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C-Suite
Pension Strategies

Defined Benefit Pension Schemes

USE OF LONGEVITY SWAPS AND BUY-INS

And Other Unforced Errors

The Case for Transparency : The Developing Story

March 2023

Themes of the Paper

The UK Defined Benefit pension industry has enthusiastically adopted derisking as part of "endgame" solutions. The long bull bond market encouraged a switch out of equities. Then came more hedging of interest rate risk. Longevity swaps were a suitable follow on to the all pervasive LDI strategies.

Interest rate and longevity derisking then came together well in "buy-in" packaged deals. Derisking continues to be the assumed direction of endgame based journey plans. The risk transfer industry is buoyant.

This paper looks at the financial impact of some longevity swaps and buy-ins. They have proved to be financial mistakes. Life expectancy trends have for a decade suggested caution before transferring liabilities that schemes do not actually have. The sudden upturn in interest rates makes premia paid for buy-ins look very poorly timed.

Questions about where schemes are now arise. The cost of risk transfers needs to be set against the benefit of wait and see thinking when there is little genuine solvency concern for the sponsor and the risk to members pensions is now centred on inflation diminishing their real value.

The actuarial and consultancy professions should use the time ahead of new longevity tables appearing and Solvency II replacements becoming clear to answer some searching questions about the advice they have been providing over the last decade.

The paper uses published data from the sponsor and where relevant their parent's accounts. It also uses pension scheme accounts. What is clear is that the costs of buy-in transactions in particular can be hidden in accounting statements, flimsy explanations and half-hearted notes. The use of other comprehensive income (OCI) is central to the obfuscation. This means that investment cost and losses incurred have no direct earnings effect on the sponsor and trustee decisions are obscured. Shareholders should take note.

The paper concludes that "derisking" strategies need closer examination of their value and how they are explained to stakeholders. The current market value or close out costs of buy-ins and longevity swaps should be noted in financial statements against the cost of their purchase adjusted for payments made.

Transparency is needed.

The risk transfer industry needs to publish research which demonstrates the value of its strategies.

The value of transactions need questioning.

An alternative of running on should be a benchmark for the industry.

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The Analyses

The paper provides analyses of selected Defined Benefit schemes' finances. It looks in particular at data published by their sponsors. The data timelines are designed to connect current data with that provided at transaction decision making points. The focus is on stronger sponsors of a variety of scale where the pension scheme is not a major financial problem – more a feature of the business to be managed. The data is often fragmentary.

Financial accounts of both schemes and sponsor show there is little effort to explain or highlight the impact of decisions to seek large cash sums for investment in strategies targeting sub-inflation investment returns. Money was allocated to buy assets or back strategies which market and demographic movements show to have proved, at best, unfortunately timed. Yet the returns achieved and the real costs of exit are not addressed or justified.

Substantial sums were invested in a very narrow range of assets. The impact on the index linked gilt market in particular has proved remarkable. The Bank of England had to intervene. A Dutch bulb market had been created. The consequences are still playing out. It is important that there are not more unforced errors resulting in and from the sale of illiquid assets.

The role of Other Comprehensive Income as a dumping ground for unwelcome asset write downs is a well-developed accounting trick. There are many precedents for keeping costs well hidden in accounts – goodwill accounting 30 years ago being comparable. To have actuaries and accountants working together, however, on such a project is still unusual.

The Risk Transfer Industry knows that if their deals had a straight earnings impact they would not happen. They have adapted. For example, current sector practice is allowing a rolling programme of buy-ins to be undertaken to avoid a large settlement charge when a buyout takes place. The overall cost of the buy-ins undertaken and the rationale for it should be noted.

The overall sense is that there is little effort to move beyond platitudes as a rationale and to set out the finances in any explicable form.

Recommendations: And the Alternative

The standard of disclosures about buy-ins and longevity swaps when first undertaken should materially improve. Their continuing impact should be explained and reconciled in subsequent years.

Sponsoring companies and trustees in their annual accounts should include:

- Premia paid for buy-ins and longevity swaps against book values upfront.
- Current book value against price paid and third-party valuations to be Level 3 disclosures annually.
- The level of collateral posted on the longevity swap should be noted annually.
- Notes setting out items included in OCI and their links to other disclosures.
- Where a premium is paid above book value an explanation of the difference should be provided (The life expectancy assumptions used by a counter party compared with the accounts assumptions is important to assessing the values involved.)

