Adam Street PE Bmark	23.57	18.49	4.29	17.30	17.61	-0.27	6.88	-	-	31/01/2005
LGT LGT PE Bmark	18.07	18.49	-0.35	13.87	17.61	-3.18	10.55	-	-	31/05/2004

Category: **Total Fund Gross of Fees**

Market Value Summary - Three Months

Account/Group	30/09/2016 Market Value	30/09/2016 Weight	Net Contribution*	Income	Fees	Appreciation	31/12/2016 Market Value	31/12/2016 Weight	Change in Weight
London Borough of Hillingdon	**896,605,688**	**100.00**	**-335,029**	**1,015,075**	**61**	**33,463,166**	**930,748,900**	**100.00**	**0.00**
Adam Street	19,034,640	2.12	-1,399,912	166,488	0	1,489,120	19,290,336	2.07	-0.05
AEW UK	45,137,548	5.03	-22,321	572,659	0	1,042,573	46,730,459	5.02	-0.01
Cash & Other Assets	2,842,625	0.32	14,364,769	1,217	61	87,254	17,295,865	1.86	1.54
GMO Global	61,075,639	6.81	0	0	0	-756,507	60,319,132	6.48	-0.33
JP Morgan	38,822,913	4.33	0	0	0	-127,022	38,695,892	4.16	-0.17
Legal & General Invest Mngmt	0	-	213,230,163	0	0	1,822,713	215,052,876	23.11	-
LGT	10,558,250	1.18	-1,255,464	-37	0	398,712	9,701,461	1.04	-0.14
London CIV Ruffer	102,365,365	11.42	-12,621	395	0	2,098,309	104,451,447	11.22	-0.19
M&G Investments	41,202,749	4.60	-14,286,706	2,609	0	4,401,431	31,320,084	3.37	-1.23
Macquarie	25,013,473	2.79	1,026,943	-306	0	804,769	26,844,879	2.88	0.09
Newton	127,019,877	14.17	-93	0	0	4,724,071	131,743,855	14.15	-0.01
Premira Credit	29,402,350	3.28	4,765,664	0	0	772,068	34,940,082	3.75	0.47
SSGA	182,451,958	20.35	-185,506,138	0	0	3,054,180	0	0.00	-20.35
State Street Gilts	27,969,143	3.12	-27,758,992	0	0	-210,151	0	0.00	-3.12
UBS	113,602,022	12.67	0	983,203	0	12,021,582	126,606,807	13.60	0.93
UBS Property	70,107,135	7.82	-3,480,320	-711,153	0	1,840,064	67,755,726	7.28	-0.54

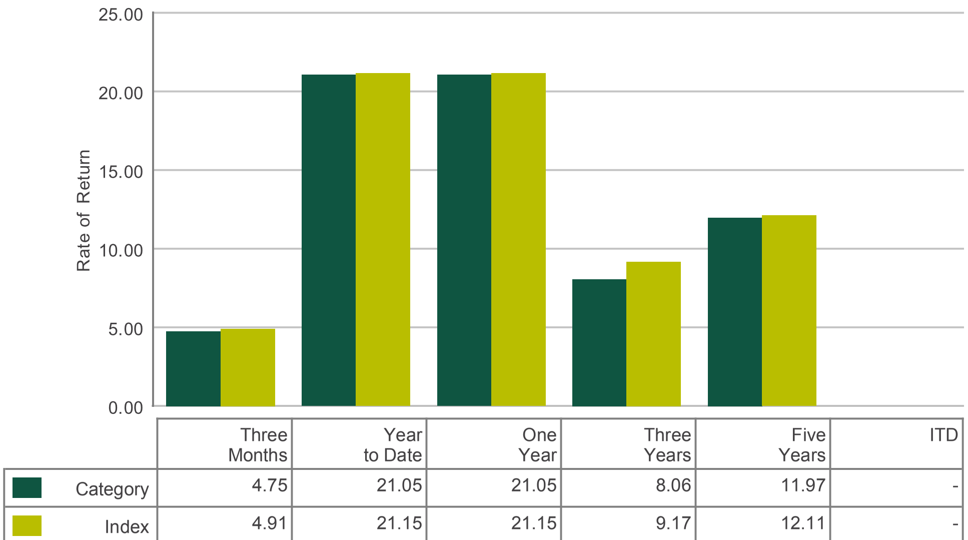
Min -20.35 — 1.54 Max

Net Contributions include Cash Contributions/Distributions, Security Deliveries/Receipts, Fees/Fee Rebates, Inter Account transfers for Consolidations & Benefits Payments.
Copied History or Backloaded Data may not display the correct Contributions/Withdrawals creating misrepresentation.

Category: **Total Fund Gross of Fees** • Currency: **GBP**

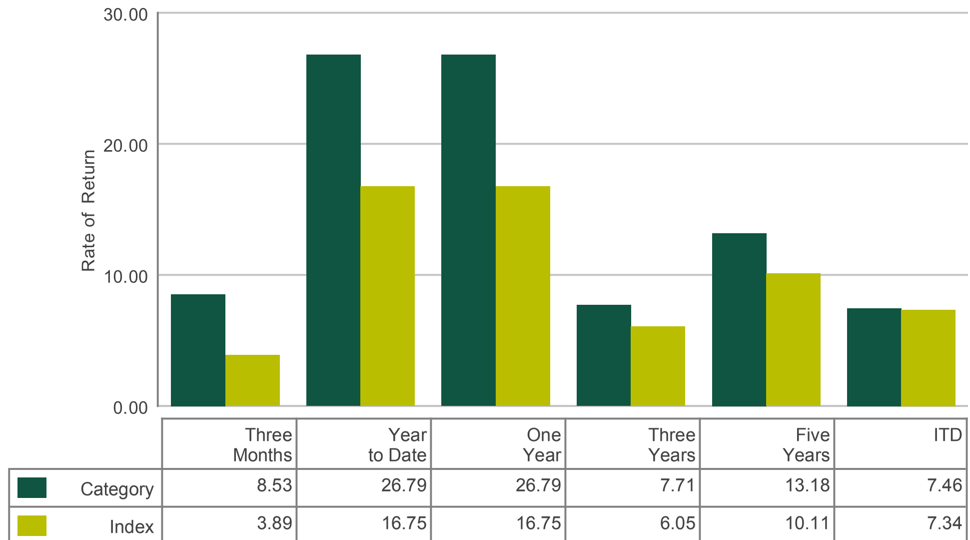
Historical Performance

EQUITY



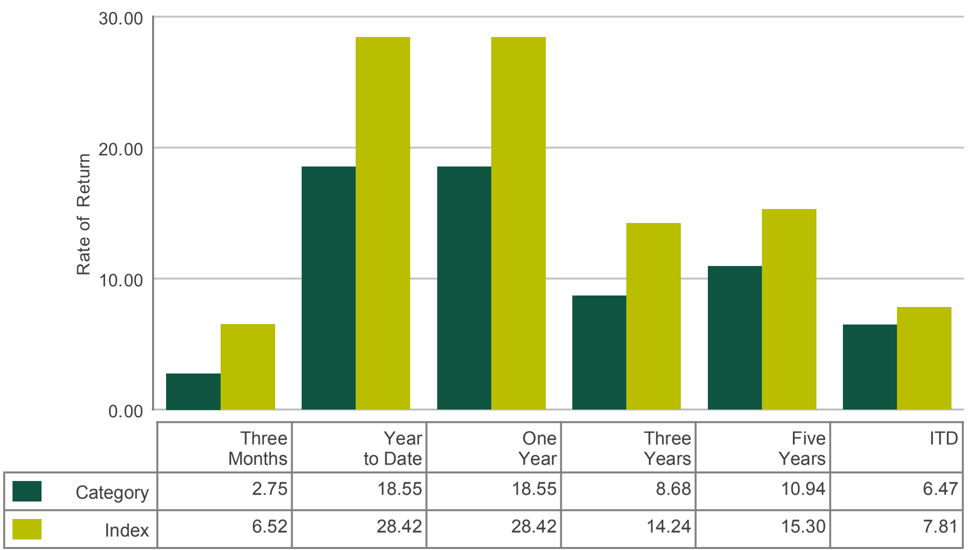
	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	4.75	21.05	21.05	8.06	11.97	-
Index	4.91	21.15	21.15	9.17	12.11	-

UNITED KINGDOM



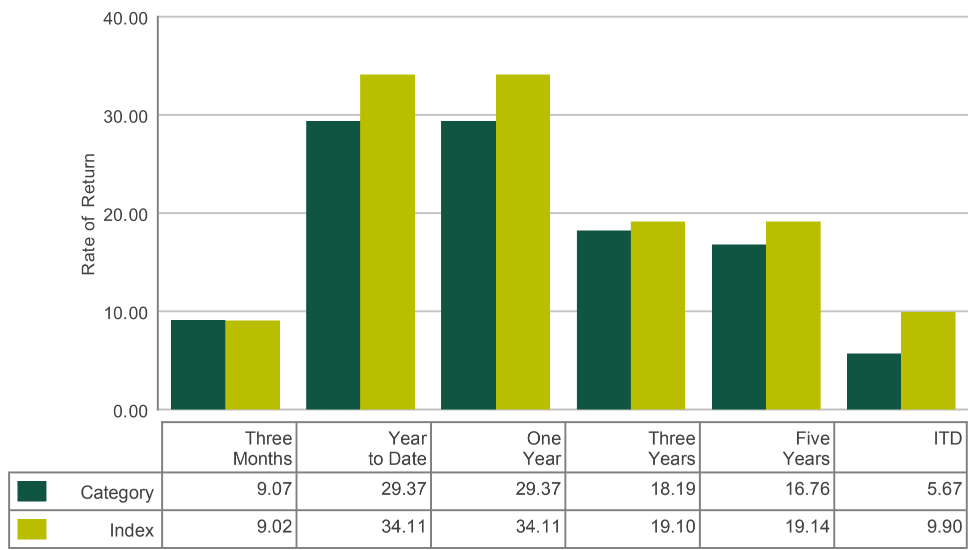
	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	8.53	26.79	26.79	7.71	13.18	7.46
Index	3.89	16.75	16.75	6.05	10.11	7.34

OVERSEAS EQUITIES



	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	2.75	18.55	18.55	8.68	10.94	6.47
Index	6.52	28.42	28.42	14.24	15.30	7.81

