BOC Senior Executive Pension Scheme
Statement of Funding Principles

This statement has been prepared by BOC SEPS Trustees Limited, 'the trustee' of the BOC Senior Executive Pension Scheme ('the scheme') to record its objectives and policies in relation to the funding of the scheme and to comply with Section 223 of the Pensions Act 2004. It has been prepared in relation to the formal valuation of the scheme at 31 March 2020.

The statement has been prepared with the agreement of The BOC Group Limited[1] ('the employers' representative', 'the employers' also being referred to collectively in this statement as 'the sponsor') and after taking the advice of Richard Shackleton FIA (the 'scheme actuary').

Technical terms used in this statement are shown in italics and are explained in the attached glossary.

Statutory Funding Objective

The trustee is required to adopt a 'statutory funding objective'. The statutory funding objective is that the Scheme must have 'sufficient and appropriate' assets to meet the expected cost of providing members' past service benefits, which we refer to as 'technical provisions'[2].

Policy for Securing that the Statutory Funding Objective is Met

This statement sets out the trustee's policy for ensuring that the *statutory funding objective* is met.

The appropriateness of the assumptions made about the return on the scheme's assets in the *statutory funding objective* is assessed against the trustee's *statement of investment principles*[3] to ensure that there is consistency between the assumptions made in relation to the *statutory funding objective* and the principles and policies which apply to the investment of the scheme's assets.

To assess the expected cost of the benefits payable from the scheme, the trustee will obtain regular *actuarial valuations* of the scheme from the scheme actuary. The trustee will choose an appropriate *funding method* for the *actuarial valuation*, together with a prudent set of *actuarial assumptions*.

The trustee will also obtain the agreement of the employers' representative when deciding on the method and assumptions to be used in the *actuarial valuation* and before determining the level of employer contributions payable to the scheme.

If the *actuarial valuation* shows that the scheme's assets are insufficient to meet the technical provisions, the trustee will put in place a *recovery plan* which may require additional contributions from the employers (see below). The recovery plan will aim to eliminate the shortfall over an appropriate period in a manner tailored to both scheme and sponsor circumstances.

[1] The BOC Senior Executive Pension Scheme is a multi-employer scheme. The employers have nominated The BOC Group Limited to act as the employers' representative on behalf of all the employers participating in the scheme ('the employers') for the purpose of Section 229(1) of the Pensions Act 2004.

[2] The phrase used in the legislation to refer to the expected cost of providing members' past service benefits.

[3] The statement of investment principles to which this statement of funding principles relates is dated 17 September 2020.

Rectifying a Funding Shortfall

In determining the actual recovery period at any particular valuation the trustee's principles are to take account of the following factors:

- The absolute monetary amount of the funding shortfall and its relationship to the total liability for past service benefits;
- The scheme's investment strategy;
- The business plans of the sponsor and affordability of contributions;
- The trustee's assessment of the strength of the sponsor covenant (and in making this assessment the trustee will make use of appropriate covenant advice); and
- Any contingent security offered by the sponsor and covenant support provided by the wider sponsor group.

Additional employer contributions will be expressed in monetary terms over the recovery period. Payment of any employer contributions are guaranteed by Linde plc on and subject to the terms of a guarantee entered into in March 2020.

In determining the level of additional contributions required to eliminate the shortfall over the recovery period, an assumed rate of return on assets is required. This assumption will be set by the trustee having taken advice from the scheme actuary and with the agreement of the employers' representative. In choosing this assumption the trustee will also take account of the current investment strategy, any agreed or likely changes to that strategy and their assessment of the employers' ability to support the scheme and any other appropriate factors. The current assumption is set out in the appendix.

The trustee will monitor the funding level of the scheme during the recovery period. In the event that, at any time during the recovery period, the actual funding level deviates from the level expected in the *recovery plan* to a material extent, the trustee may consult with the employers' representative to determine whether the *recovery plan* needs to be amended or some other action (such as a change of investment strategy) needs to be taken.

Any payment of a Section 75 debt shall be treated as a prepayment of any deficit repair contributions that will fall due to be paid by the employers in accordance with the then current recovery plan.

