Government Actuary's Department

Advice to the Utility Regulator, Northern Ireland

Review of the NIE Pension Scheme

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1. Executive Summary

1.1 The Utility Regulator (Northern Ireland Authority for Utility Regulation) is the economic regulator of Northern Ireland Electricity Networks Limited (referred to in this report as NIEN). The Utility Regulator commissioned the Government Actuary's Department (GAD) to review certain aspects of the NIE Pension Scheme (NIEPS) and the RP7 pension cost allowances requested by NIEN (covering the period from 1 April 2025 to 31 March 2031).

1.2 This report analyses the principal factors which determine NIEN's cash pension contributions and the pension cost allowances requested for RP7, which have been determined using the Pension Deficit Allocation Methodology (PDAM) framework. This report comprises of the following sections:

- Scheme benefits (Section 3);
- Investment strategy (Section 4);
- Actuarial funding methodology and assumptions (Section 5);
- Actuarial funding valuation results, including cash contributions (Section 6);
- Scheme expenses (Section 7);
- RP7 allowances (Section 8); and
- Improvements and efficiencies (Section 9)

1.3 The results of this review enable the Utility Regulator to understand the factors affecting NIEN's future cash pension contributions, and the extent to which the NIEPS's funding approach is consistent with that of other UK private sector *defined benefit* pension schemes. Further, this review should assist the Utility Regulator in determining whether it needs to adjust the RP7 pension cost allowance amounts requested by NIEN.

Scheme benefits

1.4 Scheme benefits are one of the main determinants of *defined benefit* (DB) pension schemes' ultimate costs.

1.5 The DB section of the NIEPS was closed to new entrants in 1998 and replaced with a *defined contribution* (DC) section. This is consistent with general trends in UK private sector pension provision. It reduces NIEN's exposure to the risk of *deficiency (or deficit) contributions* and is expected to reduce overall pension costs. These effects will increase over time as new entrants join the DC section rather than the DB section.

1.6 There have been no changes to NIEPS's DB section's benefits since the last review, and the benefits are overall slightly more generous than those provided by typical UK private sector DB schemes. Its benefits reflect, in part, its public sector origins and protections put in place at privatisation. They also reflect, in part, past benefit improvements to utilise valuation surpluses. The Electricity (*Protected Persons*) Pensions Regulations (Northern Ireland) 1992 protect employees' pension benefits in respect of past and future service (the protection applies to those members who joined the NIEPS pre 1992). As benefit protections apply to over 95% of NIEPS members, the extent to which the NIEPS's benefits and member contribution rates can be varied is limited.

1.7 The DC section of the NIEPS is fairly typical of a DC arrangement. The employer contribution rates payable are broadly in line with rates typically paid into DC schemes of other UK private sector employers.

1.8 This report mainly considers the DB section of the NIEPS, Focus.

Investment strategy

1.9 The NIEPS's investment strategy affects its investment returns (and therefore its current and future *funding level*s) and the choice of actuarial assumptions for funding valuations. A number of factors affect schemes' investment strategies.

1.10 Around 35% of the NIEPS's assets by market value were invested in *return-seeking assets* (such as equities) in July 2023. This is broadly in line with that suggested by data on similar UK pension schemes' strategic investment strategies, although such a simplified comparison ignores many factors.

1.11 The NIEPS' investment strategy now incorporates a de-risking objective with the aim of moving towards a broadly matched position over the long-term. The current approach uses a *liability-driven investment (LDI)* strategy. This approach is typical of recent developments seen more generally for UK private sector *defined benefit pension schemes*. The Pensions Regulator has encouraged closed schemes to decide on their long-term objectives (and plans to de-risk) in recent years and has consulted on a new regulatory funding framework (which is expected to be introduced in 2024).

Funding valuation methodology and assumptions

1.12 The results of actuarial funding valuations of the NIEPS, and therefore NIEN's cash pension contributions, depend significantly on the assumptions made for future experience. It should be noted that assumptions affect the timing of when contributions are payable, rather than the actual long-term cost which will depend on experience. This report considers the assumptions adopted for the funding assessment as at 31 March 2022.

1.13 A key factor affecting the trustees' choice of valuation assumptions, and in particular the degree of *prudence* incorporated, is the trustees' view of NIEN's *covenant*. NIEN has stated that the NIEPS's trustees' view of its *covenant* is "tending to strong". Therefore, I have assumed that the NIEPS's funding assumptions should incorporate low to normal margins for *prudence*.

1.14 In general the assumptions adopted for the 2022 and 2020 funding valuations of the NIEPS are within a broadly reasonable range, and the margins for *prudence* included do not appear overly excessive.

Actuarial funding valuation results

1.15 NIEN's employer *Standard Contribution Rate (SCR*) is higher than the average for other schemes and has increased significantly since the 2020 valuation. This is consistent with the NIEPS's benefits being slightly more generous than average and may also reflect the age profile of the active membership. It also reflects the lower-risk, lower-returning investment strategy compared with previous valuations and the level of prudence in the valuation assumptions.

1.16 The NIEPS's *funding level*s at the 2020 and 2022 valuations were slightly higher than the average *funding levels* for other UK private sector *DB schemes*. In both cases, data on other schemes should be used with some caution.

1.17 Following the 2022 valuation of the NIEPS, NIEN is not currently due to pay any *deficiency contributions* for the foreseeable future. Further deficit recovery contributions may be required in the future depending on scheme experience. A new *recovery period* may need to be agreed at subsequent valuations, which would reflect relevant circumstances at the time (for example, *employer covenant* strength, affordability and regulatory factors such as consideration of consumer interests).

Scheme expenses

1.18 We have reviewed the expenses incurred in the DB section during RP6. Overall, the level of expenses appears to be at the higher end of the typical range, when compared to data published by the Pensions Regulator. We suggest that the Utility Regulator explores this point further with NIEN to understand the reasons why and consider if any further action is required.

RP7 allowances

1.19 In addition to reviewing the approach to funding and benefit provision in the NIEPS, when considering RP7 allowances, the terms of reference also require GAD to comment on a number of other areas (some of which are non-actuarial, or specific to RP7) which can affect the allowable pensions costs for RP7.

1.20 NIEN have proposed a refund of £20 million in pension allowances for RP7.

1.21 At RP5, one of the Competition and Markets Authority (CMA) decisions involved basing price control allowances on a similar approach to that used by Ofgem, by adopting their *Pension Deficit Allocation Methodology (PDAM)* framework.

1.22 In submitting information for RP7, NIEN set out their requested pension cost allowances based on their interpretation of the *PDAM* requirements and relevant RP5 and RP6 decisions. The *PDAM* approach involves the creation of two subfunds; one in respect of benefit accrual up to 31 March 2012 (the "*cut-off date*") and one for benefit accrual after the *cut-off date*. Shareholders are fully responsible for any deficits emerging in the post *cut-off date* subfund (referred to as the "*incremental deficit*"), whilst consumers effectively guarantee any deficits emerging in the pre *cut-off date* subfund (referred to as the "*established deficit*").

1.23 Information setting out NIEN's allocation of assets and liabilities based on the *PDAM* framework was provided in Aon's report of 28 April 2023. We have not identified any significant areas of concern, however the Utility Regulator will need to decide if it is content with the application of the *Regulatory Fraction* and the adjustments for *Early Retirement Deficit Contributions (ERDCs)* and the *article 75 payment* (see later comments).

1.24 *Split of costs – Transmission and Distribution*: In setting RP7 allowances, a split between Transmission and Distribution sections of the business is required. We understand the RP7 allocation of pension deficit repair costs was c.75% to the Distribution side and c.25% to the Transmission side. As this is not an actuarial issue, GAD cannot make a recommendation on this point. The appropriate distribution will need to be decided by the Utility Regulator.

Incentives and efficiencies

1.25 The terms of reference ask GAD to identify any areas where NIEN might be able to operate its pension arrangements more efficiently.

1.26 In addressing this point, it is important to recognise that pensions is just one aspect of remuneration and can be a valuable tool for attracting and retaining valued staff, and supporting efficiency exercises such as staff restructures.

1.27 Following the introduction of the *PDAM* framework, NIEN's interests are arguably more aligned to consumers now as its shareholders are fully responsible for any surplus or deficits in the post *cut-off date* subfund.

1.28 In respect of the *established deficit*, we note that NIEN's ability to manage the deficit is limited due to *Protected person*s legislation and the scheme's mature membership profile, however it would be reasonable to expect an efficient company to explore any opportunities to mitigate unnecessary costs by considering an increase in member contributions or reforming scheme benefits (for staff who are not subject to *Protected person*s legislation). Further, it could look to explore options such as pension increase exchange initiatives, or enhanced transfer value exercises.

1.29 More generally, a key cost determinant in funding the scheme is the investment strategy and identifying the optimal level of strategy risk. Regular reviews and monitoring will help mitigate against company actions that increase costs unnecessarily. The Utility Regulator should consider whether recent developments for other regulators (for example, Ofgem, Ofwat, Ofcom etc.) might also be relevant in seeking ways to ensure that NIEN is operating as efficiently as possible. For example, we note that Ofgem have challenged companies to demonstrate that good governance procedures are in place and that schemes' running expenses are demonstrably value for money.

Limitations of the analysis

1.30 This review considers NIEPS only. It is recognised that pension arrangements are only part of overall remuneration packages.

1.31 This report compares the NIEPS with publicly available information on other UK private sector *defined benefit pension schemes*. Such comparisons do not take into account factors which affect particular industries, sponsoring employers or pension schemes in isolation, and are provided as a guide only.

1.32 Pension schemes' benefits, investment strategies and funding approaches should reflect each scheme's particular circumstances. It is beyond the scope of this report to consider all such factors. It is recognised that a "one-size fits all" approach is not appropriate. This review must not be interpreted as advising that a particular approach is necessarily inappropriate.

Compliance

1.33 This work has been carried out in accordance with the applicable Technical Actuarial Standard: TAS 100 issued by the Financial Reporting Council (FRC). The FRC sets technical standards for actuarial work in the UK.

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28 November 2023

2. Introduction

Section Summary

The Utility Regulator is the economic regulator of NIEN. The Utility Regulator commissioned the Government Actuary's Department (GAD) to review the NIE Pension Scheme (NIEPS). The results of this review enable the Utility Regulator to understand the factors affecting NIEN's future cash pension contributions, and the extent to which the NIEPS's funding approach is consistent with that of other UK private sector defined benefit pension schemes and the extent to which pension allowances requested for RP7 are reasonable. Recognising the relative funding costs, this report mainly considers the defined benefit section of the NIEPS and analyses the principal factors which determine NIEN's cash pension contributions. Limitations of the analysis are noted.

Background

Price controls

2.1 The Utility Regulator (Northern Ireland Authority for Utility Regulation) is the economic regulator of Northern Ireland Electricity Networks Limited (NIEN). The Utility Regulator sets price controls which limit the revenue NIEN can earn.

2.2 When setting price limits, the Utility Regulator considers the costs which an efficient company incurs to carry out its functions. Such costs include contributions to pension schemes.

2.3 The next NIEN price control (RP7) is due to apply from April 2025. In advance of this, the Utility Regulator is analysing NIEN's pension costs.

NIE Pension Scheme (NIEPS)

2.4 Employees of NIEN are offered membership of the NIE Pension Scheme (NIEPS). This scheme was known as the Viridian Group Pension Scheme (VGPS) prior to the acquisition of NIEN by ESB in December 2010.

2.5 The NIEPS comprises a defined benefit (DB) section ("Focus") and a defined contribution (DC) section ("Options"). Employer contributions to the DB section were around £27 million in the year 2021-22 (contributions in respect of future benefit accrual represented approximately 30% of total contributions). Employer contributions to the DC section were c.£6million a year over the same period.

2.6 This review mainly considers the Focus section of the scheme given its relative size, but the Options section has also been reviewed. The Options section will become increasingly important over time as new entrants join the Options scheme and as the Focus section matures.

2.7 At the 2022 valuation, the Focus section was comprised of 213 active members, 350 deferred pensioners and 4,054 pensioners. The NIEPS Focus is a large scheme, with the liabilities exceeding £1 billion. It is a relatively mature scheme, having been closed to new entrants in 1998, with a proportion of approximately 88% pensioners.

Objectives of this review

2.8 The Utility Regulator commissioned the Government Actuary's Department (GAD) to review certain aspects of the NIEPS. Appendix A provides a high-level summary of the terms of reference for this review.

- The results of this review assist the Utility Regulator to assess:
  - the reasonableness of NIEN's pension costs;
  - differences between NIEN's pension costs and a typical arrangement;
  - the reasonableness of the methods and assumptions used to determine NIEN's pension costs; and
  - the reasonableness of the information presented under the PDAM framework and the pension cost allowances requested by NIEN for RP7

2.9 The report on GAD's previous review of the NIEPS (for RP6) was dated 22 March 2017.

2.10 This report mainly considers the defined benefit (DB) section of the NIEPS, Focus. Some comments on the defined contribution (DC) section, Options, are included in Section 3.

2.11 This report considers the NIEPS in total. It does not consider the allocation of contributions or scheme deficit between participating employers.

Information used

2.12 Appendix B lists the information on the NIEPS which has been provided to us by the Utility Regulator. My analysis is based solely on this information and relies on the completeness and accuracy of the information provided. I have checked this information for internal consistency. Such checks do not represent a full independent audit of the information provided. In particular, I have not independently calculated or checked the details of any funding calculations. GAD accepts no responsibility for any inaccuracies or omissions due to any errors or omissions in the information provided for this review.