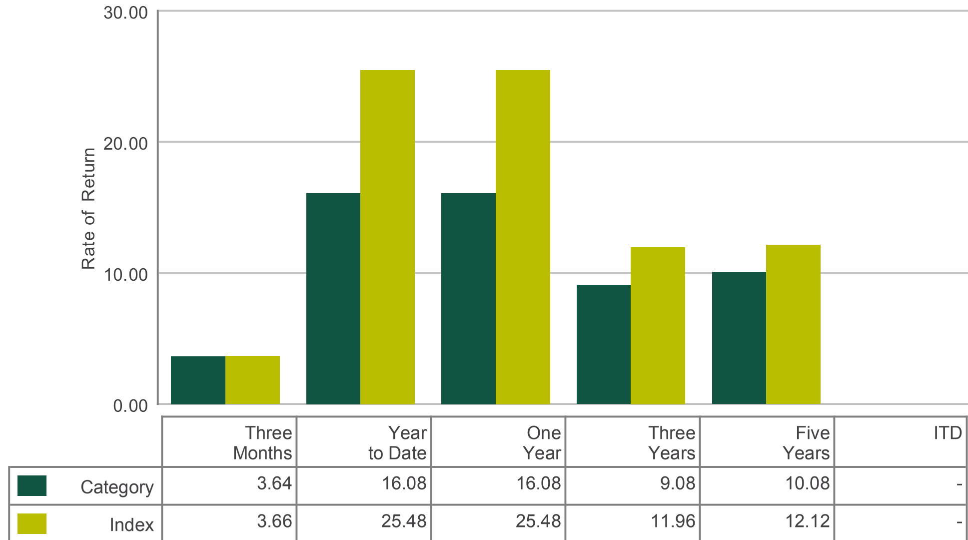
NORTH AMERICA



	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	9.07	29.37	29.37	18.19	16.76	5.67
Index	9.02	34.11	34.11	19.10	19.14	9.90

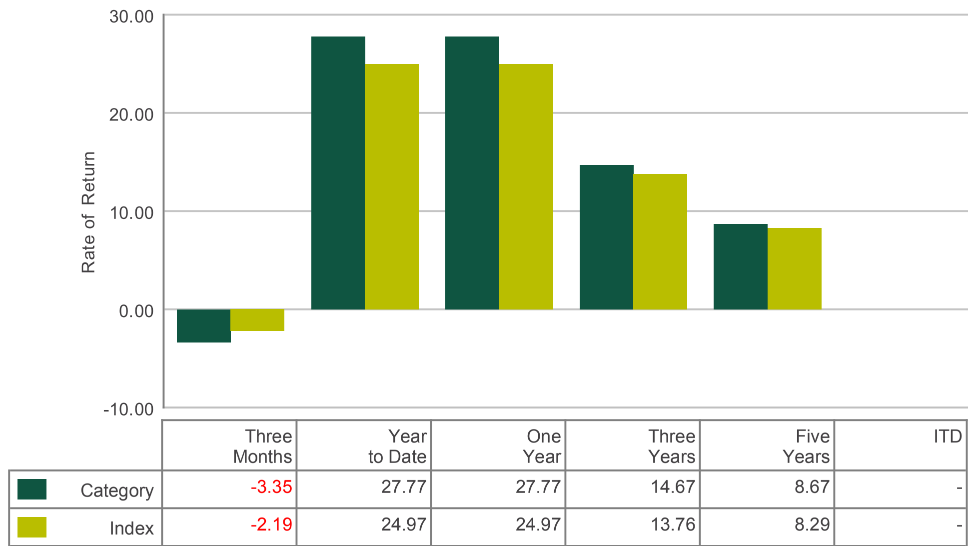
Historical Performance

EUROPE EX UK



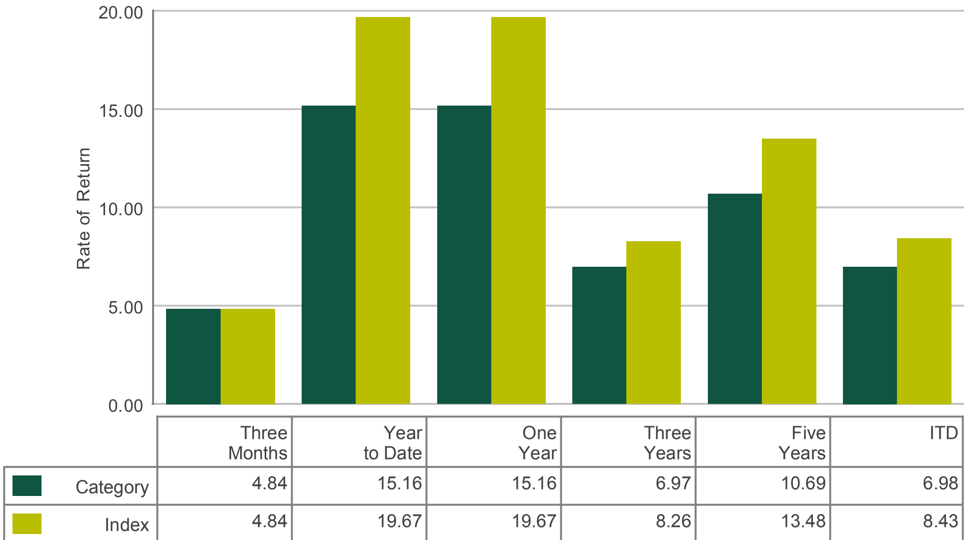
	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	4.84	15.16	15.16	6.97	10.69	6.98
Index	4.84	19.67	19.67	8.26	13.48	8.43

ASIA PACIFIC INC JAPAN



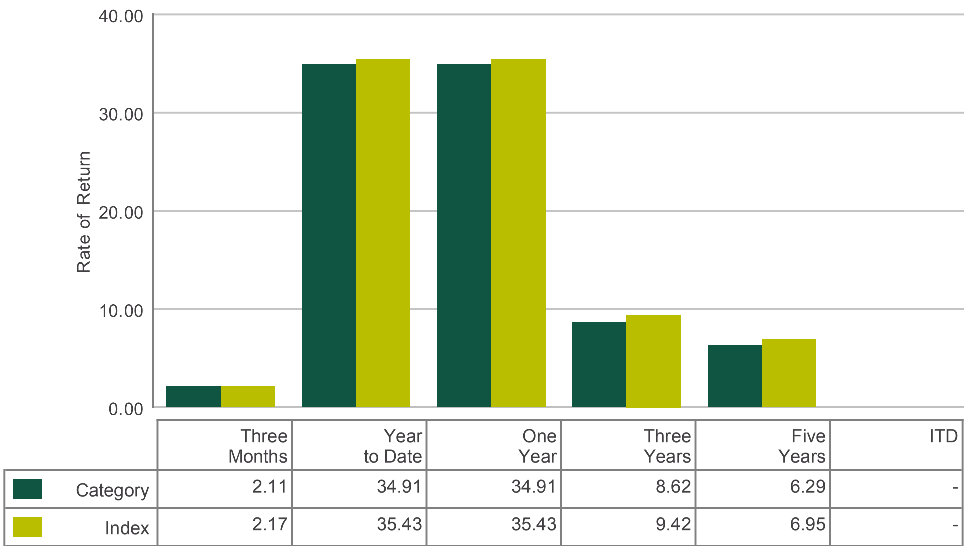
	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	3.64	16.08	16.08	9.08	10.08	-
Index	3.66	25.48	25.48	11.96	12.12	-

EMERGING MARKETS



	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	2.11	34.91	34.91	8.62	6.29	-
Index	2.17	35.43	35.43	9.42	6.95	-

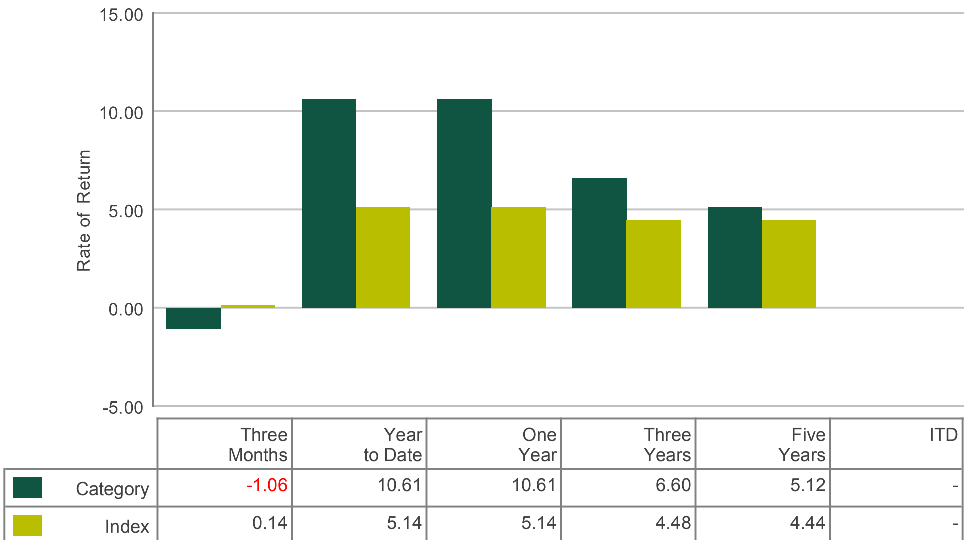
INDEX LINKED GILTS



	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	-3.35	27.77	27.77	14.67	8.67	-
Index	-2.19	24.97	24.97	13.76	8.29	-

Historical Performance

FIXED INCOME



	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	-1.06	10.61	10.61	6.60	5.12	-
Index	0.14	5.14	5.14	4.48	4.44	-

CORPORATES

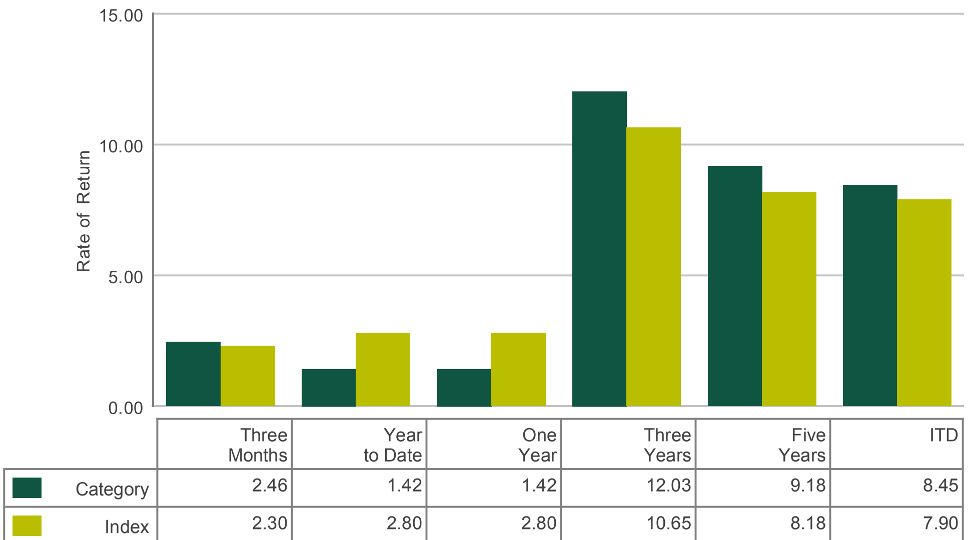
	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	-2.44	11.05	11.05	7.76	7.31	-
Index	-2.42	10.92	10.92	7.75	7.36	-

GOVERNMENT BONDS

	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	-	-	-	-	-	-
Index	-3.43	10.10	10.10	8.03	4.46	6.74

