

Statement of Accounts - Pension Fund Accounts

Introduction

The Pension Fund accounts, and accompanying notes, summarise the financial transactions and net assets related to the provision of pensions and other benefits payable to former employees of the Council, Essex district, borough and unitary councils, and for other scheduled and admitted bodies. The Pension Fund accounts are set out in the following pages, as detailed below.

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Fund Account for the year ended 31 March 2017

2015/16 Restated £000	Note		2016/17	
			£000	£000
		Dealing with members and others directly involved in the Fund		
		Income		
		Contributions receivable		
(53,964)	8	Member contributions	(54,497)	
(168,443)	8	Employers' contributions	(169,859)	
(7,936)	8	Transfers in from other Pension Funds	(12,465)	
(1,576)		Other income	(1,720)	
<u>(231,919)</u>		Total income		(238,541)
		Expenditure		
		Benefits payable		
177,467	8	Pensions	183,131	
31,935		Commutation of pensions & lump sum retirement benefits	36,481	
6,344		Lump sum death benefits	5,693	
		Payments to and on account of Leavers		
544		Refunds of contributions	680	
321		State scheme premiums	378	
5,288	8	Transfers out to other schemes	11,890	
33,097	10	Management expenses	36,645	
<u>254,996</u>		Total expenditure		274,898
23,077		Net additions from dealings with members		36,357
		Returns on investments		
(87,752)	9	Investment income	(85,320)	
(43,640)	11	Profit and losses on disposal of investments and changes in	(947,557)	
3,834	14	market value of investments	2,571	
		Taxes on income		
<u>(127,558)</u>		Net returns on investments		(1,030,306)
(104,481)		Net (increase)/decrease in the assets available for benefits during the year		(993,949)
(4,932,623)		Net assets as at 1 April		(5,037,104)
<u>(5,037,104)</u>		Net assets as at 31 March		<u>(6,031,053)</u>

The Fund in 2016/17 has changed its policy in the treatment of administration recharges in accordance with CIPFA's guidance. In prior years admin expenses were offset by the administration income received to the Fund from employers. For 2016/17 the administration expenses are shown gross of this income. The income totalling £1.306m (£1.281m in 2015/16) is now shown under other income in the Fund Account. The change in policy has a net nil effect.

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Net Assets Statement as at 31 March 2017

31 March 2016 £000	Note		31 March 2017 £000	£000
	11	Investments at market value		
		Investment assets		
235,486		Fixed interest securities	241,885	
3,124,105		Equities	3,797,199	
144,369		Index linked securities	252,209	
358,780		Property	366,185	
215,089		Property unit trusts	211,841	
247,281		Private Equity	297,552	
162,085		Infrastructure	191,819	
77,675		Timber	101,983	
76,705		Illiquid Debt	101,367	
248,358		Other managed funds	261,836	
17,300		Derivative contracts	20,544	
116,692		Cash/deposits	156,226	
7,632		Other investment balances	9,084	
5,031,557				6,009,730
		Investment liabilities		
(35,744)		Derivative contracts	(21,941)	
(353)		Other investment balances	(2,977)	
(36,097)				(24,918)
4,995,460		Total Investments		5,984,812
		Long term assets		
5,196		Contributions due from employers		4,294
	13	Current assets and liabilities		
		Current Assets		
26,311		Cash		35,592
17,669		Contributions due from employers and other current assets		17,257
5,044,636				6,041,955
		Current liabilities		
(7,532)		Unpaid benefits and other current liabilities		(10,902)
5,037,104		Net assets of the scheme available to fund benefits		6,031,053

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Notes to the Pension Fund Accounts

1. Background

1.1 General description of the Fund

Under the Local Government Pension Scheme (LGPS) (Administration) Regulations 2008, Essex County Council is required to maintain a pension fund ("the Fund").

The Essex Pension Fund is part of the Local Government Pension Scheme and is administered by Essex County Council ("the Administering Authority") which is the reporting entity for this pension fund.

Established by the Local Government Superannuation Regulation 1974 the scheme is governed by the Public Service Pensions Act 2013, the Fund is administered in accordance with the following secondary legislation:

- Local Government Pension Scheme(LGPS) Regulations 2013 (as amended);
- LGPS (Transitional Provisions, Savings and Amendment) Regulation 2014 (as amended); and
- LGPS (Management and Investment of Funds) Regulations 2016.

The Fund is a contributory defined benefit pension scheme administered by Essex County Council to provide pensions and other benefits for its employees and those other scheduled Bodies within its area. It is also empowered to admit the employees of certain other bodies, town and parish councils, educational establishments, contractors providing services transferred from scheduled bodies and community interest bodies. A complete list of the employers participating in the Fund is contained in the Pension Fund Annual Report and Accounts. The Fund does not provide pensions for teachers, for whom separate arrangements exist. Uniformed police and fire staff are also subject to separate pension arrangements.

The Council has delegated its pension functions to the Essex Pension Fund Strategy Board and Investment Steering Committee (ISC). Responsibility for the administration and financial management of the Fund has been delegated to the Executive Director for Corporate and Customer Services along with the Director for Essex Pension Fund.

Independent investment managers have been appointed to manage the investments of the Fund. The Fund also invests in private equity, infrastructure and timber through the use of limited partnerships. The ISC oversees the management of these investments and meets regularly with the investment managers to monitor their performance against agreed benchmarks. The ISC in turn reports to the Essex Pension Fund Strategy Board. The Fund's Investment Strategy Statement, formally known as the Statement of Investment Principles, is contained in the Pension Fund Annual Report and Accounts and can be found on the Pension Fund website (www.essexpensionfund.co.uk).

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1.2 Membership

Membership of the LGPS is voluntary and employees are free to choose whether to join the scheme, remain in the scheme, or make their own personal arrangements outside the scheme.

Organisations participating in the Essex Pension Fund include:

- Scheduled bodies, which are local authorities and similar bodies whose staff are automatically entitled to be members of the Fund.
- Admitted bodies, which are other organisations that participate in the Fund under an admission agreement between the Fund and the relevant organisation. Admitted bodies include voluntary, charitable and similar bodies or private contractors undertaking a local authority function following outsourcing to the private sector.

There are around **700** employer organisations within Essex Pension Fund including the County Council itself.

1.3 Funding

Benefits are funded by contributions and investment earnings. Contributions are made by active members of the fund in accordance with the LGPS Regulations 2013 and range from **5.5%** to **12.5%** of pensionable pay for the financial year ending 31 March 2017. Employees can also opt to pay a reduced contribution. This is commonly referred to as the '50/50' option. At any time, an active member can opt to pay half of their normal contribution. This option results in the pension built up during this time being reduced by half. Employee contributions are matched by employers' contributions which are set based on triennial actuarial funding valuations. The last such valuation was at **31 March 2016**. Details can be found on the website www.essexpensionfund.co.uk.

1.4 Benefits

Prior to 1 April 2014, pension benefits under the LGPS were based on final pensionable pay and length of pensionable service.

From 1 April 2014, the scheme became a career average scheme, whereby members accrue benefits based on their pensionable pay in that year at an accrual rate of 1/49th. Accrued pension is updated annually in line with the Consumer Prices Index.

There are a range of other benefits provided under the scheme including early retirement, disability pensions and death benefits. For more details, please refer to the Essex Pension Fund website www.essexpensionfund.co.uk.

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2. Basis of preparation

The financial statements have been prepared in accordance with the Code of Practice on Local Authority Accounting in the United Kingdom 2016/17 issued by CIPFA, which is based upon International Financial Reporting Standards (IFRS) as amended for UK public sector and with the guidelines set out in the Statement of Recommended Practice 2016/17 (SORP). The Code also incorporates the 2015 Statement of Recommended Practice (SORP) 'Financial Reports of Pension Schemes'.

The financial statements summarise the Fund's transactions for the financial year ended 31st March 2017 and its position as at 31st March 2017. They do not take account of obligations to pay pensions and benefits which fall due after the end of the financial year. However, a statement calculating the Fund's actuarial present value of promised retirement benefits (IAS 26) as at 31st March 2017 using IAS 19 methodology can be found in section 3.3.

The accounts are prepared on a going concern basis.

3. Actuarial valuation

The contributions payable for 2016/17 were determined by the 2013 Actuarial Valuation.

3.1 Actuarial Valuation 2016

An actuarial valuation of the Essex Pension Fund was carried out as at 31 March 2016 to determine the contribution rates with effect from 1 April 2017 to 31 March 2020. The results of the valuation are contained within the Statement by the Consulting Actuary of the Pension Fund Report and Accounts.

On the basis of the assumptions adopted, the valuation revealed that the value of the Fund's assets of **£4,993m** (on a smoothed basis) represented **89%** of the Funding Target liabilities of **£5,598m** at the valuation date. The valuation also showed that a primary rate of contribution of **16.3%** of Pensionable Pay per annum was required from employers. The primary rate is calculated as being sufficient, together with contributions paid by members, to meet all liabilities arising in respect of service after the valuation date.

In practice, each individual employer's position is assessed separately and the contributions required are set out in the Actuary's statement. In addition to the certified contributions, payments to cover additional liabilities arising from early retirements (other than ill-health retirements) will be made to the Fund by the employers.

The funding plan adopted in assessing the contributions for each individual employer is in accordance with the Funding Strategy Statement (FSS). Different approaches adopted in implementing contribution increases and deficit recovery periods are as determined through the FSS consultation process.

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The valuation was carried out using the projected unit actuarial method. Full details of the actuarial assumptions are contained within the full valuation report that is available from www.essexpensionfund.co.uk.

The main financial assumptions used were as follows:

Assumptions	Past and future liabilities Rate per annum
Rate of discount	5.10%
Short term pay increase	In line with CPI assumptions for 31 March 2016 to 31 March 2020
Long term pay increase	3.90%
Rate of increase to pensions in payment	2.40%
Pension increases on GMP	Funds will pay limited increases for members that have reached SPA by 6 April 2016, with the Government providing the remainder of the inflationary increase. For members that have reached SPA after this date, we have assumed that funds will be required to pay the entire inflationary increase.

The assets were assessed at market value.

The next triennial actuarial valuation of the Fund is due as at 31 March 2019. Based on the results of this valuation, the contributions payable by the individual employers will be revised with effect from 1 April 2020.

3.2 Actuarial present value of promised retirement benefits

Many of the Fund's employers comply with the accounting disclosure requirements of either IAS 19 or FRS 102. These accounting standards specify the approach taken when calculating liabilities for disclosure in an employer's annual accounts – they do not determine the employer contribution. Employer contributions are determined via the Actuarial Valuation (as described in note 3 above).

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3.3 Actuarial present value of promised retirement benefits

Separate to the Actuarial Valuation, IAS 26 requires the present value of the Fund's promised retirement benefits to be disclosed. For this purpose the actuarial assumptions and methodology used are based on IAS 19 rather than the assumptions and methodology used in the Actuarial Valuation for funding purposes.

In order to assess the present value of the Fund's obligation on this basis, the Actuary, allowing for the different financial assumptions required under IAS 19 has a roll forward approach in valuing the Fund's liabilities which were last calculated at the triennial actuarial valuation as at 31 March 2016.

Liabilities are valued using a discount rate based on corporate bond yields. At 31 March 2017 the Actuary has used the point of the Merrill Lynch AA-rated corporate bond yield curve which is closest to the duration of the Fund's liabilities.

The duration of the Fund's liabilities is the weighted average time to pay each future expected cash flow for each member. This is based on the data from the last actuarial valuation. The Fund's liability duration as at 31 March 2017 is 19 years which in turn means a discount rate of **2.7%** per annum (31 March 2016: 3.6%). The value of the Fund's promised retirement benefits as at 31 March 2017 was **£9,485m** (31 March 2016: £7,438m).

