Finance
County Hall
PO Box 11
Chelmsford
Essex CM1 1LX

Date: XX XXXXXXXX 2010

Addressees as attached

Dear Sir / Madam

Essex Pension Fund (the Fund) Funding Strategy Statement (FSS)

Background

The Local Government Pension Scheme (Amendment) Regulations 2004 (the 2004 Regulations) came into effect on 1 April 2004. They require Local Government Pension Scheme (LGPS) administering authorities, after consultation with such persons as they feel appropriate, to prepare, maintain and publish a written statement setting out their funding strategy. It also requires the pension fund's actuary to have regard to the FSS of the administering authority (the Authority) in issuing the (employer contribution) rates and adjustment certificate following triennial valuations of the pension fund. These requirements are now detailed in the 2008 Administration Regulations which form part of the governing Regulations for the LGPS.

The first FSS for the Fund was published on 18 February 2005 and informed the Triennial Valuation of the Fund as at 31 March 2004. It was subsequently reviewed and revised during 2007/8 for the Triennial Valuation of the Fund as at 31 March 2007. That process is now being repeated in order to inform the Triennial Valuation of the Fund as at 31 March 2010 which is currently underway. As part of the process of reviewed and revision a consultation exercise is being carried out as required by the regulations.

Purpose of letter

The purpose of this letter is to provide you with background information on the FSS and the guidance that has been issued on its completion, to invite you to take part in the consultation and to draw particular matters, on which we wish to consult, to your attention. A copy of the draft FSS incorporating the various proposals on which we are consulting you is attached for your information. A copy of the previous FSS published on 31 March 2009 is available on the County Council's web-site (www.essex.gov.uk) as part of the Essex Pension Fund Report and Accounts 2008 - 09. To access this document, use the following links – Your Council / Finance and Performance / Pension Fund / Essex Pension Fund Report and Accounts 2008 - 09.

Guidance

In preparing and maintaining its FSS, the Authority is required to have regard to the guidance set out in a document published by and available from the Chartered Institute of Public Finance and Accountancy (CIPFA) and called **CIPFA Pensions**

Panel Guidance on Preparing and Maintaining a Funding Strategy Statement (Guidance Note Issue No 6) (the Guidance Note) and to the Authority's own published Statement of Investment Principles (SIP). The Guidance Note provides some very clear, comprehensive and definite instructions on how the FSS should be prepared. It states that the headings to be used are as follows:

- purpose of the FSS in policy terms;
- aims and purpose of the Fund;
- responsibilities of the key parties;
- solvency issues and target funding levels;
- links to investment policy set out in the SIP; and
- identification of risks and counter-measures.

The first three of the above sections are already determined by the legislation and regulations governing the LGPS and are not a matter for decision by the Authority. The Guidance Note recognises this, sets out the appropriate references and the form of words that should be used in such cases. We are not therefore seeking comments on these sections although we are happy to receive any comments that you may care to make. The remaining three sections however will form the core of the Fund's funding strategy, and it is these on which your comments and thoughts are especially requested. The guidance on these areas that is contained in the Guidance Note has been reproduced in full for your information at Appendix A.

Specific consultation matters

In particular we would like to draw your attention to the following matters:

- A. Solvency Issues and target funding levels
- 1. The long-term funding objective to achieve and maintain assets equal to 100% of projected accrued liabilities, assessed on an ongoing basis including allowance for projected final pay remains unchanged and the key assumptions identified in the 2007 FSS are still valid. We propose to continue with many of the same elements of the 2007 strategy, viz.;
 - we will set employers' contribution rates to achieve 100% funding of liabilities in the long term;
 - employer contribution rates will be made up of two separate rates:
 - an ongoing rate to recover the costs of future service; and
 - a deficit recovery rate to recover the shortfall revealed by the actuarial valuation;
 - we will for the purpose of our administration, the calculation of contribution rates and for the setting of maximum deficit recovery periods, deal with certain employers and types of employers in discrete groups as set out below:
 - town and parish councils; and
 - small admission bodies;
 - we will set deficit recovery periods for the above groups of employers. Those deficit recovery periods will be set at levels that:
 - as far as possible are likely to reduce the level of deficit during the intervaluation period if all of the Actuary's assumptions prove correct; and
 - safeguard the interests of the Fund by having regard to the strength of covenant and the financial stability of the grouped employers.

 Schools, including former grant maintained schools, will be treated as part of the local authority within whose area of responsibility they fall for the purpose of setting contribution rates and deficit recovery periods. Any discretions in respect of these matters will fall to the local authority.