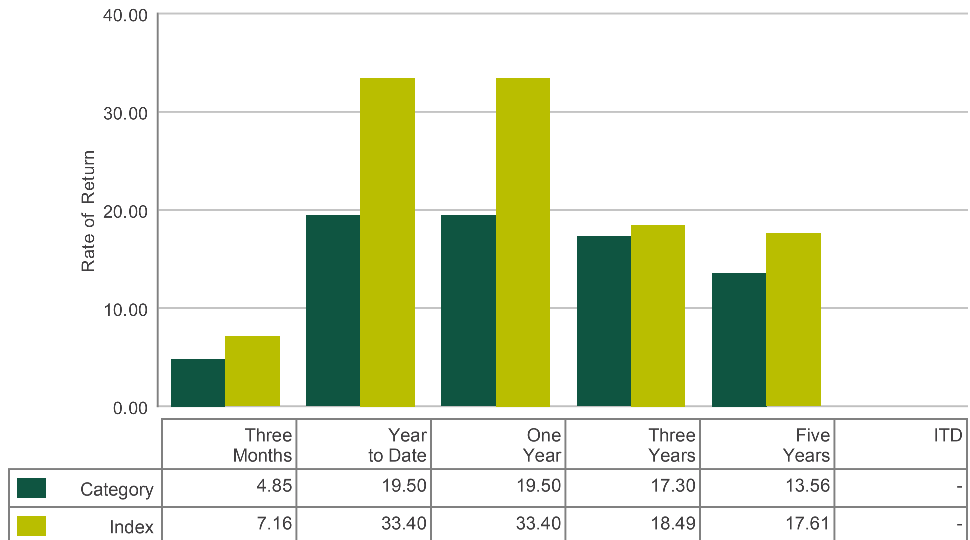
Historical Performance

REAL ESTATES



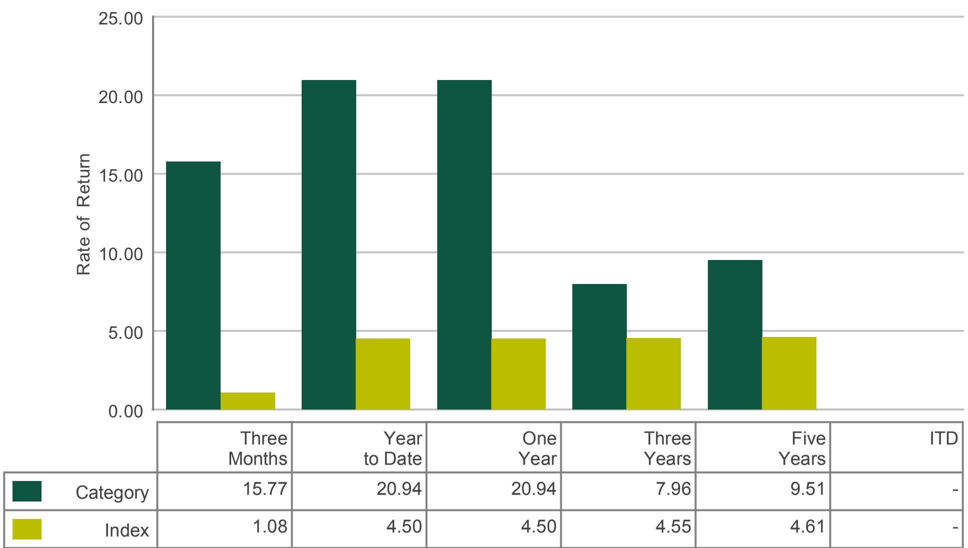
	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	2.46	1.42	1.42	12.03	9.18	8.45
Index	2.30	2.80	2.80	10.65	8.18	7.90

PRIVATE EQUITY



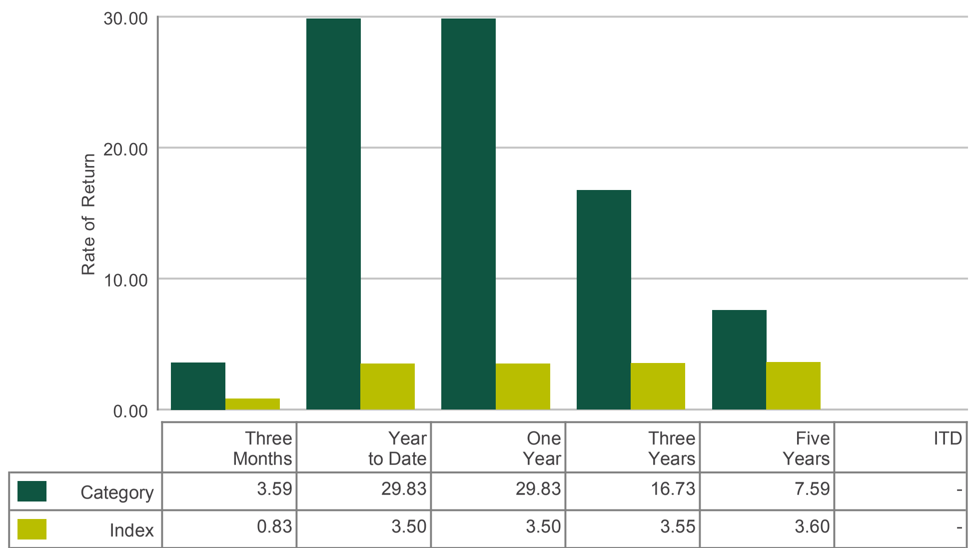
	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	4.85	19.50	19.50	17.30	13.56	-
Index	7.16	33.40	33.40	18.49	17.61	-

HEDGE FUNDS



	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	15.77	20.94	20.94	7.96	9.51	-
Index	1.08	4.50	4.50	4.55	4.61	-

INFRASTRUCTURE



	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	3.59	29.83	29.83	16.73	7.59	-
Index	0.83	3.50	3.50	3.55	3.60	-

Benchmark Composition

Total Plan Benchmark

22.02	FTSE All Share
2.31	FTSE North America
2.31	FTSE Developed Europe ex UK
1.39	FTSE Japan
0.93	FTSE Developed Asia Pacific ex Japan
0.64	FTSE All Emerging Markets
14.44	FTSE World Index +2%
3.07	FTSE Index Linked Gilts 15+ Years
2.21	FTSE Index Linked Gilts
1.63	iBoxx Sterling Non-Gilts
12.16	IPD UK PPFI All Balanced Funds Index
7.06	LIBOR 3 Month + 3%
11.31	LIBOR 3 Month
7.65	LIBOR 3 Month + 4%
6.65	OECD CPI G7 (GBP) Index
3.32	MSCI All Countries World Index
0.89	FT 7 Day LIBID

AEW UK

100.0	IPD UK PPFI All Balanced Funds Index

GMO Global

100.0	OECD CPI G7 (GBP) Index

JP Morgan

100.0	LIBOR 3 Month + 3%

Legal & General

38.22	FTSE All Share
9.84	FTSE World North America
9.86	FTSE World Europe ex UK
5.94	FTSE Japan
3.96	FTSE Pacific Basin ex Japan
2.73	FTSE All Emerging Markets
13.07	FTSE Index Linked Gilts 15+ Years
9.43	FTSE Index Linked Gilts
6.95	iBoxx Sterling Non-Gilts

London CIV Ruffer

100.0	3 Month Sterling LIBOR

M&G Investments

100.0	LIBOR 3 Month + 4%

Macquarie

100.0	LIBOR 3 Month + 3%

Newton

100.0	FTSE World Index +2%

Permira Credit

100.0	LIBOR 3 Month + 4%

UBS

100.0	FTSE All Share

UBS Property

100.0	IPD UK PPFI All Balanced Funds Index

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London Borough of Hillingdon Pension Fund
Adams Street Partners Update: Third Quarter 2016

Market Update

Equity market returns continued to accelerate during the three months ending September 30, building on modestly positive gains during the first six months of the year. Currency market volatility was tame by recent standards, allowing strong local market returns to flow through to investors regardless of base currency.

Diversified Adams Street portfolios generally kept pace with global public market equity indices during the quarter, while continuing to generate liquidity through a pickup in exit activity and ongoing efforts to sell down shares of portfolio companies that may have gone public in prior periods. In fact, overall distributions from our underlying general partners remain well above capital call levels through the first three quarters of 2016. Clients with more mature ASP investments are clearly experiencing this pattern as portfolios have transitioned to a net cash flow positive position, and even the more recent ASP vintages have already begun generating cash distributions for investors.

Portfolio Statistics as of September 30, 2016

All in USD	Inception Date	Committed / Subscription	Drawn / Subscription	Total Value / Drawn	IRR Since Inception Gross	IRR Since Inception Net	Public Market	3Q16 Gross IRR	3Q16 Net IRR
Total Hillingdon Portfolio	**02/2005**	**100%**	**94%**	**1.46x**	**9.44%**	**7.10%**	**5.47%**	**4.33%**	**4.10%**
2005 Subscription	02/2005	100%	95%	1.40x	8.04%	5.96%	5.25%	5.34%	5.06%
2006 Subscription	01/2006	100%	95%	1.42x	8.87%	6.47%	5.54%	4.63%	4.45%
2007 Subscription	01/2007	100%	94%	1.57x	12.95%	10.01%	6.94%	3.49%	3.33%
2009 Subscription	01/2009	100%	82%	1.43x	16.53%	11.81%	8.46%	3.17%	2.91%
Co-Investment Fund	09/2006	100%	96%	1.45x	7.10%	5.30%	3.55%	2.20%	1.82%
Co-Investment Fund II	01/2009	100%	85%	2.08x	32.16%	26.65%	11.57%	2.65%	2.33%

Notes:
- **Since Inception figures in GBP are: 13.08% (Gross) and 10.66% (Net). Q3 2016 figures in GBP are: 8.17% (Gross) and 7.93% (Net).**
- The Public Market is the equivalent return achieved by applying Hillingdon's cash flows to the MSCI All Country Index (MSCI ACWI TR).

Performance Update

The London Borough of Hillingdon since inception performance is 9.44% IRR gross, 7.10% IRR net versus 5.47% IRR for the public market equivalent. The GBP equivalent figures for the portfolio are 13.08% IRR gross and 10.66% IRR net.

Consistent with the theme of liquidity generation, the IPO window for venture-backed companies that cracked open in Q2 2016 continued to widen in the three months ended September 30. There were 16 venture-backed IPOs in the quarter, up from 5 in Q1 and 12 in Q2. In a change from prior quarters, only 6 of the 16 IPOs were from the life sciences sector, with 10 technology IPOs making up the bulk of new issues. The aftermarket performance of the Q3 IPOs was strong, with no companies trading below their offering level; perhaps a reflection of the relatively low issue prices as companies and bankers pursued more modest valuations to ensure a successful offering in what started as a difficult year overall for IPOs. M&A activity for venture-backed companies also rebounded in the quarter, with technology company acquisitions continuing to make up the majority by number of M&A deals. Overall sentiment in Silicon Valley remains cautious, but has definitely improved from earlier in the year when high profile down rounds of financing were regularly in media headlines and the tech IPO window was largely closed.