4. Accounting policies

4.1 Fund Account – revenue recognition

4.1.1 *Contribution income*

Normal contributions (also referred to as Primary Contributions), both from the members and from the employer, are accounted for on an accruals basis at the percentage rate recommended by the Fund Actuary in the payroll period to which it relates.

Employer deficit funding contributions (also referred to as Secondary Contributions) are accounted for on the due dates on which they are payable under the schedule of contributions set by the scheme actuary or on receipt if earlier than the due date.

Employers' augmentation contributions and financial strain contributions are accounted for in the period in which the liability arises. Any amounts due in the year but unpaid are classed as a current financial asset. Amounts not due until future years are classed as long-term assets.

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4.1.2 Transfers to and from other schemes

Transfer values represent the amounts received and paid during the year for members who have either joined or left the Fund during the financial year and are calculated in accordance with the Local Government Scheme Regulations (see Note 8 which commences on page 153).

Individual transfers in/out are accounted for when received/paid, which is normally when the member liability is accepted or discharged.

Transfers in from members wishing to use the proceeds of their additional voluntary contributions to purchase scheme benefits are accounted for on a receipts basis and included in Transfers in (see Note 8 which commences on page 153).

Bulk (group) transfers are accounted for on an accruals basis in accordance with the terms of the transfer agreement.

4.1.3 Investment Income

▪ Dividend income

Dividend income is recognised in the Fund Account on the date the shares are quoted ex-dividend. Any amounts not received by 31 March are disclosed in the Net Assets Statement as other investment balances due. Investment income also includes withholding tax where this cannot be recovered. The amount of irrecoverable withholding tax is disclosed as a separate line item on the face of the Fund Account, and a more detailed breakdown can be found in Note 14 (page 168) of the accounting notes that accompany these financial statements.

▪ Income from fixed interest, index linked securities, cash and short term deposits

This income from fixed interest and index linked securities, cash and short term deposits are recognised in the Fund Account on an accruals basis, using the effective interest rate of the financial instrument as at the date of acquisition or origination. Income includes the amortisation of any discount or premium, transaction cost or other differences between the initial carrying amount of the instrument and its amount at maturity calculated on an effective interest rate basis.

▪ Income from other investments

This income is accounted for on an accruals basis. Any amount not received by the end of the financial year is disclosed in the Net Assets Statement under other investment balances.

▪ Property related income

Property related income consists primarily of rental income. Rental income from operating leases on properties owned by the Fund is recognised on a straight line basis over the term of the lease.

Any lease incentives granted are recognised as an integral part of the total rental income, over the term of the lease. Contingent rents based on the future amount of a factor that

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changes other than with the passage of time, such as turnover rents, are only recognised when contractually due.

- **Change in market value of investments**

This is recognised as income during the year and comprises all increases and decreases in market value of investments held at any time during the year, including profits and losses realised on sales of investments and unrealised changes in market value.

4.2 Fund Account – Expense items

4.2.1 *Benefits payable*

Under the regulations, retirees can receive a lump sum retirement grant in addition to their annual pension. Pensions and lump sum retirement grants are accounted for from the date of retirement. When a member chooses to take a greater retirement grant in return for reduced pension these lump sums are accounted for on an accruals basis from the date that the option is exercised. Any amounts due but not paid are disclosed in the Net Assets Statement as current liabilities.

Other benefits are accounted for on the date that members leave the Fund, or upon death.

4.2.2 *Taxation*

The Fund is a registered public service scheme under section 1 (1) of Schedule 36 of the Finance Act 2004 and as such is exempt from UK income tax on interest received and from capital gains tax on proceeds of investments sold. Income from overseas investments suffers withholding tax in the country of origin, unless exemption is permitted. Irrecoverable tax accounted for as a fund expense as it arises (see note 14).

As Essex County Council is the administering authority for the Fund, VAT input tax is recoverable on all Fund activities, including expenditure on investments and property expenses.

4.2.3 *Management expenses*

The Code does not require any breakdown of pension fund administrative expenses. However, in the interests of greater transparency, the Fund discloses its pension fund management expenses where possible in accordance with the CIPFA guidance 'Accounting for Local Government Pension Scheme Management Expenses 2016'.

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4.2.4 *Administrative expenses*

All administrative expenses are accounted for on an accruals basis. All staff costs of the administration part of the function are charged direct to the fund. Associated management, accommodation and other overheads are apportioned to this activity and charged as expenses to the fund. In 2016/17 this totalled **£1.955m** (2015/17: £2.346m).

The Fund in 2016/17 has changed its policy in the treatment of administration recharges in accordance with CIPFA's guidance. In prior years admin expenses were offset by the administration income received to the Fund from employers. For 2016/17, the administration expenses are shown gross of this income. The income totalling £1.306m (2015/16: £1.281m) is now shown under other income in the Fund Account. The change in policy has a net nil effect.

4.2.5 *Oversight and governance*

All oversight and governance expenses are accounted for on an accruals basis. All staff costs associated with governance and oversight are charged direct to the Fund. Associated management, accommodation and other overheads are apportioned to this activity and charged as expenses to the Fund. In 2016/17, this totalled **£1.249m** (£1.073m in 2015/16).

4.2.6 *Investment management expenses*

All investment management expenses are accounted for on an accruals basis.

Fees of the external investment managers and custodian are agreed in the respective mandates governing their appointments. For the investment managers who manage the main asset classes of the Fund these are broadly based on the market value of the investments under their management and therefore increase or reduce as the value of these investments change. With the investment managers who manage the alternative assets the fees are generally calculated on a commitment basis.

Some of the Fund's investments are via pooled vehicles. In the majority of cases the investment manager deducts its management fees directly i.e. the Fund are not invoiced for these costs. The gross up of management fees are offset through the change in market value of these investments.

Where an investment manager's fee note has not been received by the balance sheet date, an estimate based upon the market value of their mandate as at the end of the year is used for inclusion in the fund account. In 2016/17, **£4.186m** of fees is based on such estimates (2015/16: £3.037m). A creditor has been raised and the actual invoice amount is shown within current liabilities.

The costs of the Pension Fund investment function are charged direct to the Fund along with any direct running costs.

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The cost of obtaining investment advice from external consultants is included in investment management charges. Transaction costs and custody fees are included within investment management expenses.

4.3 Net Assets Statement

4.3.1 *Financial Assets*

Financial assets are included in the Net Asset Statement on a fair value basis, as at the financial year end date of 31 March. The financial asset is recognised in the Net Asset Statement on the date the fund becomes party to the contractual acquisition of the asset. From this date, any gains or losses arising from changes in fair value of the asset are recognised in the Fund Account.

The values of investments shown in the Net Assets Statement have been determined at fair value in accordance with the requirements of the Code and IFRS 13 (see note 11). For the purposes of disclosing levels of fair value hierarchy, the Fund has adopted where possible, the classification guidelines recommended in Practical Guidance on Investment Disclosures (PRAG / Investment Association, 2016).

4.3.2 *Contingent assets*

Contingent assets are possible assets that arise from past events, whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain events not wholly within the Pension Fund's control.

Contingent assets are not recognised in the financial statements but are disclosed as a note to the accounts where an inflow of economic benefits or service potential is probably and can be reliably measured.

4.3.3 *Valuation of investments*

The value of investments as shown in the Net Assets Statement is determined as outlined in the following paragraphs.

▪ **Market Quoted Investments**

In the majority of cases, market quoted equity investments for which there is a readily available market price is determined by the bid market price ruling on the final day of the accounting period.

▪ **Unquoted Investments**

Unquoted equity, and private equity limited partnership, investments are valued based on the Fund's share of the net assets of the partnership using the latest financial statements published by the respective fund managers. In 2016/17, these are mainly valued as at 31 December 2016, in accordance with the guidelines issued by the British Venture Capital Association or an equivalent body. As such, an estimate of the valuation at 31 March 2017

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has been made. The 31 December valuation is adjusted for payments made to, and received from, the private equity managers in the period 1 January to 31 March 2017.

Investments in unquoted property, illiquid debt, timber and infrastructure pooled funds are valued at the net asset value or a single price advised by the fund manager.

- **Directly held investments**

These include investments in limited partnerships, unlisted companies, trust and bonds.

Other unquoted securities typically include pooled investments in property, infrastructure, debt securities and private equity. The valuation of these pooled or directly held securities is undertaken by the investment manager or responsible entity and advised as a unit or security price. The valuation standards followed in these valuations adhere to industry guidelines or standards set by the constituent documents of the pool or the management agreement.

- **Unit trusts and managed funds**

These are valued at bid prices provided by the relevant fund managers, which reflect the market value of the underlying investments.

In the case of pooled investment vehicles that are accumulation funds, change in market value also includes income which is reinvested in the Fund, net of applicable withholding tax.

- **Value of fixed interest investments**

Fixed interest investments in the Fund's investment portfolio are recorded at net market value, based on their current yield (i.e. excludes interest earned but not paid over at the Fund year-end, which is included separately within accrued investment income and disclosed within Note 9).

- **Direct Property Investments**

Direct property investments have been valued, at open market value as at 31 March 2017, by Jones Lang LaSalle, Chartered Surveyors. The valuer's opinion of market value and existing use value was primarily derived using comparable recent market transactions on arm's-length terms.

4.3.4 Derivatives

Derivative financial instruments are used to manage exposure to specific risks arising from the Fund's investment activities – they are not held for speculative purposes.

Derivative contracts assets are held at fair value bid price, and liabilities are fair valued at offer prices. Changes in the fair value of derivatives are included in the change in market value (see note 11).

The value of futures contracts is determined using exchange prices published by the relevant futures exchange (e.g. LIFFE – London International Financial Futures Exchange) at the reporting date. Amounts due from or owed to the broker are amounts outstanding in respect of the initial

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margin and variation margin. No future contracts were entered into in the year of reporting, or in the prior year.

Forward foreign exchange contracts outstanding at year end are stated at fair value, which is determined as the loss or gain that would arise if the outstanding contract was required to be settled on 31 March.

4.3.5 Dividends, Interest and Foreign Currencies

Dividend, interest, purchases and sales of investments in foreign currencies have been accounted for at the spot market rates at the date of transaction. End of year spot market exchange rates are used to value cash balances held in foreign currency bank accounts, market values of overseas investments and purchases and sales outstanding at the end of the reporting period.

4.3.6 Cash and Cash Equivalents

Cash comprises of cash in hand and demand deposits. Cash equivalents are short-term highly liquid investments that are readily convertible to known amounts of cash and that are subject to minimal risk of changes in value.

4.3.7 Financial Liabilities

Financial liabilities are recognised at fair value as at the financial year end date of 31st March. A financial liability is recognised in the Net Asset Statement on the date the Fund becomes party to the liability, and any gains or losses arising from changes in the fair value of the liability are recognised by the Fund.

4.3.8 Contingent liabilities and contingent assets

Contingent liabilities are possible obligations that arise from past events whose existence will only be confirmed by the occurrence or non-occurrence of one or more uncertain future events not wholly within the Pension Fund's control.

Contingent assets are possible assets that arise from past events, whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain events not wholly within the Pension Fund's control.

Contingent liabilities are not recognised in the financial statements, but are disclosed as a note to the accounts, unless the possibility of an outflow of resources is remote.

Contingent assets are not recognised in the financial statements but are disclosed as a note to the accounts where an inflow of economic benefits or service potential is probable and can be reliably measured.

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4.3.9 Other financial Instruments

Financial assets are recognised by the Fund on the Balance Sheet only when goods or services have been provided or rendered to a third party. Financial liabilities are recognised when the goods or services ordered from a third party have been received by the Fund and the third party has performed its contractual obligations.

The Fund currently only has liabilities carried at amortised cost and the carrying amount for instruments that will mature within the next twelve months from the balance sheet date is assumed to equate to the fair value.

The fair values of loans and receivables at 31st March have been reviewed and were assessed as being the same as the carrying amounts in the Balance Sheet. Assets are carried in the Balance Sheet at fair value. The values are based on the bid price.