Accountancy bodies should consider whether the use of OCI to absorb premia paid by pension schemes to transfer liabilities to a third party is appropriate. The level of disclosure of the accounting treatment could be reconsidered.

Risk transfer consultancies should provide analyses of the financial consequences of the deals they have taken such public credit for arranging and ensure that it is transparent in public documents.

An alternative to default risk transfers is needed. C-Suite Pension Strategies' view is that corporates should keep the faith with DB schemes. The FiduciaryPlus package developed with Kempen makes that possible. It is recommended as the alternative benefitting all stakeholders.

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Aviva Plc

Business Summary

Aviva plc is a United Kingdom-based holding company. The Company provides savings, retirement and insurance products and services. The Company's products and services comprises of long-term business, general insurance and health, fund management. The Company's segments include UK & Ireland Life, UK & Ireland General Insurance, Canada General Insurance, and Aviva Investors. The UK & Ireland Life segment's principal activities are life insurance, long-term health and accident insurance, savings, pensions and annuity business. The UK & Ireland General Insurance segment is principally engaged in providing insurance cover to individuals and businesses. The Canada General Insurance segment provides personal and commercial insurance products. The Aviva Investors manages policyholders' and shareholders' invested funds, provides investment management services for institutional pension fund mandates and manages a range of retail investment products.

Key Company Figures

December	2021 £m	2020 £m	2019 £m
Income	33184	31292	46569
Profit before tax	801	2613	3821
Market cap 1.2.23	£12.8bn		

Pension Scheme

Aviva has a large, well-funded pension scheme. It has a well-trodden de-risking path.

DB pension scheme summary 31.12.2021

(Annual Report and Accounts 2021 Page 3.102)

The Group operates a number of defined benefit and defined contribution pension schemes. The material defined benefit schemes are in the UK, Ireland and Canada. The assets and liabilities of these defined benefit schemes as at 31 December 2021 are shown below.

	2021				2020			
	UK £m	Ireland £m	Canada £m	Total £m	UK £m	Ireland £m	Canada £m	Total £m
Total fair value of scheme assets (see b(ii) below)	**18,195**	**898**	**244**	**19,337**	18,915	941	269	20,125
Present value of defined benefit obligation	**(15,764)**	**(988)**	**(316)**	**(17,068)**	(16,623)	(1,123)	(345)	(18,091)
Net IAS 19 surpluses/(deficits) in the schemes	**2,431**	**(90)**	**(72)**	**2,269**	2,292	(182)	(76)	2,034
Surpluses included in other assets (note 30)	**2,754**	**—**	**—**	**2,754**	2,780	—	—	2,780
Deficits included in provisions (note 48)	**(323)**	**(90)**	**(72)**	**(485)**	(488)	(182)	(76)	(746)
Net IAS 19 surpluses/(deficits) in the schemes	**2,431**	**(90)**	**(72)**	**2,269**	2,292	(182)	(76)	2,034

Longevity Swaps

In March 2014 the Trustees of the Aviva Staff Pension Scheme (ASPS) completed a £5bn longevity swap. The deal passed the longevity risk to three reinsurers, Munich Re, Scor and Swiss Re. In 2015 another £600m swap was completed

There was no mention of the longevity swaps in the pension scheme asset breakdown for either of the above years. At that point they may have been considered immaterial.

At 31.12.2021 the pension scheme assets included a "Cash and other" amount of (£3002m). The note states that "Cash and other" includes cash at bank, receivables, payables and longevity swaps. It also states that the short positions in "Cash and other" total £3098m.

It is impossible to calculate the value of the longevity swaps or their financial impact on the basis of the data.