Funding Method and Assumptions

The method to be used in the calculation of the expected cost of members' *past service benefits* is the *projected unit method.*

The *actuarial assumptions* to be used in the calculation are both financial (interest rates, inflation, investment returns, etc.) and demographic (scheme membership experience – retirement patterns, mortality rates, etc.). Legislation requires the trustee to select assumptions prudently for this calculation, taking account, if applicable, of an appropriate margin for adverse deviation. The trustee, having taken advice from the scheme actuary and having consulted the employers' representative has determined the following framework in relation to assumptions to be used for the Statutory Funding Objective:

- The measure for discounting future expected cash flows will use as its reference point the nominal gilts curve published by the Bank of England or another appropriate financial institution. The trustee will then adjust this curve, allowing for the return available on the scheme's investments assuming an investment strategy in line with its *statement of investment principles* at each valuation date. It will do this by assessing the best estimate return that the assets backing the liabilities will achieve and deduct an appropriate prudential margin.
- Price inflation will be based on the implied inflation curve published by the Bank of England and relevant economic indicators at each valuation date. The trustee will consider any proposals (regarding, for

example, on including an inflation risk premium) the employers' representative wishes to make concerning any adjustment to this measure.

- The assumptions on mortality/longevity will use a base table which reflects an up to date analysis of the scheme's current experience and prudent projections of how that experience is likely to evolve.
- The post retirement mortality base tables will be set using information from a reliable source which uses pooled data of occupational pension schemes to provide mortality tables which reflect the characteristics of scheme membership. The tables to be used will reflect the gender, reason for retirement (illness or normal health), affluence and geo-demographics of the membership.
- Other demographic assumptions will be set to reflect the trustee's best estimate of future demographic experience, after taking actuarial advice and taking account of the experience of the scheme and the employers' future policy.

The technical details of the assumptions to be used in the calculation of the expected cost of members' *past service benefits* are set out in the appendix.

Payments from the Scheme

The scheme's assets may be used to meet benefit payments to members and their beneficiaries and to pay scheme expenses and pension scheme levies. There is no power to make payments from the scheme to the employers, other than if the scheme is being wound up or to correct payments made to the scheme by the employers in error.

Discretionary Benefits

The trustee does not have unilateral power to provide discretionary benefits nor discretionary increases to benefits and no allowance has been made in the funding of the scheme for the granting of any such benefits or increases.

Transfer Values

Members may elect to leave the scheme and take a *transfer value* to another pension arrangement. The *transfer value* is required by legislation to represent the 'cash equivalent' value of the benefits being transferred. Current legislation permits the trustee to reduce the *transfer value* to a level below the full 'cash equivalent' when the scheme is underfunded. The trustee's current stance is set out in the Appendix.

Frequency of Valuations and Circumstances for Extra Valuations

An *actuarial valuation* will, in normal circumstances, be carried out as at 31 March at three yearly intervals. A short form *actuarial report*, using approximations, will be obtained as at 31 March in each year in which a full valuation is not obtained.

The trustee will seek advice from the scheme actuary as to whether to obtain an out of cycle *actuarial valuation* should any of the following occur:

(i) Actual financial and/or demographic experience turns out to be significantly different from that allowed for in the most recent *actuarial valuation*;

(ii) A large bulk transfer in or out of the scheme occurs;

(iii) A large redundancy exercise occurs;

(iv) Other events occur which the trustee believes may have a material impact on the scheme's finances;

(v) The employers' representative requests an actuarial valuation to be undertaken (at its own expense);

(vi) Certain agreed triggers are met in relation to any wider funding agreement with the employers that may be in force from time to time.

The trustee will consult the employers before commissioning an out-of-cycle valuation and may agree not to commission such a valuation if agreement can be reached with the employers to revise the *schedule of contributions* in a way satisfactory to the trustee acting on the advice of the scheme actuary.

Review of this Statement

The trustee will prepare a new statement of funding principles no later than 15 months after the effective date of each future *actuarial valuation*. In practice, the trustee will aim to prepare the statement so that it is available by the due date of each future *actuarial valuation*.

Prepared by the Trustee of the Scheme

Signature......John Hylands...................... for the trustee

Print name......JOHN HYLANDS......................

Position......Trustee Director......................

Date......9 March 2021......................

Agreed by the Employers' Representative

Signature......Sally Williams...................... for the employers' representative

Print name......SALLY WILLIAMS......................

Position ......Head of Finance & Control RUI......

Date......18 March 2021......................

Signature......Jim Mercer...................... for the employers' representative

Print name......JIM MERCER......................

Position ......Business President, RUI......

Date......18 March 2021......................