Question: Do you agree with these proposals or have any comments?

In particular in formulating this strategy the initial view has been to stabilise employer contributions by mitigating increases where possible but also underpinning the *minimum* contribution rates by not allowing any reduction in employer contributions unless a reduction would have been due under the standard deficit recovery period in accordance with the 2007 valuation funding strategy.

Do you consider it to be appropriate to adopt an objective, where possible, for: no increase in contributions?

no reduction in contributions?

- 2. However we are minded to make certain adjustments to the strategy in regard to the following matters:
 - For employers who are not in the above groups we propose to set both standard and maximum deficit recovery periods. The standard deficit recovery periods will be set at levels that safeguard the interests of the Fund by having regard to the Fund's judgement of the strength of covenant and the financial stability of individual employers.
 - However where individual employers are able to provide assurance of a greater strength of covenant and financial stability they will, at the discretion of the Fund, be able to increase their deficit recovery period up to the maximum deficit recovery period. Key criteria in applying this judgement will be whether an employer is a statutory body (e.g. a Council or other public body) or is an employer who is guaranteed by such an employer within the Fund. If so the covenant and long term financial stability will be considered sufficiently strong.
 - No reduction in the level of an employer's contributions will be allowed unless the deficit recovery period adopted by that employer is equal to or less than the standard deficit recovery period.
 - Individual employers will still retain the freedom to decide to repay their share of the deficit over a shorter period should they so choose.
 - In certain instances, and in particular for Fund employers who are considered by the Administering Authority to provide a high level of covenant as noted above, an allowance may be made as part of the recovery plan for investment performance at a higher level than that assumed for assessment of the long term funding target. This higher level of return assumed will, in particular, reflect the actual investment strategy of the Fund, on the basis that this is to be maintained over the entire

recovery period, and will be closer to the best estimate return assumptions for the actual investment strategy. The methodology and assumptions to be used in these calculations are set out in the Appendix of the draft FSS.

 Such employers will still retain the freedom to decide not to take up this option and pay a higher contribution rate.

These changes should have the dual benefits of enabling individual employers to better manage the affordability of their contributions while at the same time increasing the overall consideration of the strength of employer covenants and thus reducing the overall risk of a material shortfall in the event of default to the Fund.

Question: Do you agree that we should allow employers, able to demonstrate an appropriate strength of covenant, to increase their deficit recovery periods up to the maximum permitted level and to take into account the higher level of investment return in terms of the recovery cost of any emerging deficit? Question for Transferor Scheme Employers: Are you in agreement with the proposal to allow your contractors to extend their deficit recovery periods, potentially beyond the term of their current contract, as well as make use of the allowance for the higher investment return?

(This would of course be subject to your specific consent but should enable the contractor to better manage their cash flow. Should the contract terminate the outstanding deficit would become payable immediately but you as Transferor Scheme Employer underwrite/guarantee its payment.)

3. Since the 2007 FSS was published legislation has been enacted to allow schools to become academies. Although no change is proposed in the treatment of schools within the funding strategy it is proposed that the position in regard to academies be clarified by adding the following paragraph "Schools that opt to become academies become stand-alone employers in their own right but inherit responsibility for the share of scheme deficit attributable to the former school(s) from which they were formed and that share of scheme deficit will then be taken into account in calculating their separate contribution rate."

Question (in particular to employers who were formerly local education authorities): Do you agree with this proposal or have any comments?

4. In the 2007 FSS a number of objectives were adopted to achieve the funding target. Those objectives have now been reviewed and the proposed revised objectives are set out below, with the changes highlighted in bold and reasons set out alongside for the variation :

Revised Objectives for 2010 FSS		ives for 2010 FSS	Reason for variation from 2007 FSS Objective
The deficit recovery periods for the grouped			We have extended the 20 year recovery
employers to be as follows:		follows:	period for town and parish councils rather
	Employer	Deficit Recovery	than reducing it to 17 years, in order to
	Category	Period	assist in keeping contributions as stable

	town and parish councils	30 years (20 year period for purpose of any possible contribution reductions)
	small admission bodies	The average remaining working life of small admission bodies' work-forces as at 1 April 2010
TI	The deficit recovery periods for other	

as possible while still having regard to the strength of employers' covenants. The date for determining the average remaining life of the small admission bodies' work-forces has been changed from 1 April 2007 to 1 April 2010 to allow for changes to employers in the scheme.

