

# **ACTUARIAL VALUATION AS AT 31 DECEMBER 2017 STATEMENT OF FUNDING PRINCIPLES**

## **London Stock Exchange Group Pension Scheme: LCH Section**

This Statement of Funding Principles sets out the policies of the Trustee of the London Stock Exchange Group Pension Scheme (the "Trustee" of the "Scheme") for securing that the statutory funding objective is met.

It has been prepared by the Trustee to satisfy the requirements of section 223 of the Pensions Act 2004, after obtaining the advice of Gordon Clark, the actuary to the Scheme. It will be taken into account in the actuarial valuation as at the effective date of 31 December 2017. The Statement of Funding Principles will be reviewed and, if necessary, revised before being taken into account at subsequent valuations under Part 3 of the Pensions Act 2004.

The Scheme is made up of two legally segregated Sections, the LCH Section and the LSE Section. This statement relates to the LCH Section (the "Section") of the Scheme only.

This statement of funding principles has been agreed by LCH Limited (the LCH Section Main Employer) and London Stock Exchange plc (the Principal Employer), together referred to as "the Employers".

### **The statutory funding objective**

The statutory funding objective is that the Section of the Scheme has sufficient and appropriate assets to meet the costs incurred by the Trustee in paying its benefits as they fall due (the technical provisions).

### **Calculation of the technical provisions**

The principal method and assumptions to be used in the calculation of the technical provisions are set out in the Appendix to this Statement of Funding Principles.

The general principles adopted by the Trustee are that the assumptions used, taken as a whole, will be sufficiently prudent for pensions and benefits already in payment to continue to be paid, and to reflect the commitments which will arise from members' accrued pension rights. The basis will include appropriate margins to allow for the possibility of events turning out worse than expected and will only be adopted after considering how it compares with the assumptions used to assess the Section's solvency position.

However, the Trustee does not intend for the method and assumptions to remove completely the risk that the technical provisions could be insufficient to provide benefits in the future.

In determining what is 'prudent', the Trustee will take into account its objective assessment of the Employers' covenant and the level of risk present in the investment strategy of the Section.

The defined contribution assets and liabilities of the Section and any additional voluntary contributions (AVCs) paid by members have been excluded from the valuation, as the DC and AVC assets are assumed to exactly match the value of the benefits that they cover.

### **Policy on discretionary increases and funding strategy**

No allowance has been included in the assumptions for paying discretionary benefits or making increases to benefits that are not guaranteed under the Scheme rules. The Trustee will not provide discretionary benefits unless the Employers agree to finance them or there is no shortfall against the technical provisions.

### **Rectifying a failure to meet the statutory funding objective**

If the assets of the Section are less than the technical provisions at the effective date of any actuarial valuation, a recovery plan will be put in place, which may require additional contributions from the Employers to meet the shortfall. The Trustee and the Employers have agreed that any such additional contributions should be appropriate and tailored to both Section and Employer circumstances.

Additional contributions will be expressed as fixed monetary amounts. In determining the actual recovery period at any particular valuation, the Trustee will take into account the following factors:

- The size of the funding shortfall and the Section's current asset and liability structure.
- The Trustee's future investment strategy, as set out in the Statement of Investment Principles.
- The Section's changing liability structure and its effect on cash flows.
- The business plans of the Employers and any plans for sustainable growth.
- The Trustee's objective assessment of the financial covenant of the Employers.
- Any contingent security offered by the Employers.

The assumptions to be used in these calculations are set out in the Appendix.

### **Arrangements for other parties to make payments to the Section**

There are no arrangements currently in place for persons, or companies, other than the Employers or members of the Section to contribute to the Section.

### **Policy on reduction of cash equivalent transfer values (CETVs)**

At each valuation, the Trustee will ask the actuary to report on the extent to which the Section's assets are sufficient to provide CETVs for all members. If the assets are insufficient to provide 100% of benefits on that basis, so that payment of full CETVs would adversely affect the security of the remaining members' benefits, and the Employers are unable or unwilling to provide additional funds, the Trustee will consider reducing CETVs as permitted under legislation.

If, at any other time, the Trustee is of the opinion that payment of CETVs at a previously agreed level could adversely affect the security of the remaining members' benefits, the Trustee will commission a report from the actuary and will use the above criteria to decide whether, and to what extent, CETVs should be reduced.