Often coupled with a period of strong net distribution activity is general concern over the prevailing valuations being paid for new investments. Adams Street and our underlying general partners share those concerns and have been particularly disciplined with new purchases taking place within our strategies. From a portfolio strategy perspective it’s a driving reason behind our preference for small and mid-sized funds in the buyout subclass. We find these funds to be more attractive not simply due to their size, but because they tend to invest in smaller companies with lower purchase price multiples and have less reliance on debt financing. These smaller businesses also tend to build value through organic growth factors, like market expansion and customer base diversification, that are less susceptible to evolving macro-economic headwinds over time. As smaller businesses grow into larger businesses, the purchase price multiples paid by strategic acquirers, other private investors, or through the IPO market historically have often increased, resulting in more opportunities for our general partners to sell larger businesses at higher multiples than were originally acquired. This strategy of focusing our portfolios on small to mid-sized funds and companies when we have the discretion to do so has long been a source of value-creation for our clients, and is particularly important in today’s market environment.

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Portfolio overview - Q4 2016

- Since the last report, net invested capital has decreased as the underlying managers have distributed more capital than they have invested
- Distributions as a proportion of paid-in capital have increased from 1.08x to 1.12x
- Total portfolio gains now amount to Euro 15.6 million, being Euro 11.4 million of NAV less Euro -4.2 million of net invested capital
- The USD strengthened against the Euro in the period which therefore had a positive effect on portfolio performance

Q4 2016		Net Performance (in millions of Euros)						Cash Multiple		Drawn	
		LBH Commitment	Drawn	Returned	Net	NAV	Gain	D/PI	TV/PI	Gross	Net
Total Euro Exposure		32.7	27.7	-31.3	-3.6	9.1	12.7	1.13	1.46	85%	-11%
Euro equivalent Dollar Exposure @	1.0550 USD / Euro	7.8	6.8	-7.4	-0.6	2.3	2.9	1.09	1.43	87%	-8%
Total Exposure (in Euro millions)		**40.4**	**34.5**	**-38.7**	**-4.2**	**11.4**	**15.6**	**1.12**	**1.45**	**85%**	**-10%**
Q3 2016	1.1234	40.0	33.8	-36.6	-2.8	12.3	15.1	1.08	1.45	85%	-7%
Q2 2016	1.1115	40.0	33.9	-35.6	-1.7	12.9	14.6	1.05	1.43	85%	-4%
Q1 2016	1.0870	40.2	33.9	-34.5	-0.6	13.8	14.4	1.02	1.43	84%	-1%
Q4 2015	1.0870	40.2	33.7	-33.2	0.6	14.7	14.1	0.98	1.42	84%	1%
Q3 2015	1.1165	40.0	33.3	-30.6	2.6	16.2	13.5	0.92	1.41	83%	7%
Q2 2015	1.1141	40.0	33.0	-28.8	4.2	17.0	12.8	0.87	1.39	82%	11%
Q1 2015	1.0742	40.3	33.0	-27.4	5.5	17.6	12.0	0.83	1.36	82%	14%
Q4 2014	1.2101	39.4	31.9	-24.9	7.0	17.7	10.8	0.78	1.34	81%	18%
Q3 2014	1.2633	39.2	31.4	-23.5	7.9	18.3	10.4	0.75	1.33	80%	20%
Q2 2014	1.3691	38.6	30.5	-21.2	9.3	19.1	9.8	0.69	1.32	79%	24%
Q1 2014	1.3784	38.6	30.0	-19.7	10.4	19.5	9.1	0.66	1.30	78%	27%
Q4 2013	1.3780	38.6	29.7	-18.6	11.0	19.3	8.2	0.63	1.28	77%	29%
Q3 2013	1.3535	38.7	29.3	-17.4	11.8	19.7	7.9	0.60	1.27	76%	31%
Q2 2013	1.3001	39.0	28.8	-16.2	12.6	20.1	7.5	0.56	1.26	74%	32%
Q1 2013	1.2814	39.1	28.5	-15.2	13.3	20.7	7.4	0.53	1.26	73%	34%
Q4 2012	1.3193	38.9	28.2	-14.1	14.1	21.1	7.0	0.50	1.25	73%	36%
Q3 2012	1.2863	39.0	27.6	-13.1	14.5	21.0	6.5	0.47	1.24	71%	37%
Q2 2012	1.2686	39.1	27.4	-12.2	15.2	21.2	6.0	0.45	1.22	70%	39%
Q1 2012	1.3329	38.8	26.4	-11.9	14.5	19.9	5.3	0.45	1.20	68%	37%

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London Borough of Hillingdon Pension Fund

Investment Strategy Statement

April 2017

HILLINGDON
LONDON

www.hillingdon.gov.uk

INTRODUCTION

The Pensions Committee of the London Borough of Hillingdon Pension Fund ("the Fund") has prepared this Investment Strategy Statement in accordance with the DCLG Guidance on Preparing and Maintaining an Investment Strategy Statement.

As set out in the Local Government Pension Scheme (Management and Investment of Funds) Regulations 2016, the Pensions Committee will review this Statement from time to time, but at least every three years, and revise it as necessary. Also, in the event of a significant change, changes will be reflected within three months of the change occurring.

The Regulations require all Administering Authorities to take “proper advice” when formulating and applying its investment strategy. In preparing this document and in managing the overall investment strategy the Pensions Committee has taken advice from KPMG LLP, the Fund's investment adviser and Scott Jamieson, the Fund's independent advisor.

The purpose of this document is to set out the Investment Strategy for the Fund, including outlining the objectives of the Fund for investment decisions and setting the limit and range of the investment value in any investment or class of investments. The Fund can then be monitored against how compliant it is with this strategy.

INVESTMENT OBJECTIVES

The Fund’s primary investment objective is to ensure that over the long term the Fund will have sufficient assets to meet all pension liabilities as they fall due. In order to meet this overriding objective, this Investment Strategy Statement looks to:

- Maximise returns from investment
- Manage risk within acceptable levels
- Ensure appropriate liquidity
- Contribute towards 100% Funding level
- Stabilise employer contribution rates as far as possible
- Invest in a wide range of investments
- Pool assets
- Take proper advice

Consistent with the 2016 triennial revaluation of the Fund, the agreed investment aim is to generate, over time, a rate of return that is at least 3.6% p.a. over gilt yield and to achieve this, the Fund will invest in a wide variety of investments to reduce portfolio risk and reduce volatility.

ASSET ALLOCATION

Asset allocation of the Fund is determined by the administering authority acting on professional advice in the best long term interest of scheme beneficiaries, while looking to maintain overall target return. The Pensions Committee review asset

allocation and performance against achieving the target return regularly at quarterly meetings. A full formal review will be undertaken every three years following publication of the triennial revaluation results.
The Fund will only invest in asset classes that are deemed to be suitable investments and so must meet the following criteria:

- investments that are well understood by the Committee;
- investments which are consistent with the Fund's risk and return objectives;
- investments which make a significant contribution to the portfolio by improving overall return and risk characteristics; and
- a wide range of assets will be selected to increase diversification.

The Fund's current asset allocation includes seven asset classes that combine to form the policy portfolio. Each asset class is selected to have different exposures to economic factors (GDP growth and inflation); to combine different geographies; and span different currencies. In assessing suitability, the Pension Committee considered the respective return drivers, exposure to economic growth and sensitivity to inflation – each an important consideration, relative to the sensitivities of the Fund's liabilities and managing risk.

These seven asset classes are the building blocks used to create the policy portfolio. The Pension Committee determined benchmark weights to each asset class which it believes to be best suited to meeting the long term objectives of the Fund. Committee also identified tolerance ranges within which shorter term variations would be tolerated and/or actively pursued due to a combination of relative returns and investment opportunity.

The agreed benchmark weight and tolerances are shown in the table below. The weights will be maintained within the ranges if the scheme can find attractive opportunities that meet its return, risk, and cash flow requirements. In the absence of opportunities, investments will not be "forced" and the fund will be under or over allocated to any asset class.

Asset Class	Benchmark Weight *	Range
Equities	47.00%	35%-60%
Private Equity	4.00%	0%-5%
Bonds	12.00%	0%-20%
Private Credit	10.00%	0%-15%
Property	12.00%	0%-15%
Infrastructure	3.00%	0%-10%
DGF/Absolute Return	12.00%	0%-25%

* Benchmark weight reflects agreed changes to asset allocation as at Pension Committee September 2016

Each asset class has its own specific investment objective and within each asset lass there are further diversification controls. The mandates are managed by various Fund managers and the London CIV (LCIV), to whom the Fund has delegated

investment management and implementation duties in line with LGPS asset pooling.

Equities: UK/Global
The Fund invests in Equities through both active and passive management. For active UK Equities the objective is to outperform the FTSE All share ex tobacco (UK) Benchmark. For active Global Equities the Funds objective is seek defensive assets with a focus on income generation as well as growth; the aim is to outperform the MSCI All Country World benchmark. Net dividends will continue to be reinvested until the funds cash flow changes. Passive Equities are held to keep investment manager fees low and to contribute to the return objective by tracking the relevant benchmarks. All equity investments are made via segregated or pooled Fund mandates and where appropriate sub Funds are available investments will be held within the London CIV.

Bonds
The Fund invests in nominal and inflation-linked government and investment grade corporate bonds to improve the resilience of the portfolio. Exposure includes securities issued by the UK Government, given their similarities within the Scheme's liabilities. To enhance yield, the Fund may maintain investments in credit securities issued by UK and global companies. This asset class is managed through both passive and active mandates. When active management is selected the manager will aim to maximise risk adjusted returns across a full market cycle.

Diversified Growth Fund (DGF) / Absolute Return
Diversified Growth Funds are included in the asset allocation to seek to preserve capital first then grow the Funds at a rate higher than cash.

Private Equity
The Fund is invested in Private Equity with the objective to outperform the MSCI World benchmark. Private Equity is an illiquid asset class; harvesting illiquidity premia is an attractive means of enhancing aggregate returns.

Infrastructure
The Fund has committed to investing in infrastructure as the duration of this class of assets matches the long-term nature of the Funds liabilities. The Funds existing holding in Infrastructure looks to gain cost-effective, diversified exposure to global infrastructure assets. Further investment in infrastructure will be added, if available, with the aim of generating predictable, index-linked cash flows; this reduces the inflation risk of the portfolio and adds diversification

Private Credit
The Fund invests in Private credit to seek income and benefit from the long term nature of the Fund. The existing allocation seeks to generate value from direct lending via the secondary market and also exploit specific opportunistic investments. This allocation is directly invested in external pooled Funds and provides a contractual income to the fund.

Property
The Fund holds an allocation in UK Property to support the overall aim to generate a return in excess of the IPD benchmark while earning predicable cash flows.

POOLING OF ASSETS

The Fund is committed to pooling of assets and the London Borough of Hillingdon as Administering Authority of the London Borough of Hillingdon Pension Fund formally agreed to join the London Collective Investment Vehicle (CIV) on 25 February 2016 and were on-boarded on 1 March 2016. Through the LCIV the Fund will benefit from economies of scale, by pooling assets with other Funds, enabling the LCIV to negotiate lower investment and implementation fees across the board on various asset classes.