Assets

(Annual Report and Accounts 2021 – Page 3.104)

Total scheme assets are comprised by country as follows:

	2021				2020			
	UK £m	Ireland £m	Canada £m	Total £m	UK £m	Ireland £m	Canada £m	Total £m
Bonds	17,503	842	97	18,442	19,702	921	119	20,742
Equities	—	25	—	25	—	31	—	31
Property	153	—	—	153	352	—	—	352
Pooled investment vehicles	4,153	347	145	4,645	4,182	272	146	4,600
Derivatives	46	17	—	63	—	13	—	13
Insurance policies	4,343	—	—	4,343	2,714	—	—	2,714
Repurchase agreements	(4,376)	(331)	—	(4,707)	(4,866)	(302)	—	(5,168)
Cash and other[1]	(3,002)	(2)	2	(3,002)	(2,502)	6	4	(2,492)
Total fair value of scheme assets	18,820	898	244	19,962	19,582	941	269	20,792
Less: consolidation elimination for non-transferable Group insurance policy[2]	(625)	—	—	(625)	(667)	—	—	(667)
Total IAS 19 fair value of scheme assets	18,195	898	244	19,337	18,915	941	269	20,125

1 Cash and other assets comprise cash at bank, receivables, payables, and longevity swaps. At 31 December 2021, cash and other assets primarily consist of short positions of £3,098 million (2020: £2,772 million).
2 As at 31 December 2021, the FPPS asset includes an insurance policy of £625 million (2020: £667 million) issued by a Group company that is not transferable under IAS 19 and is consequently eliminated from the Group's IAS 19 scheme assets. Insurance policies issued by other Group companies of £3,718 million as at 31 December 2021 (2020: £2,047 million) included in the ASPS assets are transferable and so are not subject to consolidation.

Buy-Ins

Over the three years, 2019 – 2021, the ASPS has completed 5 buy-ins with Aviva Life & Pensions UK Ltd (AVLAP). It has a framework in place for more deals.

The pensions notes to the account states that the buy-ins were completed and they are included in the scheme assets note as "Insurance policies".

However, much more detail is given under the Related Party Transactions note (see note 1 - Related Party Transaction note from 2021 Accounts below).

The notes show the transactions from the company's and the pension scheme's perspectives.

AVLAP took the premium received, deducted the recognised gross insurance liabilities and took an instant profit on the buy-in. C-Suite has constructed the tables below. The implied profit totalled £739m over the three years and is apparently included in the company's reported results.

ASPS £m	Premium Paid	Recognised plan assets	Loss taken to OCI
2021 (3 buy-ins)	2456	1760	696
2020 (1 Buy-in)	873	579	294
2019 (1 buy-in)	1665	1126	539
	4994	**3465**	**1529**

AVLAP £m	Premium received	Recognised Gross insurance liabs	Implied profit
2021 (3 buy-ins)	2456	2184	272
2020 (1 Buy-in)	873	737	136
2019 (1 buy-in)	1665	1334	331
	4994	**4255**	**739**

Aviva Life & Pensions UK Ltd: Profit before tax in accounts:

2021 *£801m (profit before tax of continuing operations after disposals)
2020 £2613m
2019 £3821m

At 31 December 2021 the recognised cumulative technical provisions shown in AVLAP were £4264m.

At 31 December 2021 the cumulative transferable asset plan shown in ASPS was £3543m.

There is an apparent regulatory arbitrage.

Longevity Assumptions

For schemes well hedged on interest rates, the derisking of buy-ins comes from longevity. The Aviva 2021 accounts show it considers longevity assumptions are high and will enable it to reduce provisions (see note 2 below). It has a committee considering the subject in relation to its wider annuity business. Schemes like Aviva's own undertaking buy-ins tend to keep their accounting mortality assumptions high. Aviva's own assumptions are high by most standards. High assumptions mean that the apparent OCI loss on transfers is kept down. Risk transferred will benefit the transferee. If mortality assumptions decrease in the following years, the impact seeps through OCI

December	2021	2020	2019	2018	2017	2016	2015
Male at 60	88.0	88.0	88.2	88.8	88.9	89.0	89.8
Female at 60	89.7	89.8	89.6	90.2	90.3	90.2	90.8
Male at 40	89.6	89.4	90.0	90.7	91.1	91.4	91.7
Female at 40	91.8	92.0	91.9	92.5	92.5	92.8	92.6
Impact on Present Value of DB obligation	£m	£m	£m	£m	£m	£m	£m
All members one year younger	680	714	613	536	565	606	396

Summary

It is extremely difficult in the case of Aviva to find information on the costs to the scheme and to the members of longevity swaps and buy-ins.

Without the related party transaction note on the buy-ins there would have been no information available relating to the £1.5bn loss written off to OCI and the £739m profit taken by the company.