When an asset or liability is translated at balance sheet date the gain / loss is taken as unrealised but when the asset or liability is settled (i.e. received / paid) the gain / loss becomes realised. The Fund has not entered into any financial guarantees that are required to be accounted for as financial instruments.

5. Critical judgements in applying accounting policies

In applying the accounting policies set out within Note 4, the Fund has had to make certain judgements about complex transactions or those involving uncertainty about future events. The critical judgements made in the Fund Accounts are:

▪ Use of Financial Instruments

The Fund uses derivatives financial instruments to manage its exposure to specific risks arising from its investments. The valuation of these types of investments is highly subjective in nature. They are inherently based on forward-looking estimates and judgements that involve many factors.

▪ Unquoted private equity

Unquoted private equities are valued by the investment managers using guidelines set out by the British Venture Capital Association. The value of unquoted private equities as at 31 March 2017 was **£297.6m** (31 March 2016: £247.3m).

▪ Infrastructure

Overseas infrastructure values are determined in accordance with generally accepted valuation principles, in compliance with article 5 (3) of the Luxembourg law of 15 June 2004 on investment companies in risk capital. The infrastructure portfolio managed by MandG Investments is valued by the investment manager using guidelines set out by the International Private Equity and Venture Capital (IPEV) Valuation Guidelines. The value of infrastructure as at 31 March 2017 was **£191.8m** (31 March 2016: £162.1m).

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▪ Timber

Timber valuations are determined by independent appraisers that typically estimate fair market values in accordance with the Uniform Standards of Professional Appraisal Practice (USPAP) and standards of professional appraisal practice that prevail in the countries where assets are located. The value of timber as at 31 March 2017 was **£102.0m** (31 March 2016: £77.7m).

▪ Pension fund liability

The pension fund liability is calculated every three years by the appointed actuary, with annual updates in the intervening years. The methodology used is in line with accepted guidelines and in accordance with International Accounting Standard (IAS) 19. Assumptions underpinning the valuation are agreed with the Actuary. This estimate is subject to significant variances based on changes to the underlying assumptions.

As permitted under IAS 26, the Fund has opted to disclose the actuarial present value of the promised retirement benefits by way of a note to the Net Assets Statement. This is shown in Note 3.3.

6. Assumptions made about the future and other major sources of estimation uncertainty

The Fund Accounts contain estimated figures that are based on assumptions made about the future or that are otherwise uncertain. Estimates are made taking into account historical experience, current trends and other relevant factors. However, because balances cannot be determined with certainty, actual results could be materially different from the assumptions and estimates. The items in the net assets statement at 31 March 2017 for which there is a significant risk of material adjustment in the forthcoming financial year are as follows:

Item	Uncertainties	Effect if actual results differ from assumptions
Actuarial present value of promised retirement benefits <i>Note: Results are taken from the 2016 Actuarial valuation)</i>	Estimation of the net liability to pay pensions depends on a number of complex judgements relating to the discount rate used, the rate at which salaries are projected to increase, changes in retirement ages, mortality rates and expected returns on pension fund assets. A firm of consulting actuaries is engaged to provide the fund with expert advice about the assumptions to be applied.	The effects on the net pension liability of changes in individual assumptions can be measured. For instance, a 0.1% decrease in the discount rate assumption would result in an increase in the pension liability of £89m . An increase of the CPI assumption by 0.1% per annum increases the value of liabilities by approximately £76m . A 0.1% increase in the long-term rate of salary increase would increase the value of liabilities by approximately £8m .

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Item	Uncertainties	Effect if actual results differ from assumptions
		Increasing the long-term rate of improvement used in the mortality projection by 0.25% per annum would increase the liability by approximately £54m .
Pooled property funds and directly held freehold and leasehold property	<p>Valuation techniques are used to determine the carrying amount of pooled property funds and directly held freehold and leasehold property.</p> <p>Where possible, these valuation techniques are based on observable data but where this is not possible management uses the best available data.</p> <p>Changes in the valuation assumptions used, together with significant changes in rental growth, vacancy levels or the discount rate could affect the fair value of property.</p>	The effect of variations in the factors supporting the valuation could result in an increase or decrease in the value of directly held property currently valued as £366.2m .
Private equity / Infrastructure / Timber / Illiquid debt	Private equity investments are valued at fair value in accordance with British Venture Capital Association guidelines. These investments are not publicly listed and as such there is a degree of estimation involved in the valuation.	The total private equity, infrastructure, timber and illiquid debt investments in the financial statements are £693m . There is a risk that this investment may be under or overstated in the accounts.

7. Events after the reporting date

These are events, both favourable and unfavourable, that occur between the end of the reporting period and the date when the financial statements are authorised for issue. Two types of events can be identified:

- a) those that provide evidence of conditions that existed at the end of the reporting period (adjusting events after the reporting period), and
- b) those that are indicative of conditions that arose after the reporting period (non-adjusting events after the reporting period).

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For example, if there had been a marked decline in the global stock markets that would impact upon the market value of the fund's investments were they to be valued as at the date the accounts were authorized for issue, this would be deemed a non-adjusting post-balance-sheet event and would be disclosed in this note.

An example of an adjusting event would be if new information came to light regarding the methodology employed in the valuation of an asset.

8. Membership activities

8.1 Membership

31 March 2016		31 March 2017
53,432	Contributors	59,954
57,331	Deferred pensioners	55,536
37,370	Pensioners	39,106

Deferred pensioners are former employees who have chosen not to transfer their pension rights.

The 31 March 2016 figures reflect the membership as per the 2016 Actuarial Valuation.

8.2 Pension benefits payable

2015/16 Restated £000		2016/17 £000
65,215	Administering Authority	66,286
95,237	Scheduled Bodies	99,054
11,113	Community Admission Bodies	11,207
5,378	Transferee Admission Bodies	6,002
524	Resolution Bodies	582
<u>177,467</u>		<u>183,131</u>

An exercise took place in 2016/17 where the category of each employer was reviewed. This resulted in some revisions. 2015/16 figures have been restated to reflect the revised employer categories. This change had a nil effect on the bottom line.

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8.3 Contributions receivable

8.3.1 By category

Contributions receivable from employers are set out below:

2015/16		2016/17	
£000		£000	£000
53,964	Employee's normal contributions		54,497
	Employers' normal contributions		
114,743	Normal contributions	116,907	
48,247	Employers' deficit recovery contributions	48,613	
5,453	Employers' augmentation	4,339	
<u>168,443</u>			169,859
<u>222,407</u>			<u>224,356</u>

The terminology used in the Actuarial Report for both employer contribution categories have been changed to:

- Employer normal contributions – primary contributions;
- Deficit contribution – secondary contributions;
- Employer augmentation relates to payments for the cost of early retirements.

In 2014/15 Colchester Women's Refuge entered into a three year cessation plan. The final payment of **£21,000** was paid in 2016/17.

In 2015/16 Essex County Scout Council entered into a five year cessation plan. The second instalment of **£28,000** was received in 2016/17. Three further payments of **£30,000** are due in 2017/18, 2018/19 and 2019/20.

In 2016/17, Southend Domestic Abuse Projects entered into a payment plan, agreeing five years of instalments totalling **£76,000**, with a review agreed as at March 2019 valuation.

In 2016/17, final termination amounts were received from University College London of **£457,000** and Inclusion Trust of **£500,000**.

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8.3.2 By type

2015/16			2016/17	
Member £000	Employer £000		Member £000	Employer £000
16,741	50,956	Administering Authority	16,631	49,942
33,558	104,499	Scheduled Bodies	34,657	109,190
1,218	6,575	Community Admission Bodies	1,257	4,408
2,176	5,609	Transferee Admission Bodies	1,667	5,438
271	804	Resolution Bodies	285	881
53,964	168,443		54,497	169,859

An exercise took place in 2016/17 where the category of each employer was reviewed. This resulted in some revisions. 2015/16 figures have been restated to reflect the revised employer categories. This change had a nil effect on the bottom line.

8.4 Transfers in from, and out to, other pension funds

2015/16			2016/17	
Transfers in £000	Transfers out £000		Transfers in £000	Transfers out £000
-	-	Group transfers	-	1,560
7,936	5,288	Individual transfers	12,465	10,330
7,936	5,288	Total	12,465	11,890

In 2016/17, there were two bulk transfers out both to Bedfordshire Pension Fund, Single Fraud Investigation Unit for **£706,000** and Police for **£854,000**. No amounts were payable in respect of group transfers to other schemes during 2015/16.

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9. Investment Income

9.1 By Type

2015/16 £000		2016/17 £000
25,865	Dividends from equities	27,863
1,016	Income from index linked securities	597
4,855	Private Equity income	7,385
15,748	Infrastructure / timberland income	10,216
11,978	Managed fund income	11,589
6,739	Income from pooled property investments	8,383
19,443	Net rent from properties	14,120
458	Interest from cash deposits	528
1,056	Other	1,722
87,158	Total investment income showing net property rent	82,403
	Add back:	
594	Property operating expenses	2,917
87,752	Total investment income showing gross property rent	85,320

In line with best practice guidelines, the note that accompanies investment income requires the Fund to show rent from property net of other property income and operating property expenses. However, rent from property which is included under 'investment income' in the Fund Account is shown on a gross basis.

9.2 Investment property net rental

2015/16 £000		2016/17 £000
19,486	Rental Income from investment property	16,494
(290)	Direct operating expenses arising from investment property	(2,124)
19,196	Total	14,370

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9.3 Contractual rental receivable

The table below shows the contractual amount of rental income due to the Fund as at 31 March:

2015/16 £000		2016/17 £000
17,445	Within one year	17,372
51,547	Between one and five years	48,684
41,141	Beyond five years	34,010
110,133	Total	100,066

9.4 Movement in the fair value of investment properties

	Freehold £000	Leasehold £000	Total £000
Fair value at 1 April 2015	240,745	81,390	322,135
Additions	33,166	24	33,190
Disposals	(9,349)	(9,855)	(19,204)
Net gain/loss on fair value	20,008	2,651	22,659
Fair value at 31 March 2016	284,570	74,210	358,780
Additions	34,088	23	34,111
Disposals	(17,519)	(4,968)	(22,487)
Net gain/loss on fair value	(3,724)	(495)	(4,219)
Fair value at 31 March 2017	297,415	68,770	366,185

10. Management expenses

10.1 By type

2015/16 £000		2016/17 £000
2,346	Administration costs	1,955
29,678	Investment management expenses	33,441
1,073	Oversight and governance	1,249
33,097	Total	36,645

The direct running costs recharged back to the Fund are apportioned out as per the CIPFA guidance on LGPS Management Costs.

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Administrative costs are now shown gross of administration income received from employers. Administration income received from employers totalled **£1.306m** for 2016/17 (£2015/16: £1.281m) and is now shown within 'Other Income' on the face of the Fund Account.

Investment transaction costs incurred during the year are included within Investment Management expenses. These were **£723,000** for 2016/17 (2015/16: £768,000).