London CIV

The London CIV was formed as a voluntary collaborative venture by the 33 London Boroughs in 2014 to pool their LGPS investments. It received regulatory authorisation from the Financial Conduct Authority in November 2015 and launched its first sub Fund in December 2015. The London CIV has been established as a collective investment vehicle for LGPS Funds. The current regulatory permissions allow for operation as an Authorised Contractual Scheme (ACS) Fund. The London CIV was created in line with the government directive aimed at reducing investment costs across the board for all LGPS Funds pooling assets of 89 administering authorities into 6 "wealth Funds".

Since its initial launch, the London CIV has opened 6 sub Funds within the global Equities and multi asset absolute return space and is in the process of opening further sub-Funds covering liquid asset classes. Less liquid asset classes will follow. The London CIV structure and associated business plan is consistent with the criteria contained within the November 2015 Investment Reform and Criteria guidance.

The London CIV will ultimately be responsible for managing all the Fund’s assets. The Fund has begun transitioning assets into the London CIV transferring assets with a value of £102m or 11% of the portfolio in June 2016 to the London CIV Ruffer Diversified Growth Fund. In addition to the Funds held directly on the London CIV platform the Fund transferred £215 or 24% of its assets to LGIM as passive funds in October 2016 to benefit from work carried out by the London CIV to reduce fees through economies of scale. These passive funds will be retained outside of the London CIV operating model for the time being, in accordance with government guidance on the retention of life funds outside pools, although the London CIV will monitor the passive funds as part of the broader pool. The Fund will look to transition further liquid assets as and when there are suitable investment strategies available on the platform that meet the needs of the Fund's investment strategy.

The Fund currently holds £225m or 25% of its assets in illiquid assets. The cost of exiting these strategies early would have a negative financial impact on the Fund as the costs of transitioning outweigh any potential gains. These will be held as legacy assets until they mature and proceeds will be re-invested through the Pool, if it has appropriate strategies available, or until the Fund changes asset allocation and decides to disinvest. The Fund's illiquid assets currently held include Private Equity, Private Credit and Property.

Pool Governance

The legal ownership of assets held within the LCIV is with the depository which is currently Northern Trust, with the beneficial ownership of the assets remaining with the Fund; the LCIV is the Fund manager.

The governance structure of the LCIV has been designed to ensure that there are both formal and informal routes to engage with the investing Funds both as shareholders and investors, making the LCIV accountable at both levels. Governance is achieved through the Sectoral Joint Committee, comprising nominated Member representatives from each investing Fund within the pool; including the Chairman of the London Borough of Hillingdon Pensions Committee, Councillor Corthorne. In addition there is an Investment Advisory Committee ("IAC") formed of nominated officers from the investing Boroughs. The London Borough of Hillingdon Fund is currently represented on the IAC.

At a company level for London CIV the Board of Directors is responsible for decision making, which includes the decisions to appoint and remove investment managers. The share structure of London CIV involves each member body being shareholders who all retain equal shares in the ownership and voting making the company accountable to its shareholders. In addition the Company has a highly respected Non-Executive Board, meeting the requirements for strong governance arrangements to be in place.

INVESTMENT IMPLEMENTATION

The implementation of all investments is delegated to the Corporate Director of Finance, supported by a team of officers. The officers are assisted in the implementation of the investment strategies by the Fund's appointed investment advisors. All investment decisions will firstly look to implementation into a sub Fund held within the London CIV.

INVESTMENT GOVERNANCE

The Pensions Committee sets the objectives, risk tolerances and sets the required rate of return in conjunction with the scheme's actuary. Once the parameters are established, the Committee determine the strategic asset allocation that it believes has the highest probability of succeeding, taking into account proper advice from the Fund's investment advisors.

The Pensions Committee meet quarterly to discuss investment decisions and review Fund performance, in addition to receiving a training discussion item at each meeting to ensure effective governance of the Fund investments.

In April 2015, a Local Pensions Board was created to ensure further governance over the administration of the Fund and decision making processes. The Local Pensions Board reviews compliance and Pensions Committee decisions to ensure

the Fund complies with the code of practice on the governance and administration as issued by the Pension Regulator.

PERFORMANCE MEASUREMENT

The Pension Committee reviews the performance of the investment managers and assets on a quarterly basis discussing performance, market conditions and asset allocation and making appropriate decisions where necessary. They review the report from Northern Trust, the Fund's custodian who provides an independent monitoring service and reports from officers and advisors on performance review meetings with Fund Managers. In addition, the performance of the pooling arrangements is monitored via regular reporting and updates from the London CIV. Local benchmarking information is received from PIRC to review performance against other LGPS schemes.

RISK MANAGEMENT

The Fund has a Risk Management Policy which can be found on the Council's website at http://www.hillingdon.gov.uk/article/6492/Pension-fund. The Risk Management Policy details the risk management strategy for the Fund, which explains:

- the risk philosophy for the management of the Fund, and in particular attitudes to, and appetite for, risk;
- how risk management is implemented;
- risk management responsibilities;
- the procedures that are adopted in the Fund's risk management process; and
- the key internal controls operated by the Administering Authority and other parties responsible for the management of the Fund.

The Fund adopts best practice risk management, which supports a structured and focused approach to managing risks, and ensures risk management is an integral part in the governance at a strategic and operational level.

The Fund recognises that it is not possible or even desirable to eliminate all risks. Accepting and actively managing risk is therefore a key part of the risk management strategy. A key determinant in selecting the action to be taken in relation to any risk will be its potential impact on the Fund’s objectives in light of the risk appetite, particularly in relation to investment matters. Equally important is striking a balance between the cost of risk control actions against the possible effect of the risk occurring.

In managing risk, the Administering Authority on behalf of the Fund will:

- ensure that there is a proper balance between risk taking and the opportunities to be gained;
- adopt a system that will enable the Fund to anticipate and respond positively

to change;

- minimise loss and damage to the Fund and to other stakeholders who are dependent on the benefits and services provided; and
- make sure that any new areas of activity (new investment strategies, joint-working, framework agreements etc.), are only undertaken if the risks they present are fully understood and taken into account in making decisions.

Risk Management is a sound management technique that is an essential part of stewardship of the Fund. The benefits of a sound risk management approach include better decision-making, improved performance and delivery of services, more effective use of resources and the protection of reputation.

The Pensions Committee analyse the level of risk and the drivers of risk and monitor and review the investment strategy and investment performance on an ongoing basis and take mitigating action where required. This may include rebalancing the allocation of assets when set benchmark weighting of asset classes exceeds tolerance thresholds

The Committee has established a strategic asset allocation benchmark for the Fund. They assess risk relative to that benchmark by monitoring the asset allocation and investment returns relative to the benchmark. The Committee also assesses risk relative to liabilities, monitoring the delivery of benchmark returns relative to liabilities on a regular basis.

The Pensions Committee provides a practical constraint on the Funds investments deviating greatly from the intended approach by adopting a specific asset allocation benchmark and by monitoring the underlying asset class weights relative to this benchmark on a regular basis.

The investment strategy is suitable diversified, with the balance of different asset classes and investment managers mitigating the impact at an aggregate level of underperformance of an individual manager. Diversification is a very important risk management tool. The scheme seeks to maintain a diversified exposure via a wide range of asset classes, geographies, and currencies.

ENVIRONMENTAL SOCIAL AND GOVERNANCE (ESG) POLICY

The Fund is committed to being a long-term steward of the assets in which it invests and expects this approach to protect and enhance the value of the Fund in the long term. In making investment decisions, the Fund seeks and receives proper advice from specialist investment advisers.

The Fund expects its external investment managers, including the London CIV to undertake appropriate monitoring of current investments with regard to their policies and practices on all issues which could present a material financial risk to the long-term performance of the Fund such as corporate governance and environmental factors. The Fund expects its Fund managers to integrate material ESG factors within its investment analysis and decision making.

Where the Fund invests on a segregated basis, it requests the exclusion of investment within the Tobacco sector as part of the mandate. The Fund will not pursue policies that are contrary to UK foreign policy or UK defence policy.

The Fund in preparing and reviewing its Investment Strategy Statement will consult with interested stakeholders including, but not limited to Fund employers, investment managers, Local Pension Board, advisers to the Fund and other parties that it deems appropriate to consult with.

Exercising the rights of Ownership and Voting

The Fund through its participation in the London CIV will work closely with other LGPS Funds in London to enhance the level of engagement both with external managers and the underlying companies in which invests. The Fund's investments through the London CIV are covered by the voting policy as agreed by the Pensions Sectoral Joint Committee advising managers to vote in accordance with voting alerts issued by the Local Authority Pension Fund Forum (LAPFF) as far as practically possible. The London CIV will hold managers to account where they have not voted in accordance with these directions.

The Fund's approach to engagement recognises the importance of working in partnership to magnify the voice and maximise the influence of investors as owners. The Fund expects its investment managers to work collaboratively with others if this will lead to greater influence and deliver improved outcomes for shareholders and more broadly. The Fund appreciates that to gain the attention of companies in addressing governance concerns; it needs to join with other investors sharing similar concerns. To ensure effective and consistent use of the voting rights, investment managers are tasked with exercising the voting rights accruing to the Fund. If important issues impacting local residents do emanate from actions of invested companies, the Pensions Committee will contact investment managers in charge of assets of such a company to make their opinion known and ask for such to be presented at meetings with the company or reflected in their voting pattern.

Going forwards, the Fund will incorporate a report of voting activity as part of its Pension Fund Annual report which is published on the Council's website. The Fund complies with the UK Stewardship Code and a statement of compliance which explains the arrangements which support its commitment to each of the seven principles is also published on the website.

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Pensions Administration Report	
Contact Officers	Nancy Leroux & Ken Chisholm, 01895 250847
Papers with this report	Sample KPI report

This report is for information and provides an update on the administration of the London Borough of Hillingdon Fund of the LGPS

INFORMATION

Transfer to Surrey

The project to transfer administration to Surrey County Council from Capita Employee Benefits is now completed and the formal project closed. A detailed project closedown report has been produced and will be shared with members for information. In terms of process, the project was very well managed by Surrey and there are no outstanding issues.

Administration Update

The Pension Administration system used by Surrey, Altair, includes a sophisticated task management system which allows the progress of all case work to be managed and monitored on a daily basis.

The Key Performance Indicators (KPIs) against which Surrey will be monitored were all contained within the agreed Section 101 agreement. A sample of the proposed reporting format has been appended to this report for information. It was agreed with Surrey, that due to the considerable backlog they inherited from Capita, formal Committee monitoring and reporting would commence from April 2017.

Since Surrey commenced administration of the Hillingdon Fund on 1 November 2017, 1,476 tasks have been created, of which 857 had been completed 857 by the end of February 2017. The remaining cases in progress require additional external information, which has been requested, to complete.

To support the work with Surrey, internal LBH processes have been amended to ensure that all new starters and leavers are identified and checked against information held in the Altair system. Scheme employers are aware that it is their responsibility to fully inform Surrey of all activity. Monthly monitoring of pension contributions deducted, for both Employees and Employers is undertaken and as part of the process amounts deducted from scheme members are reconciled with contributions paid in to the Pension Fund bank account. Discrepancies are immediately referred back to the Employer. These checks also allow identification of any new employees or leavers where no documentation had been sent to Surrey.