There is still no information about the longevity swaps and how much of a negative amount has been included as "Cash and other".

The available information does suggest just how profitable buy ins are and the benefit grows as longevity trues up. The longevity notes suggest Aviva recognises the empirical data indicates standard assumptions are too high.

Notes from Accounts

1.Pension Scheme Notes

Related Party Transaction note 60 from 2021 Accounts Page 3.134

> "During the year, the Aviva Staff Pension Scheme (ASPS) completed three (2020: one) bulk annuity buy-in transactions with Aviva Life & Pensions UK Limited (AVLAP). Total premiums of £2,456 million (2020: £873 million) were paid by the scheme to AVLAP, with AVLAP recognising total gross liabilities of £2,184 million (2020: £737 million). The difference between the premiums and the gross liabilities implies profit of £272 million (2020: £136 million), which does not include costs incurred by the Group associated with the transactions, and is driven primarily by differences between the measurement bases used to calculate the premium and the accounting value of the associated gross liabilities. The ASPS recognised the total plan assets of £1,760 million (2020: £579 million), with the difference between the plan assets recognised and the premiums paid being recognised as an actuarial loss through Other Comprehensive Income. As at 31 December 2021, AVLAP recognised cumulative technical provisions of £4,264 million (2020: £2,147 million) in relation to buy-in transactions with the ASPS which have been included within the Group's gross liabilities, and the ASPS held a transferable plan asset of £3,543 million (2020: £1,858 million) which does not eliminate on consolidation."

2. Longevity in Aviva General business notes – 2021 Accounts

The 2021 accounts show that Aviva's own work was highlighting decreases in life expectancy. The extent to which an asymmetry of information between the industry and pension scheme advisers has arisen is of note. The following note should at least suggest the long term rate of improvement being used should be dropped.

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> "There is considerable uncertainty as to whether the improvements in life expectancy that have been experienced over the last 40 years will continue into the future. In particular, there is likely to be a reduced level of improvement from the two key drivers of recent improvements, smoking cessation (as you can only give up smoking once) and the use of statins in the treatment of cardiovascular disease (where the most significant benefit from use in higher risk groups has now been seen). Despite continued medical advances emerging, dietary changes, increasing obesity and strains on public health services have slowed the historical trend since around 2011. In the UK, this has led to some significant

industry-wide longevity reserve releases in recent years, as the assumptions around future longevity improvements have been weakened. The potential impact of the COVID-19 pandemic on medium and longer term longevity projections, via ongoing direct effects (e.g. endemic COVID-19) or via indirect effects (e.g. strains on the NHS), also adds to the uncertainty but we do not currently anticipate a material impact on the overall outlook.

Page 2.23

The Committee reviewed and challenged the longevity, persistency, expense and residential and commercial property growth assumptions used for the quarterly operating updates, and 2021 half year and full year financial statements. The process around the setting of longevity assumptions was a particularly significant area for review as those judgements could have a material impact on Aviva's SII and IFRS results. During 2021, the Committee worked closely with the Audit Committee of the Group's UK Life subsidiary, Aviva Life Holdings UK Ltd, to review the detailed analysis and to validate changes observed in recent mortality experience and the resulting impact on the existing longevity assumptions. The Committee also considered key assumption changes in Singapore, Italy and UK Staff Pension schemes. Following assessment of the proposed assumption changes the Committee considered and noted proposed changes and their expected impact on the financial statements.

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The impact of mortality for annuitant contracts on long-term business relates primarily to the UK. In 2021, there has been a reduction in reserves due to longevity assumptions arising from:

• Updates to base mortality to reflect experience and updated assumptions for anti-selection on individual annuities totalling £112 million; and

• Updates to the rate of mortality improvements, consisting of a change to the allowance for differences in mortality improvements in the annuitant population compared to the general population on which CMI_2019 is based of £195 million and other adjustments of £(41) million.

In 2020 the impact of mortality for annuitant contracts on long-term business related primarily to a to a reduction in reserves of £390 million in the UK. This was due to changes in assumptions on both individual and bulk purchase annuities arising from:

• Updates to base mortality to reflect recent experience of £224 million;

• Updates to the rate of mortality improvements, including moving to CMI 2019 and changing the long-term rate of future mortality improvements for males of £210 million;

• Changes to assumptions for anti-selection on individual annuities of £(68) million; and

• Net impacts arising from COVID-19 of £24 million."