The deficit recovery periods for other employers to be as follows:

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	Employer	Standard	Maximum
	Category	Deficit	Deficit
		Recovery	Recovery
		Period	Period
	scheme	20 years	30 years
	employers		_
	arms length	20 years	30 years
	management	_	
	organisations		
	of scheme		
	employers		
	care trusts	20 years	30 years
	admission	The	30 years
	bodies	period	
	working on	that the	
	contracts for	contract	
	scheme	still has	
	employers	to run.	
	Other	The	30 years
	admission	average	
	bodies	remaining	
		working	
		life of the	
		employer's	

work-force as at 1 April **2010** We have extended the maximum 20 year recovery period for other employers to 30 years in order to assist in keeping contributions as stable as possible while still having regard to the strength of employers' covenants. We have also introduced the concept of standard recovery periods.

Individual employers will be able to increase their deficit recovery period from the standard period to the maximum subject to satisfying the administering authority that their covenant is suitably strong and their financial position is stable.. This should have the benefits of increasing the ability of the individual to manage the affordability of their contributions, help with the stability of contributions and improve overall covenant strength.

Revised Objectives for 2010 FSS (continued)	Reason for variation from 2007 FSS Objective (continued)
That certain individual employers, detailed in Schedule C, will be given the opportunity to phase in increases in their contributions in steps over the 3 year period 2011/12 to 2013/14.	The stepping arrangements have been simplified and will be in place for a new 3 year period.
That for the grouped employing bodies (small admission bodies and town and parish councils) deficit recovery contributions and ongoing rate contributions will be phased in, in steps over the 3 year period 2011/12 to 2013/14.	The stepping arrangements will be in place for a new 3 year period.
On the cessation of an employer's participation in the Scheme, the actuary will be asked to make a termination assessment. Any deficit in the Scheme in respect of the employer will be due to the Scheme as a termination contribution, unless it is agreed by the administering authority and the other parties involved that the assets and liabilities relating to the employer will be transferred within the Scheme to another participating employer. The "least risk" basis of assessment of a termination payment will apply for all admission bodies, except where a successor or guarantor body inherits ongoing responsibility for the orphan liabilities arising on cessation of the admission.	The arrangements for termination assessments were formally added to the funding objectives in 2008 in order clarify and formalise the then existing practice. At its meeting on 31 March 2010, the Essex Pension Fund Board reviewed the arrangements and strengthened the basis of termination assessment to reduce the risks to the Fund in respect of "orphan" liabilities.

Question: Do you agree with the 2010 proposals shown above or do you have any comments? In particular do you agree with the adoption of "least risk" as a strengthened basis for the calculation of termination payments?

5. New objectives to be included following a review of overall Fund policy on admissions and bulk transfers

New Objectives for 2010 FSS

ADMISSION ARRANGEMENTS **Transferee Admission Bodies**

All transferee admission bodies (i.e. "best value" contractors delivering services to scheme employers) should be accepted for admission into the Fund so long as all the necessary regulatory requirements for admission are satisfied.

No special conditions or requirements will apply for transferee admission bodies given their ultimately close links with the Scheme Employer, although the Fund retains the right to seek special terms or conditions if these are considered warranted in specific cases. In the case of a transferee admission body, or any participating employer acting as guarantor in the case of non-transferee admission bodies, implementation of an alternative funding basis or approach (including on termination) will be subject to agreement from the relevant quarantor body/scheme employer. Any special funding arrangements between the scheme employer and transferee admission body should be covered by the commercial arrangements, i.e. outside the Fund and not part of the admission agreement. No future transferee admission bodies will be eligible to join the Small Admitted Bodies

Reason for addition

Following the adoption by the Fund of a formal policy in regard to admission arrangements at its meeting in March 2010, this objective, which reflects the past practice of the Fund, is being formally added to the Funding Objectives in order to clarify the arrangements for transferee and community admissions and in particular:

to set down the funding relationship that exist between transferee admission bodies and transferor scheme employers; and

Community Admission Bodies

Group.

Community admission bodies will be accepted for participation in the Fund, or otherwise, on a case by case consideration of the merits of admission and the associated risks to the Fund. In general, a guarantee or alternative surety will be required for all community admission body cases, with this requirement waived at the Fund's discretion on an exceptions basis. For community admission bodies the Fund will consider application of special conditions or requirements as deemed appropriate. **Examples of such conditions are:**

- a guarantee from another Fund employer with sufficient covenant strength
- a surety bond or other contingent asset
- an independent review of covenant, including the possibility of a parent guarantee.