Appendix: Actuarial Assumptions to be used as at 31 March 2020

Financial Assumptions

The trustee has taken advice from the scheme actuary and has consulted the employers' representative in choosing the financial assumptions to be used for the calculation of the estimated cost of providing members' benefits in the *actuarial valuation* at 31 March 2020. The trustee and the employers' representative have agreed that, whilst the principles set out in the Statement of Funding Principles should be as enduring as possible, the actuarial assumptions to be used at future valuations should be the subject of further discussion taking account of the circumstances at the time of the valuation. For the actuarial valuation as at 31 March 2020 the assumptions are as follows:

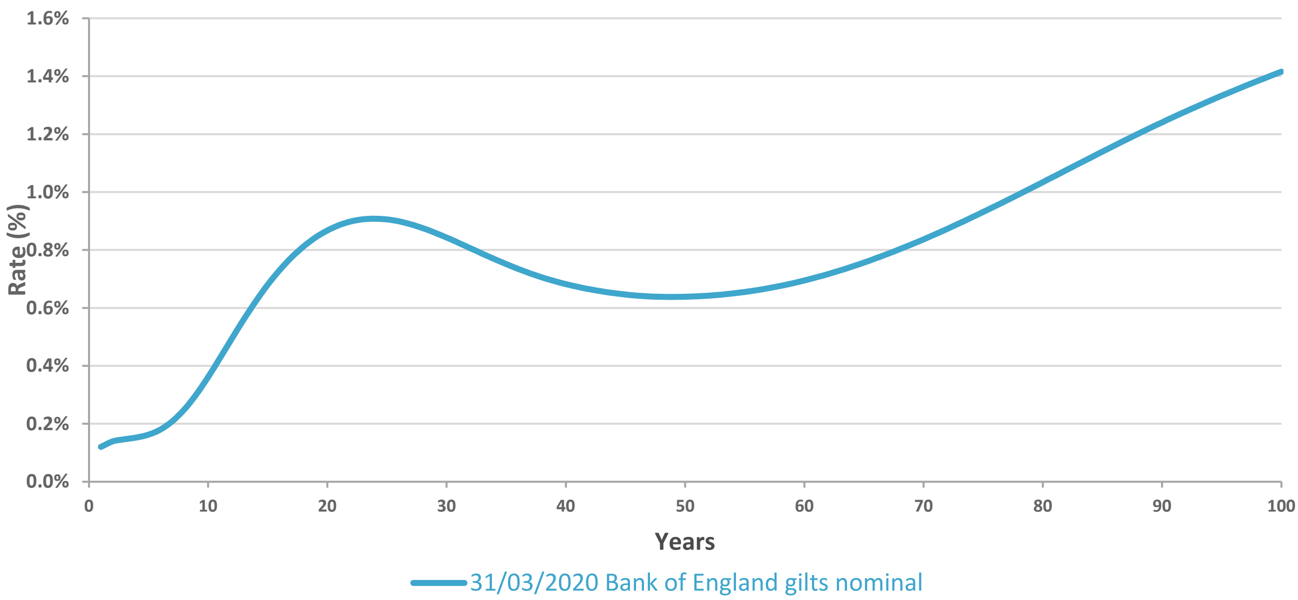
Assumption	Derivation
Inflation (RPI)	Implied inflation curve, taken as the difference between the Bank of England fixed interest and index linked gilt yield curves.
Inflation (CPI)	RPI inflation with an adjustment on yields of 0.75% below RPI spot rates.
Pension increases	The assumption is made with reference to the relevant price inflation curve (see above) where the pension increases are linked to price inflation. The curves will be derived in a consistent manner to the underlying inflation curve making allowance for caps and floors on benefit increases as appropriate. Other pensions are assumed to increase at their fixed rates.
Discount rate	Assumed to be 0.9% p.a. above the Bank of England fixed interest gilt yield curve
Expenses	No allowance to be included in the technical provisions.