Early Retirement Statistics

The table below shows the number of employees, by category, who's LGPS benefits have been put into payment. In the case of redundancy and efficiency this relates to employees over 55 years of age. The earliest age a scheme member can retire voluntarily is age 55. As can be seen the number of early voluntary retirements remains at a high level.

	Redundancy	Efficiency	Ill Health	Voluntary over 55
2012/13	23	0	6	14
2013/14	50	0	3	45
2014/15	23	0	8	52
2015/16	19	0	6	68
2016/17 3rd Quarter	55	0	4	59

FINANCIAL IMPLICATIONS

There are no financial implications this report.

LEGAL IMPLICATIONS

There are no legal implications within this report.

Hillingdon Pensions Administation - Key Performance Indicators 2017-18

Activity	Measure	Impact	Target	Apr		May		Jun		Commentary
Scheme members	Pensioners, Active & Deferred	n/a	n/a							
New starters set up	n/a	n/a	n/a							
ABS sent - Councillors	Statutory deadline	n/a								
ABS sent - Active	Statutory deadline	n/a	Due by 31 Aug							
ABS sent - Deferred	Statutory deadline	n/a								
				Volume	Score	Volume	Score	Volume	Score	
Death notification acknowledged, recorded and documentation sent	5 working days	M	100%	0	100%	0	100%	0	100%	
Award dependent benefits	10 working days	H	100%	0	100%	0	100%	0	100%	
Retirement notification acknowledged, recorded and documentation sent	10 working days	M	100%	0	100%	0	100%	0	100%	
Payment of lump sum made	10 working days	H	100%	0	100%	0	100%	0	100%	
Calculation of spouses benefits	10 working days	M	100%	0	100%	0	100%	0	100%	
Transfers In - Quote (Values)	20 working days	L	100%	0	100%	0	100%	0	100%	
Transfers In - Payments	20 working days	L	100%	0	100%	0	100%	0	100%	
Transfers Out - Quote	20 working days	L	100%	0	100%	0	100%	0	100%	
Transfers Out - Payments	20 working days	L	100%	0	100%	0	100%	0	100%	
Employer estimates provided	10 working days	M	100%	0	100%	0	100%	0	100%	
Employee projections provided	10 working days	L	100%	0	100%	0	100%	0	100%	
Refunds	20 working days	L	100%	0	100%	0	100%	0	100%	
Deferred benefit notifications	20 working days	L	100%	0	100%	0	100%	0	100%	
Complaints received- Admin	n/a	n/a	n/a	0	n/a	0	n/a	0	n/a	
Complaints received- Regulatory	n/a	n/a	n/a	0	n/a	0	n/a	0	n/a	
Compliments received	n/a	n/a	n/a	0	n/a	0	n/a	0	n/a	
Queries Handled by Helpdesk	n/a	n/a	n/a	0	n/a	0	n/a	0	n/a	

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Pension Committee Terms of Reference

Contact Officers	Nancy Leroux, 01895 250353
Papers with this report	

REASON FOR ITEM

Officers were asked by Democratic Services to review the Terms of Reference of the Pensions Committee and to take a draft of any proposed changes to a future Pensions Committee. This report recommends a few changes to reflect changes in legislation and the introduction of pooling of LGPS assets.

OPTIONS AVAILABLE TO PENSION COMMITTEE

1. **Committee is asked to consider the proposed changes to the Terms of Reference (ToR), identify any additional changes and to agree any changes.**
2. **Subject to changes proposed, the Terms of Reference will be submitted to Council for approval.**

Information

Section 8.06 of the Council's Constitution relates to the Terms of Reference of the Pensions Committee. A copy of that section is included with this report with proposed changes highlighted in italics.

Point (B) 1 has been amended to include Committee's responsibility to agree the strategic asset allocation. This responsibility is not separately identified within the current ToR, but as central government has made it clear that with the advent of pooling this remains the responsibility of the Administering Authority, it makes sense to emphasise this duty.

Point (b) 2 has been amended from Statement of Investment principles to Investment Strategy Statement to reflect new legislation effective from 1 April 2017.

New Points (b) 4 & have been drafted to identify new responsibilities in relation to investment with the London Collective Investment vehicle.

Point (b) 10 to be deleted as legislation makes this a requirement where current members are transferred under TUPE legislation and the contractor does not provide a pension arrangement broadly comparable to the LGPS. If agreed later points will be renumbered.

8.06 Pensions Committee

(a) Membership

Councillor membership of the Committee will be 5, will be politically balanced and have voting rights. In addition, the Independent Adviser and Investment Consultant would normally attend meetings along with relevant officers in an advisory, non-voting capacity.

(b) Terms of Reference

1. To review and approve all aspects of investment policy relating to the Pensions Fund, including *agreeing the strategic asset allocation and* authorisation or prohibition of particular investment activities.
2. To review the *Investment Strategy Statement* and amend it when necessary.
3. To agree benchmarks and performance targets for the investment of the Fund's assets and review periodically.
4. *To agree to transfer funds into mandates managed by the London Collective Investment Vehicle (CIV) as soon as appropriate opportunities become available.*
5. *To receive regular reports from the London CIV and to agree and resultant actions from a review of the investments held with the London CIV.*
6. To keep the performance of the investment managers under regular review and extend or terminate their contracts as required. To appoint new managers when necessary.
7. To agree policy guidelines for the exercise of voting rights attached to the Fund's shares.
8. To review the appointment of specialist advisors and service providers and make new appointments as necessary.
9. To consider the overall implications of the Council's policies for employment and benefits issues and their impact on the Pension Fund and agree any strategic changes.
10. ~~To authorise the admission of other bodies to the Fund~~.
11. To approve the appointment of persons to hear appeals under the Internal Dispute Resolution Procedure.
12. To consider issues concerning the administration of the Fund, including approving responses to consultation papers.
13. To consider and decide whether to approve proposals for discretionary enhanced early retirement packages for officers.
14. The Corporate Director of Finance be authorised to take urgent decisions in relation to the pensions fund and investment strategy on behalf of the Committee, reporting back to the Pensions Committee any exercise of these powers for ratification.

EY – 2016/17 PENSION FUND ANNUAL AUDIT PLAN

Contact Officers	Sian Kunert, 01895 556578
Papers with this report	*EY Audit Plan*

SUMMARY

The attached document sets out the initial plans for the audit of the Pension Fund Accounts 2016/17 by our external auditors EY. The format of the plan follows that prescribed by the Audit Commission for external audit work. The plan sets out the approach to the audit and a broad timetable which should enable the whole process to be completed by early September.

RECOMMENDATIONS

The Committee is asked to note the report.

REASONS FOR OFFICER RECOMMENDATIONS

The Committee needs to be made aware of the plans for the audit of the 2016/17 accounts.

COMMENT ON THE CONTENT OF THE PENSION FUND AUDIT PLAN

Materiality: Materiality is calculated on the basis of 1% of the net assets of the fund which for 2016/17 is estimated as £8.102m (2015/16 £8.0m). Based on this amount, EY would expect to report on all unadjusted misstatements greater than £0.4m (2016 £0.4m).

Key Financial Statement Risks: The plan highlights the key financial statement, these being the main areas on which specific audit work will focus. They are as follows:

- Risk of incorrect valuation of investments
- Risk of management override
- Risk of error due to change in Pension Fund administrator
- Accounting for changes in investment managers

TIMETABLE

The main timetable remains unchanged with the deadline for draft accounts being 30 June and the audit opinion due by 30 September 2017.

FEES

The proposed fees for the 2016/17 audit are £21k, no change from 2015/16.

LEGAL IMPLICATIONS

There are no legal implications arising from this report.

BACKGROUND PAPERS

None

Hillingdon Pension Fund

Year ending 31 March 2017

Audit Plan

20 February 2017

Ernst & Young LLP

EY
Building a better working world

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20 February 2017

Audit Committee
London Borough of Hillingdon
Civic Centre
High Street
Uxbridge
Middlesex
UB8 1UW

Dear Committee Members

Audit Plan

We are pleased to attach our Audit Plan which sets out how we intend to carry out our responsibilities as your auditor. Its purpose is to provide the Audit Committee with a basis to review our proposed audit approach and scope for the 2016/17 audit in accordance with the requirements of the Local Audit and Accountability Act 2014, the National Audit Office's 2015 Code of Audit Practice, the Statement of Responsibilities issued by Public Sector Audit Appointments (PSAA) Ltd, auditing standards and other professional requirements. It is also to ensure that our audit is aligned with the Committee's service expectations.

This plan summarises our initial assessment of the key risks driving the development of an effective audit for the Pension Fund and outlines our planned audit strategy in response to those risks.

We welcome the opportunity to discuss this plan with the Committee on 16 March 2017 and to understand whether there are other matters which it considers may influence our audit.

Yours faithfully

Tim Sadler

Executive Director
For and behalf of Ernst & Young LLP

The UK firm Ernst & Young LLP is a limited liability partnership registered in England and Wales with registered number OC300001 and is a member firm of Ernst & Young Global Limited.
A list of members' names is available for inspection at 1 More London Place, London

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In April 2015 Public Sector Audit Appointments Ltd (PSAA) issued ''Statement of responsibilities of auditors and audited bodies '. It is available from the Chief Executive of each audited body and via the PSAA website (www.psaa.co.uk).

The Statement of responsibilities serves as the formal terms of engagement between appointed auditors and audited bodies. It summarises where the different responsibilities of auditors and audited bodies begin and end, and what is to be expected of the audited body in certain areas.

The 'Terms of Appointment from 1 April 2015' issued by PSAA sets out additional requirements that auditors must comply with, over and above those set out in the National Audit Office Code of Audit Practice (the Code) and statute, and covers matters of practice and procedure which are of a recurring nature.

This Audit Plan is prepared in the context of the Statement of responsibilities. It is addressed to the Audit Committee, and is prepared for the sole use of the audited body. We, as appointed auditor, take no responsibility to any third party.

Our Complaints Procedure – If at any time you would like to discuss with us how our service to you could be improved, or if you are dissatisfied with the service you are receiving, you may take the issue up with your usual partner or director contact. If you prefer an alternative route, please contact Steve Varley, our Managing Partner, 1 More London Place, London SE1 2AF. We undertake to look into any complaint carefully and promptly and to do all we can to explain the position to you. Should you remain dissatisfied with any aspect of our service, you may of course take matters up with our professional institute. We can provide further information on how you may contact our professional institute.

1. Overview

This Audit Plan covers the work that we plan to perform to provide you with:

- Our audit opinion on whether the financial statements of Hillingdon Pension Fund (the Pension Fund) give a true and fair view of the financial transactions of the pension fund during the year ended 31 March 2017 and the amount and disposition of the fund's assets and liabilities as at 31 March 2017; and;
- Our opinion on the consistency of the pension fund financial statements within the pension fund annual report with the financial statements of Hillingdon Borough Council.