10.2 Investment management expenses

2015/16 Restated £000		2016/17 £000
28,616	Management fees	32,325
294	Custody fees	393
768	Transaction costs	723
29,678	Total	33,441

11. Investments

11.1 Value of investments held by managers

The value of investments held by each fund manager on 31 March was as follows:

2016			2017		
£m	%		£m	%	
79	1.6	Alcentra Ltd	110	1.8	
619	12.4	Aviva Investors	614	10.3	
398	8.0	Baillie Gifford and Co	545	9.1	
243	4.9	Stewart Investors (formerly First State)	310	5.2	
235	4.7	Goldman Sachs Asset Management International	242	4.0	
257	5.1	Hamilton Lane	315	5.3	
1,558	31.2	Legal and General Investment Management	1,785	29.8	
(18)	-0.4	Legal and General Investment Management (Currency)	(2)	-	
384	7.7	Longview Partners	496	8.3	
393	7.9	Marathon Asset Management Ltd	515	8.6	
347	6.9	M&G Investments	474	7.9	
238	4.8	M&G Investments Alpha Opportunities	255	4.3	
61	1.2	M&G Investments Infracapital	38	0.6	
9	0.2	M&G Investments Financing Fund	6	0.1	
107	2.1	Partners Group Management II S.à r.l	161	2.7	
1	-	RWC Specialist UK Focus Fund (formerly Hermes)	3	-	
78	1.6	Stafford Timberland Limited	105	1.8	
6	0.1	Other	13	0.2	
4,995	100.0		5,985	100.0	

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11.2 Investments by asset type

The tables below provide an analysis of investment assets by type and show the movements in the market value of the investments, including profits and losses realised on the sales of investments:

2015/16	Value at 1 April 2015	2015/16 Movement					Value at 31 March 2016
		Purchases	Net Transfers	Sale Proceeds	Change in Market Value	Cash Movement	
	£000	£000	£000	£000	£000	£000	£000
Fixed interest securities							
UK quoted	232,568	-	-	-	2,918	-	235,486
Equities							
UK quoted	153,973	9,641	(1,694)	(36,200)	(5,693)	-	120,027
Overseas quoted	1,278,488	254,675	(98,301)	(209,200)	18,182	-	1,243,844
UK unit trusts	243,770	37,379	(3,388)	(9,603)	(4,344)	-	263,814
Overseas unit trusts	780,132	137,901	26,087	(142,342)	(7,756)	-	794,022
Global unit life assurance policies	309,953	585	47,975	(540)	(2,199)	-	355,774
Global unit trusts	299,192	20,241	29,321	(2,741)	611	-	346,624
Index linked securities							
Index unit linked life assurance policies	40,702	26,366	75,001	(92,361)	1,062	-	50,770
UK public sector quoted	175,830	19,192	(74,890)	(27,036)	503	-	93,599
Property							
UK properties (freehold)	240,745	33,166	-	(9,349)	20,008	-	284,570
UK properties (leasehold)	81,390	24	-	(9,855)	2,651	-	74,210
Property unit trusts	217,452	6,452	5,608	(25,845)	11,422	-	215,089
Private equity							
UK unquoted	164	-	-	(125)	-	-	39
Overseas unquoted	237,815	46,354	-	(69,855)	32,928	-	247,242
Infrastructure							
UK unquoted	84,080	1,330	-	(38,671)	13,985	-	60,724
overseas unquoted	74,895	23,204	-	(10,439)	13,701	-	101,361
Timber (Overseas unquoted)	49,057	19,134	-	(1,074)	10,558	-	77,675
Illiquid Debt							
UK unquoted	24,442	-	-	(69)	921	-	25,294
Overseas unquoted	38,887	12,564	-	(3,784)	3,744	-	51,411
Other managed funds							
UK unquoted	253,665	5,648	-	(4,081)	(6,874)	-	248,358
Overseas unquoted	-	-	-	-	-	-	-
Cash							
Cash deposits held at the custodian/other							
Sterling	71,342	-	-	-	-	5,201	76,543
Foreign currency	38,468	-	-	62,688	(62,688)	1,681	40,149
	4,927,010	653,856	5,719	(630,482)	43,640	6,882	5,006,625
Other investment balances							
Assets							
Amounts receivable for sales of investments	1,232						1,720
Investment income due	5,202						5,912
Liabilities							
Amounts payable for purchase of investments	(1,873)						(203)
Investment withholding tax payable	(114)						(150)
Derivative pending foreign currency contracts							
Assets	22,902						17,300
Liabilities	(48,206)						(35,744)
	4,906,153						4,995,460

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The change in market value includes all increases and decreases in the market value of investments held at any time during the year, including profits and losses realised on sales of investments since 1 April.

For 2016/17, the total transaction costs were **£723,000** (2015/16: £768,000). These are included within investment management expenses (see note 10).

2016/17	Value at 1 April 2016	2016/17 Movement					Value at 31 March 2017
		Purchases	Net Transfers	Sale Proceeds	Change in Market Value	Cash Movement	
	£000	£000	£000	£000	£000	£000	£000
Fixed interest securities							
UK quoted	235,486	-	-	-	6,399		241,885
Equities							
UK quoted	120,027	42,803	-	(36,939)	24,471		150,362
Overseas quoted	1,243,844	244,753	-	(251,333)	403,677		1,640,941
UK unit trusts	263,814	-	-	(44,720)	46,475		265,569
Overseas unit trusts	794,022	-	-	(236,832)	225,271		782,461
Global unit life assurance policies	355,774	-	-	(699)	129,024		484,099
Global unit trusts	346,624	1,512	-	(3,682)	129,313		473,767
Index linked securities (UK public sector quoted)							
Index linked unit life assurance policies	50,770	99,700	-	(29,706)	17,232		137,996
UK public sector quoted	93,599	6,575	-	(6,004)	20,043		114,213
Property							
UK properties (freehold)	284,570	34,088	-	(17,519)	(3,724)		297,415
UK properties (leasehold)	74,210	23	-	(4,968)	(495)		68,770
Property unit trusts	215,089	12,163	1	(15,200)	(212)		211,841
Private equity							
UK unquoted	39	-	-	(13)	(5)		21
Overseas unquoted	247,242	51,049	-	(77,129)	76,369		297,531
Infrastructure							
UK unquoted	60,724	-	-	(45,744)	16,316		31,296
overseas unquoted	101,361	59,354	-	(19,272)	19,080		160,523
Timber (Overseas unquoted)	77,675	15,991	-	(1,003)	9,320		101,983
Illiquid Debt							
UK unquoted	25,294	-	-	(126)	3,084		28,252
Overseas unquoted	51,411	35,028	-	(11,928)	(1,396)		73,115
Other managed funds							
UK unquoted	248,358	6,721	-	(6,983)	13,740		261,836
Cash							
Cash deposits held at the custodian/other							
Sterling	76,543	-	-	-	-	25,531	102,074
Foreign currency	40,149	-	-	186,425	(186,425)	14,003	54,152
	5,006,625	609,760	1	(623,375)	947,557	39,534	5,980,102
Other investment balances							
Assets							
Amounts receivable for sales of investments	1,720						2,663
Investment income due	5,912						6,421
Liabilities							
Amounts payable for purchase of investments	(203)						(2,619)
Investment withholding tax payable	(150)						(255)
Amounts payable in respect of the GLF purchases	-						(103)
Derivative pending foreign currency contracts							
Assets	17,300						20,544
Liabilities	(35,744)						(21,941)
	4,995,460						5,984,812

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31 March 2016 £000		31 March 2017 £000
	Fixed interest securities	
235,486	UK quoted	241,885
	Equities	
120,027	UK quoted	150,362
1,243,844	Overseas quoted	1,640,941
263,814	UK unit trusts	265,569
794,022	Overseas unit trusts	782,461
355,774	Global unit life assurance policies	484,099
346,624	Global unit trusts	473,767
	Index linked securities: UK public sector quoted	
50,770	UK unit linked life assurance policies	137,996
93,599	UK public sector quoted	114,213
	Property	
284,570	UK properties (freehold)	297,415
74,210	UK properties (leasehold)	68,770
215,089	Property unit trusts	211,841
	Private equity	
39	UK unquoted	21
247,242	Overseas unquoted	297,531
	Infrastructure	
60,724	UK unquoted	31,296
101,361	Overseas unquoted	160,523
77,675	Timber: Overseas unquoted	101,983
	Illiquid Debt	
25,294	UK unquoted	28,252
51,411	Overseas unquoted	73,115
248,358	Other managed funds: UK unquoted	261,836
	Derivative contracts	
17,300	Assets: Derivative pending foreign currency contracts	20,544
(35,744)	Liabilities: Derivative pending foreign currency contracts	(21,941)
	Cash deposits	
	Cash deposits held at custodian/other	
76,543	Sterling	102,074
40,149	Foreign currency	54,152
4,988,181		5,978,705
	Other investment balances	
	Assets	
1,720	Amounts receivable for sales of investments	2,663
5,912	Investment income due	6,421
	Liabilities	
(203)	Amounts payable for purchase of investments	(2,619)
(150)	Investment withholding tax payable	(255)
-	Amounts payable re. GLF	(103)
4,995,460	Value at 31 March	5,984,812

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11.3 Pooled investments representing 5% or more of net assets

The Fund holds the following investments in unit trusts/pooled vehicles which are in excess of 5% of the value of the Fund:

31 March 2016			31 March 2017		
£000	%		£000	%	
355,774	7.1%	Legal & General FTSE RAFI AW 3000 Index	484,099	8.0%	
346,624	6.9%	M&G Global Dividend Fund	473,767	7.9%	
344,396	6.8%	Legal & General North America Equity Index	340,024	5.6%	
257,839	5.1%	Legal & General Europe (Ex UK) Equity Index	258,444	4.3%	

11.4 Single investments in excess of 5% of any asset types

The Fund holds the following single investments at 31 March which are in excess of 5% of any asset class or type of security:

31 March 2016		Asset type / Asset name	31 March 2017	
£000	%		£000	%
UK QUOTED EQUITIES				
20,188	16.8%	Unilever plc Ord GBP0.031	25,396	16.9%
16,255	13.5%	WPP Plc Ord GBP0.10	18,933	12.6%
-	-	Whitbread Ord GBP0.76	16,428	10.9%
14,038	11.7%	Compass Group Ord GBP0.10	16,096	10.7%
13,263	11.1%	Lloyds Banking GP Ord GBP0.1	12,932	8.6%
7,592	6.3%	Sabmiller plc Ord050.10	-	-
7,224	6.0%	Arm Holdings Ord GBP0.0005	-	-
6,020	5.0%	Reckitt Benck GBP Ord GBP0.10	6,135	4.1%
PROPERTY				
26,900	7.5%	Canning Town Business Park, London	30,140	8.2%
-	-	201 Deansgate, Manchester	29,150	8.0%
21,950	6.1%	48-49 Chancery Lane, London	20,800	5.7%

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31 March 2016		Asset type / Asset name	31 March 2017	
£000	%		£000	%
PROPERTY UNIT TRUSTS				
34,388	16.0%	Aviva Investors Property Fund	25,711	12.1%
19,616	9.1%	Industrial Property Investment Fund	20,958	9.9%
13,679	6.4%	Unite UK Student Accomodation Fund	19,081	9.0%
18,846	8.8%	Blackrock UK Property Fund	18,855	8.9%
16,174	7.5%	Standard Life Property Fund Closed	16,456	7.8%
14,726	6.8%	Lothbury Property Fund	15,495	7.3%
14,756	6.9%	Airport Industrial Fund	15,353	7.2%
13,986	6.5%	Standard Life UK Shopping Centre	13,639	6.4%
12,020	5.6%	Henderson UK Retail Warehouse Fund	10,900	5.1%
PRIVATE EQUITY				
10,683	4.3%	American Securities Partners VI LP	16,088	5.4%
INFRASTRUCTURE				
50,068	30.9%	Partners Group Global Infrastructure 2009 S.C.A., SICAR	52,777	27.5%
31,948	19.7%	Partners Group Global Infrastructure 2012 LP	47,252	24.6%
-	-	Partners Group Global Infrastructure 2015 (USD) SCA SICAR	34,967	18.2%
60,724	37.5%	Infracapital Partners	31,296	16.3%
14,513	9.0%	Partners Group Global Infrastructure 2011 S.C.A.,SICAR	16,586	8.6%
TIMBER				
47,405	61.0%	Stafford International Timberland VI Fund LP	52,523	51.5%
30,270	39.0%	Stafford International Timberland VII Fund (No 2) LP	49,460	48.5%
ILLIQUID DEBT				
51,412	67.0%	Clareant (formerly Alcentra) European DLF Investor Feeder (No.2)	47,225	46.6%
25,294	33.0%	Alcentra Global Multi-Credit Solutions Class IV A GBP	28,252	27.9%
-	-	Clareant European Direct Lending Fund II (GBP) LP	25,890	25.5%
OTHER MANAGED FUNDS				
237,654	95.7%	M&G Alpha Opportunities Fund	255,159	97.4%
CASH				
36,360	31.2%	BNP Paribas Investment Partners GBP	50,057	32.0%
29,730	25.5%	Northern Trust Liquidity Fund GBP	40,861	26.2%
22,334	19.1%	Northern Trust Liquidity Fund US\$	29,906	19.1%
-	-	BNP Paribas Investment Partners US\$	10,106	6.5%

11.5 Derivative contracts

11.5.1 Objectives and policies for holding derivatives

Most of the holdings in derivatives are to hedge liabilities or hedge exposure to reduce risk in the Fund. Derivatives may be used to gain exposure to an asset more efficiently than holding the underlying asset. The use of derivatives is managed in line with the investment agreement agreed between the Fund and the various investment managers.