All community admission bodies will be allowed flexibility to elect to adopt a funding approach prior to termination in line with the "least risk" exit debt basis, if that is their preference."

.....the strengthened approach to community admissions (this was introduced as part of new risk mitigation measures in the 2008 funding strategy).

New Objectives for 2010 FSS (continued)

TRANSFER ARRANGEMENTS

In the case where a contractor wishes to offer a broadly comparable scheme, rather than apply to become an admitted body of the Fund, standardised bulk transfer terms will be offered via the Actuary's Letter. The letter will be structured so as to target an asset transfer to the contractor's Broadly Comparable scheme such that it is equivalent to 100% of the past service liabilities reserved for by the Fund in respect of the transferring members' accrued service as at the date of transfer. The Fund will only agree to any variations in the standard in exceptional circumstances and with the prior agreement of the transferring scheme employer."

Reason for addition (continued)

Following the adoption by the Fund of a formal policy in regard to bulk transfer arrangements at its meeting in March 2010, this objective, which reflects the past practice of the Fund, is being formally added to the Funding Objectives in order to clarify the arrangements.

Question: Do you agree with the above strengthened policies in regard to admissions and bulk transfers or do you have any comments?

B. Link to investment policy set out in the SIP

In undertaking the triennial valuation as at 31 March 2007 the actuary adopted the following assumptions in relation to investment performance:

/0
4.4
<u>1.3</u>
<u>3.1</u>

His asset out performance assumptions were:

Past	service	liabilities
_		

Pre-retirement =	gilts + 2.5%
Post – retirement =	gilts +1%
Total fund =	gilts + 1.9%

Future service liabilities = Inflation + 3.75%

Given the above assumptions as to fixed interest gilt yields and inflation these gave the following assumed investment return requirements for the fund relative to conditions as at 31 March 2007:

	%
Past service liabilities =4.4% + 1.9% =	6.30
Future service liabilities =3.1% + 3.75% =	6.85

In its SIP as at 31 March 2007 the Fund set out its assessment of the expected long-term return to be derived from the Fund's strategic asset allocation based on market conditions as at 31 March 2007 as 7.93%.

It can be seen that the total implied rate of return that was expected for the Fund at the time of the valuation report gave a comfortable margin.

The Actuary's market related assumptions in regard to the 2010 valuation are:

%
4.5
0.7
<u>0.8</u>
3.0

His asset out performance assumptions (equivalent to those shown above for the 2007 valuation) are :

|--|

*(to be recalculated based on the 2010 valuation liability profile)

Future service liabilities =

Inflation + 3.75%

Given the above assumptions as to fixed interest gilt yields and inflation these give the following assumed investment return requirements for the fund relative to conditions as at 31 March 2010:

	%
Past service liabilities =4.5% + 1.9% =	6.40
Future service liabilities =3.0% + 3.75% =	6.75

Examination of the Fund Returns expected by Hymans Robertson (the Fund's institutional investment consultants) shows a long term strategic expected return (for the individual asset classes) of 7.0% and a long term strategic expectation for the whole fund allowing for the benefit of diversification of 7.9%. The background to this is set out in Appendix B. It is therefore felt that the long term investment return expected for the Fund gives a margin over the Actuary's assumptions. This gives a degree of comfort in the funding plan, providing a buffer to assist the Fund in riding out periods of adverse experience or other events.

Question: Do you agree with:

- a. The Fund's investment strategy?
- b. The Actuary's assumptions?

or do you have any comments – in particular on the maximum level of increased investment return that should be incorporated in the FSS?

C. Identification of risks and counter-measures

A detailed description of the funding risks are shown in Schedule E of the draft FSS.

The work that was undertaken at the time of the last actuarial valuation on the identification of risks and mitigating action has continued through the intervaluation period. The assumptions used by the Actuary as part of the 2010 valuation have been revisited and adjusted where considered appropriate. Key changes and considerations from the 2007 valuation are set out below.

Certain demographic assumptions have been changed to reflect the outcome of a separate analysis undertaken by the Fund Actuary covering longevity trends, Ill health and number of member married or in a civil partnership. In terms of longevity this allows for both the observed longevity experience of the Essex Fund and the expected trend of future improvements. The other assumptions have been adjusted to reflect the underlying experience of a universe of LGPS Funds.