Yield Curves

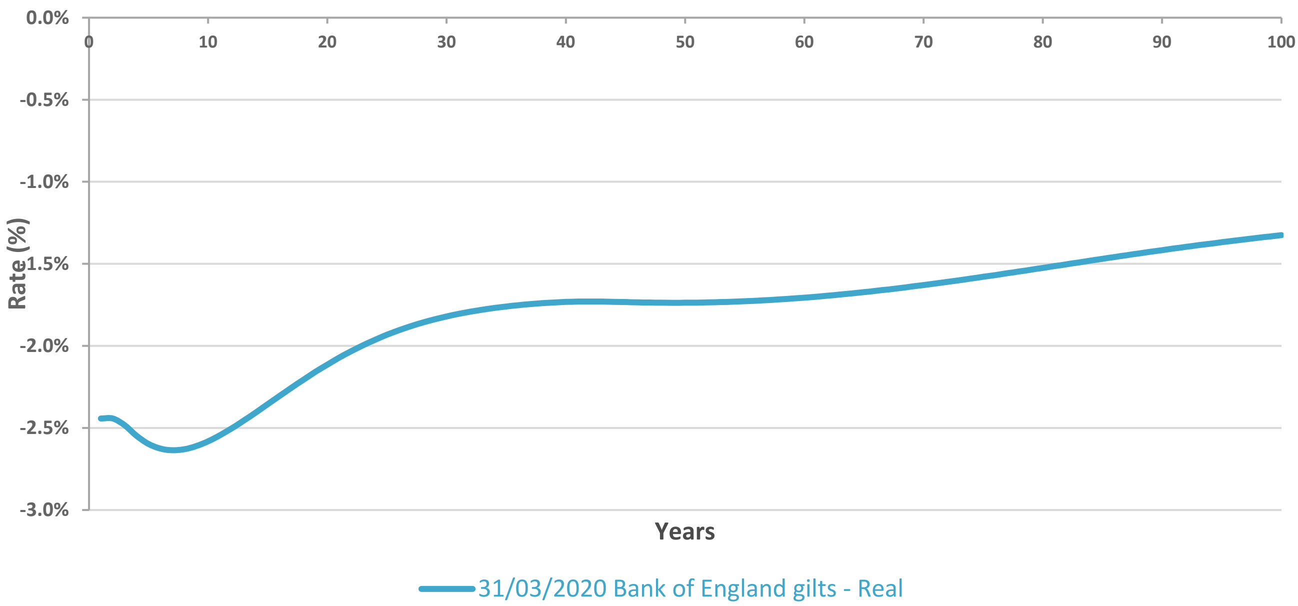
The information used for nominal and implied inflation-linked gilts curves is obtained from the Bank of England. For the valuation of pension fund liabilities it is necessary to interpolate between, and extrapolate from, the maturities which are observable in the interest rate and inflation market. Although the Bank of England only provides rates to a maximum term of 40 years, the Bank of England curves are extended in such a way as to provide a close fit to observed prices of long dated bonds and beyond the maturities of the longest fixed and index linked gilts in issue, the nominal and real rate curves are extended towards long term forward rates.

The curves as at 31 March 2020 are shown in the charts below.