2.13 Appendix C provides some background on pension scheme funding and contributions. Appendix D summarises factors affecting a pension scheme's high-level investment strategy. A glossary is included in Appendix E.

2.14 The Utility Regulator was shown drafts of the report before it was finalised, and NIEN was shown a version just before consultation.

Limitations

2.15 This review considers the NIEPS only. It is recognised that pension arrangements are only part of overall remuneration packages.

2.16 This report compares the NIEPS with publicly available information on other UK private sector defined benefit pension schemes. Such comparisons do not take into account factors which affect particular industries, sponsoring employers or pension schemes in isolation, and are provided as a guide only.

2.17 Pension schemes' benefits, investment strategies and funding approaches should reflect each scheme's particular circumstances. It is beyond the scope of this report to consider all such factors. It is recognised that a "one-size fits all" approach is not appropriate. This review must not be interpreted as advising that a particular approach is necessarily inappropriate.

Distribution and publication of this report

2.18 This report is addressed to the Utility Regulator. I am aware that the Utility Regulator may make this report available to other parties, including NIEN and the trustees of the NIEPS. I am aware that the Utility Regulator may choose to publish this report in its entirety, or to quote this report in part, subject to confidentiality requirements. GAD reserves the right to review and comment on any document in which the Utility Regulator quotes or refers to this report in part.

2.19 Advice provided by GAD to the Utility Regulator is intended solely for the use of the Utility Regulator. GAD does not accept any responsibility to third parties who may read this report or extracts from it.

3. Scheme Benefits

Section Summary

Scheme benefits are one of the main determinants of DB pension schemes' ultimate costs, and therefore also of contribution rates to schemes. This section considers the benefits provided by the NIEPS. The purpose of this is to understand the level of NIEN's pension contributions. I have not been asked to comment on the reasonableness of the level of pension benefits provided by the NIEPS.

The NIEPS's DB section's benefits have not changed since the last review, in 2017 – overall, scheme benefits are slightly more generous than those provided by typical UK private sector *DB schemes*. Its benefits reflect, in part, its public sector origins and protections put in place at privatisation. They also reflect, in part, past benefit improvements to utilise valuation surpluses.

The level of employer contributions offered in the NIEPS's DC section (Options) are broadly in line with rates typically paid into DC schemes of UK private sector employers.

Background

3.1 Scheme benefits are one of the main determinants of *DB pension schemes'* ultimate costs, and therefore also of contribution rates to schemes. This section considers the benefits provided by the NIEPS. The purpose of this is to understand the level of NIEN's pension contributions. I have not been asked to comment on the reasonableness of the level of pension benefits provided by the NIEPS.

3.2 The NIEPS includes two sections:

- "Focus", providing *defined benefit* (DB) pension benefits; and
- "Options", providing *defined contribution* (DC) pension benefits.

3.3 I understand that the Electricity (*Protected Persons*) Pensions Regulations (Northern Ireland) 1992 protect employees' pension benefits in respect of past and future service (the protection applies to those members who joined the NIEPS pre-1992). As benefit protections[1] apply to most members of the NIEPS, the extent to which the NIEPS's benefits and member contribution rates can be varied is limited.

Closure of scheme to new entrants

3.4 The Focus (DB) section of the NIEPS was closed to new entrants with effect from 18 March 1998. Existing active members have continued to accrue benefits in respect of future service after that date. Subsequent joiners are offered membership of the Options (DC) section instead.

[1] Note that benefits in respect of past service cannot be amended for any members.

3.5 The closure of the Focus section to new entrants and its replacement with a DC arrangement is consistent with trends in UK private sector pension provision. It reduces NIEN's exposure to the risk of *deficiency contributions* and is expected to reduce overall pension costs. These effects will increase over time as more entrants join the DC section rather than the DB section.

3.6 DC arrangements typically, but need not, involve lower employer pension contributions than a DB pension. Whether contributions are lower to a DC arrangement than to a DB scheme depends on the design of the two schemes.

3.7 The main difference between DB and DC provision relates to risk: in a DB scheme the employer bears the risk of adverse future experience through the possibility of *deficiency contributions* being required, whereas in a DC arrangement the risk of adverse future experience rests with the member through lower than expected benefits. Conversely, members benefit from favourable experience in a DC arrangement, whereas in a DB scheme the employer may benefit (depending on the scheme rules).

3.8 Following the most recent formal actuarial valuation in 2022, NIEN's "average" contribution rate (14.2% of pay) to the DC section of the NIEPS was significantly lower than its contribution rate to the DB section (52.1% of pay in respect of benefit accrual, plus additional contributions to address the scheme's assessed deficit and ongoing administration costs).

3.9 Figure 3.1 (below) illustrates results published by the Pension Protection Fund (PPF) and the Pensions Regulator (tPR)[2], showing that, in 2022, c.40% of private sector DB pension schemes were closed to new entrants but with existing members continuing to accrue benefits (as in the Focus section of the NIEPS). Since the last review in 2017, the percentage of schemes open to new entrants has decreased, as has the percentage of schemes closed to new entrants, as more schemes cease future benefit accrual.

Figure 3.1: UK private sector defined benefit pension schemes by status – *percentage of all schemes*

[2] "The Purple Book 2022", PPF and tPR, Figure 3.1.

Options (DC) section of the NIEPS

3.10 This report mainly considers the DB section of the NIEPS, Focus (reflecting the additional complexities associated with running a *DB scheme* and the relative level of employer contributions currently paid). NIEN's future contributions to the DC section are expected to be more certain than those to the DB section. This is because, in the DC section, the contribution rates (not the level of benefits) are specified in the scheme rules (other than for some death and ill-health benefits). The employer risk of future funding shortfalls applies only to the DB section, not the DC section.

3.11 NIEN's contributions to the DC section, Options, depend on the following factors:

- The contribution rates specified in the scheme rules;
- The rates at which scheme members elect to contribute (because NIEN matches member contributions up to 8% of pay);
- The payroll of scheme members; and
- NIEN's contributions for death and ill-health benefits (which are not met entirely by members' pension accounts), and to meet administration expenses.

3.12 Employees in the DC section of the NIEPS can choose how much to contribute, subject to a minimum contribution of 4.5% of pay.

3.13 NIEN's contributions are made up of:

- **Matching employee contributions:** NIEN matches the employee's contributions up to 8% of pay
- **Death and ill-health benefits**: NIEN pays further contributions in respect of death and ill-health benefits (estimated as 6.2% of pay from 1 April 2022)
- **Administration expenses**: NIEN pays further contributions to meet administration expenses (0.4% of pay).
- **Additional benefits for long service:** NIEN contributes an additional 1% of pay for employees with over ten years' service, with an extra 1% of pay for every additional 5 years of service up to 25 years' service in total.

3.14 NIEN matches the employee's contributions up to 8% of pay. This has increased from 7% at our previous review. Minimum contributions also increased from 2.0% to 4.5% of pay between 2018 and 2019 in line with auto-enrolment legislation.

3.15 NIEN contributes an additional 1% of pay for employees with over ten years' service, with an extra 1% of pay for every additional 5 years of service up to 25 years' service in total.

3.16 NIEN pays further contributions in respect of death and ill-health benefits (estimated as 6.2% of pay from 1 April 2022) and to meet administration expenses (0.4% of pay).

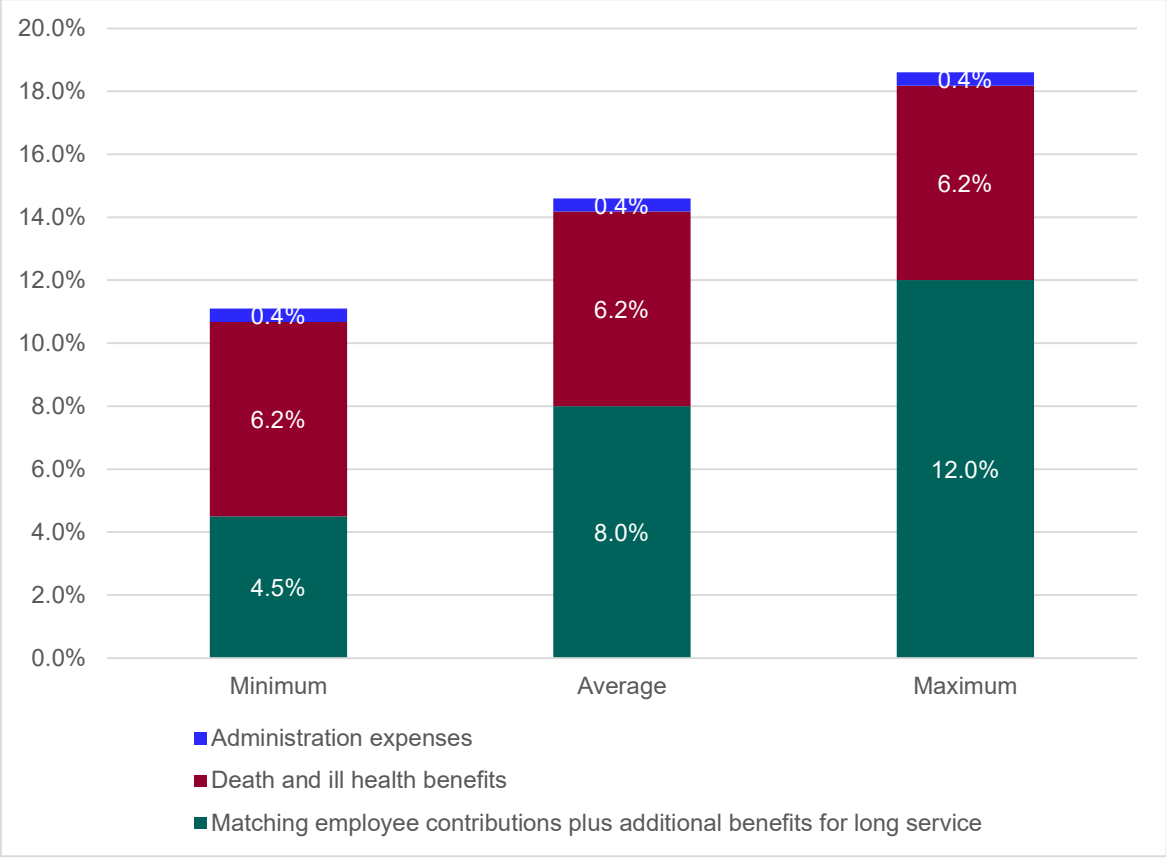
3.17 The structure of contributions to the DC section, whereby NIEN matches employee contributions on a 1:1 basis up to a limit (8% of pay here), is fairly typical.

3.18 At time of the 2014 actuarial valuation (the most recent valuation at the time of our last review), NIEN paid an average of 9.5% of pay in respect of retirement benefits. This compares to an average of 14.2% of pay at the 2022 valuation, an increase of 4.7% compared with the 2014 valuation. This increase was driven by:

- An increase in matching employee contributions (increased by 2.8% of pay). This does not seem unreasonable given the change in minimum contributions and maximum amount of contribution matching since the last review.
- An increase in and death and ill-health benefits (increased by 1.9% of pay). This does not seem unreasonable given the membership is getting more mature.

3.19 Figure 3.2 shows the range of member contribution rates payable by NIEN into the DC section. This reflects the minimum rate, the average rate at the time of the 2022 valuation and the maximum rate (for a member who personally contributes at least 8% of pay and is eligible for the extra contributions due to long service).

Figure 3.2: Contribution rates payable by NIEN in respect of the Options section on the NIEPS.



Comparing DC contribution rates

3.20 Aon's 2022 DC pension scheme[3] survey suggests that the average default pension contribution rates are 6% from employers and 4% from employees.

3.21 The minimum contribution rate for the NIEN Options scheme is 4.5% a year for employees and employers will also match the contributions and pay 4.5% a year, a combined total of 9% a year. This is above the statutory minimum auto-enrolment requirement of 8% a year.

3.22 The Aon survey concludes that there is a wide range of minimum and maximum contribution rates in private sector schemes: The employer contribution rates payable are broadly in line with rates typically paid into DC schemes of UK private sector employers.

Options section - member choices

3.23 Following changes in Government legislation, which provided more flexibility for Options members when drawing their retirement savings, the Trustees adopted the following lifestyle strategy options for members:

- The Drawdown Lifestyle strategy which will use a mix of investments designed for members who want retirement flexibility
- The Cash Lifestyle strategy, for members who plan to take all of their retirement savings as cash at, or soon after their selected retirement age
- The Annuity Lifestyle strategy, for members who want to buy an annuity

'Lifestyle' is a term used to describe a process that automatically switches your investments from assets that target higher long-term investment returns (such as equities) to less risky assets like bonds or cash as you approach retirement.

3.24 The design of the Options section, as described in the preceding paragraph, is typical of that which might be expected for a DC scheme of its size

3.25 In the year ending March 2023 the current default lifestyle funds were invested in five "building block" funds: NIPES Growth Fund, NIEPS Diversified Fund, NIEPS Bond Fund, NIEPS Annuity Tracking Fund and the NIEPS Cash Fund. In addition, the Trustees offered nine self-select funds for members who wanted to invest in their own bespoke strategy.

[3] Aon Hewitt DC Member Survey 2022

Focus (DB) section of the NIEPS

3.26 The principal benefits provided by the Focus section of the NIEPS are summarised in Table 3.1. The ongoing costs of the Focus section reflect both ongoing accrual of future service benefits for existing members and deficit contributions arising from negative scheme experience in respect of past service benefits. The NIEPS benefits are unchanged since the last review in 2017.