The long term "funding target" investment return assumed by the Actuary in his valuation has been maintained at the same prudent levels as at the 2007 valuation. There is a proposal to allow certain employers to take credit for investment returns closer to best estimate levels at the 2010 valuation. When incorporating this allowance there is an additional risk of future rate increases at subsequent valuations if these higher investment returns are not achieved over the inter-valution period and beyond. Given this, the option will be restricted to those employers who have a sufficiently strong financial covenant and are expected to be in the Fund for the longer term. This will mitigate the risk to the Fund and its employers in the event of any default on future contributions.

Other measures to mitigate risks are the tightening of the arrangements for the admission of community of interest bodies along with a more cautious approach to be adopted for termination valuations.

Question: Do you agree with the approach that the Fund has taken to risk or do you have any comments on:

- a. The general approach?
- b. Specific risks identified?
- c. Risks that have not been identified?

Deadline for comments and contact details

Any enquiries about this letter and your eventual response should be sent to Martin Quinn using the address set out above and the contact details set out below by no later than 26 November 2010. Please feel free to reply by letter or e-mail or in the event of queries to contact me by telephone.

Yours faithfully

Martin Quinn Head of Investments Please reply to Martin Quinn

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Extract from CIPFA PENSIONS PANEL GUIDANCE ON PREPARING AND MAINTAINING A FUNDING STRATEGY STATEMENT (GUIDANCE NOTE ISSUE NO 6)

SOLVENCY ISSUES AND TARGET FUNDING LEVELS

A comprehensive statement of the key assumptions and aspirations that make up the funding strategy is a fundamental element of the FSS.

LGPS administering authorities prudentially seek to achieve full funding. The scheme regulations, however, refer to each administering authority securing solvency by means of employer contribution rates established by mandatory valuation exercises and to the desirability of maintaining as nearly constant a rate as possible.

However, given the statutory position of the LGPS administering authorities and the other authorities that make up the core of the scheme and the statutory basis of the scheme, the scheme remains outside the solvency arrangements established for private sector occupational pension schemes. It would not, therefore, be imprudent for LGPS administering authorities to establish longer-term recovery periods than those in the private sector where this was thought prudentially appropriate and relevant to local circumstances, and linked to the scheme's triennial valuation exercise requirements.

The FSS is designed to provide a framework from within which such periods can be established, set and monitored and for the parallel actuarial valuation exercise to have regard to the policies established and set out in the individual FSSs.

The future funding strategy adopted by local authorities should be based on a prudential approach after a thorough consideration of all relevant factors.

Administering authorities and, in particular, other contributing local authority employers to the scheme, will need to consider carefully how best to utilise the opportunity afforded to them by the FSS. Local authority employers who may face the prospect of either having to increase council tax locally to help pay for increased contribution levels to the LGPS, for example, or to consider reducing local services (or even both in some circumstances) may now prefer to opt for extending their liability recovery periods, in conjunction with their advisers, where this is prudentially appropriate.

When considering the application of FSS principles to non-local authority employers (who have no local tax raising powers), administering authorities will need to balance carefully the need to set appropriate employer contribution levels against the financial standing of those employers.

Where a pooling approach is adopted to group employers to recognise common characteristics, e.g. size of membership, closed or defunct, similar financing base, the FSS should state the administering authority's policy in regard to achieving a common funding strategy and contribution rate.

It is not the purpose of this guidance to prescribe an optimum target period for securing full funding, but to recognise the need to avoid short-term horizons, provide stability in setting employers' contributions and take practical and realistic advantage of the constitutional permanence of local government and the scheme's statutory status. This includes, for local

authority employers, a particular focus on the interdependence of LGPS employer contribution levels and council tax, as well as the implications for the latter of other public service pension scheme employer liabilities.

LINKS TO INVESTMENTS POLICY SET OUT IN THE STATEMENT OF INVESTMENT PRINCIPLES

The required investment returns to meet the funding strategy must be compatible with the investment policy as set out in the SIP and this should be confirmed and explained in the FSS.

Many authorities use asset liability studies, or some form of stochastic model, in order to assist the process of formulating a strategic asset allocation. Clearly whatever method is used, the outcome needs to be consistent with achieving the appropriate locally determined solvency targets. In formulating a funds overall investment strategy, account should be taken of the funding position in relation to the liabilities of the fund. The FSS should state the extent to which the solvency objective is embedded in the strategic asset allocation and linked directly to the SIP, and the risks of different strategies.