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11.5.2 Futures

There were no outstanding exchange traded futures contracts as at 31 March 2017 and 31 March 2016.

11.5.3 Forward foreign currency

In order to maintain appropriate diversification and to take advantage of overseas investment returns, **66.6%** of the Fund's NAS is in overseas assets as at 31 March 2017 (31 March 2016: 63.9%).

To reduce the volatility associated with fluctuating currency rates (currency risk) the Fund has a passive currency programme in place which is managed by Legal and General Investment Management. The Fund hedges **50%** of the US Dollar, Euro, Yen and other major overseas currency exposure within the portfolios managed by the growth managers.

11.5.4 Open forward currency contracts

Settlement	Currency Bought	Local value 000	Currency sold	Local value 000	Asset value £000	Liability value £000	Net value £000
Up to one month	AUD	28,380	GBP	15,073	116	-	116
Up to one month	CAD	24,175	GBP	12,880	123	-	123
Up to one month	CHF	28,689	GBP	20,793	50	-	50
Up to one month	EUR	81,608	GBP	64,460	242	-	242
Up to one month	GBP	13,491	AUD	28,388	-	(1,702)	(1,702)
Up to one month	GBP	11,605	CAD	24,175	-	(1,398)	(1,398)
Up to one month	GBP	19,408	CHF	28,689	-	(1,435)	(1,435)
Up to one month	GBP	76,654	EUR	104,265	-	(6,018)	(6,018)
Up to one month	GBP	33,840	JPY	6,104,120	-	(3,946)	(3,946)
Up to one month	GBP	6,075	SEK	77,074	-	(540)	(540)
Up to one month	GBP	282,414	USD	421,526	-	(10,863)	(10,863)
Up to one month	GBP	-	ZAR	9	-	-	-
Up to one month	JPY	6,104,120	GBP	38,380	-	(594)	(594)
Up to one month	SEK	77,074	GBP	6,568	47	-	47
Up to one month	USD	421,526	GBP	298,081	-	(4,805)	(4,805)
One to six months	GBP	39,775	AUD	(77,717)	-	(1,684)	(1,684)
One to six months	GBP	34,466	CAD	(66,568)	-	(1,335)	(1,335)
One to six months	GBP	53,427	CHF	(74,174)	-	(615)	(615)
One to six months	GBP	203,578	EUR	(260,131)	-	(3,028)	(3,028)
One to six months	GBP	142,753	JPY	(22,848,727)	1,081	-	1,081
One to six months	GBP	21,505	SEK	(256,012)	-	(512)	(512)
One to six months	GBP	902,202	USD	(1,270,596)	18,372	-	18,372
Open forward currency contracts at 31 March 2016					20,031	(38,475)	(18,444)
Open forward currency contracts at 31 March 2015					11,970	(37,274)	(25,304)

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Settlement	Currency Bought	Local value 000	Currency sold	Local value 000	Asset value £000	Liability value £000	Net value £000
Up to one month	AUD	27,196	GBP	16,918	-	(327)	(327)
Up to one month	CAD	25,990	GBP	15,683	-	(98)	(98)
Up to one month	CHF	25,253	GBP	20,392	-	(216)	(216)
Up to one month	EUR	83,857	GBP	72,700	-	(974)	(974)
Up to one month	GBP	15,885	AUD	27,247	-	(738)	(738)
Up to one month	GBP	15,620	CAD	25,990	36	-	36
Up to one month	GBP	19,898	CHF	25,253	-	(278)	(278)
Up to one month	GBP	88,527	EUR	104,232	-	(631)	(631)
Up to one month	GBP	54,176	JPY	7,901,132	-	(2,529)	(2,529)
Up to one month	GBP	9,085	SEK	104,857	-	(307)	(307)
Up to one month	GBP	367,192	USD	455,626	2,822	-	2,822
Up to one month	GBP	38	ZAR	632	-	-	-
Up to one month	GBP	17	BRL	68	-	-	-
Up to one month	GBP	29	HKD	279	-	-	-
Up to one month	JPY	7,901,132	GBP	56,478	227	-	227
Up to one month	JPY	62,384	USD	561	-	(1)	(1)
Up to one month	SEK	101,405	GBP	9,261	-	(179)	(179)
Up to one month	USD	454,155	GBP	365,872	-	(2,679)	(2,679)
Up to one month	USD	4	JPY	484	-	-	-
Up to one month	ZAR	14	GBP	1	-	-	-
One to six months	GBP	49,574	AUD	81,078	244	-	244
One to six months	GBP	47,470	CAD	78,129	651	-	651
One to six months	GBP	61,391	CHF	76,328	270	-	270
One to six months	GBP	239,024	EUR	278,444	508	-	508
One to six months	GBP	169,580	JPY	23,826,145	-	(1,584)	(1,584)
One to six months	GBP	25,707	SEK	284,145	215	-	215
One to six months	GBP	1,134,218	USD	1,415,236	4,171	-	4,171
Open forward currency contracts at 31 March 2017					9,144	(10,541)	(1,397)
Open forward currency contracts at 31 March 2016					20,031	(38,475)	(18,444)

12. Additional Voluntary Contributions (AVC) Investments

AVC's are not included in the accounts in accordance with section 4(2) (b) of the Local Government Pension Scheme (Management and Investments of Funds) Regulations 2009 but are disclosed as a note only.

The AVC providers to the Fund are the Equitable Life Assurance Society, Prudential and Standard Life Assurance Company. The assets of these investments are held separately from the Fund. The AVC providers secure additional benefits on a money purchase basis for those members electing to pay additional voluntary contributions. Members participating in these arrangements each receive an annual statement confirming the amounts held in their account and the movements in the year.

The Fund relies on individual contributors to check that deductions made on their behalf are accurately reflected in the statements provided by the AVC providers. A summary of the

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information provided by Equitable Life, Prudential and Standard Life to the Fund is shown in the table below.

12.1 Reconciliation of movements in AVC investments

2015/16 £000		2016/17 £000
6,178	Value of AVC fund at beginning of year	5,837
655	Employees contributions	703
(27)	Investment income and change in market value	669
(969)	Benefits paid and transfers out	(873)
<u>5,837</u>		<u>6,336</u>

12.2 Analysis of AVC investments by Provider

2015/16 £000		2016/17 £000
131	Equitable Life	112
718	Prudential	1,031
4,988	Standard Life	5,193
<u>5,837</u>		<u>6,336</u>

13. Current assets and liabilities

13.1 Analysis of current assets

31 March 2016 £000		31 March 2017 £000	£000
	Cash Balances		
788	Cash at bank	1,560	
25,523	Cash on short term deposits within 3 months	34,032	
<u>26,311</u>			35,592
	Debtors and payments in advance		
3,784	Contributions due – employees	4,091	
13,398	Contributions due – employers	12,410	
487	Sundry debtors	756	
<u>17,669</u>			17,257
<u>43,980</u>	Total		<u>52,849</u>

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13.2 Analysis of debtors

31 March 2016			31 March 2017		
Short term	Long term		Short term	Long term	
£000	£000		£000	£000	
3,505	5,058	Central Government	4,513	3,810	
11,412	24	Other Local Authorities	10,107	17	
29	-	NHS Bodies	19	-	
2,033	114	Public Funded Bodies	1,968	467	
690	-	Other	650	-	
17,669	5,196	Total	17,257	4,294	

13.3 Analysis of long term debtors

31 March 2016		31 March 2017
£000		£000
83	Financial strain instalments due	160
5,113	Other employer contributions due	4,134
5,196	Total	4,294

13.4 Contingent assets

To protect the Fund from employer default the Funding Strategy sets out safeguards to be in place on all new admission agreements. These can include a guarantee from another Fund employer with sufficient covenant strength, and a surety bond or other contingent asset.

13.5 Analysis of current liabilities

31 March 2016		31 March 2017
£000		£000
Unpaid benefits and other current liabilities		
(193)	Contributions due – employers	(316)
(3,037)	Investment manager fees payable	(4,186)
(4,091)	Benefits payable	(4,246)
(211)	Other	(2,154)
(7,532)	Total	(10,902)

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13.6 Analysis of creditors

31 March 2016 £000		31 March 2017 £000
	Creditors and receipts in advance	
(111)	Central Government	(282)
(1,399)	Other Local Authorities	(3,668)
(2)	NHS Bodies	-
(851)	Public Funded Bodies	(296)
(5,169)	Other	(6,656)
<u>(7,532)</u>	Total	<u>(10,902)</u>

13.7 Contingent liabilities and contractual commitments

As at 31 March 2017, the Fund had a commitment to contribute a further **£654.7m** to its existing direct and indirect partnership investments, including private equity, infrastructure, timber, illiquid debt and financing (31 March 2016: £479.2m). The amounts called by these funds are irregular in both size and timing over a period of between five to ten years from the date of each original commitment.

14. Taxes on income

The table below provides a breakdown of the taxes paid by the Fund in the UK and overseas.

2015/16 £000		2016/17 £000
560	UK withholding tax	206
3,157	Overseas withholding tax	2,130
117	Payment to HMRC in respect of returned contributions	235
<u>3,834</u>		<u>2,571</u>

15. Related party transactions

The Fund is required to disclose material transactions with bodies or individuals that have the potential to control or influence the Council, or to be controlled or influenced by the Council. The intention in making this disclosure is to make explicit the extent to which the Fund might have been constrained in its ability to operate independently, or might have secured the ability to limit another party's ability to negotiate freely with the Fund.

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15.1 Administration of the Fund

The Essex Pension Fund is administered by Essex County Council.

The Council incurred gross costs of **£2.516m** in 2016/17 (2015/16: £2.495m) in relation to the administration of the Fund and was subsequently reimbursed by the Fund for these expenses. The Council is also the single largest employer of members of the Fund and contributed **£49.942m** to the Fund in 2016/17 (2015/16: **£50.956m**). No significant amounts were owing to and due to be paid from the Fund in the year.

Surplus cash is invested by the County Council's treasury management team on the sterling money markets, in accordance with the Essex Pension Fund treasury management policy and strategy as agreed by the Essex Pension Fund Investment Steering Committee **23 March 2016**. This service is provided to the Fund at a cost of **£27,000** (2015/16: £26,000).

During the year to 31 March 2017, the Pension Fund had an average investment balance of **£30.618m** (2015/16: £27.089m) earning **£117,000** interest (2015/16: £143,000).

15.2 Governance

Under IFRS 8 'Related Party Disclosures' it is a requirement that material transactions with related parties, not disclosed elsewhere, should be included in a note to the financial statements. During the year, each member of the Essex Pension Board and Investment Steering Committee is required to declare their interests at each meeting. None of the Essex Pension Board Members, Investment Steering Committee Members or Senior Officers undertook any material transactions with the Essex Pension Fund. There were no material contributions due from the employer bodies at the end of the year that remained outstanding after the due date for payment.