Legal and General Plc

L&G is a UK financial services provider. Segments include Retirement Institutional; Capital; and Investment Management.

Pension Scheme

2017 Accounts Pension Notes

During 2017, an asset switch was made for the Scheme and fund, resulting in a significant reduction in the holding of equities and an increased holding in LDI funds. The main goal of the use of LDI is to hedge movements in the liabilities due to changes in interest rate and inflation expectations. On a gilts flat measure, the Scheme and Fund currently hedge 68% interest rate changes and 64% inflation expectation changes.

Annuities are purchased to mitigate risks for certain parts of the pension liabilities which passes the risks from the Scheme and Fund onto the group.

During 2017 annuities were purchased from the group. A premium of £161m (2016: £nil) was paid from the assets of the Scheme and the Fund to purchase these annuities. These annuities are not recognised as an asset for IAS 19 purposes and so the actuarial remeasurement recognised in the Consolidated Statement of Comprehensive Income includes allowance for this premium payment as well as annuity receipts over 2017 of £53m.

The gross amount of actuarial losses net of tax recognised in the Consolidated Statement of Comprehensive Income for the year was £72m (2016: £121m loss net of tax); cumulative £(898)m (2016: £(826)m).

(v) Investment and other variances

	2017 £m	2016 £m
Investment variance[1]	129	147
M&A related and other variances[2]	(105)	(134)
Total investment and other variances	**24**	13

1. Includes a positive variance in respect of the defined benefit pension scheme of £94m (2016: £29m) reflecting the impact of the acquisition of annuity assets from LGR, and the beneficial rate difference between the IAS19 and annuity discount rates.
2. Includes gains and losses, expenses and intangible amortisation relating to acquisitions and disposals. 2017 includes the £17m net gain resulting from the disposal of Legal & General Netherlands (2016: includes the £60m net loss resulting from the classification of Cofunds as held for sale (£64m loss) and the disposal of Suffolk Life (£4m gain)).

(ii) Related party transactions

The group has the following related party transactions:

- Annuity contracts issued by Legal and General Assurance Society Limited (LGAS) for consideration of £161m (2016: £3m) purchased by the group's UK defined benefit pension schemes during the year, priced on an arm's length basis;

Dec 2019 Accounts Pensions Notes

(ii) Services provided to and by related parties

All transactions between the group and associates, joint ventures and other related parties during the year are on commercial terms which are no more favourable than those available to companies in general.

Loans and commitments to related parties are made in the normal course of business.

The group has the following material related party transactions:

- Annuity contracts issued by Legal and General Assurance Society Limited for consideration of £78m (2018: £59m) purchased by the group's UK defined benefit pension schemes during the period, priced on an arm's length basis;
- Loans outstanding from related parties at 31 December 2019 of £83m (2018: £201m), with a further commitment of £16m;
- The group has total other commitments of £1,213m to related parties (2018: £837m), of which £749m has been drawn at 31 December 2019 (2018: £507m).

Immediate annuity contracts are offered to individual policyholders. Immediate annuities provide a regular income stream to the policyholder, purchased with a lump sum investment, where the income stream starts immediately after the purchase. These annuities may include a guaranteed payment period.

(iv) Investment and other variances

	2019 £m	2018 £m
Investment variance[1]	**(27)**	(126)
M&A related and other variances[2]	**(123)**	(62)
Total investment and other variances	**(150)**	(188)

1. Investment variance includes differences between actual and smoothed investment return on traded and real assets, economic assumption changes (e.g. credit default and inflation) and the impact of any difference between the actual allocated asset mix and the target long-term asset mix on new pension risk transfer business written during the period and held at a period end.
2. M&A related and other variances includes gains and losses, expenses and intangible amortisation relating to acquisitions and disposals. 2019 reflects the impact of impairing £55m of capitalised software intangibles following a groupwide review, as well as a £43m gain on the disposal of the group's stake in IndiaFirst Life Insurance Company Limited.