Table 3.1: NIE pension scheme benefits (Focus section)

	NIEPS Focus section 2014
Age at which unreduced benefits are paid (NRA)	60 or 63 [1]
Accrual rate	60ths
Dependants' pension after death of member	50%
Benefits on ill-health	Enhanced pension
Lump sum on retirement	By commutation
Member contributions (% of pay)	6%
Pension increases (in payment)	CPI [2]

[1] 63 for post-April 1988 entrants. The cost of unreduced employer-approved early retirement benefits is met by NIEN.

[2] Future NIEPS pension increases reflect Consumer Prices Index (CPI) increases. Increases above 10% are at NIEN's discretion.

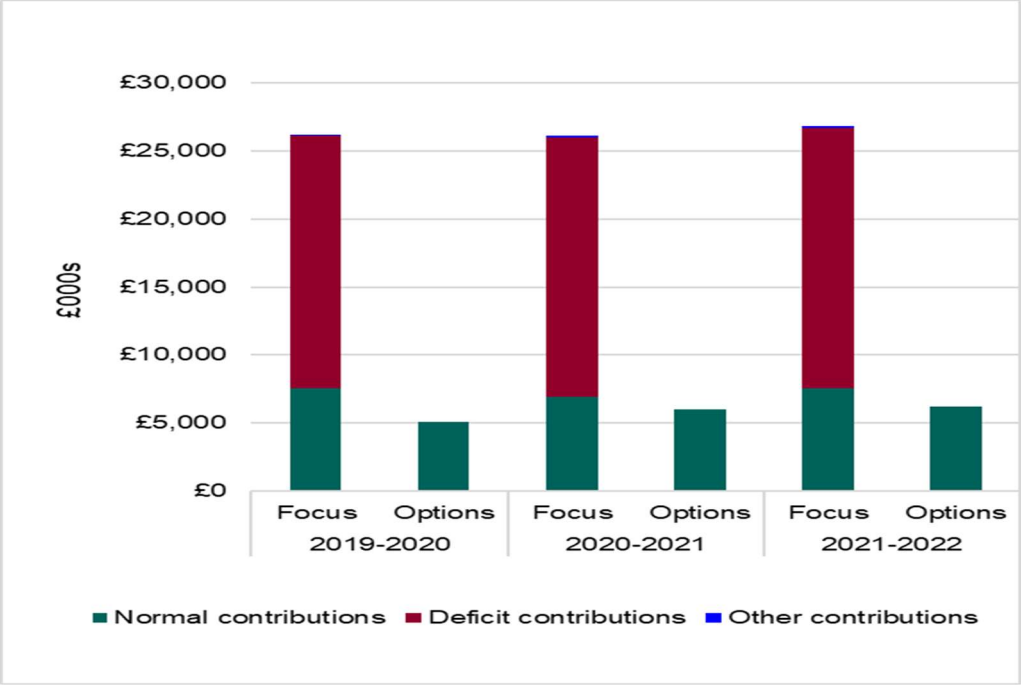
3.27 Scheme benefits are slightly more generous than those provided by typical UK private sector DB schemes still open to accrual. Its benefits reflect, in part, its public sector origins and protections put in place at privatisation and benefit improvements awarded from valuation surpluses. Benefit protections apply to most NIEPS members, the extent to which the NIEPS's benefits and member contribution rates can be varied is limited.

3.28 The NIEPS's benefits also reflect, in part, past benefit improvements to utilise valuation surpluses. For example, the scheme's *accrual rate* was increased from 62nds to 60ths following the 2000 actuarial valuation. If this change had not been made, NIEN's future pension contributions would be lower.

3.29 NIEN's employer Standard Contribution Rate (SCR) has significantly increased to 52.1% of pensionable salaries (equivalent to c.£5m-£6m in cash contributions) – we set out the reasons for this in section 4 – funding. All else being equal, contributions in respect of benefit accrual will reduce as the active membership reduces over time.

3.30 Deficit contributions of c.£19-20m a year were paid over the period 31 March 2020 to 30 September 2023. Figure 3.3 illustrates these contributions, alongside other contributions, between 2020 and 2023. No further deficit contributions are due to be paid to the scheme; however, it is possible that further contributions may need to be paid in the future – this will depend on scheme experience.

Figure 3.3: Employer contributions in the NIEPS



3.31 We have reviewed the contributions paid by NIEN over the review period and they appear consistent with the schedules of contributions and deficit recovery plans. In addition to the employer deficit and future accrual contributions, we have noted that additional contributions in respect of *benefit augmentations* have been made. Those payments have been disclosed in the scheme accounts and are generally relatively modest, however the Utility Regulator should consider how these augmentations are funded and any interaction with its price allowances.

4. Investment Strategy

Section Summary

Schemes' investment strategies affect their investment returns (and therefore their current and future funding levels). They also influence the choice of actuarial assumptions for funding valuations. A number of factors affect schemes' investment strategies.

The current benchmark investment strategy (effective July 2023) is to invest 35% of the scheme's assets in return-seeking funds such as equity, absolute return funds and private assets; invest 25% in corporate bonds, and 40% in a Liability Driven Investment (LDI) portfolio (i.e. 65% in matching assets).

This is broadly in line with the allocation suggested by data on average UK pension schemes' strategic investment strategies. Such a simplified comparison ignores many factors (such as scheme maturity and employer covenant strength).

The Pensions Regulator has encouraged closed schemes to decide on their long-term objective (and plans to de-risk) in recent years and has consulted on a new regulatory funding framework (which is expected to be introduced in 2024). We understand there is an objective for NIEPS to de-risk the scheme over the longer term by reducing the allocation to return-seeking assets and increasing the level of matching assets. This approach, and an increasing sophistication in the strategy, is typical of recent developments seen more generally for DB UK pension schemes.

Introduction

4.1 Schemes' investment strategies affect their investment returns (and therefore their current and future funding levels), and also the choice of actuarial assumptions for funding valuations. A summary of the key factors that influence the high-level strategic investment strategy for a funded defined benefit pension scheme is given in Appendix D. The Utility Regulator wishes to consider whether the NIEPS's investment strategy is consistent with that of other schemes.

4.2 The analysis in this section concentrates on the high-level split between return seeking assets, low risk assets, and matching assets. A more detailed analysis of specific asset classes is beyond the scope of this report.

NIEPS' investment strategy

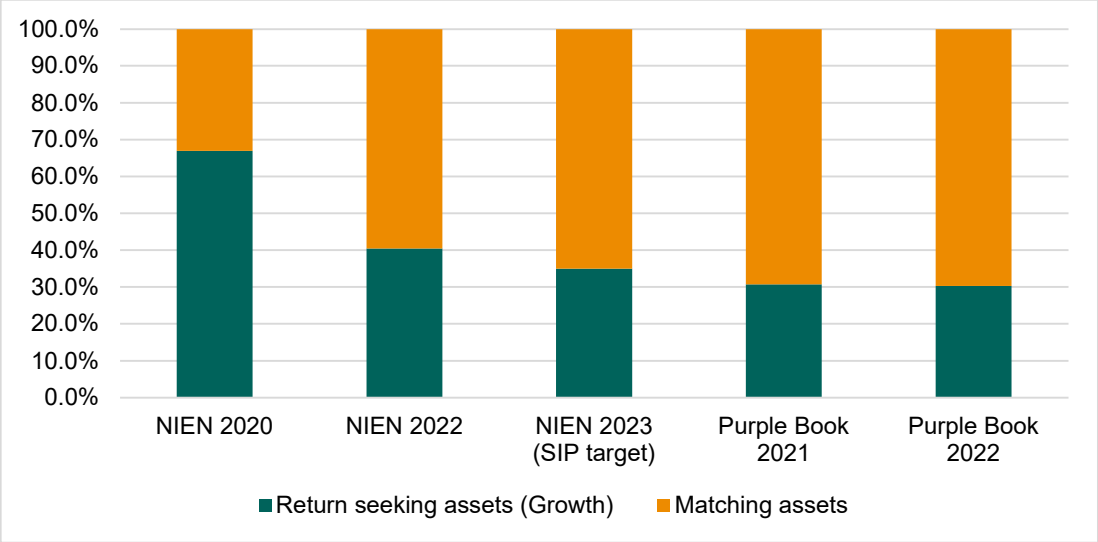
4.3 The July 2023 Statement of Investment Principles states that the NIEPS's benchmark investment strategy is as follows:

- 10% invested in equities (classed as return seeking assets)
- 5% invested in absolute return funds (a mixture of return seeking assets, low risk assets and matching assets)
- 20% invested in private assets (generally return seeking assets)
- 25% in corporate bonds
- 40% in a LDI portfolio (classed as matching assets)

4.4 NIEPS aims to hold around 35% of its assets (by market value) in "return seeking assets". The remaining 65% of its assets were invested in low risk asset classes (including matching assets which are chosen as the movement in their value is expected to mirror any changes in the estimated value of the liabilities).

4.5 Figure 4.1 shows the NIEPS's investment allocation by market value at March 2020, March 2022 and July 2023. It also shows the average asset allocation for UK private sector defined benefit pension schemes in 2021 and 2022, based on Purple Book data. This data is jointly published annually by the Pension Protection Fund (PPF) and The Pensions Regulator. The Purple Book "focuses on the risk faced by Defined Benefit (DB) pension schemes, predominantly in the private sector".

Figure 4.1: NIEPS' investments and average allocation for UK private sector defined benefit schemes (Purple Book) – percentage of assets



4.6 Overall, the current NIEPS asset allocation - recognising that the NIEPS is a mature scheme with underlying employer covenant strength - does not appear unreasonable when compared to data covering other UK schemes.

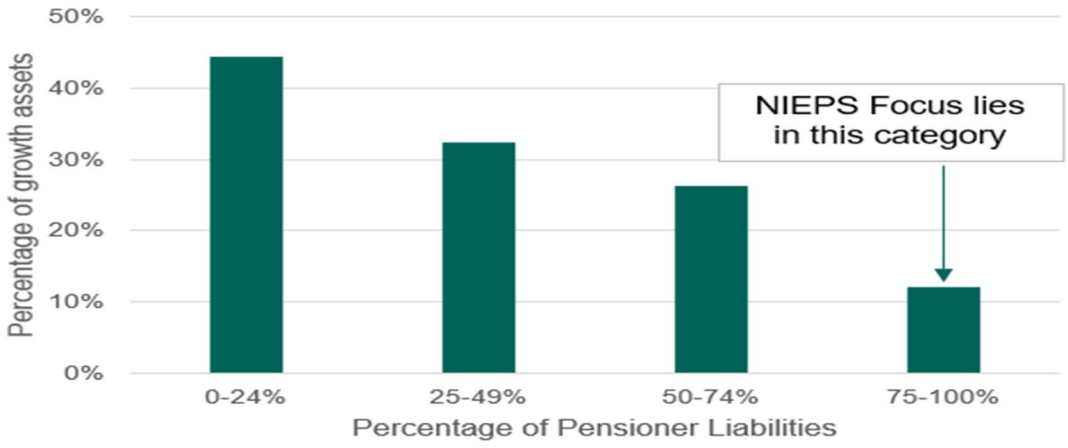
4.7 NIEPS is targeting full funding on a more prudent measure of liabilities over an agreed period of time, with the intention of reducing investment risk as the return required to reach this objective reduces, i.e. over time we would expect to see the proportion of return-seeking assets reduce and the proportion of matching assets increase. The Utility Regulator may wish to further consider the long-term funding plan for the NIEPS and whether this is meeting the needs of all stakeholders.

4.8 The Purple Book reports that just under 40% of UK private sector DB schemes' assets by market value was invested in return seeking assets (including equities, property and hedge funds) on average in 2022. The proportion of NIEPS's assets (35%) invested in return seeking assets was reduced to similar levels in July 2023 compared to the average UK private sector pension scheme which, in isolation, might indicate that it currently falls within a broadly reasonable range (noting the comments below on scheme maturity).

4.9 One of the main factors affecting investment strategy is the maturity of the scheme: all else being equal, a scheme with a more mature liability profile would be expected to invest a lower proportion of its assets in return seeking assets.

4.10 Chart 7.9 in the 2022 Purple Book illustrates the relationship between investment strategy and scheme maturity, using the percentage of a scheme's liabilities attributable to current pensioners as a proxy for scheme maturity. Figure 4.2 shows approximate figures, based on information in Chart 7.9 in the 2022 Purple Book.

Figure 4.2: UK private sector DB pension scheme average investment in return-seeking assets – by percentage of liabilities attributable to current pensioners – percentage of assets



4.11 Figure 4.2 illustrates the relationship between investment strategy and scheme maturity. We can see that NIEPS Focus now lies in the most mature category "75-100%" percentile (albeit only just in this category – as the percentage of pensioner liability is 78% for the NIEPS – in practice, a more comparable scheme may lie somewhere between the "50-74%" and "75-100%" groups). The average percentage of growth assets in the "75-100%" category is c.12%.

4.12 The NIEPS 2023 investment strategy (SIP target) percentage of growth assets is 35% which is higher than typical private sector schemes of similar maturity. However, taking into account the covenant strength, it is not an unreasonable position or level of risk to take. In particular, the current regulatory regime is scheme specific and so factors other than scheme maturity will need to be considered when setting the investment strategy.