### Payments to the Employers

If the Section is not being wound up, there is no power to make payments to the Employers out of funds held for the purposes of the Section.

If the Section is being wound up, there is a power to make payments to the Employers out of funds held for the purposes of the Section under Rule 31.6 of the Replacement Rules dated 2 September 2016. This power can only be exercised if the requirements under section 76 of the Pensions Act 1995 and regulations made under it are satisfied.

### Frequency of valuations and circumstances for extra valuations

An actuarial valuation was carried out as at 31 December 2016 and another actuarial valuation is being carried out as at 31 December 2017 (in order to align valuation dates between Sections). Subsequent valuations will in normal circumstances be carried out every three years thereafter. An actuarial report on developments affecting the Section's technical provisions and funding level since the previous valuation will be obtained as at 31 December each other year.

The Trustee may call for a full actuarial valuation instead of an actuarial report when, after considering the actuary's advice, it is of the opinion that events have made it unsafe to continue to rely on the results of the previous valuation as the basis for future contributions.

The circumstances in which the Trustee will consider calling a full actuarial valuation instead of an actuarial report include:

- there is a significant fall in the market value of the Section's assets;
- the actuary's estimate of the costs of buying out the liabilities has risen significantly;
- the Employers' credit ratings fall significantly.

The Trustee will consult the Employers before carrying out an early valuation. Commissioning a valuation will not be necessary if agreement can be reached with the Employers to revise the Schedule of Contributions and/or Recovery Plan in a way satisfactory to the Trustee on the advice of the actuary.

This statement of funding principles is dated December 2018 and has been agreed by the Employers, LCH Limited and London Stock Exchange plc, and the Trustee of the London Stock Exchange Group Pension Scheme:

Signed on behalf of LCH Limited

Name

Position

Date of signing

MARTIN PLUVE

CHIEF EXECUTIVE OFFICER

19 DEC 2018

**Signed on behalf of London  
Stock Exchange plc**

**Name**

NIMMIL RATHI

**Position**

CEO of LSE plc

**Date of signing**

18 December 2018

**Signed on behalf of the Trustee  
of the London Stock Exchange  
Group Pension Scheme**

**Name**

Chris Broad

**Position**

Chair of Trustee

**Date of signing**

19 December 2018

This statement of funding principles, dated December 2018, has been agreed by the Trustee of the London Stock Exchange Group Pension Scheme after obtaining actuarial advice from the Scheme Actuary:

**Signed**

**Name**

Gordon Clark

**Position**

Actuary to the London Stock Exchange Group Pension Scheme

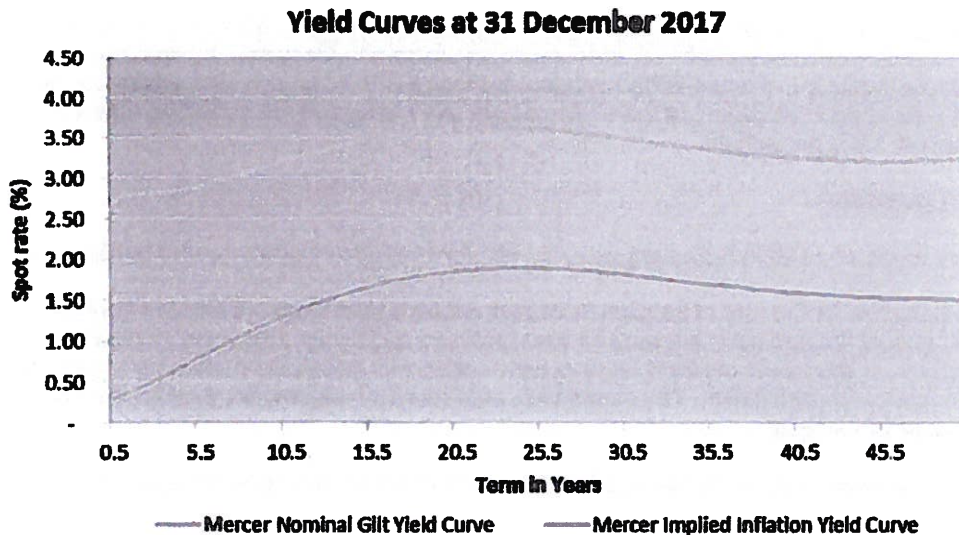
**Date of signing**

19 December 2018

## Appendix

### Method and assumptions used in calculating the technical provisions

The investment return and inflation assumptions adopted at this valuation are based on the full term structure derived from the yields on UK Government bonds. The chart below shows the nominal gilts and implied RPI inflation spot rate yield curves at the valuation date.