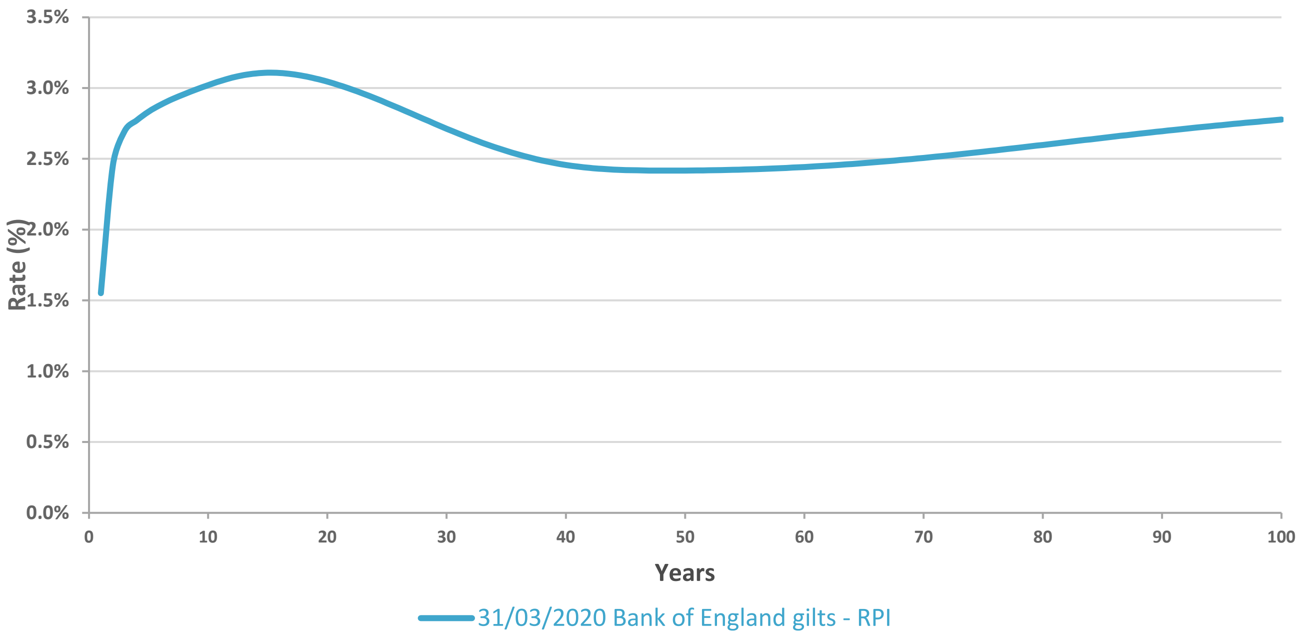
Fixed interest gilt yield curve



Index linked gilt yield curve



Implied RPI inflation curve



Return on Assets over Recovery Period

For the purpose of determining the level of additional contributions required to eliminate any shortfall, an assumed rate of return on assets is required. This rate is for the purpose of the valuation at 31 March 2020 assumed to be 1.3% p.a. above the yield curve of fixed interest government bonds.

Administrative Expenses and Pension Protection Fund Levies

The trustee has agreed with the employers' representative that the administrative expenses in the period to the next actuarial valuation will be paid from the scheme. However, any levy payable to the Pension Protection Fund will be paid by the employers.

Mortality Assumptions

The trustee takes account of the most up-to-date longevity research and analysis in setting longevity assumptions.

Base tables

The post retirement mortality base tables will be a suite of bespoke assumptions which reflect the characteristics of the scheme membership. The "VitaCurves" adopted will be based on pooled experience from occupational pension schemes during the period 2016 to 2018 as collated by Club Vita up to 31 March 2020. They will make allowance for observed variations in mortality according to age, gender, reason for retirement (illness or normal health), pension amount, salary, postcode based lifestyle group, and manual / non-manual status. The assumptions adopted vary according to the characteristics of each individual member.

The pre-retirement mortality of future pensioners is assumed to be 60% of the standard AM92/AF92 tables published by the CMI[4] of the actuarial profession.

Future improvements

Future improvements in longevity will be assumed to be in line with the CMI_2018 model with starting rates based on improvements observed in England and Wales population data up to the end of 2018, with Addition Parameter

[4] Continuous Mortality Investigation

A = 1.0, to reflect the latest Vita experince, a long term rate of improvement of 1.5% p.a. and otherwise core parameters.

Sample life expectancies are given in the table below.

	Males	Females
Average future life expectancy (in years) for a pensioner aged 62 in 2020	27.3	29.0
Average future life expectancy (in years) at age 62 for a non-pensioner aged 42 in 2020	28.6	30.5

Other Demographic Assumptions

Retirements in normal health	Allowance is made for retirements before normal pension age where the member has a right to take benefits without reduction. Otherwise the assumptions make no allowance for early retirements which require 'Company consent'. Any capital costs arising from any such retirements are therefore expected to be met by the relevant employer at the time that the early retirement is granted.
Family details	90% of members are assumed to be married (or have an adult dependant) at retirement or on earlier death. Husbands are assumed to be 3 years older than wives.
Commutation	Members are assumed to exchange 17% of their pension for cash at retirement. The commutation terms used are shown in the table below.

The tables below show details of the assumptions actually used for specimen ages. For membership movements, the percentages represent the probability that an individual at each age leaves service within the following twelve months. The commutation factors show the amount of cash lump sum a member will receive per £1 p.a. of pension given up at different retirement ages.

Age	Retirements		Commutation factors	
	Males	Females	Males	Females
50	0.00%	0.00%	35.91	35.91
60	6.0%	18.0%	24.96	24.96
61	4.5%	1.50%	23.95	23.95
62	100%	100%	22.96	22.96

Transfer Values

The trustee currently does not reduce transfer values to a level below the full 'cash equivalent'.

Glossary

Actuarial Assumptions

As part of the *actuarial valuation* of a pension scheme, the scheme actuary must estimate the cost of providing members' future pensions (and other benefits), which will depend on when people retire, what their pay will be at retirement, how long they will live in retirement, etc. These matters are unknown at the time of the *actuarial valuation* and so the actuary has to use assumptions – known as ***actuarial assumptions*** – as to what future retirement patterns, death rates, inflation, etc. will be.

Actuarial Report

Trustees must obtain an ***actuarial report***[5] from the scheme actuary in any year in which there is no *actuarial valuation*. The *actuarial report* is effectively an interim 'health check' of a pension scheme's funding, carried out using approximate data and methods.