IDENTIFICATION OF RISKS AND COUNTER-MEASURES

Awareness of the risks that may impact on the funding strategy and expectations of future solvency is crucial to determining the appropriate measures to mitigate those risks. The FSS should identify those risks specific to the pension fund and the measures to be taken or assumptions made to counter those risks.

For ease of classification some of the key risks may be identified as follows:

Financial

- investment markets fail to perform in line with expectations;
- market yields move at variance with assumptions;
- investment fund managers fail to achieve performance targets over the longer term;
- asset re allocations in volatile markets may lock in past losses pay and price inflation significantly more or less than anticipated; and
- the effect of a possible increase in employer's contribution rate on service delivery and admitted/scheduled bodies.

Many statistical or financial risks can be assessed by the use of sensitivity analysis, e.g. investment returns + or - 1 % per annum different from assumptions made by the fund actuary over, say, three-yearly periods.

Demographic

- · the longevity horizon continues to expand; and
- deteriorating pattern of early retirements.

Demographic risks may be harder to assess but prudent management of the fund should ensure that sound policies and procedures are in place to manage, e.g. potential ill health/early retirements.

Regulatory

- changes to regulations, e.g. more favourable benefits package, potential new entrants to scheme, e.g. part-time employees; and
- changes to national pension requirements and/or Inland Revenue rules.

The impact of proposed changes to regulations should be considered carefully and views expressed during consultation periods as to how these might influence the determination of a suitable funding strategy.

Where those assumptions relate to future changes in the regulations or their impact on funding levels, the changes should be clearly stated and evaluated. For example, these might include policies on funding early retirements, budgets for ill health retirements, assumptions on achieving higher average retirement ages, improved benefits and offsetting higher employee contribution rates.

Governance

- administering authority unaware of structural changes in an employer's membership (e.g. large fall in employee members, large number of retirements);
- administering authority not advised of an employer closing to new entrants; and
- an employer ceasing to exist with insufficient funding or adequacy of a bond.

Risks of insufficient or untimely information should be countered by a rigorous approach to inter-valuation monitoring and discussion with employers. This should include regular reviews of funding levels and bond arrangements, and also the financial standing of employers that are not tax-raising bodies.

EXPECTED LONG TERM STRATEGIC FUND INVESTMENT RETURNS

In preparation for the 2010 valuation process, the Fund's investment consultants, Hymans Robertson, were asked to update the investment expectations for the Fund. The following is a summary of their findings which will in due course be reflected in an updated version of the SIP to be considered by the ISC later in the year:

Expected strategic return on assets

At 31 March 2010, Hymans Robertson's assumptions with regard to the long term returns on asset classes were:

Asset class	20 year return (% p.a.)	
UK Equity	7.9%	
Overseas / Global Equity	7.6%	
Private Equity	9.0%	
Fixed Interest Gilts	4.7%	
Index-linked Gilts	4.5%	
Corporate Bonds	5.5%	
LIBOR+	5.0%	
Property	5.8%	
Infrastructure	5.8%	

Given the Fund's long term strategic allocation of assets at that time (reweighting for Private equity) of:

%	
10.0	UK Equity
53.0	Overseas / Global Equity
6.0	Private equity (including activism)
1.2	Fixed Interest Gilts
3.8	Index-Linked Gilts
5.5	Corporate Bonds
6.0	LIBOR + (including Company Loans)
12.0	Property
2.5	Infrastructure

this would imply a long term strategic expected return of 7.0% p.a. on an arithmetic weighted average of these individual returns. This does not take account of any expected return from active management (including currency) or the benefit we might expect from diversification (which we expect to come through as 'bonuses'). Using Hymans Robertson's internal asset model (which, in this case, also does not take account of active management, but does allow for the benefits of diversification) some analysis was performed with respect to various expected returns and the probability of achieving that return. The model (based on the current structure) calculates a central expected return of 7.9% p.a. The overall expected return on a portfolio of assets does not solely reflect the arithmetic weighted average of the returns on the individual asset classes. This is due to diversification i.e. when you combine a portfolio of

assets which are not fully correlated to each other, the expected portfolio return is greater than the arithmetic combination of the individual returns. This reflects the lower volatility of the portfolio compared to the volatility of the sum of the parts. This is sometimes referred to as 'volatility drag'.

The probability of achieving particular levels of out-performance relative to the liabilities is as follows:

	1 year	3 years	20 years
Probability of achieving liabilities + 1.0% p.a	57%	63%	77%
Probability of achieving liabilities + 2.5% p.a	53%	56%	62%
Probability of achieving liabilities + 3.5% p.a	50%	52%	51%