Implications of strategic investment strategy

4.13 Long-term implications: All other things being equal, less (more) investment in return-seeking assets implies:

- lower (higher) long-term expected investment returns; and therefore
- an expectation of higher (lower) long-term employer contributions (in order for the scheme's assets to be able to meet future benefit payments); but with
- less (more) investment risk; so
- potentially less (more) volatile funding outcomes; and therefore
- potentially less (more) volatile overall employer contribution rates.

4.14 Short-term implications: One possible consequence of a relatively low (high) investment in return-seeking assets is a relatively high (low) employer contribution rate in the short term, due to actuarial valuation assumptions anticipating lower (higher) long-term investment returns.

De-risking strategies

4.15 A key feature of the scheme's investment strategy is an objective to de-risk over the longer-term. In other words, the aim is to reduce the allocation to return-seeking assets and increase the level of matching assets. The advantage of matching assets is that they are expected to move broadly in line with changes (up or down) in the value of the liabilities. However, as these assets are considered to be lower risk, the expectation is that returns will be lower – over the long term – than returns earned on higher risk asset classes (for example, equities). The Pensions Regulator has encouraged closed schemes to decide on their long-term objectives (and plans to de-risk) in recent years and has consulted on a new regulatory funding framework (which is expected to be introduced in 2024).

4.16 The approach and level of complexity involved in managing a transition to lower risk portfolios can vary considerably. Traditionally, schemes would look to move towards a de-risked position by increasing their allocations to gilts (using suitable proportions of index-linked and fixed interest gilts). In recent years, many private sector defined benefit schemes now follow more sophisticated approaches and this is the case for the NIEPS.

4.17 In more detail, the common approach to de-risking now involves the use of derivatives, particularly swaps, in order to manage or "hedge" the scheme's exposure to various financial risks. Derivatives are not physical assets but will change the fundamental nature of the scheme's investment portfolio.

4.18 As an example, a key risk for pension schemes relates to interest rates. If interest rates decrease, we would expect the present value of pension scheme liabilities to increase. Under a swap arrangement, two parties agree to exchange a series of payments (one will pay a fixed rate and the other will pay a floating rate). At outset, the expected value of the swap for both parties is zero. However, as soon as interest rate expectations change, the value of the swap will no longer be zero. As such, if a scheme agrees to pay floating rate payments under a swap, it will 'profit' if interest rates fall. In that way, in theory the scheme's funding position can be (fully or partially) hedged against falls in interest rates. Conversely, should interest rates rise, whilst the funding position will not worsen (assuming a scheme is fully hedged), the scheme's investment returns would be less than they would otherwise have been.

4.19 All schemes have regard to the level of matching assets which their trustees believe is appropriate. The NIEPS make use of liability-driven investment (LDI) strategies to manage their exposure to risks such as interest rates and inflation. This is consistent with general market practice for larger-sized schemes. This approach presented systematic issues for many pension schemes in autumn 2022 in view of the 'gilts crisis'. NIEPS, along with other schemes, will need to take account of lessons learnt (and published guidance) to ensure a suitable approach is adopted in future.

Other considerations

4.20 When considering the maturity of the NIEPS, it should be noted that bulk transfers of pension liabilities are likely to have increased the maturity of the scheme further relative to that indicated above (assuming that mainly benefits in respect of active members have been transferred out of the scheme).

4.21 As noted above, in their consideration of risk, one key factor for the trustees is the financial strength of the sponsoring employer (the employer's covenant). All else being equal, a stronger employer covenant can support greater investment in return-seeking assets, due to the likelihood of the employer being able to meet any future deficits caused by investment losses. NIEN has stated that the NIEPS's trustees' view of its covenant is "tending to strong". The NIEPS's level of investment in return-seeking assets should be viewed in this context.

Limitations of this analysis

4.22 The analysis in this section focuses on high-level strategic investment strategy only. It ignores many detailed risk and return factors which schemes' trustees consider when deciding on investment strategy.

5. Actuarial funding valuation

Section Summary

The results of a pension scheme's funding valuation, and therefore the sponsor's future cash contributions, depend significantly on the assumptions made for future experience. It should be noted that assumptions affect the timing of when contributions are payable, rather than the actual long-term cost which will depend on experience. This section of the report considers the assumptions adopted for the funding assessment as at 31 March 2022.

A key factor affecting the trustees' choice of valuation assumptions, and in particular the degree of prudence (cautiousness) incorporated, is the trustees' view of NIEN's covenant. NIEN has stated that the NIEPS's trustees' view of its covenant is "tending to strong". Therefore, I have assumed that the NIEPS's funding assumptions should incorporate low to normal margins for prudence.

In general, the assumptions adopted for the 2020 and 2022 funding valuations of the NIEPS are within a broadly reasonable range and we do not consider the margins for prudence reflected in the assumptions to be overly excessive (recognising the scheme's circumstances).

Introduction

5.1 The results of a pension scheme's funding valuation and therefore the sponsor's future cash contributions depend significantly on the assumptions made for future experience. However, all else being equal, assumptions will affect the timing of when contributions are made rather than the actual cost of providing benefits (lower contributions in the short-term will result in higher contributions over the longer-term, and vice versa).

5.2 More prudent (or cautious) assumptions place a higher present value on the scheme's liabilities and will result in a higher Standard Contribution Rate (SCR), so NIEN's initial cash contributions will be higher. However, more prudent assumptions would be more likely to result in a future valuation surplus and hence lower future contribution rates (assuming that surplus is used to reduce contribution rates rather than to improve members' benefits).

5.3 This section of the report considers the assumptions used for the 2017, 2020 and 2022 actuarial funding valuations. It compares the assumptions used with publicly available information on other UK private sector defined benefit pension schemes. This section considers the DB (Focus) section of the NIEPS.

5.4 Appendix C provides some background on scheme funding valuations and assumptions.

Relevance of funding valuation methodology and assumptions

5.5 At a high level, the method and assumptions used for funding valuations affect the timing of pension contributions but not the pension scheme's ultimate costs.

5.6 However, funding valuation outcomes do affect consumers' utility bills, as:

- There may be timing issues, if a sudden increase in pension contributions contributes to increased utility bills in the short term;
- There are issues of inter-generational equity between consumers over time;
- In the event that a prudent funding approach ultimately leads to future scheme surpluses, if such surpluses (or a portion of them) are used to improve members' benefits, then ultimate pension costs increase;
- Where different regulatory approaches apply to different portions of a pension scheme's costs or deficit, the allocation (through the funding valuation, using funding assumptions) of costs or deficit to different portions may affect the ultimate split of costs between NIEN (and its shareholders) and consumers.

5.7 While individual assumptions are reviewed in turn, it is recognised that the overall basis in the round determines the funding valuation results. The analysis in this section focuses on the most significant actuarial assumptions.

5.8 It is recognised that funding valuations and assumptions are chosen by the pension scheme trustees, not the sponsor. However, the sponsor has specific roles in scheme funding legislation with regard to being consulted on, and agreeing, funding assumptions and contribution outcomes. The Utility Regulator should be concerned if NIEN's incentives to negotiate with trustees on these matters were weaker than for scheme sponsors in competitive industries.

Employer covenant

5.9 An employer (or sponsor) covenant relates to the extent of the legal obligation and financial ability of the employer to support the funding requirements and investment risks associated with its pension scheme.

5.10 A key factor affecting the trustees' choice of valuation assumptions, and in particular the degree of prudence incorporated, is the trustees' view of the sponsor's covenant. The greater the trustees' perceived risk of the sponsoring employer's insolvency, the more prudence they are likely to apply.

5.11 I have not independently assessed NIEN's covenant for the purposes of this review. NIEN has stated that the NIEPS's trustees' view of its covenant is "tending to strong". Therefore, I have assumed that the NIEPS's funding assumptions should incorporate low to normal margins for prudence.

Timing of the 2022 valuation

5.12 A triennial valuation was due in March 2023, but the company proposed, and the Trustees agreed to, an early valuation in March 2022. The company explained the grounds for this were:

- The deficit at March 2020 was considered to be extremely high due to the impact of COVID-19 on market conditions;
- The funding update as at 31 March 2021 indicated that there had been a significant improvement in the funding level compared to the 31 March 2020 valuation;
- The Company became aware that after submitting the 2020 valuation results, the Pensions Regulator wrote to the Trustees asking a significant number of questions about the 2020 valuation;
- Using funding updates to inform the RP7 submission was not considered an appropriate basis, as those updates were based on the March 2020 derivation of assumptions, and would not reflect the impact of the update to the assumptions that the Company and Trustees were expecting to have to make at the next actuarial valuation; and
- Given the expected improvement in the funding position which emerged since 31 March 2020, a revised valuation would likely require lower deficit repair contributions and/or a shorter recovery plan, which would be in the interests of consumers and also ensure a balance is maintained with the requirements of the Pensions Regulator.

5.13 Whilst bringing forward a valuation is not uncommon, it is important that the reasons choosing to bring forward an ‘out of cycle’ valuation are sound. noting (i) it is important to retain a long-term view of pensions costs, and (ii) valuations can lead to additional costs and governance resources. We note that the justification provided by the Company for calling an early valuation (see comments in the preceding paragraph) cites the COVID-19 pandemic (and economic shock affecting the results of the March 2020 valuation). This arguably led to distortions relative to longer-term expectations of pension scheme costs. We would expect the valuation cycle to revert to a 3-year period, absent strong justification for a shorter period between valuations.

Valuation method

5.14 The 2017, 2020 and 2022 funding valuations of the NIEPS used an actuarial method called the projected unit method. This is a standard method which is commonly used for funding valuations.

5.15 The expected cost of pension benefits accruing to active members, expressed as a percentage of payroll, usually increases with age (although this depends on the actuarial assumptions used to calculate the expected cost). Where a pension scheme is closed to new entrants (like the Focus section of the NIEPS), this would be expected to result in an increase in the average age of active members over time, and hence an increase in the expected cost of benefits accruing to active members, expressed as a percentage of payroll.

Discount rates and pay increases

5.16 The discount rate is the rate at which a scheme's expected future benefit outgo is discounted for the purpose of an actuarial valuation. That is, to convert a stream of expected future benefit cash flows to a current capitalised (or present) value. It can be thought of as corresponding to an assumed rate of return on assets. The assumed discount rate is usually the most important valuation assumption in determining contribution requirements.

5.17 A higher discount rate (or assumed rate of return) means that the scheme's assets are expected to generate higher investment returns, and therefore the scheme needs to hold less money now in order to meet future benefit payments. Therefore, the value placed on its liabilities is lower, its funding level is higher, and its standard contribution rate (SCR) is lower.

5.18 Pension scheme valuation outcomes are very sensitive to changes in the discount rate. For example, at March 2022, a 0.25% decrease in the discount rate is expected to increase the pension scheme liabilities by 3.5% of pay for the NIEPS.

5.19 Discount rates are typically set by reference to gilt yields, or swap curves, plus an allowance for assumed asset outperformance of return seeking assets, relative to gilts or swaps. This is the approach adopted for the 2017, 2020 and 2022 funding valuations of the NIEPS.

5.20 A comparison of the assumed asset outperformance (relative to gilts or swaps) adopted for schemes' funding valuations provides an indication of the relative prudence of the valuation assumptions: all else being equal, assuming lower outperformance relative to gilts is more prudent than assuming higher outperformance. Such a comparison is somewhat simplified but does provide a basis on which to compare the assumptions at each valuation. In particular, it should be borne in mind that a scheme with a higher percentage of return-seeking assets would, all else being equal, be expected to assume higher outperformance relative to gilts.

5.21 In common with many other schemes, the valuation of the NIEPS uses different discount rates for valuing benefits in the period up to retirement (in which period, investment in a higher proportion of return seeking assets can be expected) and for valuing benefits post-retirement (in which a greater degree of investment in matching assets is typically assumed). The assumed asset outperformance has therefore been considered separately for the pre- and post-retirement periods.

5.22 Table 5.1 shows the outperformance assumptions for both the pre- and post-retirement periods for the NIEPS compared with typical 'average' data, published by the Pensions Regulator.

Table 5.1: expected *discount rate* outperformance above long dated gilt yields, comparison of Focus valuation assumptions and a "typical" range

Actuarial valuation (NIEPS)	Pre-retirement		Post-retirement	
	NIEPS	tPR*	NIEPS	tPR
2017	2.50%	1.50 – 2.00%	0.85%	0.25 – 0.75%
2020	2.50%	1.50 – 2.00%	0.85%	0.25 – 0.75%
2022	1.50%	1.50 – 2.00%	0.50%	0.25 – 0.75%

*set relative to 20-year gilt curve. Benchmarked relative to relevant tPR tranche.

5.23 The current NIEN discount rate is broadly in line with the average private sector scheme, as compared with the 2022 Pensions Regulator scheme funding analysis, and within a reasonable range of assumptions. At the 2020 valuation the NIEN discount rate was slightly higher than the average private sector schemes. This reduction of the discount rate for the 2022 valuation was primarily because of moving to a lower risk investment strategy and market conditions.

5.24 In general, the main financial and demographic assumptions adopted for the 2020 and 2022 funding valuations of the NIEPS are within a broadly reasonable range and we do not consider the margins for prudence reflected in the discount rate assumptions to be overly excessive (recognising the scheme's circumstances).

Level of prudence

Derivation of level of prudence

5.25 NIEN has confirmed the intention is that all the prudence in the valuation assumptions is contained in the discount rate. We have not been provided with the information to independently verify this. However, we are not proposing to investigate further at this stage.