The derivation of the key assumptions and an explanation of the other assumptions to be used in the calculation of the technical provisions are set out below. A table summarising the key financial assumptions by term is included at the end of this appendix.

#### *Method*

The actuarial method to be used in the calculation of the technical provisions is the Projected Unit method.

#### *Financial assumptions*

##### *Investment return (discount rate)*

The discount rate used is a term structure derived from the yields on UK Government conventional gilt stocks appropriate to the date of each future cashflow (with yields extrapolated for cash flows beyond the longest available yields) plus an additional 0.25% p.a. to reflect the prudent allowance the Trustee has agreed for additional investment returns.

If, following a review of the Statement of Investment Principles, the investment strategy of the Section changes after completion of the valuation then the assumed rate of investment return may also change at subsequent funding updates to reflect the different expected investment returns from the new asset mix.

### ***Inflation (RPI)***

The assumption for the rate of increase in the Retail Prices Index (RPI) will be a term structure derived from the difference between the yield on conventional and index-linked UK Government bonds at the date of each future cash flow (with yields extrapolated for cash flows beyond the longest available yields).

### ***Inflation (CPI)***

The assumption for the rate of increase in the Consumer Price Index (CPI) will be derived from the RPI inflation assumption with an appropriate adjustment to recognise the difference between expectations of future RPI increases and future CPI increases. The adjustment will be reviewed at each valuation; at the 31 December 2017 valuation the adjustment was a deduction of 1.0% per annum.

### ***Pension increases***

Different levels of pension increases apply for different periods of service under the Section.

The assumption for the rate of pension increases will be a term structure derived from price inflation annual forward rates allowing for the maximum and minimum annual increase entitlements. A stochastic model is used to derive rates with appropriate floors and caps from forward rates of price inflation. The model uses separate time-dependent volatility structures for RPI and CPI inflation.

Example assumed pension increase rates are shown in the table on the final page of this appendix.

## ***Demographic assumptions***

### ***Mortality***

The mortality tables used are based on up-to-date information published by the Continuous Mortality Investigation (CMI) and National Statistics at the effective date of each valuation, making allowance for future improvements in longevity and adjustments to reflect the experience of the Scheme.

The baseline mortality assumption used for the 31 December 2017 valuation is the S2PA (year of birth) mortality tables weighted by 89% for male non-pensioner members, 86% for female non-pensioner members and 85% for pensioner members.

The allowance for future improvements is in line with the CMI 2016 core model for future improvements with a 1.75% per annum long term rate of improvement.

### ***Early retirement***

No allowance has been made for the members of the Section to retire early.

### ***Ill Health retirement***

No allowance has been made for the members of the Section to retire early due to ill health.

### ***Commutation***

Members are assumed to take 50% of the maximum permissible cash sum at retirement.

### ***Proportion married and age difference***

It has been assumed that 85% of male members and 75% of female members will have an eligible spouse/civil partner/dependant at the time of retirement or earlier death, and that wives/partners are of the opposite sex and three years younger, on average, than their husbands/partners.

### ***Expenses***

Administrative expenses (including PPF levies) will either be paid from the Section's assets and then reimbursed in full by the Employers on at least an annual basis, or the Employers may elect to pay additional contributions from time to time, to establish a notional reserve to cover future administrative expenses.

Following the transfer of the defined contribution ("DC") assets and liabilities to an external provider in June 2017, the residual funds held in the Trustee's DC bank account have been transferred to the LCH Section's defined benefit assets and will be treated as an Employer contribution to the notional expense reserve described above.

Investment management charges remain the responsibility of the Section and have been allowed for implicitly in determining the discount rates.

### ***Assumptions used in calculating contributions payable under the Recovery Plan***

The contributions payable under the recovery plan will be calculated using the same assumptions as those used to calculate the technical provisions, with the exception of the investment return assumption used to project forward the Section's assets during the recovery period. This assumption may be increased to allow for additional investment returns based on the Section's investment strategy. Details of the level of investment return assumed will be set out in the recovery plan agreed at each actuarial valuation.