Our audit will also include the mandatory procedures that we must perform in accordance with applicable laws and auditing standards.

When planning the audit we take into account several key inputs:

- strategic, operational and financial risks relevant to the financial statements;
- developments in financial reporting and auditing standards;
- the quality of systems and processes;
- changes in the business and regulatory environment; and
- management's views on all of the above.

By considering these inputs, our audit is focused on the areas that matter and our feedback is more likely to be relevant to the Pension Fund.

We will provide an update to the Audit Committee on the results of our work in these areas in our report to those charged with governance scheduled for delivery in September 2017.

2. Financial statement risks

We outline below our current assessment of the financial statement risks facing the Pension Fund, identified through our knowledge of its operations and discussion with those charged with governance and officers.

Significant risks (including fraud risks)	Our audit approach
Risk of incorrect value of investments	
Based on initial planning work on the Pension Fund and discussions with management we note that the Pension Fund holds a significant balance of investments in alternative investments, including Private Equity funds. By their very nature these investments are more difficult to value and their valuation includes an element of judgement.	We will ► Review and test investment valuation policies ► Review investment valuations as performed by the investment managers and test them for reasonableness and against available pricing information ► Obtain third party confirmations for investment valuations ► Obtain audited accounts for these funds
Risk of management override	
As identified in ISA (UK and Ireland) 240, management is in a unique position to perpetrate fraud because of its ability to manipulate accounting records directly or indirectly and prepare fraudulent financial statements by overriding controls that otherwise appear to be operating effectively. We identify and respond to this fraud risk on every audit engagement.	Our approach will focus on: ► Testing the appropriateness of journal entries recorded in the general ledger and other adjustments made in the preparation of the financial statements ► Reviewing accounting estimates for evidence of management bias, and ► Evaluating the business rationale for significant unusual transactions
Risk of error due to the change in pensions administrator	
The Pension Fund changed the provider of pensions' administration services from Capita to Surrey County Council in year. Given the size of the Fund and the number of members there is a risk that not all data was correctly transferred to the new administrator. There is a further risk that, in the first few months as new administrator, procedures and controls may not yet been embedded and thus errors may be more likely to occur.	Our approach will include: ► Reviewing the nature of the new agreement with Surrey County Council ► Reviewing the work performed by Surrey County Council around the data transition, including the reconciliation of records ► Reviewing any available reports on Surrey County Council's controls ► Testing the completeness and accuracy of the data transfer from Capita to Surrey County Council

We have identified other key areas of audit focus that have not been classified as significant risks but are still important when considering the risks of material misstatement to the financial statements and disclosures.

Changes to investments	
We understand the significant changes to investments are: ► Transfer of investment portfolio from State Street to Legal and General ► Transfer of investment portfolio from Kempen to Newton ► Transfer of investment portfolio from GMO to Legal and General ► Transfer of the Ruffer portfolio into the London Collective Investment Vehicle With any investment changes there is an audit risk that transactions may be omitted from the financial statements or not be reported fairly.	As part of our work we will: : ► Review the audit trail these movements and proceeds and verify significant transactions to external audit evidence ► Obtain adequate assurance to support that the changes have been accounted for and disclosed as expected ► Obtain and review the investment manager's contracts to understand the nature of the new investments, and any relevant audit risks ► Obtain sufficient evidence to support the investment valuation. The evidence required will depend on the complexity of the valuation techniques applied by the investment manager and may include obtaining independent audited financial statements

2.1 Responsibilities in respect of fraud and error

We would like to take this opportunity to remind the Committee that management has the primary responsibility to prevent and detect fraud. It is important that management - with the oversight of those charged with governance - has a culture of ethical behaviour and a strong control environment that both deters and prevents fraud.

Our responsibility is to plan and perform audits to obtain reasonable assurance about whether the financial statements as a whole are free of material misstatements whether caused by error or fraud. As auditors, we approach each engagement with a questioning mind that accepts the possibility that a material misstatement due to fraud could occur, and design the appropriate procedures to consider such risk.

Based on the requirements of auditing standards our approach will focus on:

- identifying fraud risks during the planning stages;
- asking management about risks of fraud and the controls to address those risks;
- understanding the oversight given by those charged with governance of management's processes over fraud;
- considering the effectiveness of management's controls designed to address the risk of fraud;
- determining an appropriate strategy to address any identified risks of fraud; and
- performing mandatory procedures regardless of specifically identified risks.

3. Our audit process and strategy

3.1 Objective and scope of our audit

Under the Code of Audit Practice (the 'Code') our principal objectives are to review, and report on, the Pension Fund's financial statements to:

- form an opinion on the financial statements under International Standards on Auditing (UK and Ireland); and
- form an opinion on the consistency of the pension fund financial statements within the pension fund annual report with the published financial statements of Hillingdon Borough Council.

3.2 Audit process overview

Our audit involves:

- Identifying and understanding the key processes and internal controls to understand where errors are most likely to arise;
- Where relevant reviewing the work of internal auditors;
- Reviewing and assessing the work of experts in relation to areas such as valuation of promised retirement benefits to establish if reliance can be placed on their work; and
- Substantive tests of detail of transactions and amounts

Processes

Our initial assessment of the key processes across the Pension Fund has identified the following areas where we will seek to understand key controls:

- Benefits Payable
- Contributions Receivable
- Cash and Bank
- Investments (including investment income)
- Journals and the Preparation of Financial Statements
- IAS 19 submissions (data submissions to the actuary)

As investments are managed by contracted fund managers and overseen by the appointed custodian, we will also review the findings of independent ISAE 3402 assurance reports, for the custodian and fund managers, and assess if there are any issues reported that may impact on our testing strategy.

Analytics

We will use our computer-based analytics tools to enable us to capture whole populations of your financial data, in particular journal entries. These tools:

- help to identify specific exceptions and anomalies which can then be subject to more traditional substantive audit tests, and

- give greater likelihood of identifying errors than random sampling techniques.

We will report the findings from our process and analytics work, including any significant weaknesses or inefficiencies identified and recommendations for improvement, to management and the Audit Committee.

Internal audit

As in the prior year we will review internal audit plans and the results of their work. We consider these when designing our overall audit approach and when developing in our detailed testing strategy. We may also reflect relevant findings from their work in our reporting, where it raises issues that we assess could have a material impact on the year-end financial statements.

Use of specialists

When auditing key judgements, we are often required to rely on the input and advice provided by specialists who have qualifications and expertise not possessed by the core audit team. The areas where either EY or third party specialists provide input for the current year audit are:

Area	Specialists
Pensions Liability	EY Pensions team and the pensions fund actuary

In accordance with Auditing Standards, we will evaluate each specialist's professional competence and objectivity, considering their qualifications, experience and available resources, together with the independence of the individuals performing the work.

We also consider the work performed by the specialist in light of our knowledge of the Pension Fund's environment and processes and our assessment of audit risk in the particular area. For example, we would typically perform the following procedures:

- analyse source data and make inquiries as to the procedures used by the expert to establish whether the source data is relevant and reliable;
- assess the reasonableness of the assumptions and methods used;
- consider the appropriateness of when the specialist carried out the work; and
- assess whether the substance of the specialist's findings are properly reflected in the financial statements.

3.3 Mandatory audit procedures required by auditing standards and the Code

As well as the financial statement risks (Section two), we must perform other procedures as required by auditing, ethical and independence standards, the Code and other regulations. We outline below the procedures we will undertake during our audit.

Procedures required by standards

- Addressing the risk of fraud and error
- Significant disclosures included in the financial statements
- Entity-wide controls
- Reading other information contained in the financial statements and reporting whether it is inconsistent with our understanding and the financial statements
- Auditor independence

Procedures required by the Code

- Reviewing, and reporting on as appropriate, other information published with the financial statements, including the Annual Governance Statement

Finally, we are also required to discharge our statutory duties and responsibilities as established by the Local Audit and Accountability Act 2014 and Code of Audit Practice.

3.4 Materiality

In order to decide whether the financial statements are free from material error, we define materiality as the scale of an omission or misstatement that, individually or added together could reasonably be expected to influence the users of the financial statements. Our evaluation requires professional judgement and so takes into account qualitative as well as quantitative considerations implied in the definition.

We have determined that overall materiality for the financial statements' of the Pension Fund is £8.102m based on 1% of net assets. We will communicate uncorrected audit misstatements greater than £405k to the Committee.

The amount we consider material at the end of the audit may differ from our initial decision. At this stage, however, we cannot anticipate all the circumstances that might influence our judgement. At the end of the audit we will form our final opinion by referring to anything that could be significant to users of the financial statements, including the total effect of any audit misstatements, and our evaluation of materiality at that date.

3.5 Fees

The duty to prescribe fees is a statutory function delegated to Public Sector Audit Appointments Ltd (PSAA) by the Secretary of State for Communities and Local Government. PSAA has published a scale fee for all relevant bodies. This is defined as the fee required by auditors to meet statutory responsibilities under the Local Audit and Accountability Act 2014 in accordance with the NAO Code. The indicative fee scale for the audit of Hillingdon Pension Fund is £21,000.

3.6 Your audit team

The engagement team is led by Tim Sadler, who has significant experience of pension audits. Tim is supported by Adrian Balmer (Audit Manager), who is responsible for the day-to-day direction of audit work and the key point of contact for your finance and pension teams.

Maria Grindley is the Executive Director leading our overall engagement with Hillingdon Borough Council and our relationship with the Audit Committee.

3.7 Timetable of communication, deliverables and insights

We have set out below a timetable showing the key stages of the audit. The timetable includes the deliverables we have agreed to provide to the Pension Fund through the Audit Committee's cycle in 2016/17.

From time to time matters may arise that require immediate communication with the Audit Committee and we will discuss them with the Chair as appropriate.

Following the conclusion of our audit we will prepare an Annual Audit Letter to communicate the key issues arising from our work to the Pension fund and external stakeholders, including members of the public.

Audit phase	Timetable	Audit Committee timetable	Deliverables
High level planning	**January/February 2017**	**16 March 2017**	Audit Fee Letter Audit Plan
Risk assessment and setting of scopes	**January/February 2017**	**16 March 2017**	Audit Plan
Year-end audit	**July/August 2017**		
Completion of audit	**August 2017**	**September 2017**	Report to those charged with governance via the Audit Results Report Audit report , including our opinion on the financial statements Audit report on our opinion on the consistency of the financial statements within the pension fund annual report with the published financial statements.

4. Independence

4.1 Introduction

The APB Ethical Standards and ISA (UK and Ireland) 260 'Communication of audit matters with those charged with governance', requires us to communicate with the Pension fund on a timely basis on all significant facts and matters which have a bearing on our independence and objectivity. The Ethical Standards, as revised in December 2010, require that we do this formally both at the planning stage and at the conclusion of the audit, as well as during the audit if appropriate. The aim of these communications is to ensure full and fair disclosure by us to those charged with the Pension Fund's governance on matters in which it has an interest.