5.26 NIEN has indicated that it does not have access to the valuation assumption reports and does not hold any information regarding the rationale for the level of prudence adopted in the assumptions. Noting that the levels of prudence were changed (increased) at the 2022 valuation, we would expect NIEN to discuss and understand the trustee's approach to prudence before agreeing to the funding valuation basis, noting the rationale will be relevant for future valuations.

Current level of prudence

5.27 A broad indicator of the level of prudence in the current valuation is the ratio of best estimate vs funding basis (lower ratio equals higher levels of prudence). Based on the information provided in the RP7 query responses that ratio would be: 93% in 2017; 91% in 2020 and 91% in 2022.

5.28 Whilst we do not know the rationale underlying the trustee's derivation of the level of prudence in their funding basis, the margins for prudence included do not appear unduly excessive.

5.29 It appears that the level of prudence in the discount rate assumption was increased on the basis that the assumption appeared high compared to other schemes of similar

maturity, rather than derived using consistent principles with previous valuations. We note that the TPR funding regime is scheme-specific and there may be good reasons why a pension scheme, including those sponsored by regulated businesses, adopts different assumptions from others. Further, the rationale for adopting increased margins for prudence is less clear following de-risking of the investment strategy.

Assumed rates of price inflation and pension increases

5.30 The assumed rates of Retail Prices Index (RPI) price inflation, in the 2017, 2020 and 2022 valuations of the NIEPS are derived using market data, allowing for the differences between yields on fixed-interest gilts and real yields on index-linked gilts. This is a common approach.

5.31 An assumption is required for the assumed rates of the Consumer Prices Index (CPI), as pensions are increased by reference to CPI. The 2022 valuation assumes that CPI will be 1.0% a year lower than RPI and 0.1% a year post-2030. Estimates of this difference vary between commentators, however the assumed gap is within a range that might be considered a reasonable best estimate assumption of the difference between RPI and CPI.

5.32 We note that no allowance has been made for an “inflation risk premium”. This could arguably be incorporated into the assumptions (on the basis that breakeven inflation used at the 2022 valuation would, all else being equal, be expected to slightly exceed the future change in the inflation indices). Allowing for such an adjustment might be expected to reduce the assessed value of the liabilities. The magnitude of this potential reduction would depend on the extent to which the liabilities are hedged but could lead to a reduction in the value of liabilities by up to 5%, say.

Assumed rates of pay increases

5.33 The allowance for future pay increases in the funding valuations comprises two elements:

- Assumed future general (inflationary) pay increases; and
- Assumed future pay increases due to promotion and progression

5.34 Higher pay increases will lead to higher pension benefits and increased costs. The assumed rate of future general (inflationary) pay increases is equal to the assumed rate of RPI at the 2022 valuation. In line with recent practice, the valuation from 2014 onwards do not allow for any promotional increases in salary.

5.35 We do not have any information to indicate that this approach is unreasonable. The Utility Regulator may wish to consider whether the assumed pay increases are in line with their expectations for the sector. We note that this assumption is becoming less material for overall pension costs as the scheme matures and the size of the active membership reduces.

Assumed longevity

5.36 The longer a pension scheme member lives after retirement, the greater the cost of providing a defined benefit pension. Ongoing funding valuations require an assumption regarding the assumed longevity of members and their dependants. Such assumptions should reflect the particular membership of the scheme (in other words, whether the members' industry or geographical location suggests they might live for longer or shorter than average), and should allow for expected future improvements in longevity.

5.37 Figures 5.1 and 5.2 show the expected age at death for a 65 year old male pension scheme member at the valuation date (Figure 5.1) and for a male pension scheme member retiring at age 65, twenty years after the valuation date (Figure 5.2). The dates chosen coincide with the funding valuation report in 2022. Figures 5.1 and 5.2 also show the corresponding data published by the Pensions Regulator, on a range of longevity assumptions used for funding purposes by UK private sector arrangements.

5.38 The Pensions Regulator data in Figures 5.1 and 5.2 are shown separately for valuation dates (September to September years in each case). For each year, the following statistics are shown:The 5th percentile of schemes (bottom of the block);

- The median of schemes (boundary between the two colours); and
- The 95th percentile of schemes (top of the block)

Figure 5.1: Assumed expected age at death for a 65 year old male at the valuation date, from tPR data (September to September, the 5th percentile, median and 95th percentile) and for the 2017, 2020 and 2022 valuation of the NIEPS – years

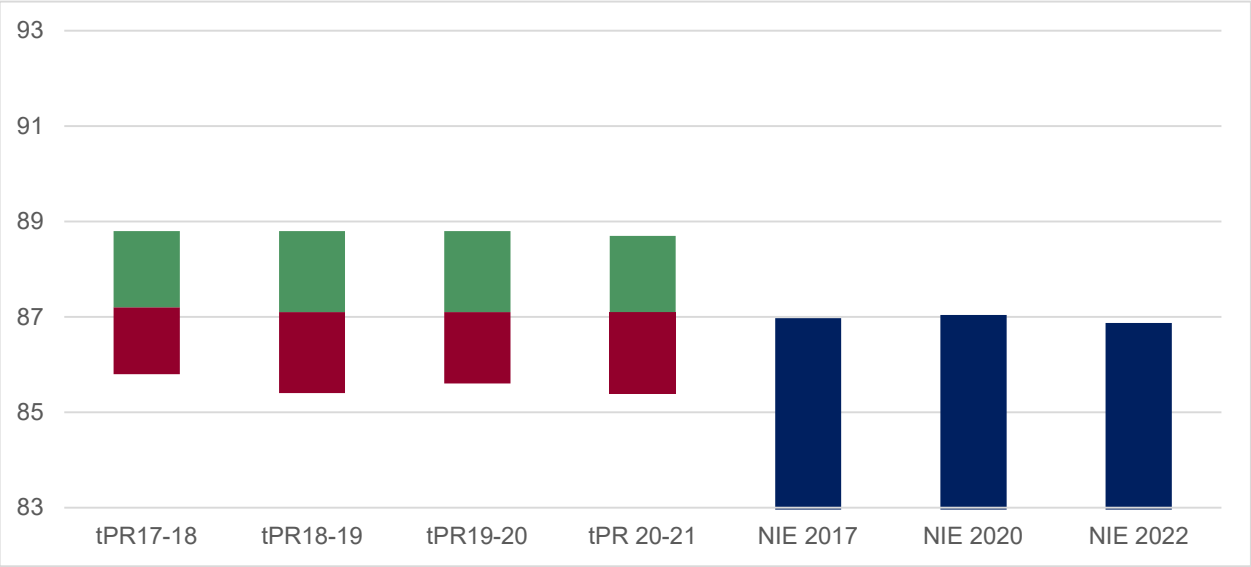
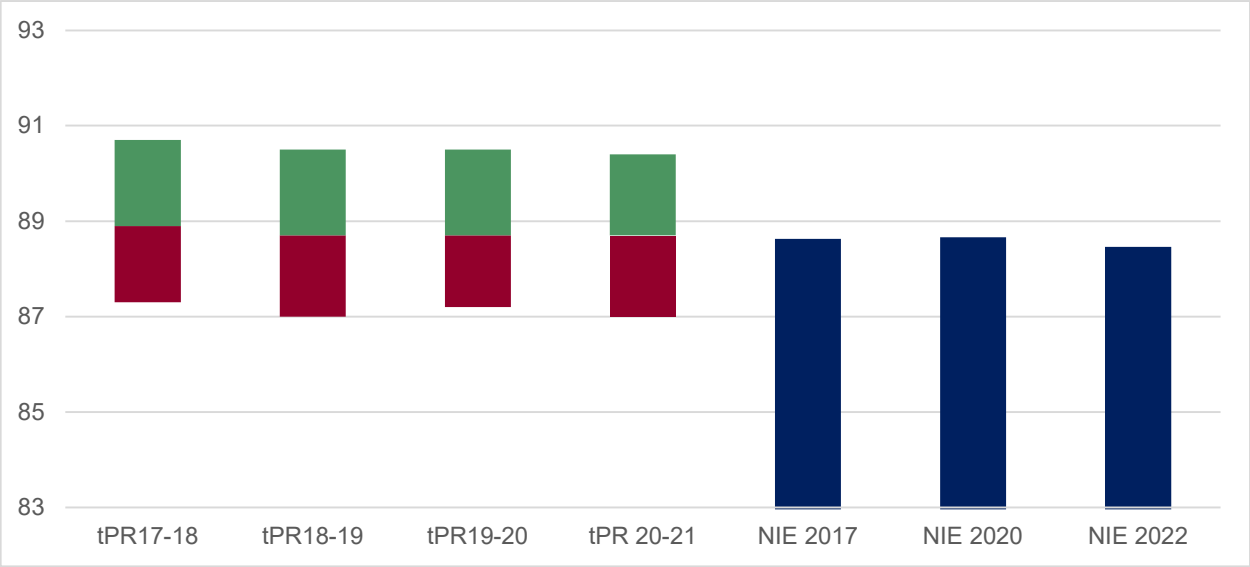


Figure 5.2: Assumed expected age at death for a male retiring at age 65, 20 years after the valuation date, from tPR data (September to September years, the 5th percentile, median and 95th percentile) and for the 2017, 2020 and 2022 valuation of the NIEPS – years



5.39 Figures 5.1 and 5.2 show that:

- longevity assumptions have remained broadly stable for NIE valuations between 2017 and 2022
- the assumed expectations of life adopted at the recent NIE valuations have been broadly in line with most other schemes, based on the Pensions Regulator's data

5.40 The report on the 2022 NIEPS valuation states that the mortality assumptions were updated "to reflect the Scheme's mortality experience and postcode analysis since the last valuation" and that the future improvements were updated to "reflect the latest available tables and socioeconomic profile of the membership".

5.41 Assumptions for future mortality improvements, adopted for the 2022 NIEPS valuation, were based on standard tables produced by the Continuous Mortality Investigation (CMI)[4]. Table 5.4 of the "TPR Scheme Funding Analysis" (Appendix (tPR))[5] indicates that 95% of DB schemes were basing their assumed mortality improvement rates on CMI projections, for valuations with effective dates between September 2020 and September 2021.

5.42 The 2022 valuation report makes no specific mention of the COVID-19 pandemic and how this was considered when setting assumptions. We would expect that the impact of COVID-19, on mortality experience since 2019 and future expectations, will have been considered when setting the assumptions.

5.43 However, overall, the allowance made for future longevity improvements appears to be in line with that adopted by other UK DB pension schemes.

[4] The Continuous Mortality Investigation (CMI) carries out research into mortality and its projections are published by the actuarial profession.

[5] Scheme funding analysis 2023 annex

Other Factors

5.44 A number of other actuarial assumptions affect the results of an ongoing funding valuation. These include the allowance made for commutation and the assumed rates of ill-health retirement. I have not reviewed each such assumption in detail, but there are no unusual features to note.

5.45 For this review, there have been no fundamental changes in valuation methodology or assumptions from those used previously. This provides comfort that NIEPS have not changed approaches significantly in order to disproportionately attribute risk to consumers.

Limitations of this analysis

5.46 The analysis in this section focuses on key valuation assumptions. It ignores many detailed factors which schemes' trustees' consider when deciding on funding assumptions. It is recognised that a scheme's funding approach should reflect its, and its sponsor's, particular circumstances. This review is solely intended to highlight where the Utility Regulator may wish initially to seek further information on the approach adopted. It should not be interpreted as advising that a particular approach is necessarily inappropriate for funding purposes.

6. Actuarial funding valuation results

Section summary

NIEN's employer Standard Contribution Rate (SCR) is slightly higher than the average for other schemes. This is consistent with the NIEPS's benefits being slightly more generous than average and may also reflect the older age profile of the active membership.

Following the 2022 valuation of the NIEPS, NIEN is required to pay deficiency contributions in addition to the normal ongoing contributions, over an 18 month to September 2023. No contributions are required to be paid in the RP7 reporting period.

Section 8 (RP6 allowances) provides comments on the interaction between recovery periods agreed at formal funding valuations and pension cost allowances set at price control reviews.

Introduction

6.1 This section discusses the results of the 2017, 2020 and 2022 funding valuations of the NIEPS, which determine NIEN's cash pension contributions. It considers the DB (Focus) section of the NIEPS only. It also comments on changes in the funding level and SCR between valuations.

6.2 The results of the 2014 funding valuation determined the contributions payable for the majority of the RP6 price control period. The results of the 2022 funding valuation determine NIEN's pension contributions going forward, although they will be subject to change at the 2025 funding valuation. This section also comments on subsequent events which may affect future pension costs.

Table 6.1: NIEPS 2017, 2020 and 2022 funding valuation results (DB section)

	2017	2020	2022
Employer's share of SCR (% of pay) 1, 2	39.6%	43.0%	52.1%
Funding level (%) 1	89%	84%	98%
Length of deficit recovery period 1	8 years	9 years	1.5 years

[1] Please refer to the glossary in Appendix E for definitions of these terms.

[2] Excluding the allowance for expenses.

Increase in SCR

6.3 The employer's share of the SCR increased from 39.6% of pay to 52.1% of pay between the 2017 and 2022 funding valuations.

6.4 NIEN's employer Standard Contribution Rate (SCR) is high compared with other schemes. This is consistent with the NIEPS's benefits being slightly more generous than average and may also reflect the older age profile of the active membership.