Dec 2021 Accounts Pensions Notes

(iv) Investment and other variances

	2021 £m	2020 £m
Investment variance related to protection liabilities	**111**	(459)
Investment variance related to the traded investment portfolio and direct investments	**19**	(299)
Other investment variance[1]	**211**	67
Investment variance	**341**	(691)
M&A related and other variances[2]	**(108)**	297
Total investment and other variances	**233**	(394)

1. Other investment variance includes variances in respect of the defined benefit pension scheme, reflecting the impact of the acquisition of annuity assets from LGR, and the difference between the IAS 19 and annuity discount rates.
2. M&A related and other variances includes gains and losses, expenses and intangible amortisation relating to acquisitions, disposals and restructuring. 2021 includes: the impact of the sale of a book of retail investment products within the L&G Personal Investing business to Fidelity International Limited, announced in October 2020; the costs associated with LGIM's appointment of State Street to provide Charles River technology and middle office services, including the recognition of a multi-year restructuring provision; and the impact of impairing capitalised software intangibles as a result of various restructuring exercises.

Investment variance includes differences between actual and long-term expected investment return on traded and real assets (including direct investments), economic assumption changes caused by changes in market conditions or expectations (e.g. credit default and inflation), the impact of any difference between the actual allocated asset mix and the target long-term asset mix on new pension risk transfer business, and the yield associated with assets held for future new pension risk transfer business from the valuation discount rate.

The long-term expected investment return is based on opening economic assumptions applied to the assets under management at the start of the reporting year. The assumptions underlying the calculation of the expected returns for traded equity, commercial property and residential property are based on market consensus forecasts and long-term historic average returns expected to apply through the cycle.

Other pension scheme numbers

	2021	2020	2019	2018	2017	2016	
	£m	£m	£m	£m	£m	£m	Total
Employer Contributions	101	127	79	80	92	71	**550**
Benefits paid	103	128	123	193	244	89	**880**
Discount rate	1.84	1.25	2.08	2.88	2.47	2.70	
Inflation assumption	3.50	3.00	3.00	3.25	3.35	3.25	
Mortality							
Men 60	87.2	87.5	87.7	87.7	88.0	88.1	
Women 60	88.4	88.8	89.0	88.8	88.9	89.0	
Men 40	89.3	89.6	89.8	89.8	90.6	90.7	
Women 40	89.8	90.1	90.4	90.2	90.6	90.7	

Breakdown of Assets

December	2021	2020	2019	2018	2017	2016
	£m	£m	£m	£m	£m	£m
Equities	0	22	131	113	78	595
Bonds	0	0	0	0	1111	638
Investment fund	0	1029	1100	913	0	0
Property	0	0	53	52	74	68
Other -cash & equivalents	114	30	8	14	19	93
APP	1214	396	0	0	0	0
Total	**1328**	**1477**	**1292**	**1092**	**1282**	**1394**
Premiums paid for annuities	82	50	78	59	161	0

Comment

Legal and General have been selling annuities to its own pension scheme since 2016. The annuities result in an OCI loss because they do not have an IAS19 value. L&G include an unspecified profit on the transactions in Group accounts.

In 2021 the scheme acquired a £1.1bn Assured Pension Payment (a bespoke style of product marketed by the life insurer). Details are unclear of the impact on the scheme and the Group profits. The meaning of the notes provided is remarkably obscure.

Pearson Plc

Pearson is a learning company with a digital education vision. Revenues are £3.4bn. Quoted in the UK the market capitalisation is £6.6bn. It sold Financial Times and The Economist in 2018 and made a one-off additional contribution to the scheme. It performed strongly in 2022 with operating profits of £455m. Net debt is £0.6bn. Its pension scheme has been in surplus for some years on an accounting basis, benefiting from £450m in contributions between 2014 and 2017.

Carion Capital; Threadneedle; Blackrock and Silchester own over 5%.

Pension Scheme

Key numbers

Dec	2021	2020	2019	2018	2017	2016	2015	2014	
	£m	£m	£m	£m	£m	£m	£m	£m	
Scheme Assets	4125	3588	3341	3240	3337	3339	2803	2714	
Liabilities	-3588	-3178	-2912	-2671	-2792	-3181	-2466	-2524	
	537	**410**	**429**	**569**	**545**	**158**	**337**	**190**	

Buy-ins

In October 2017 the trustees agreed a buy-in with Aviva and L&G totalling £1.2bn.

In February 2019 they agreed a further buy-in with L&G for £500m. After this 95% of scheme pensioners are matched with buy-in policies costing £1.7bn.