Required communications

Planning stage	Final stage
► Any principal threats to objectivity and independence identified by EY including consideration of all relationships between the Pension Fund, its affiliates and directors and us; ► The safeguards adopted and the reasons why they are considered to be effective, including any Engagement Quality Review; ► The overall assessment of threats and safeguards; ► Information about EY's general policies and processes to maintain objectivity and independence.	► A written disclosure of relationships (including the provision of non-audit services) that bear on our objectivity and independence, the threats to our independence that these create, any safeguards we have and why they address such threats, together with any other information necessary to enable our objectivity and independence to be assessed; ► Details of non-audit services provided and the fees charged for them; ► Written confirmation that we are independent; ► Details of any inconsistencies between APB Ethical Standards, the PSAA Terms of Appointment and your policy for the supply of non-audit services by EY and any apparent breach of that policy; and ► An opportunity to discuss auditor independence issues.

During the course of the audit we must also communicate whenever any significant judgements are made about threats to objectivity and independence and the appropriateness of our safeguards, for example when accepting an engagement to provide non-audit services.

We also provide information on any contingent fee arrangements, the amounts of any future contracted services, and details of any written proposal to provide non-audit services;

We ensure that the total amount of fees that EY and our network firms have charged to the Pension Fund and its affiliates for the provision of services during the reporting period are disclosed, analysed in appropriate categories.

4.2 Relationships, services and related threats and safeguards

We highlight the following significant facts and matters that may be reasonably considered to bear upon our objectivity and independence, including any principal threats. However we have adopted the safeguards below to mitigate these threats along with the reasons why they are considered effective.

Self-interest threats

A self-interest threat arises when EY has financial or other interests in the entity. Examples include where we have an investment in the entity; where we receive significant fees in respect of non-audit services; where we need to recover long outstanding fees; or where we enter into a business relationship with the Pension Fund.

We are the appointed auditors for Hillingdon Borough Council; we have no other business relationship with the Pension Fund or Council. At the time of writing, there are no long outstanding fees.

We believe that it is appropriate for us to undertake permissible non-audit services, and we will comply with the policies that the Pension Fund has approved and are in accordance with PSAA Terms of Appointment.

At the time of writing, there are no non-audit services provided by us to the Pension Fund.

A self-interest threat may also arise if members of our audit engagement team have objectives or are rewarded in relation to sales of non-audit services to the Pension Fund. We confirm that no member of our audit engagement team, including those from other service lines, is in this position, in compliance with Ethical Standard 4.

There are no other self-interest threats at the date of this report.

Self-review threats

Self-review threats arise when the results of a non-audit service performed by EY or others within the EY network are reflected in the amounts included or disclosed in the financial statements.

There are no self-review threats at the date of this report.

Management threats

Partners and employees of EY are prohibited from taking decisions on behalf of management of the entity. Management threats may also arise during the provision of a non-audit service where management is required to make judgements or decisions based on that work.

There are no management threats at the date of this report.

Other threats

Other threats, such as advocacy, familiarity or intimidation, may arise.

There are no other threats at the date of this report.

Overall Assessment

Overall we consider that the adopted safeguards appropriately mitigate the principal threats identified. We therefore confirm that EY is independent and the objectivity and independence of Tim Sadler, the audit engagement Director, and the audit engagement team have not been compromised.

4.3 Other required communications

EY has policies and procedures that instil professional values as part of firm culture and ensure that the highest standards of objectivity, independence and integrity are maintained.

Details of the key policies and processes within EY for maintaining objectivity and independence can be found in our annual Transparency Report, which the firm is required to publish by law. The most recent version of this report is for the year ended June 2016 and can be found here:

http://www.ey.com/uk/en/about-us/ey-uk-transparency-report-2016

Appendix A Fees

A breakdown of our agreed fee is shown below.

	Planned Fee 2016-17 £	Scale fee 2016-17 £	Outturn fee 2015-16 £	Explanation
Opinion Audit	21,000	21,000	21,000	
Total Audit Fee – Code work	**21,000**	**21,000**	**21,000**	
Non-audit work	0	0	0	

All fees exclude VAT.

The agreed fee presented above is based on the following assumptions:

- officers meet the agreed timetable of deliverables;
- there are no significant deficiencies in the operating effectiveness of the internal controls for key processes outlined in section 3.2 above;
- our accounts opinion being unqualified;
- the Pension Fund provides appropriate quality documentation; and
- the Pension Fund has an effective control environment.

If any of the above assumptions prove to be unfounded, we will seek a variation to the agreed fee. This will be discussed with the Director of Finance in advance.

Fees for the auditor’s consideration of correspondence from the public and any formal objections will be charged in addition to the scale fee.

Appendix B UK required communications with those charged with governance

There are certain communications that we must provide to the Audit Committee. These are detailed here:

Required communication	Reference
Planning and audit approach Communication of the planned scope and timing of the audit including any limitations.	► Audit Plan
Significant findings from the audit ► Our view about the significant qualitative aspects of accounting practices including accounting policies, accounting estimates and financial statement disclosures ► Significant difficulties, if any, encountered during the audit ► Significant matters, if any, arising from the audit that were discussed with management ► Written representations that we are seeking ► Expected modifications to the audit report ► Other matters if any, significant to the oversight of the financial reporting process	► Audit Results Report
Misstatements ► Uncorrected misstatements and their effect on our audit opinion ► The effect of uncorrected misstatements related to prior periods ► A request that any uncorrected misstatement be corrected ► In writing, corrected misstatements that are significant	► Audit Results Report
Fraud ► Enquiries of the Audit Committee to determine whether they have knowledge of any actual, suspected or alleged fraud affecting the entity ► Any fraud that we have identified or information we have obtained that indicates that a fraud may exist ► A discussion of any other matters related to fraud	► Audit Results Report
Related parties Significant matters arising during the audit in connection with the entity's related parties including, when applicable: ► Non-disclosure by management ► Inappropriate authorisation and approval of transactions ► Disagreement over disclosures ► Non-compliance with laws and regulations ► Difficulty in identifying the party that ultimately controls the entity	► Audit Results Report
External confirmations ► Management's refusal for us to request confirmations ► Inability to obtain relevant and reliable audit evidence from other procedures	► Audit Results Report
Consideration of laws and regulations ► Audit findings regarding non-compliance where it is material and believed to be intentional. This communication is subject to compliance with legislation on tipping off ► Enquiry of the Audit Committee into possible instances of non-compliance with laws and regulations that may have a material effect on the financial statements and that the Audit Committee may be aware of	► Audit Results Report

Required communication	Reference
Independence Communication of all significant facts and matters that bear on EY's objectivity and independence Communication of key elements of the audit engagement director's consideration of independence and objectivity such as: ► The principal threats ► Safeguards adopted and their effectiveness ► An overall assessment of threats and safeguards ► Information about the general policies and process within the firm to maintain objectivity and independence	► Audit Plan ► Audit Results Report
Going concern Events or conditions identified that may cast significant doubt on the entity's ability to continue as a going concern, including: ► Whether the events or conditions constitute a material uncertainty ► Whether the use of the going concern assumption is appropriate in the preparation and presentation of the financial statements ► The adequacy of related disclosures in the financial statements	► Audit Results Report
Significant deficiencies in internal controls identified during the audit	► Audit Results Report
Fee Information ► Breakdown of fee information at the agreement of the initial audit plan ► Breakdown of fee information at the completion of the audit	► Audit Plan ► Audit Results Report Annual Audit Letter if considered necessary

EY | Assurance | Tax | Transactions | Advisory

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TRAINING UPDATE	

Contact Officers	Sian Kunert, 01895 556578
Papers with this report	*None*

SUMMARY

This report provides an update on training and development of Pension Committee members in line with the Training Policy approved by Pensions Committee in December 2015.

RECOMMENDATIONS

It is recommended that Pensions Committee note the contents of this report

INFORMATION

Since the introduction of the Training policy in December 2015, a training register has been maintained by officers to log training received by Pension Committee members, Local Pension Board members and Officers to record and track knowledge and skills.

Pensions Committee are responsible for exercising a duty of care and have a fiduciary responsibility to the fund, employers and potential beneficiaries of the fund. Although there is not a statutory requirement for Pension Committee members to undertake training there is such a statutory requirement for local Pension Board members. Due to the increased responsibility and decision making requirements, it is recommended best practice for Pensions Committee members to apply the same principles and to seek to develop a sound level of knowledge and understanding. As a result all Pension Committee members were invited to complete the Knowledge and Skills learning needs analysis to identify training gaps to enable officers to ensure the correct training items are bought to Pension Committee and offered to Members.

To date, the learning needs analysis has been completed and reviewed with officers by Councillor Corthorne, Chairman and Councillor Markham, Vice-Chairman. As a result of these learning needs analysis' a number of training items have been actioned and completed. Some items are ongoing development training items that progress with time such as an understanding of economic markets which are constantly evolving and where regular training items are provided. There are 5 items highlighted as outstanding.

Training needs and training plan identified to date:

Area of knowledge/skills gap	Training plan	Compete or Outstanding?
Knowledge of the role of the Scheme Advisory Board and how it interacts with other bodies in the governance structure.	Creation of this board was discussed with officers during the Training analysis meeting. Formal information also provided to Committee on the SAB creation and role - 21/09/2016	Complete
An understanding of how breaches in law are reported.	Reporting of Breaches of Law can be reviewed within the Pensions regulator toolkit. Officers will also prepare a short note on this for committee.	Outstanding
Knowledge of consultation, communication and involvement options relevant to the stakeholders.	Policy to be discussed at future committee. This policy will be discussed prior to development at the Local Pension Board to consider governance framework going into the policy in advance of its construction. Surrey County Council officer attended Board in January as first step. A draft policy will be taken to board and committee in June.	Outstanding
An understanding of how the pension fund interacts with the taxation system in the UK and overseas in relation to benefits administration.	Officers will review the best way to update committee on the taxation system	Outstanding
An understanding of how the pension fund interacts with the taxation system in the UK and overseas in relation to investments.	Officers will review the best way to update committee on the taxation system	Outstanding
An understanding of the Accounts and Audit Regulations and legislative requirements relating to internal controls and proper accounting practice.	Accounts and audit regulations can be picked up with the closing of accounts in June or September	Outstanding
Knowledge of the pensions administration strategy and delivery (including, where applicable, the use of third party suppliers, their	Pension Committee approved the Administration Strategy in September 2016.	Complete

selection, processes).		
An understanding of the importance of monitoring asset returns relative to the liabilities and a broad understanding of ways of assessing long-term risks.	Regular market updates and product discussions as part of a regular training slot lead by advisors at Pension Committees implemented in 2016	Ongoing
A broad understanding of the workings of the financial markets and of the investment vehicles available to the pension fund and the nature of the associated risks.	Regular market updates and product discussions as part of a regular training slot lead by advisors at Pension Committees implemented in 2016	Ongoing
An understanding of the limits placed by regulation on the investment activities of local government pension funds.	SIP was reviewed and updated regularly with changes. From April 2017 the Investment Strategy Statement will be introduced and this is part of the papers for the March 2017 meeting for approval and discussion.	Complete
Knowledge of the valuation process, including developing the funding strategy in conjunction with the fund actuary, and inter-valuation monitoring.	Actuaries provided training and information in December 2016.	Complete

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