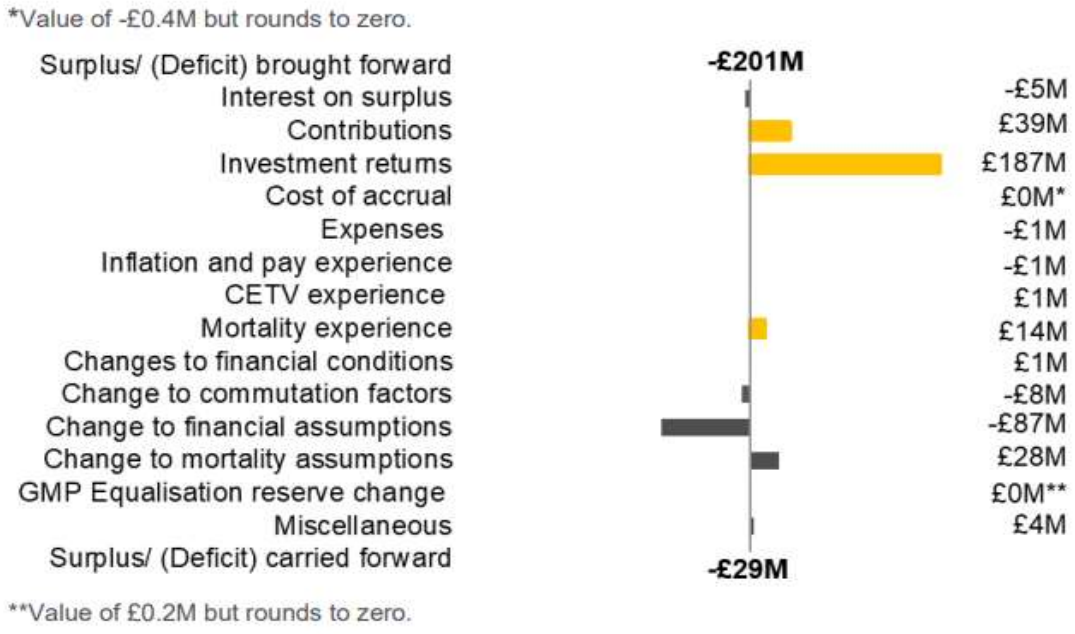
6.5 The valuation reports do not provide a full analysis of the increase in SCR. However, the increase is likely to be due to reductions in the discount rate (as gilt yields have fallen and were notably low in March 2022), and an ageing of the membership. The increase also reflects the lower-risk, lower-returning investment strategy compared with previous valuations.

6.6 As the standard contribution rate only impacts a small number of active, mature members, then the cost is low overall (and is expected to decrease further over time); however, the Utility Regulator may want to discuss with NIEN if they would be able to provide these benefits in future at a lower upfront cost given its covenant strength and aim to find an optimal approach for consumers.

Movement in surplus or deficit between the 2020 and 2022 funding valuations

6.7 Figure 6.1 shows the principal reasons for the reduction in the NIEPS's deficit from £201 million as at 31 March 2020 to £29 million as at 31 March 2022, as shown in the report on the 2022 funding valuation:

Figure 6.1: NIEPS funding valuations – change in valuation surplus (deficit) between the 2020 and 2022 valuations



6.8 Figure 6.1 shows that the principal reason for the reduction in the deficit between the 2020 and 2022 valuations was the change in market conditions, there has been better than expected asset returns since the last valuation as equity markets bounced back following the large market falls observed in Q1 2020 at the outbreak of the COVID pandemic. Payment of deficit contributions also improved the funding position over the period.

Deficiency (or deficit) contributions

6.9 The valuation deficit of £29 million as at 31 March 2022 was expected to be met by additional employer contributions of £20.025 million a year, in monthly instalments from 1 April 2022 to 30 September 2023, increasing in line with inflation on April 2023.

6.10 Following the conclusion of the 2022 valuation of the NIEPS, NIEN is no longer required to pay deficiency contributions after September 2023. It is possible further contributions may be required in future depending on scheme performance. The earliest point deficit contributions may be required would be following the conclusion of the 31 March 2025 valuation (assuming there is no reason to bring forward the next valuation).

7. Scheme expenses

Section summary

Scheme trustees have a duty to monitor expenses and ensure the level incurred is reasonable. Our analysis of the total expenses incurred by the scheme recently, indicate that they are higher than average, when compared to the data from the Pensions Regulator. We suggest that the Utility Regulator discusses this aspect with NIEN to understand the reasons why expenses are above average so it can consider whether any further action is appropriate.

Introduction

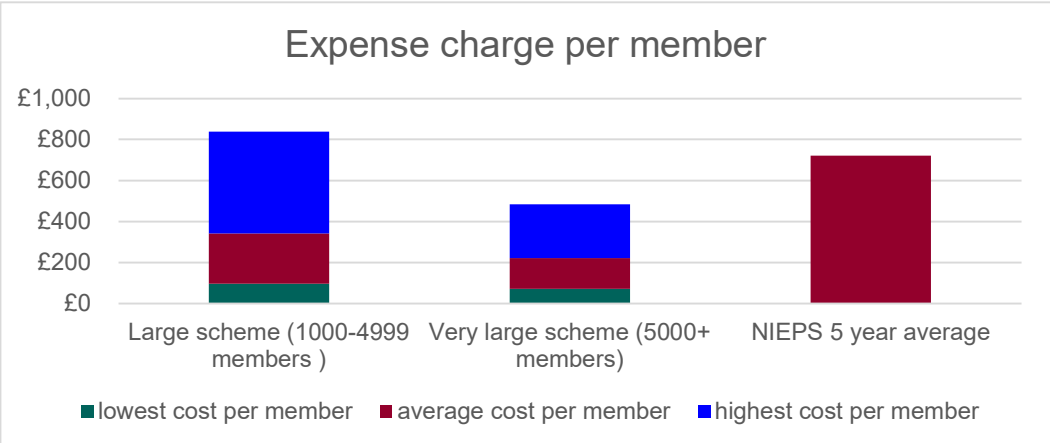
7.1 GAD has benchmarked the scheme administration costs and assessed whether these costs are materially out of line with industry figures in the period under review. We have reviewed the information submitted by NIEN for this purpose. It is important to ensure the costs are not excessive and represent value for money.

7.2 We have compared the average annual level of expenses incurred by the NIEPS between 2018 and 2022 (aligning broadly with the RP6 period) with data published by the Pensions Regulator in 2014. We have included this analysis with the Regulator for consistency with the previous reporting review; however, as the source data is not recent we have provided further analysis of the administration expenses from 7.7 onwards.

7.3 The expenses data is classified according to scheme size to enable a more informative comparison (larger schemes are expected to have lower per member expenses charges). Accordingly, NIEPS expenses are compared with expenses incurred by schemes of a similar size; that is with very large schemes (over 5,000 members) and large schemes (between 1,000 and 5,000 members).

7.4 Figure 7.1 below compares the annual cost per member for total administrative and investment management charges.

Figure 7.1



7.5 As can be seen from Figure 7.1, average NIEPS expense costs appear high when compared to the sample data, noting that:

- NIEPS had an average of 4,850 members over the period we observed:
- NIEPS expense costs exceed all those within the sample of very large schemes; and
- NIEPS expense costs are close to the level of the highest individual scheme cost within the sample of large schemes. NIEPS expense costs are significantly higher than the average "large scheme" expense costs (£721 per member versus £245 per member)

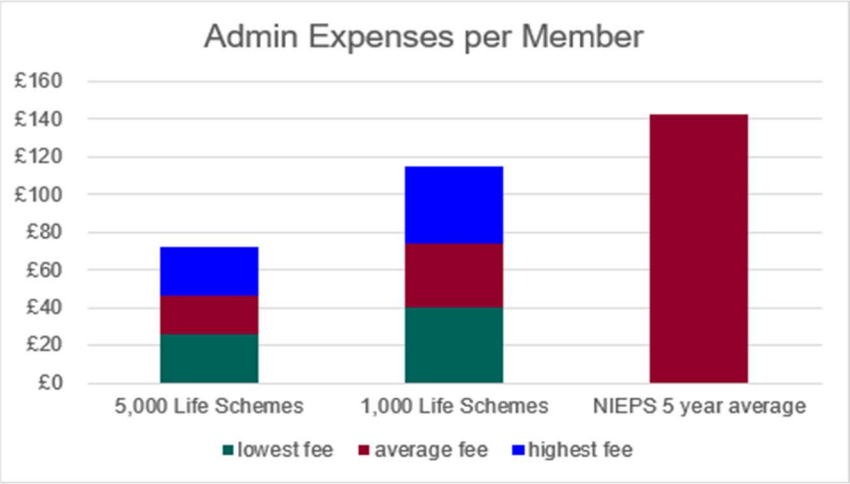
7.6 This analysis reflects a high-level comparison and it is recognised that the TPR data was published a number of years ago. However, we suggest that the Utility Regulator discusses this aspect with NIEN to understand the reasons why expenses appear above average so it can consider whether any further action is appropriate. More granular expense comparisons are possible (for example, looking at breakdowns by administration, investment, and adviser fees etc).

Further benchmarking of administration expenses

7.7 Additional employer contributions of £87,500 per month are payable to cover Focus administration expenses, from April 2022 to 31 March 2023, increasing to £100,000 per month from 1 April 2023. We have compared the annual level of administration expenses incurred by the NIEPS between 2018 and 2022 (that is, a 5-year period broadly aligned with the RP6 period) with data published by the KGC administration survey[6], which looks at administration services only. The expenses data is classified according to scheme size to enable a more informative comparison (larger schemes are expected to have lower per member expenses charges). Accordingly, NIEPS expenses are compared with expenses incurred by schemes of a similar size; that is with very large schemes (over 5,000 members) and large schemes (between 1,000 and 5,000 members).

7.8 Figure 7.2 below compares the cost per member for total administrative charges.

Figure 7.2



[6] 11th-Admin-Survey-VFinal.pdf (kgcassociates.com)

7.9 NIEPS had 4,541 members as at 31 March 2022 and therefore the direct administration expense comparison lies somewhere between the 1,000 life and 5,000 life sample size. NIEPS expense costs appear high when compared to the sample data for schemes of similar size, and higher than the highest fee in the survey. The total administration fees were more comparable with the very large schemes (c.20,000).

7.10 We recommend that the Utility Regulator discusses expense levels with NIEN to understand the reasons why expenses appear above average, and whether any further action is appropriate.

Expense treatment in PDAM

7.11 We note that controlling administration and investment expenses is the responsibility of the NIEPS trustees. In allocating expenses between the pre and post cut-off date subfunds under the PDAM framework, expenses have been allocated pro-rata to the liability value in each subfund, as at the last actuarial valuation. Accordingly, any gain (or loss) emerging in respect of expenses will be allocated mainly to the pre cut-off date subfund to reflect the higher liability in that subfund (that is, to the subfund where the cost is supported by consumers rather than NIEN).

7.12 We understand that any higher-than-expected expense charges incurred would result in a lower asset value (and increased deficit) in the pre cut-off date subfund. As part of discussions with NIEN on expenses, we suggest that the Utility Regulator considers ways in which future (component) expense items can be monitored to ensure that they are incurred at a reasonable level.

PPF levies

7.13 In addition to expenses, NIEN pays the NIEPS's Pension Protection Fund (PPF) levy. The scheme is required to pay a levy, the amount has been around £400,000 a year from 2018 to 2022. A detailed check of these amounts is beyond the scope of this review, however the calculation of the annual amount is prescribed so we have no reason to doubt the accuracy of the amounts paid.

7.14 Whilst the PPF levy represents a relatively small proportion of the cost of financing a pension scheme, we would still expect efficient employers to take steps to reduce the annual amount payable. We note that NIEN's RP7 submission states that a bespoke investment stress test was performed and a deficit reductions contributions certificate (DRCC) was submitted through the Pension Regulator's Exchange website. We would expect to see such steps being continued in future and for the scheme to explore other ways in which levy might be reduced (for example using asset backed contributions, which take account of contingent assets pledged to the pension scheme to reduce the levy).

7.15 The Utility Regulator should note that the trustees' role will involve monitoring expenses regularly to ensure they are reasonable and governance processes should be in place to ensure this happens.

Limitations of this analysis

7.16 The comparison of expenses in this section is necessarily simplified and we recognise that it may not consider all factors affecting scheme expenses. However, we expect that a high-level comparison of expenses between the NIEPS and other schemes will be a useful exercise in helping to understand any differences.

8. RP7 allowances

Section summary

NIEN has proposed a refund of £20m (in 2021/22 prices) in pension allowances for RP7. The Utility Regulator will need to consider whether it is content to allow for any "deficit" contributions requested by NIEN which extend beyond the term of the existing deficit recovery period (30 September 2023).

The Utility Regulator will need to consider any implications for future price control reviews as well as wider regulatory issues. This section also comments on some other factors which affect the amount of the allowances and the Utility Regulator will need to consider its position for each factor.

Introduction

8.1 The terms of reference require GAD to review the pension cost allowances requested by NIEN for RP7 and identify areas where adjustments are required. The amount of the pension cost allowances is affected by a number of factors, some of which are non-actuarial, or specific to price control reviews. Accordingly, the Utility Regulator, rather than GAD, will need to decide whether the pension cost allowances requested are reasonable, or whether they should be adjusted.