15.3 Members of the LGPS

Essex County Council administers the LGPS for its own employees and numerous other bodies. Under legislation introduced in 2003/04, Councillors were also entitled to join the Pension Fund. However, under legislation introduced from 1 April 2015, the entitlement for Councillors to join the Pension Fund was removed. Those Members of the Essex Pension Board and Investment Steering Committee who, during 2016/17, were also members of the LGPS are listed below.

Representative of scheme members	County Councillors
▪ S. Child	▪ Cllr N. J. Hume
Representative of scheme employers	▪ Cllr S. Barker
▪ C. Riley	▪ Cllr J. Whitehouse *
Representatives of small employing bodies	▪ Cllr K. Bobbin *
▪ J. Moore	▪ Cllr M. Mackrory *

* Membership relates to non councillor service.

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From 1 April 2015 pension funds were required to establish a local Pensions Board under section 5 of the Public Service Pensions Act 2013 and Local Government Pension Scheme Regulations 2013. Members of this Board, (Essex Pension Fund Advisory Board) who, during 2016/17, were also members of the LGPS are listed below:

Representative of scheme employers	Representative of scheme members
▪ J. Durrant	▪ K. Flowers **
▪ Cllr S. Walsh	▪ P. Hewitt
	▪ J. Hunt
	▪ M. Paget

*** PAB membership ceased in January 2017*

The employees of Essex County Council who hold key positions in the financial management of the Essex Pension Fund during 2016/17 were the Executive Director for Corporate and Customer Services, the Director for Essex Pension Fund and the Head of Essex Pension Fund. During 2016/17 approximately **2%** (2015/16: 2%) of the Executive Director for Corporate and Customer Services time was spent on the Pension Fund, with other officers spending 100% of their time in this way. As a consequence, the short term benefits (i.e. pay) associated with the time spent by these staff working on the Fund during 2016/17 was **£156,000** (2015/16: £164,000). The 2016/17 current service cost in respect of these personnel was **£68,000** (2015/16: £75,000). The current service cost is the increase in the value of the Fund's future liabilities arising out of employees' on-going membership of the Fund.

16. Agency Services

The Essex Pension Fund pays discretionary awards to former employees of both current and former employers' of the Fund. The amounts paid are not included within the Fund Account but are provided as a service and are fully reclaimed from the employer bodies.

The sums are disclosed below:

2015/16 £000		2016/17 £000
1,554	Administering Authority	1,514
5,509	Scheduled Bodies	5,356
152	Community Admission Bodies	137
1	Transferree Admission Bodies	-
2	Resolution Bodies	2
22	Former employers	22
7,240	Total	7,031

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17. Financial Instruments

Accounting policies describe how different asset classes of financial instrument are measured and how income and expenditure, including fair value gains and losses, are recognised.

17.1 Classification of financial instruments

The following table analyses the carrying amounts of financial assets and liabilities by category and Net Assets Statement headings. No financial assets were reclassified during the accounting period.

Statutory debtors and creditors are excluded from the financial instrument note and only contractual debtors and creditors are shown.

The debtor figure of **£21.551m** as at 31 March 2017 (£2015/16: £22.865m) has been classified as statutory debtors and therefore been excluded from the below note.

The creditor figure of **£10.902m** as at 31 March 2017 (2015/16: £7.532m) excludes statutory creditors of **£6.716m** (2015/16: £4.495m).

In addition, financial assets held by the Fund on a direct basis, for example direct property, have also been excluded from the below note.

31 March 2016			Asset type	31 March 2017		
Designated as fair value through profit and loss £000	Loans and receivables £000	Financial liabilities at amortised cost £000		Designated as fair value through profit and loss £000	Loans and receivables £000	Financial liabilities at amortised cost £000
Financial assets						
235,486	-	-	Fixed interest securities	241,885	-	-
3,124,105	-	-	Equities	3,797,199	-	-
144,369	-	-	Index linked securities	252,209	-	-
215,089	-	-	Pooled unit trusts	211,841	-	-
247,281	-	-	Private equity	297,552	-	-
143,049	-	-	Infrastructure	140,266	-	-
77,675	-	-	Timber	101,983	-	-
25,293	-	-	Illiquid debt	28,252	-	-
248,358	-	-	Other managed funds	261,836	-	-
17,300	-	-	Derivative contracts	20,544	-	-
-	143,003	-	Cash deposits	-	191,818	-
7,632	-	-	Other investment balances	9,084	-	-
-	-	-	Debtors	-	-	-
4,485,637	143,003	-		5,362,651	191,818	-
Financial liabilities						
(35,744)	-	-	Derivative contracts	(21,941)	-	-
(353)	-	-	Other investments balances	(2,977)	-	-
-	-	(3,037)	Creditors	-	-	(4,186)
(36,097)	-	(3,037)		(24,918)	-	(4,186)
4,449,540	143,003	(3,037)	Balance at the end of the year	5,337,733	191,818	(4,186)
4,589,506			Total	5,525,365		

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17.2 Net gains and losses on financial instruments

Asset value as at 31 Mar 2016 £000		Asset value as at 31 Mar 2017 £000
	Financial assets	
75,863	Fair value through profit and loss	1,133,174
(62,688)	Loans and receivables	(186,425)
<u>13,175</u>	Total	<u>946,749</u>

Financial assets held by the Fund on a direct basis (e.g. direct property) have also been excluded from the above note.

The net gains and losses differ from the Fund Account by gains and losses of financial assets held directly. These gains and losses totalled **£808,000** as at 31st March 2017 (31st March 2016: £30.465m).

17.3 Valuation of financial instruments carried at fair value

The valuation of financial instruments has been classified into three levels, according to the quality and reliability of information used to determine fair values.

- **Level 1** – Financial instruments where the fair values are derived from unadjusted quoted prices in active markets for identical assets or liabilities. Assets classified as Level 1 comprise equities, quoted fixed securities, quoted index linked securities and unit trusts. Listed investments are shown at bid prices. The bid value of the investments is based on bid market quotation of the relevant stock exchange.
- **Level 2** – Financial instruments where quoted market prices are not available, for example where an instrument is traded in a market that is not considered to be active, or where valuation techniques are used to determine fair value and where these techniques use inputs that are based significantly on observable market data.
- **Level 3** – Financial instruments where at least one input that could have significant effect on the instruments valuation is not based on observable market data.
Such instruments would include unquoted equity investments which are valued using various valuation techniques that require significant judgement in determining appropriate assumptions.

The value of the investment in private equity is based on valuations provided by the general partners to the private equity funds in which the Essex Pension Fund has invested.

These valuations are prepared in accordance with the International Private Equity and Venture Capital Valuation Guidelines, which follow the valuation principles of IRRS and US

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GAAP. Valuations are usually undertaken annually at the end of December, with unaudited valuations provided by the general partner as at 31 March.

The valuations of infrastructure and timber are based on net asset value provided by the fund manager.

The table that follows shows the hierarchy level as per different asset types:

Asset	Valuation Hierarchy	Basis of Valuation	Observable and Unobservable inputs	Key Sensitivities affecting the Valuation
Market Quoted Equities Unit Trusts Money Market Funds Absolute Returns	Level 1	Published Bid Market Price	N/A	N/A
Unit Linked Life Assurance Policies	Level 2	Valuation technique with quoted prices of a similar asset	Price of recent transactions for identical instrument	Significant change in economic circumstances or time lapse since the transaction took place
Fixed Income	Level 2	The prices are published reflecting the NAV at each dealing point but are not exchange traded	Price of recent transactions for identical instrument	Significant change in economic circumstances or time lapse since the transaction took place
Forward Foreign Exchange Derivatives	Level 2	Market exchange rates at the year end	Price of recent transactions for identical instrument	Risk of an exchange rate changing between the transaction date and the subsequent settlement date volatility of the exchange rates during the hedge period
Property	Level 3	Assets are based on valuations received from the Managers which are determined in accordance with the last known NAV and adjusted for subsequent capital calls and distributions and other relevant information provided by the real estate fund	Pricing inputs are unobservable and include situations where there is little market activity Estimated rental growth Covenant strength for existing tendencies Discount rate Land/building valuation surveys	Significant changes in rental growth, vacancy levels or the discount rate could affect valuations, as could more general changes to market prices and volume of sales and purchases
Distressed Debt	Level 3	The valuation techniques used include comparison to recent arm's length transactions, reference to other instruments that are sustainably the	These techniques may include a number of assumptions relating to variables such as credit risk and interest rates	Valuations could be affected by material events occurring between the date of the financial statements provided and the Pension Funds reporting

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Asset	Valuation Hierarchy	Basis of Valuation	Observable and Unobservable inputs	Key Sensitivities affecting the Valuation
		same, discounted cash flow analysis, option adjusted spread models and, if applicable, enterprise valuation		date by changes to expected cash flows, earning multiple and discount rates used in the discounted cash flow analysis
Infrastructure	Level 3	The valuation of the investment assets is determined in accordance with generally accepted valuation principles in compliance with article 5(3) of the Luxembourg law of 15 June 2004 on investment companies in risk capital	Management's cash flow projections Estimates of growth expectations and profitability Profit margin expectations Adjustments to current prices for similar assets Valuation techniques	Valuations could be affected by material events occurring between the date of the financial statements provided and the Pension Funds reporting date by changes to expected cash flows and fair value adjustments
Private Equity	Level 3	The valuation of the investment are carried at fair value as determined in good faith by the General Partner in accordance with the terms of the Partnership Agreement and US GAAP	Management's cash flow projections Estimates of growth expectations and profitability Profit margin expectations Adjustments to current prices for similar assets Valuation techniques	Valuations could be affected by material events occurring between the date of the financial statements provided and the Pension Funds reporting date by changes to expected cash flows, earning multiple and discount rates used in the discounted cash flow analysis
Timberlands	Level 3	Valuation technique is based on accepted valuation techniques that include discounted cashflow and multiple earnings	Management's cash flow projections Estimates of growth expectations and profitability Profit margin expectations Adjustments to current prices for similar assets Valuation techniques	Valuations could be affected by material events occurring between the date of the financial statements provided and the Pension Funds reporting date by changes to expected cash flows, earning multiple and discount rates used in the discounted cash flow analysis

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The following table provides an analysis of the financial assets and liabilities of the pension fund grouped into Level 1 to 3 based on the level at which the fair value is observable.

Values as at 31 March 2016 (Restated)			Values as at 31 March 2017		
Level 1 Quoted market prices £000	Level 2 Using observable inputs £000	Level 3 Significant unobservable inputs £000	Level 1 Quoted market prices £000	Level 2 Using observable inputs £000	Level 3 Significant unobservable inputs £000
Financial assets					
2,047,211	1,730,039	708,387	2,630,251	1,952,506	779,894
143,003	-	-	191,818	-	-
2,190,214	1,730,039	708,387	2,822,069	1,952,506	779,894
Non financial assets					
-	-	429,228	-	-	490,853
Financial liabilities					
(353)	(35,744)	-	(2,977)	(21,941)	-
(3,037)	-	-	(4,186)	-	-
(3,390)	(35,744)	-	(7,163)	(21,941)	-
2,186,824	1,694,295	1,137,615	2,814,906	1,930,565	1,270,747
Total net assets per level					
5,018,734			6,016,218		
Total Net Assets					

17.4 Transfers between hierarchy levels

The Pensions Research Accountants Group (PRAG) published a practical guidance for investment disclosures during 2016, in response to FRS102 amendments in respect of the fair value hierarchy disclosures alignment with IFRS. The paper states that pooled fund holdings should not just be analysed in terms of their underlying investments but should also be dependent on the nature and the investors' ability to exit the holding. Taking this into account, the following movements have been made and are reflect in the previous table.