Actuarial Valuation

The scheme actuary must carry out regular ***actuarial valuations***[6] of a pension scheme. The *actuarial valuation* assesses the extent to which the *statutory funding objective*, and any other *funding objectives* adopted by the trustees, were met and determines the rate at which employers should contribute to the scheme in the future to meet the *funding objective(s)*. An *actuarial valuation* should be carried out every three years, or more frequently.

Funding Method

The scheme actuary needs to use a ***funding method***, together with the *actuarial assumptions,* to carry out the *actuarial valuation*. The *funding method* determines how members' benefits are costed in the valuation, the extent to which future expected pay growth of employee members is allowed for and how employers' future contributions should be calculated to meet the trustee's funding objectives.

Funding Objective

A ***funding objective*** is an aim of the trustees for funding a pension scheme. Schemes must now have a *statutory funding objective*, although trustees may have additional objectives.

Normal Pension Age

The earliest age at which pension scheme members may choose to draw their pension from the scheme (without requiring trustee and/or employer consent to do so) without the pension being reduced for early payment is the scheme's ***normal pension age****.*

Past Service Benefits

Members' benefits are earned over their working life whilst a pension scheme member. Benefits that have already been earned in respect of service completed before a particular date are known as the ***past service benefits*** at that date. *Past service benefits* may be calculated by reference to members' projected pay at retirement or to their current pay at the calculation date.

Projected Unit Method

A commonly used *funding method* is the ***projected unit method.*** This method compares a scheme's assets with the technical provisions, calculating *past service benefits* by reference to members' projected pay at retirement. Employers' future contributions are calculated to meet the expected cost of providing members' benefits that will be earned in the year following the valuation date (before adjusting for any surplus or shortfall and after deducting any members' future contributions).

[5] Required by the Pensions Act 2004, s.224
[6] Required by the Pensions Act 2004, s.224

Recovery Plan

If a scheme has assets whose value is less than the *technical provisions*, the trustees must prepare a ***recovery plan***[7] which is a written record of the trustee's plan for eliminating the shortfall. The *recovery plan* must show the steps to be taken to eliminate the shortfall and the time period within which that is to be achieved. It will also show the steps to be taken if the recovery plan goes off track (adversely or favourably)

Schedule of Contributions

The ***schedule of contributions***[8] sets out the contributions payable into a pension scheme by employers and by members and the dates by which these contributions are to be made. The trustees are responsible for ensuring that the schedule is adhered to.

Section 75 of the Pensions Act 1995

Under ***section 75 of the Pensions Act 1995***, where an employer participating within the scheme stops employing anyone who is a member of the scheme, a statutory debt may become payable by that employer to the scheme. The amount of the debt is equal to the employer's share of the additional contributions that would be required to buy a policy with an insurance company such that the members' benefits would be paid in full from that insurance company.

Statement of Funding Principles

The ***statement of funding principles***[9] is a written record of the trustee's aims, principles and policies for the funding of the scheme.

Statement of Investment Principles

The ***statement of investment principles***[10] is a written record of the trustee's aims, principles and policies for investing the assets of the scheme.

Statutory Funding Objective

Trustees must have a ***statutory funding objective***[11] for their scheme that it '*must have sufficient and appropriate assets to cover its technical provisions*'. In other words, schemes must aim to hold, at all times, assets whose value is at least equal to the expected cost of providing members' *past service benefits*.

Technical Provisions

Legislation[12] defines **technical provisions** as 'the amount required, on an actuarial calculation, to make provision for the scheme's liabilities'. In other words, it is the expected cost of providing members' past service benefits, calculated using the funding method and actuarial assumptions.

Transfer Value

A pension scheme member (other than one whose pension is, or is about to be, in payment) may choose to cease membership of the scheme and take a ***transfer value*** of his or her *past service benefits* (based on salary and service at the date of leaving) to another pension scheme. The *transfer value* is calculated using *actuarial assumptions* which are certified by the scheme actuary as being consistent with legislative requirements[13] for *transfer values*. The assumptions need not be the same as those used to calculate *technical provisions* and therefore an individual's transfer value is likely to differ from their *technical provisions*.

[7] Required by the Pensions Act 2004, s.226
[8] Required by the Pensions Act 2004, s.227.
[9] Required by the Pensions Act 2004, s.223.
[10] Required by the Pensions Act 1995, s.35.
[11] Required by the Pensions Act 2004, s.222.
[12] Pensions Act 2004, s.222.
[13] Chapter IV of Part IV and Chapter II of Part IVA of the Pension Schemes Act 1993.