8.2 Deficit contributions of c.£19-20m a year were paid over the period 31 March 2020 to 30 September 2023. There are no pension deficit contributions expected to be payable during RP7. NIEN has proposed a refund of £20m (in 2021/22 prices) in pension allowances for RP7. This has been calculated under the existing agreement as the difference between the RP6 deficit repair allowances charged to consumers and the actual deficit contributions payable between 2022 and 2025. All else being equal, our calculations and discussion with the Utility Regulator relating to the refund calculation have not identified any significant concern from a consumer perspective.

8.3 The allowances might be adjusted, if the Utility Regulator believes the approach to funding or benefit provision in the NIEPS is unreasonable, having considered the comments in the previous sections of this report.

8.4 Additionally, the amount of the pension cost allowances is also affected by a number of other factors, specific to price control reviews. The following paragraphs summarise GAD's comments on the points which are specific to RP7. As most of the issues are not actuarial, the Utility Regulator will need to consider the appropriate treatment in each case.

Pension Deficit Allocation Methodology (PDAM)

8.5 The RP6 and RP7 pension cost allowances requested by NIEN reflect decisions made by the Competition and Markets Authority. In particular, it was decided that pension cost allowances should be determined using a similar approach to that used by Ofgem, by adopting their Pension Deficit Allocation Methodology (PDAM) framework.

8.6 The PDAM framework involves creating two notional subfunds within the scheme. One subfund is used to track assets and liabilities attributable to benefit accrual up to a "cut-off date" (for NIEPS, the "cut-off date" is 31 March 2012), and the other subfund is used to track assets and liabilities attributable to benefit accrual after the "cut-off date" of 31 March 2012.

8.7 In determining pension cost allowances, any deficit which emerges in the pre "cut-off date" subfund (referred to as the "established deficit") will be fully funded by consumers. Conversely, any deficit emerging in the post "cut-off date" subfund (referred to as the "incremental deficit") will be solely the responsibility of NIEN's shareholders.

8.8 Information setting out NIEN's allocation of assets and liabilities based on the PDAM framework was provided in Aon's report of 28 April 2023. We have reviewed the allocation based on a "cut-off date" of 31 March 2012 and changes in assets and liabilities between this cut-off date and 31 March 2022 when a full valuation was completed. In reviewing this allocation, we have considered information contained in the actuarial valuation reports, scheme accounts, relevant market data and documentary PDAM guidance. Overall, we have not identified any significant areas for concerns, however the Utility Regulator will need to decide if it is content with the application of the Regulatory Fraction and the adjustments for the Early Retirement Deficit Contributions (ERDCs) and the article 75 payment (see comments below).

Early Retirement Deficit Contributions (ERDCs)

8.9 Between 1997 and 2003, when the NIEPS was in surplus, early retirement benefit enhancements were granted, increasing the scheme's liabilities, but no additional contributions were paid into the scheme at the time. At RP5, following extensive consideration, it was decided that shareholders should fund part of these unfunded liabilities by disallowing 30% of deficit repair contributions. It was noted that a case could be made for an allocation of between 23% and 45%, however a 30% allocation was adopted on the basis that no compelling evidence was presented that the overall effect of this was either too harsh or too generous.

8.10 NIEN allowances requested for RP7 have been derived consistently with the RP5 and RP6 decision that 30% of the historic unfunded ERDC liabilities should be funded by shareholders. As a non-actuarial issue, it is for the Utility Regulator to decide whether it wishes to revisit the appropriateness of a 30% allocation. We are not aware of any further information that has become available since the last review.

Regulatory Fraction / article 75 payment

8.11 The Regulatory Fraction is used to allocate pension costs which are deemed to be associated with regulated activities. NIEN's RP7 submission reflects an allowance for a pre-adjusted Regulatory Fraction of 99.26% (in line with the final RP5 determination) which is used to calculate the position in the pre cut-off date subfund, and identify the established deficit. At RP5, following extensive consideration, out of the options proposed, it was decided that a 99.26% allocation was appropriate. As this is not an actuarial issue, the Utility Regulator, will need to decide whether it wishes to revisit this allocation for RP7.

8.12 We note that a 3.7% adjustment has been applied in respect of an article 75 payment (as Powerteam Electrical Services (UK) Ltd ceased to participate in the scheme on 24 December 2013). The total scheme deficit has been split according to regulated or non-regulated status. NIEN have adjusted the Regulatory Fraction so that the surplus emerging in respect of the PES article 75 payment is treated as non-regulated surplus (and so increases RP7 allowances). The Utility Regulator will need to consider whether it is content to continue with this approach.

Recovery periods and cost allowances

8.13 As formal funding valuations operate on a triennial cycle, they do not coincide with price control review periods (which usually involve a period of 5 to 6 years). Accordingly, it can be expected that actual pension costs incurred by NIEN will vary from those anticipated at the beginning of a price control review following the completion of funding valuations during the price control review period. The effect can work in either direction; actual (deficit) funding costs may reduce if scheme experience is more favourable than expected, or costs can increase if scheme experience is poor.

8.14 NIEN have requested a “re-opener” to be included as part of RP7 should any “deficit” contributions arise following the results of the next funding valuation. If “deficit” contributions are to be allowed for, the Utility Regulator will need to consider implications for future reviews and impact on consumer interests.

Split of costs – Transmission and Distribution

8.15 In setting RP7 allowances, a split between Transmission and Distribution sections of the business is required. We understand the RP7 allocation of pension deficit repair costs was c.75% to the Distribution side and c.25% to the Transmission side. As this is not an actuarial issue, GAD cannot make a recommendation on this point. The appropriate distribution will need to be decided by the Utility Regulator.

9. Incentives and efficiencies

Section Summary

The shareholders are fully responsible for any surplus or deficit established in the post cut-off date (31 March 2012) subfund and so NIEN's interests are arguably more aligned to consumers than previously.

We note that NIEN's ability to manage the established deficit in the pre cut-off date subfund is limited due to the majority of its active members being covered by Protected persons legislation, or having left active service. However, we would still expect an efficient company to be exploring options to reduce, or manage, the cost of running its pension scheme.

The long-term cost is determined by the generosity of scheme benefits and the performance of scheme assets. Regular reviews and monitoring will help mitigate against company actions that increase costs unnecessarily. Further, the Utility Regulator should consider whether any recent initiatives introduced by other Regulators, for example Ofgem, might usefully be adopted in its regulatory approach.

9.1 The terms of reference require GAD to identify any areas where NIEN might be able to operate its pension arrangements more efficiently.

9.2 It is important to recognise that pensions is just one aspect of remuneration and it can be a valuable tool for attracting and retaining valued staff, and can support efficiency exercises such as staff restructures.

9.3 Following the introduction of the PDAM framework, the shareholders are fully responsible for any surplus or deficits established in respect of the post cut-off date subfund. This should act as an incentive for NIEN to operate the pension scheme efficiently.

9.4 We recognise that NIEN's ability to manage the established deficit in the pre cut-off date subfund is limited due to Protected persons legislation and the scheme's mature membership profile. However, it would be reasonable to expect an efficient company to explore any opportunities to mitigate unnecessary costs by considering an increase in member contributions or reforming scheme benefits, for the group of staff (around 30 individuals) who are not subject to Protected persons legislation.

9.5 NIEN could also be encouraged to consider liability management exercises such as enhanced transfer values or trivial commutation communications. These initiatives are used by other scheme sponsors.

9.6 As mentioned previously, the scheme expenses look to be higher than the average expenses for schemes of a similar size. Whilst these costs only account for a small proportion of the overall costs, it may be possible to identify clear savings in this area.

9.7 The long-term cost is determined by the generosity of scheme benefits and the performance of the scheme assets. Regular reviews and monitoring will help mitigate against any company actions that increase costs unnecessarily (e.g. benefit

augmentations) and identify where the scheme appears to be adopting excessively cautious funding or investment strategies.

9.8 In particular, future NIEPS pension increases reflect Consumer Prices Index (CPI) increases. Increases above 10% are at NIEN's discretion. CPI exceeded 10% in the 12 months to September 2022 and NIEN elected to restrict the pension increase award to 10% a year in 2023. However, no formal policy is in place on recommending discretionary increases. The Utility Regulator may wish to discuss this further with NIEN as any increase above 10% would increase the long-term cost of the scheme.

9.9 The impact of high inflation (not just on future pension increases) should be considered and monitored more widely. As this is an issue currently affecting many sectors, it may be worth discussing with other regulators to understand their approach and any implications.

Recent approaches by other regulators

9.10 The Utility Regulator could consider the merits of approaches used by other regulators to incentivise their regulated companies to manage their pension schemes more effectively.

9.11 Ofwat commissioned a targeted review of company pension arrangements in 2018. The review looked to better understand the key drivers for managing pension risk across the sector and to consider how approaches varied between companies. Ofgem has consulted on its approach to pensions in recent years. Some of the content may inform the Utility Regulator's approach at this review and in future, noting that Ofgem use the PDAM framework.

Appendix A: Objectives of the review

A high level summary of the requirements for this review, based on the Terms of Reference, as described in the Review of Northern Ireland Electricity Networks Pension allowances for the RP7 price control period – Work Package 1, is set out below.

Requirement 1 – RP6 and previous price control adjustments

- Consider whether there should be any adjustments in respect of RP5 or RP6. Assess pension performance and allowances over RP6 compared to regulatory allowances and assumptions and whether there should be any required adjustments for RP7.

Requirement 2 - pension valuation

- Perform an assessment of the reasonableness of the most recent NIEPS actuarial valuation, assessing underlying methodology and assumptions.
- Review the reasonableness of the investment portfolio, comparing to similar companies and utilities,
- Review whether the scheme's benefits, funding methodology, assumptions, funding level or standard contributions are outside of the expected range compared to industry peers and regulated entities.

Requirement 3 - pension scheme deficit recovery programme

- Consider the appropriateness of the pension deficit recovery programme, the derivation of the established and incremental deficits, and the recovery programme proposed by NIEN in RP7. Identify any alternative approaches and comment on implications for future price controls.

Requirement 4 - current pension scheme contributions

- Perform an assessment of the reasonableness of the current contributions (including expenses) for both the Options and Focus schemes, separately.

Requirement 5 - additional areas

- Comment on the incidence and reasonableness of other factors affecting the pension cost allowance amounts requested by NIEN for RP7
- Identify any scope to implement efficiencies or incentives in NIEN pension arrangements

Appendix B: Information used for the review

Information regarding the NIEPS

1. The Scheme Actuary's actuarial valuation reports as at 31 March 2017, 2020, 2022;
2. The Scheme Actuary's actuarial reports (funding updates) as at 31 March 2021;
3. The Trustees' annual report & accounts 2017-18, 2018-19, 2019-20, 2020-21, and 2021-22;
4. Focus (DB section) members' booklet and Options (DC section) members' booklet;
5. Statement of Investment Principles, February 2023;
6. Statement of Funding Principles, February 2023;
7. Northern Ireland Electricity Networks Limited Business Plan
8. RP7 BPT Pensions Reporting Workbook along with a RP7 BPT Pensions Commentary
9. Northern Ireland Electricity Pension Scheme Recovery Plan dated February 2023
10. Schedule of Contributions dated February 2023
11. NIE Pension Deficit Allocation report as at 28 April 2023

Publicly available reference information

12. Focus (DB section) members' booklet and Options (DC section) members' booklet;
13. "The Purple Book", Pension Protection Fund, 2022

Appendix C: Background to scheme funding and contributions

C.1 Most UK private sector *defined benefit pension schemes* are subject to the scheme funding requirements of Part 3 of the Pensions Act 2004 (in Great Britain) or Part VI of the Pensions (Northern Ireland) Order 2005 (in Northern Ireland).[7] Pension schemes must have a full actuarial valuation carried out at least every three years. The purposes of such an actuarial valuation are:

- To check whether the pension scheme's assets are sufficient to cover its accrued liabilities (referred to as its Technical Provisions in the Pensions Act 2004); and
- To determine the contribution rate payable by the employer going forward.[8]

C.2 Employers' contribution rates usually comprise two elements:

- The employer's share of the Standard Contribution Rate (SCR): this is the contribution rate required to meet the expected cost of pension benefits accruing to active members in respect of service in the relevant period (often the next three years), after deducting the members' contribution rate. The higher the members' contribution rate, the lower the employer's share of the SCR.
- Adjustments for past service surplus or deficit: where an actuarial valuation shows that the scheme's assets are less than required to cover the expected cost of members' benefits which have accrued up to the valuation date, additional deficiency contributions are required from the employer to make up the shortfall. Conversely, where the scheme's assets are more than sufficient, the employer's contributions may be reduced, depending on the scheme's rules.

C.3 The *Standard Contribution Rate* (SCR) therefore depends on the following three main factors:

- The level of benefits being provided: the more generous the benefits, the higher the SCR. Also, the lower the members' contribution rate (as specified in the scheme rules), the higher the employer's share of the SCR.
- The actuarial assumptions used: the more optimistic the assumptions, the lower the expected cost now of providing the defined benefits.[9]
- The membership profile of the pension scheme: the expected cost of providing a pension depends on the age of the members. Differences in age profiles will result in different SCRs.

[7] For further information, please refer to the Pensions Regulator's regulatory code of practice 03, "Funding defined benefits".

[8] The pension scheme's rules usually determine the rate of members' contributions. In a *defined benefit scheme*, the employer's contributions are usually variable, and depend on the scheme's experience. In other words, given a fixed rate of member contributions, the employer must ensure the scheme has sufficient assets to pay the specified benefits.