Values as at 31 March 2016			Values as at 31 March 2017		
Movement to/(from)			Movement to/(from)		
Level 1 Quoted market prices £000	Level 2 Using observable inputs £000	Level 3 Significant unobservable inputs £000	Level 1 Quoted market prices £000	Level 2 Using observable inputs £000	Level 3 Significant unobservable inputs £000
Financial assets					
Fair value through profit and loss					
(1,413,610)	1,413,610	-	(1,532,129)	1,532,129	-
(50,770)	50,770	-	(137,996)	137,996	-
(17,300)	17,300	-	(20,544)	20,544	-
-	(215,089)	215,089	-	(211,841)	211,841
(1,481,680)	1,266,591	215,089	(1,690,669)	1,478,828	211,841
Financial liabilities					
Fair value through profit and loss					
35,744	(35,744)	-	21,941	(21,941)	-
35,744	(35,744)	-	21,941	(21,941)	-
(1,445,936)	1,230,847	215,089	(1,668,728)	1,456,887	211,841
Movement between levels					

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17.5 Reconciliation of fair value measurements within Level 3

2016/17	Value at 1 April 2016	2016/17 Movement						Value at 31 March 2017
		Transfer to Level 3	Purchases	Net Transfers	Sale Proceeds	Unrealised profit/ loss	Realised profit/ loss	
	£000	£000	£000	£000	£000	£000	£000	£000
Properties								
UK properties (freehold)	284,570		34,088		(17,519)	111	(3,835)	297,415
UK properties (leasehold)	74,210		23		(4,968)	(2,195)	1,700	68,770
Property unit trusts	-	215,089	12,163	1	(15,200)	10,699	(10,911)	211,841
Private equity								
UK unquoted	39		-		(13)	(18)	13	21
Overseas unquoted	247,242		51,049		(77,129)	43,170	33,199	297,531
Infrastructure								
UK unquoted	60,724		-		(45,744)	(7,065)	23,381	31,296
Overseas unquoted	101,361		59,354		(19,272)	17,205	1,875	160,523
Timber (Overseas unquoted)	77,675		15,991		(1,003)	9,281	39	101,983
Illiquid Debt								
UK unquoted	25,294		-		(126)	3,084	-	28,252
Overseas unquoted	51,411		35,028		(11,928)	(3,887)	2,491	73,115
	922,526	215,089	207,696	1	(192,902)	70,385	47,952	1,270,747

18. Nature and extent of risks arising

18.1 Risk and risk management

The Fund's primary long term risk is that the Fund assets will fall short of its liabilities (i.e. promised benefits payable to members). Therefore the aim of investment risk management is to minimise the risk of an overall reduction in the value of the Fund and to maximise the opportunity for gains across the whole of the Fund's investments. The Fund achieves this through asset diversification to reduce its exposure to a variety of financial risks: market risk; other price risk; currency risk; interest rate risk and credit risk to an acceptable level. In addition, the Fund manages its liquidity risk to ensure there is sufficient liquidity to meet the Fund's forecast cash flows. The Fund manages these investment risks as part of its overall pension fund risk management programme.

Responsibility for the Fund's risk management strategy rests with the Investment Steering Committee (ISC). Risk management policies are established to identify and analyse the risks faced by the Fund's pensions operations. Policies are reviewed regularly to reflect changes in activity and in market conditions.

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18.2 Market risk

Market risk is the possibility that financial loss might occur as a result of fluctuations in equity and commodity prices, interest rates and foreign exchange. The level of risk exposure depends on market conditions, expectation of future price and yield movements and the asset mix.

Market risk is inherent in the investments that the Fund makes. To mitigate market risk the investments are made in a diversified pool of asset classes and investment approaches to ensure a risk adjusted balance between categories. The Fund takes formal advice from its institutional investment consultant, Hymans Robertson LLP, along with the Fund's independent adviser and the portfolio is split between a number of managers and investment strategies with different benchmarks and performance targets. Full details can be found in the Investment Strategy Statement (formerly referred to as the Statement of Investment Principles) which is available from the website www.essexpensionfund.co.uk. Investment risk and strategy are regularly reviewed by the Investment Steering Committee (ISC).

18.3 Other price risk

Other price risk represents the risk that the value of a financial instrument will fluctuate as a result of changes in market prices (other than those arising from interest rate risk or foreign exchange risk) whether those changes are caused by factors specific to the individual instrument, its issuer or factors affecting all such instruments in the market.

The Fund is exposed to share and derivative price risk. This arises from investments held by the Fund for which the future price is uncertain. All investments present a risk of loss of capital. The level of volatility will vary by asset class and also over time. The Fund has some diversification in the asset classes in which it invests, which seeks to reduce the correlation of price movements between different asset types, while employing specialist investment managers to best deploy capital in line with the Fund's overall strategy. The LGPS investment regulations also contain prescribed limits to avoid over-concentration in specific areas.

18.4 Other price risk sensitivity analysis

In consultation with its institutional consultants, Hyman Robertson LLP, an analysis of historical data and expected return movements during the accounting periods in question was undertaken. The table below shows the potential price movements deemed possible for the accounting period 2016/17.

The percentages shown in the following table are broadly consistent with a movement of one standard deviation in the value of the Fund's assets, and assumes that all other variables in particular foreign exchange rates and interest rates remain unchanged.

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31st March 2016 Potential Market movement %	Asset type	31st March 2017 Potential Market movement %
9.2%	UK bonds	8.7%
18.0%	UK equities	15.8%
21.0%	Overseas equities	18.4%
7.0%	UK index linked bonds	7.1%
15.0%	Pooled property unit trusts	14.2%
29.0%	Private equity	28.5%
15.0%	Infrastructure funds	11.3%
15.0%	Timber	11.3%
14.0%	Illiquid debt	12.3%
15.0%	Property	14.2%
1.0%	Cash	0.0%

Had the market price of the Fund investments increased/ (decreased) in line with the above assumptions the change in the net assets available to pay benefits would have been as follows:

31st March 2016 £000	Percentage change %	Value increase £000	Value decrease £000	Asset type	31st March 2017 £000	Percentage change %	Value increase £000	Value decrease £000
116,692	1.0%	117,859	115,525	Cash and equivalents	156,226	-	156,226	156,226
				Investment portfolio assets				
235,486	9.2%	257,151	213,821	UK bonds	241,885	8.7%	262,929	220,841
120,027	18.0%	141,632	98,422	UK equities	150,362	15.8%	174,119	126,605
1,243,844	21.0%	1,505,051	982,637	Overseas equities	1,640,941	18.4%	1,942,874	1,339,008
263,814	18.0%	311,301	216,327	UK equities unit insurance policies	265,569	15.8%	307,529	223,609
794,022	21.0%	960,767	627,277	Overseas equities insurance policies	782,461	18.4%	926,434	638,488
355,774	21.0%	430,487	281,061	Global equities insurance policies	484,099	18.4%	573,173	395,025
346,624	21.0%	419,415	273,833	Global unit trusts	473,767	18.4%	560,940	386,594
144,369	7.0%	154,475	134,263	UK index linked bonds	252,209	7.1%	270,116	234,302
215,089	15.0%	247,352	182,826	Pooled property unit trusts	211,841	14.2%	241,922	181,760
247,281	29.0%	318,992	175,570	Private equity	297,552	28.5%	382,354	212,750
162,085	15.0%	186,398	137,772	Infrastructure	191,819	11.3%	213,495	170,143
77,675	15.0%	89,326	66,024	Timber	101,983	11.3%	113,507	90,459
76,705	14.0%	87,444	65,966	Illiquid Debt	101,367	12.3%	113,835	88,899
248,358	15.0%	285,612	211,104	Other managed funds	261,836	11.3%	291,423	232,249
358,780	15.0%	412,597	304,963	Property	366,185	14.2%	418,183	314,187
(18,444)	-	(18,444)	(18,444)	Net derivative assets	(1,397)	-	(1,397)	(1,397)
5,912	-	5,912	5,912	Investment income due	6,421	-	6,421	6,421
(150)	-	(150)	(150)	WHT payable	(255)	-	(255)	(255)
1,720	-	1,720	1,720	Amounts receivable for sales	2,663	-	2,663	2,663
(203)	-	(203)	(203)	Amounts payable for purchases	(2,619)	-	(2,619)	(2,619)
-	-	-	-	Amounts payable for GLF	(103)	-	(103)	(103)
4,995,460		5,914,694	4,076,226	Total assets available to pay benefits	5,984,812		6,953,769	5,015,855

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18.5 Sensitivity of funding position

Market conditions and the underlying investment performance of the Fund's assets will have a direct impact on the funding position, albeit that a smoothed rather than spot rate methodology is used by the Fund's Actuary.

Barnett Waddingham's approach adopted at the 2016 Actuarial Valuation includes the following features:

- Financial assumptions such as inflation and the discount rate are based on smoothed market indicators from around the valuation date, specifically over the six month period from 1 January 2017 to 30 June 2017. The discount rate is based on the expected investment return from the Fund's assets.
- The market value of assets at 31 March 2017 is then adjusted to also be smoothed over the same six month period so that a consistent comparison can be made with the liabilities.

18.6 Interest rate risk

The Fund invests in financial assets for the primary purpose of obtaining a return on investments. These investments are subject to interest rate risk, which represent the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market interest rates. Interest rate risk primarily impacts on the valuation of the Funds' bond holdings and, to a lesser degree, the return it receives on cash held. The Fund has three bond mandates; a passive bond mandate with Legal and General and bond mandates with MandG Investments (MandG) and Goldman Sachs Asset Management (GSAM) in which exposure is actively managed. In addition the Fund has an investment in an illiquid debt mandate.

The Fund's direct exposure to interest rate movements is shown below. The underlying assets are shown at their fair value.

Asset value as at 31 Mar 2016 £000	Asset type	Asset value as at 31 Mar 2017 £000
116,692	Cash and cash equivalents	156,226
26,311	Cash balances	35,593
235,486	Fixed interest securities	241,885
144,369	Index-linked securities	252,209
76,705	Illiquid debt	101,367
599,563	Total assets	787,280

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18.7 Interest rate risk sensitivity analysis

Interest rates have remained constant but this is not always the case and can vary. As a result, any variation in interest rates affects the level of income achievable and the value of the net assets of the Fund to pay benefits. The Fund's institutional consultants, Hymans Robertson, have undertaken a sensitivity analysis and advised that it is reasonable in today's climate that a movement increase/(decrease) of not more than 100 basis points on a year to year basis is possible based on past experience.

The table below shows the effect in the year on the net assets available to pay benefits of an increase/(decrease) of 100 basis points change in interest rates assuming all other factors remain unchanged.

Asset value as at 31 Mar 2016 £000	Change in year in the net assets to pay benefits		Asset type	Asset value as at 31 Mar 2017 £000	Change in year in the net assets to pay benefits	
	+100 BPS £000	-100 BPS £000			+100 BPS £000	-100 BPS £000
116,692	1,167	(1,167)	Cash and cash equivalents	156,226	1,562	(1,562)
26,311	263	(263)	Cash balances	35,593	356	(356)
235,486	2,355	(2,355)	Fixed interest securities	241,885	2,419	(2,419)
144,369	1,444	(1,444)	Index-linked securities	252,209	2,522	(2,522)
76,705	767	(767)	Illiquid debt	101,367	1,014	(1,014)
599,563	5,996	(5,996)	Total change in assets available	787,280	7,873	(7,873)

18.8 Currency risk

Currency risk is the extent to which the fair value of future cash flows of a financial asset/liability will fluctuate due to changes in exchange rates. The Fund is exposed to currency risk on all assets that are denominated in any currency other than sterling, its reporting currency. To reduce the volatility associated with fluctuating currency rates the ISC has for the Fund put in place a passive currency overlay programme which is managed by Legal and General Investment Management. The Fund hedges 50% of the US Dollar, Euro, Yen and other major overseas currency exposure within the portfolios managed by the growth managers.