## Financial Assumptions – Term Structure

The table below shows the full term structure at 31 December 2017 for the key financial assumptions. The rates shown are one year forward rates.

Term (years)	Investment return (gilts + 0.25% p.a.)	Assumed RPI Inflation	Assumed CPI inflation (Assumed RPI – 1.0%)	Pension increases RPI max 4%	Pension increases RPI max 2.5%
0	0.60%	2.78%	1.78%	2.65%	2.10%
1	0.76%	2.84%	1.84%	2.70%	2.13%
2	0.97%	2.84%	1.84%	2.70%	2.13%
3	1.21%	2.92%	1.92%	2.77%	2.16%
4	1.45%	3.04%	2.04%	2.86%	2.20%
5	1.67%	3.18%	2.18%	2.97%	2.25%
6	1.87%	3.33%	2.33%	3.08%	2.30%
7	2.06%	3.48%	2.48%	3.18%	2.33%
8	2.23%	3.62%	2.62%	3.28%	2.37%
9	2.37%	3.76%	2.76%	3.36%	2.39%
10	2.50%	3.87%	2.87%	3.42%	2.41%
11	2.59%	3.97%	2.97%	3.48%	2.42%
12	2.67%	4.05%	3.05%	3.52%	2.43%
13	2.72%	4.10%	3.10%	3.54%	2.44%
14	2.75%	4.13%	3.13%	3.56%	2.44%
15	2.76%	4.14%	3.14%	3.56%	2.44%
16	2.75%	4.13%	3.13%	3.56%	2.44%
17	2.72%	4.09%	3.09%	3.54%	2.44%
18	2.67%	4.04%	3.04%	3.51%	2.43%
19	2.61%	3.96%	2.96%	3.47%	2.42%
20	2.54%	3.87%	2.87%	3.42%	2.41%
21	2.45%	3.76%	2.76%	3.36%	2.39%
22	2.35%	3.64%	2.64%	3.28%	2.37%
23	2.24%	3.50%	2.50%	3.19%	2.34%
24	2.12%	3.35%	2.35%	3.09%	2.30%
25	1.99%	3.20%	2.20%	2.98%	2.26%
26	1.85%	3.05%	2.05%	2.87%	2.21%
27	1.72%	2.92%	1.92%	2.76%	2.16%
28	1.59%	2.79%	1.79%	2.66%	2.10%
29	1.47%	2.67%	1.67%	2.57%	2.05%
30	1.37%	2.58%	1.58%	2.49%	2.01%
31	1.27%	2.50%	1.50%	2.42%	1.97%
32	1.20%	2.45%	1.45%	2.38%	1.95%
33	1.15%	2.42%	1.42%	2.36%	1.93%
34	1.11%	2.42%	1.42%	2.35%	1.93%
35	1.09%	2.43%	1.43%	2.36%	1.93%
36	1.09%	2.45%	1.45%	2.38%	1.95%
37	1.10%	2.50%	1.50%	2.42%	1.97%



<b>Term (years)</b>	<b>Investment return (gilts + 0.25% p.a.)</b>	<b>Assumed RPI inflation</b>	<b>Assumed CPI Inflation (Assumed RPI – 1.0%)</b>	<b>Pension Increases RPI max 4%</b>	<b>Pension increases RPI max 2.5%</b>
38	1.12%	2.55%	1.55%	2.46%	2.00%
39	1.15%	2.62%	1.62%	2.52%	2.03%
40	1.18%	2.69%	1.69%	2.58%	2.06%
41	1.23%	2.77%	1.77%	2.64%	2.10%
42	1.28%	2.86%	1.86%	2.72%	2.13%
43	1.33%	2.95%	1.95%	2.79%	2.17%
44	1.39%	3.05%	2.05%	2.87%	2.21%
45	1.46%	3.15%	2.15%	2.94%	2.24%
46	1.53%	3.26%	2.26%	3.02%	2.27%
47	1.60%	3.37%	2.37%	3.10%	2.31%
48	1.67%	3.48%	2.48%	3.18%	2.33%
49+	1.75%	3.59%	2.59%	3.26%	2.36%