[9] Other things being equal, the more optimistic the assumptions used to calculate the SCR, the greater the risk of actual future experience being worse than the assumptions used and hence of a deficit emerging in the pension scheme in the future.

C.4 The amount of any *deficiency contributions* depends on the following factors:

- The scheme's funding position: this depends on the scheme's actual past experience, and also on the assumptions used for the valuation with regard to the scheme's future experience. Past experience affects both the scheme's liabilities (its obligations to pay members' pensions) and the scheme's assets (the fund which has built up from past contributions and the actual investment performance achieved to date).
- The recovery period: in other words, the period over which any shortfall must be met by the employer through additional contributions. For any given deficit, the annual deficiency contribution will be lower the longer the period over which the deficit is to be repaid.

C.5 Some key points on the scheme funding process are[10]:

- The assumptions to be adopted for funding purposes are not prescribed in legislation or guidance.
- Assumptions must be set by the pension scheme trustees, after taking actuarial advice, and they generally must be agreed by the sponsoring employer. Assumptions must reflect the scheme's and the sponsoring employer's specific circumstances, in particular the trustees' view of the sponsoring employer's covenant.
- When calculating past service liabilities, assumptions must be prudent. The degree of prudence is not defined, and will depend on the scheme's circumstances.[11]
- The recovery period must also be agreed with the sponsoring employer. The Trustees should aim to eliminate any funding shortfall 'as quickly as the employer can reasonably afford'.

C.6 A number of assumptions affect the results of an ongoing funding valuation. These include:

- Financial assumptions: including the discount rate (or equivalently, the assumed rate of return on the scheme's assets), pay increases, price inflation and pension increases.
- Demographic assumptions: including assumed longevity (allowing for expected future longevity improvements), assumed rates of withdrawal from active service (and whether this is through voluntary withdrawal, ill-health, death or retirement), and the proportion of members in respect of whom dependants' benefits will be paid.

C.7 Actuarial valuations may be carried out for other purposes, for example to determine pension costs and liabilities for the sponsoring employer's financial statements under FRS17 or IAS19, or to assess the extent to which the pension scheme's assets would be sufficient to buy out the accrued liabilities with an insurer if the scheme were to wind up (referred to as a solvency valuation). Different types of actuarial valuations use different methods and assumptions, as appropriate for the purposes of the valuation. This report considers scheme funding valuations of the NIEPS only, which are used to determine NIEN's cash contributions to the scheme.

[10] This list is not exhaustive.

[11] Please refer to Appendix E for a definition of "*prudence*" in this context.

C.8 The NIEPS uses an actuarial method called the *projected unit method*. This is a standard method which is commonly used for funding valuations. For schemes that are closed to new entrants (like Focus), an alternative method (called the *attained age method*) is sometimes used. The *attained age method* would be expected to result in higher contribution rates in the short term. The following paragraphs explain this further.

C.9 The expected cost of pension benefits accruing to active members, expressed as a percentage of payroll, usually increases with age (although this depends on the actuarial assumptions used to calculate the expected cost). Where a pension scheme is closed to new entrants, this would be expected to result in an increase in the average age of active members over time, and hence an increase in the expected cost of benefits accruing to active members, expressed as a percentage of payroll.

C.10 If the employer *standard contribution rate* (SCR) is calculated to be sufficient to meet the expected cost of benefits accruing to active members in the few (typically three) years following the valuation date, then the employer *SCR* (expressed as a percentage of payroll) would be expected to increase in the future for a closed scheme. Such an approach is called the projected unit method.

C.11 Alternatively, the employer *SCR* could be calculated to be sufficient to meet the average expected cost of benefits accruing to active members for the remainder of their expected working lifetimes. This can result in a higher initial *SCR*, but with no further increases being expected in the future as the average age of active members increases. This is called the *attained age method*.

C.12 Both the projected unit method and the *attained age method* are commonly used for funding valuations of closed pension schemes. The projected unit method would be expected to result in lower initial employer contributions than if the *attained age method* were used. The projected unit method is expected to lead to future increases in the employer *SCR* as the average age of active members' increases, but this should be considered in light of the corresponding expected reduction in pensionable payroll.

C.13 A *defined benefit pension scheme's* ultimate cost depends on three factors:

- The scheme's benefits (including to what extent members pay for their own benefits);
- The scheme's investment returns; and
- Members' experience (for example employees' pay rises, and pensioners' longevity)

C.14 However, an employer's contributions to a pension scheme also depend on the method and assumptions used to calculate the contribution rates (in other words, the assumptions made regarding future investment returns and future experience).

C.15 The use of more prudent assumptions causes a higher initial contribution rate, but would be more likely to result in a future valuation surplus and hence lower future contribution rates (assuming that surpluses are used to reduce contribution rates rather than to improve members' benefits). Therefore, differences in contribution rates which are caused by different methods and assumptions might, in broad terms, be expected to even themselves out over time (assuming the scheme is ongoing), but raise issues of equity between customers at different times if they are reflected in price limits.

Appendix D: Factors affecting investment strategy

D.1 A number of factors affect the high-level strategic investment strategy for a funded *defined benefit pension scheme*. The choice of investment strategy represents a trade-off between:

- Return – In isolation, assets which are expected to generate higher returns would be preferred to assets with lower expected returns. Such assets include equities and property, and are referred to as return-seeking assets in this report.
- Risk – The scheme's trustees wish to minimise the risk of sufficient assets not being available to meet the scheme's benefit payments as they fall due. The employer may also want to minimise the risk of large deficiency contributions being required in the future. Investing in matching assets, such as government and corporate bonds, can reduce risk by providing an approximate match to future pension liabilities, and by their market values broadly reflecting changes in the present value of the scheme's liabilities[12].

D.2 In their consideration of risk, one key factor for the trustees is the financial strength of the sponsoring employer (that is, its '*covenant*'). They wish to minimise the likelihood of there being insufficient assets in the scheme with no continuing sponsoring employer being able to meet the deficiency. The greater the trustees' perceived risk of the sponsoring employer's insolvency, the more cautious the scheme's investment strategy is likely to be, although this may be influenced by the size of any existing surplus or deficit.

D.3 The maturity of the scheme is also important. Mature schemes, for example schemes where a large proportion of their liabilities relate to current pensioners, generally have net cash outflow and need certainty of investment income to ensure pensioner payments can be met. Immature schemes with significant cash inflows may choose to take a more risky approach to investment, as there is a longer time horizon to deal with fluctuations in asset values (subject to the strength of the *sponsor's covenant*).

[12] Depending on the method used to value the scheme's liabilities.

Appendix E: Glossary

Accrual rate – The rate at which benefits accrue to active members in a *defined benefit scheme.* For example, in a final salary scheme where a member is entitled to a pension of one eightieth of his or her final salary for each year of pensionable service, the *accrual rate* is one eightieth.

Article 75 payment – When an employer departs from a scheme they become liable to pay their share of the scheme's liabilities.

Asset outperformance – The assumed extent to which a scheme's investment return will exceed returns on government bonds (gilts).

Attained age method – A method used to calculate *standard contribution rates (*SCR*s)* where the *SCR* is calculated to be sufficient to meet the average expected cost of benefits accruing to active members for the remainder of their expected working lifetimes. (Compare with *projected unit method*.)

Benefit augmentations – The provision of additional benefits offered to members of a DB scheme, normally where the cost is borne by the scheme and/or the employer.

Covenant - see *employer covenant.*

Cut–off Date – 31 March 2012 for NIEPS.

Deficiency (or deficit) contributions – Where an actuarial funding valuation shows that the scheme's assets are less than required to cover the expected cost of members' benefits which have accrued up to the valuation date (so the scheme is in "deficit"), additional *deficiency contributions* will be required from the employer to make up the shortfall. *Deficiency contributions* are payable for a fixed term, known as the ***recovery period***, after which the deficiency would be expected to have been eliminated.

Defined benefit pension scheme (DB scheme) – A pension scheme in which an employee's pension is determined under the scheme rules. In a ***final salary scheme***, the pension is based on the number of years of service and on the employee's *pensionable salary* at, or shortly before, the employee leaves active service. In a ***career average scheme***, the pension reflects the employee's average *pensionable salary* throughout his or her active service. The cost of providing the defined benefits will depend on the scheme's experience. In most schemes, the employer has to provide additional funds to the scheme to meet the cost of providing the defined benefits, if experience is worse than expected. In other words, the risk of adverse experience usually rests with the sponsoring employer. Conversely, the employer usually benefits from reduced contributions if experience is favourable.

Defined contribution pension scheme (DC scheme) – A pension scheme in which the benefits paid to an employee depend on the level of contributions to the scheme, the investment return earned on the contributions, annuity rates at retirement and the provider's expense charges. There is no guaranteed level of benefits. In other words, the risk of adverse experience rests with the employee (who also benefits from any favourable experience).

Discount rate – The rate at which a *defined benefit pension scheme's* expected future benefit expenditure is discounted for the purpose of an actuarial valuation. That is, to convert a stream of expected future benefit cash flows to a current capitalised value. It can be thought of as corresponding to an assumed rate of return on assets. A higher *discount rate* (or assumed rate of return) means that the scheme's assets are expected to generate higher investment returns, and therefore the scheme needs to hold less assets now in order to meet its liabilities, its *funding level* is higher, and its *standard contribution rate* is lower.

Early retirement deficiency contributions (ERDCs) –The cost of providing enhanced pension benefits granted under severance arrangements prior to the cut-off date which were not fully matched by increased contributions.

Employer (sponsor) covenant – The degree to which the employer is willing and able to meet the funding requirements of the scheme.

Established Deficit - Difference between assets and liabilities, determined at any point in time, attributable to pensionable service up to the end of the cut-off date and relating to regulated business activities. The term applies equally if there is a subsequent surplus.

Funding level – The ratio of the value of the pension scheme's assets to the assessed value of its accrued liabilities. A *funding level* of 100% means that the pension scheme is deemed to be "fully funded"; in other words, its assets are expected to be sufficient to meet the expected cost of the benefits accrued to the valuation date, on the basis of the assumptions adopted for the valuation. A "fully-funded" scheme is not guaranteed to be able to meet its future liabilities; it is only an expectation based on the assumptions adopted.

Incremental Deficit - The difference between the assets and liabilities, determined at any point in time, attributable to post cut-off date pensionable service and relating to regulated business activities. The term also applies equally where there is a surplus for the post cut-off date regulated Notional Sub-Fund.

Liability-driven investment (LDI) – *Liability driven investment* is an investment strategy which considers the nature of both a pension scheme's assets and liabilities when determining an approach. Typically these strategies involve the use of swaps and other derivatives to manage, or hedge, a scheme's exposure to risk (most commonly interest rates and inflation). Such strategies can also incorporate 'flight paths' with the aim of reducing risk over the long-term, subject to returns delivering a suitable level of outperformance against low-risk asset classes in the meantime.

Matching assets – Asset classes such as government and corporate bonds, whose cashflows can provide an approximate match to future pension payments, and whose market values may broadly reflect changes in the present value of the scheme's liabilities, depending on the method used to value the scheme's liabilities. Such assets are used to reduce a pension scheme's investment risk (in simplistic terms) but at the expense of lower expected long-term investment returns compared with *return-seeking assets***.**

Neutral estimate – A *neutral estimate* is similar to a "best-estimate" assumption, where there is expected to be a broadly 50% chance that future experience will be higher (or lower) than the relevant assumption.

Pension Deficit Allocation Methodology (PDAM) - The Pension Deficit Allocation Method as described in Ofgem's "Energy Network Operators' Price Control Pension Costs – Regulatory Instructions and Guidance: Triennial Pension Reporting pack supplement including pension deficit methodology" dated 12 April 2013 (v1.02 13 June 2013).

Pension Protection Fund (PPF) levy - The cash costs paid, directly or indirectly, by the sponsoring employer(s) or pension scheme (in respect of the conveyance business) to the Pension Protection Fund.

Pensionable salary – The amount of an employee's salary which is used to calculate the amount of contributions to a pension scheme, and the benefits provided by a *defined benefit pension scheme*. *Pensionable salary* can exclude fluctuating elements of pay, such as overtime and bonuses.

Protected persons – People covered by The Electricity (*Protected Person*s) (Northern Ireland) Pension Regulations 1992. The *Protected Person*s Regulations place obligations on successor employers to fund accrued pension rights. The Regulations also specify (broadly) that future pension rights cannot be reduced for *Protected Person*s unless a meeting of affected members votes in favour of the change by a two-thirds majority.

Prudence *(in the context of scheme funding assumptions)* – A prudent (or cautious) assumption increases the value of the liabilities compared to a best-estimate assumption.

Recovery period – See *deficiency contributions*.

Regulatory fraction – Proportion of a company's pension scheme liabilities that relates to licensed regulated business activities before the relevant cut-off date. This fraction is after any adjustment that was made in price allowances for ERDCs.

Return-seeking assets – In a pensions context, asset classes such as equities and property, which are expected to generate higher returns than *matching assets*. However, the market values of such assets are expected to demonstrate greater volatility of returns relative to the value of the liabilities than *matching assets*, increasing the risk of a future deficit.

Standard contribution rate (SCR) – The level of contributions required to meet the expected cost of the additional pension to which active members will be entitled in respect of service in the relevant period. The *SCR* is assessed at full actuarial funding valuations.

Technical provisions – The present value of a pension scheme's past service liabilities for scheme funding purposes.

Government Actuary's Department
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