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The following table summarises the Fund's currency exposure as at 31 March 2017 and prior year:

31 Mar 2016 £000	Asset type	31 Mar 2017 £000
1,243,844	Overseas equities quoted	1,640,941
794,022	Overseas unit life assurance policies	782,461
355,774	Global unit life assurance policies	484,099
346,624	Global unit trusts	473,767
247,242	Overseas private equity	297,531
101,361	Overseas infrastructure	160,523
77,675	Overseas timber	101,983
51,411	Overseas illiquid debt	73,115
3,217,953	Total overseas assets	4,014,420

18.9 Currency risk sensitivity analysis

In consultation with the Fund's institutional consultant, Hymans Robertson the Fund considers the likely volatility associated with exchange rate movements to be in the region of **13%** (2015/16: 13%) (approximately one standard deviation) assuming other factors remain constant.

The table below shows the effect of a **13%** (2015/16: 13%) strengthening/weakening of the pound against the investments the Fund holds in various other currencies. The increase/ (decrease) on the net assets of the Fund are as follows:

Asset value as at 31 Mar 2016 £000	Change in year in the net assets to pay benefits		Asset type	Asset value as at 31 Mar 2017 £000	Change in year in the net assets to pay benefits	
	+13% £000	-13% £000			+13% £000	-13% £000
1,243,844	1,405,544	1,082,144	Overseas equities quoted	1,640,941	1,854,263	1,427,619
794,022	897,245	690,799	Overseas unit trusts	782,461	884,181	680,741
355,774	402,025	309,523	Global unit life assurance policies	484,099	547,032	421,166
346,624	391,685	301,563	Global unit trusts	473,767	535,357	412,177
247,242	279,383	215,101	Overseas private equity	297,531	336,210	258,852
101,361	114,538	88,184	Overseas infrastructure	160,523	181,391	139,655
77,675	87,773	67,577	Overseas timber	101,983	115,241	88,725
51,411	58,094	44,728	Overseas illiquid debt	73,115	82,620	63,610
3,217,953	3,636,287	2,799,619	Total change in assets available	4,014,420	4,536,295	3,492,545

18.10 Credit Risk

Credit risk is the possibility that the counterparty to a transaction or a financial instrument might fail in its obligation to pay amounts due to the Pension Fund resulting in a financial loss. The market value of investments reflects an assessment of credit in their pricing and consequently

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the risk of loss is implicitly provided for in the carrying value of the Fund's financial assets and liabilities.

The Fund is exposed to credit risk in all its operational activities through forward currency contracts, derivative positions (futures) where applicable and treasury management activities. However, the selection of high quality counterparties, brokers and financial institutions minimises credit risk that may occur through the failure to settle a transaction in a timely manner.

18.11 Commercial

Commercial credit risk also arises with those organisations that pay monies over to the Fund (debtors) as part of the administration function, principally contributions from employers and transfers in from other registered pension schemes.

Except in certain bulk transfer cases, the Fund does not apply service credits in respect of transfers in until cash settlement is made.

Monthly receipt of contributions is closely monitored by the Employer team. In addition, member records are updated throughout the year with any new information provided to them. At the end of the financial year employers are required to provide an annual return which is used to reconcile both member information and the contributions paid over in the year by both the employee and the employer.

The Funding Strategy Statement requires safeguards to be in place on all new admission agreements to protect the Fund from an employer default, including through a guarantee from a tax backed scheme employer for any new body. An analysis of debtor balances at 31 March 2017 is provided in Note 13.

18.12 Forward currency contracts

Forward currency contracts are undertaken by Legal and General for the passive currency overlay programme and by the Fund's appointed fund managers. The largest single contracts are entered into for the overseas equity passive currency overlay; the counterparties on these contracts as at 31 March 2017 are shown in the table below. The counterparty on contracts entered into by other investment managers is at the discretion of those managers. All parties entering into forward contracts on behalf of the Fund are FSA regulated and meet the requirements of the LGPS (Management and Investment of Funds) Regulations 2009. Further details of forward foreign exchange contracts are provided in note 11.

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Exposure at 31 March 2016		Counterparty	Exposure at 31 March 2017	
£000	%		£000	%
-	-	Barclays Capital	58,779	2.1%
40,156	1.8%	BNP Paribas Capital Markets	140,525	5.0%
123,342	5.4%	Citigroup	357,393	12.6%
-	-	Goldman Sachs	338,690	11.9%
136,249	6.0%	Deutsche Bank AG	-	-
301,887	13.2%	HSBC	416,105	14.7%
137,876	6.1%	J P Morgan Securities	115,216	4.1%
406,036	17.8%	Lloyds	236,434	8.3%
177,099	7.8%	Merrill Lynch	171,317	6.0%
128,820	5.6%	Morgan Stanley	-	-
844	0.0%	RBC Europe	147,062	5.2%
168,668	7.4%	RBS	240,276	8.5%
-	-	SEB	-	-
-	-	SG Securities	117,330	4.1%
259,625	11.4%	Standard Chartered	396,013	14.0%
137,649	6.0%	UBS	19,614	0.7%
261,879	11.5%	Westpac Bank Corp	79,886	2.8%
2,280,130	100.0%	Total	2,834,640	100.0%

18.13 Futures

There were no open future contracts as at 31st March 2016 or 31st March 2017.

18.14 Bonds

Credit risk will also be considered by the Fund's bond managers in their portfolio construction. A bond is a saleable debt instrument issued by a corporation, government or other entity, the instrument may be purchased direct from the issuer or in the secondary market.

In addition to the passive manager, Legal and General, the Fund has two active bond managers MandG and GSAM. The former also manage a financing fund.

Both MandG and GSAM manage pooled assets against a LIBOR plus benchmark. At 31 March 2017, the average credit quality of the MandG bond mandate was **A-** rated (**BBB+** rated as at 31 March 2016). The portfolio had suffered five defaults since inception, one of which was experienced in the financial year ended 31 March 2016. The average credit rating of the financing fund was **BB+** rated as at 31 March 2017 (**BB+** rated as at 31 March 2016), and the portfolio has not suffered any defaults since inception. The portfolio managed by GSAM as at 31 March 2017 had an average credit quality of **AA+** (**AA+** rated as at 31 March 2016) and has

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suffered six defaults since inception, one occurring in 2016/17, three occurring in 2015/16 and two occurring 2011/12.

18.15 Cash held on deposit and current accounts

Cash managed internally – The Fund has operated a separate bank account since 1 April 2010 with Lloyds Bank plc, which is also banker to the Administering Authority. The Bank holds an **A** (A as at 31st March 2016) long term credit rating with Standard and Poor. Cash is invested with Lloyds and is placed with institutions on the Administering Authority's approved counter-party list. The management of cash is carried out by the Treasury Management function of the Administering Authority in accordance with the treasury management policy and strategy approved by the ISC. The ISC have approved the management of cash in accordance with the policies and practices followed by the Administering Authority for its own investments as outlined in the CIPFA Code of Practice for Treasury Management in the Public Services. The Authority sets detailed credit criteria having taken independent advice and has maximum exposure limits to any single institution. Details of such are shown in the following tables. At 31 March 2017 **£35.592m** (31 March 2016: £26.311m) was under management by the Administering Authority's Treasury Management Team. Over the last five financial years the Pension Fund has no experience of default or uncollectible deposits.

Cash managed externally – The majority of the cash held by the Fund's custodian, the Northern Trust, is swept overnight to one of two AAA rated money market funds. As at 31 March 2017, the total balance held in the Sterling and US dollar AAA money market funds was **£130.930m** with a smaller balance of **£25.296m** held in the custodian current account (31 March 2016: £88.424m and £28.268m respectively). The use of a money market fund provides an underlying diversification of counter-party and avoids exposure to a single institutional balance sheet, in this case the custodian.

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The table below provides a breakdown of where the Pension Fund cash is managed:

31 March 2016			31 March 2017		
Rating	£000		Rating	£000	
Cash managed externally					
Cash held on deposit (GLF)					
AAA	36,360	BNP Paribas	AAA	50,967	
AAA	52,064	Northern Trust	AAA	79,963	
Cash held in Current Account					
AA-	28,268	Northern Trust	AA-	25,296	
	116,692	Total cash managed externally		156,226	
Cash managed internally					
Cash held on deposit					
AAA	3,002	Blackrock	AAA	7,502	
AA-	7,508	HSBC	AA-	7,500	
A	-	Santander UK	A	4,001	
AAA	10,004	Standard Life (formerly IGNIS)	AAA	10,002	
AA-	5,009	Svenska Handelsbanken	AA-	5,027	
Cash held in Current Account					
A	788	Lloyds Bank plc	A	1,560	
	26,311	Total cash managed internally		35,592	
	143,003	Total		191,818	

The following table summarises the maximum exposure to credit risk of the cash held with Northern Trust and other financial institutions.

31 March 2016		31 March 2017	Maximum limit per Financial Institution	Historical risk of default	Estimated maximum exposure to default and uncollectability
£000		£000	£000	%	£000
Cash managed externally					
Deposit with bank and other financial institutions					
88,424	AAA Rated	130,930	80,000	0.0367%	48
28,268	AA Rated	25,296	N/A	0.0067%	2
116,692	Total cash managed externally	156,226			50
Cash managed internally					
Deposit with bank and other financial institutions					
13,006	AAA Rated	17,504	10,000	0.0367%	6
12,517	AA Rated	12,527	7,500	0.0067%	1
788	A Rated	5,561	5,000	0.0620%	3
26,311	Total cash managed internally	35,592			10
143,003	Total cash	191,818			60

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18.16 Liquidity Risk

Liquidity risk is the possibility that the Fund might not have adequate cash resources available to meet its financial commitments as they fall due.

The ISC reviews its strategy on a yearly basis and where necessary takes steps to ensure that the Fund has adequate readily realisable resources to meet its financial commitments. The majority of the Fund's investments are quoted on major stock markets and are in readily realisable form. The Fund's strategic allocation to alternative investments, which are relatively illiquid, was as a result of a review of strategic asset allocation on **21 June 2016**, **27%** of the Fund's assets. The Fund is relatively immature with almost as many contributors as pensioners, dependants and deferred pensioners. In consequence the Fund has a positive cash flow and is able to pay benefits from contributions and investment income received. As the Fund is not in the position of a forced seller (i.e. it does not need to sell assets in order to pay benefits), it is considered appropriate to hold such illiquid investments to increase diversification, minimise risk and improve long-term investment performance.

The Fund as at 31 March 2017 had immediate access to its pension fund cash holdings held internally and externally of **£191.818m** (31 March 2016: £143.003m). These monies are primarily invested on an overnight basis on the money market.

Officers of the Fund prepare periodic cash flow forecasts to understand and manage the timing of the Fund's cash flows. The Statement of Investment Principles outlines the appropriate strategic level of cash balances that the Fund can hold. More detail can be found in the Pension Fund Annual Report and Accounts.

18.17 Refinancing Risk

Refinancing risk is the risk of the Fund replenishing a significant proportion of its financial assets at a time of unfavourable interest rates. The Fund is not subject to this particular risk as it does not hold any assets that would require refinancing in the future.

18.18 Custody

Northern Trust are the global custodian with responsibility for safeguarding the assets of the Fund. As at 31 March 2017 Northern Trust had **\$7.1 trillion** of assets under custody (31 March 2016: \$6.20 trillion) and had a credit rating of **AA** (31 March 2016: AA-). Monthly reconciliations are performed between the underlying records of the custodian and all investment managers and partnerships of the Fund.

18.19 Investment Management

The Fund has appointed a number of segregated and pooled fund managers to manage portions of the Fund. An Investment Management Agreement is in place for each relationship. All

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appointments meet the requirements set out in the LGPS (Management and Investment of Funds) Regulations 2016. Reports on manager performance are monitored by the ISC on a quarterly basis. The Fund makes use of the custodian's performance measurement service to monitor performance. In addition to presenting to the ISC, managers also meet with Fund officers and advisers to review progress.

19. Further information

The Council publishes a separate Pension Fund Annual Report and Accounts. Copies may be obtained from the website www.essexpensionfund.co.uk or by contacting:

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