Pension scheme assets detailed in the December 2021 accounts show the value of the insurance asset to be £1.44bn. The difference is a movement in OCI and has not affected earnings.

Total buy-in costs: **£1.7bn**
Buy-in insurance value Dec 2021: **£1.44bn**
Buy-in value loss: **£260m**

Breakdown of assets

Dec	2021	2020	2019	2018	2017	2016	2015	2014
	£m	£m	£m	£m	£m	£m	£m	£m
Insurance	1444	1507	1437	940	968	-	-	-
Equities	495	72	66	65	67	100	392	760
Bonds	371	215	234	65	100	334	280	1221
Property	206	179	168	227	267	267	252	244
Pooled asset investment funds	1238	1220	1002	1425	1468	2237	1402	-
Other	371	395	434	518	467	401	477	489
Total assets	**4125**	**3588**	**3341**	**3240**	**3337**	**3339**	**2803**	**2714**

Other pension scheme numbers

Dec	2021	2020	2019	2018	2017	2016	2015	2014	
	£m	£m	£m	£m	£m	£m	£m	£m	Total
Employer Contributions	14	3	3	6	234	99	72	62	**493**
Benefits paid	123	119	124	140	188	112	95	92	
DC payments									
DC underpin incl in liabs	-	67	33	23	32	181	-	-	
Discount rate	1.9	1.4	2.0	2.8	2.5	2.5	3.7	3.6	
Inflation assumption	3.3	2.9	3.0	3.3	3.2	3.3	3.1	3.0	
Mortality									
Men 65	22.6	24.0	24.0	23.8	23.6	23.5	23.5	24.4	
Women 65	24.8	24.3	24.3	24.5	25.7	25.6	25.6	24.5	
Assets / benefits paid	33.5	30.2	26.9	23.1	17.8	29.8	29.5	29.5	

Comment

£450m in cash contributions over 4 years to 2017 added to an already strong financial position of the scheme. The one-off 2017 contribution of £234m was a windfall reflecting strategic steps made by the sponsor. The investment made in pensioner buy-in followed – providing no tangible benefit to members. Those resources could now be supporting an inflation related pension increase.

The value of the buy-in policy fell by the end of 2021 by **£260m**. Life expectancy assumptions are high. Longevity updates will add to the losses on the buy-ins. Interest rate increases add to the opportunity cost. Those are taken through reserves and do not have an earnings per share impact. The decision to cut the life expectancy assumption by 1.2 years in 2021 from that used in 2018 is noteworthy. The female mortality assumption remains high. The USA life expectancy figures given in the accounts suggest a gap of well over 2 years between the countries.

There is scope to set a long term stable strategy and have agreements to use surpluses as they arise to benefit former and current employees. The long term strategy can be aligned with Pearson's stated ESG commitments – "Adding Life to a Lifetime of Learning. Partner with Pearson and realise the life you imagine." Pearson has ample financial capacity to provide the contingent support for the scheme which makes such an approach practical.

ITV Plc

ITV Plc is a longstanding integrated producer / broadcaster consisting of ITV Studios and Media & Entertainment. Its market capitalisation is £3.2bn. RWC, Schroder, Artemis and Threadneedle all own over 5% each.

Pension Scheme

Key numbers

Dec	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Scheme Assets	3873	4032	3892	3632	3866	3833	3270	3341	2870	2693	2646
Liabilities	-3943	-4120	-4037	-3719	-3987	-4200	-3446	-3687	-3315	-3244	-3036
	-70	-88	-145	-87	-121	-367	-176	-346	-445	-551	-390

Longevity Swap

In August 2011 the Trustees entered into a £1.7bn longevity swap with Credit Suisse. The pension scheme will make monthly fixed payments to Credit Suisse. In return Credit Suisse will make payments into the scheme that broadly match the amount of the benefits being paid out.

Advisers:

Willis Towers Watson – Paul Kitson, Mark Duke
PWC – Raj Mody

ITV's 2011 accounts stated that "The recognition of the swap resulted in a reduction to the scheme's assets due to its classification as a negative asset plan". This loss was included within "Market value of assets – other". Actual amount not shown in accounts.

In the ITV accounts for 2021 the pension assets **totalled £3873m** after the negative asset in relation to the longevity swap of **£(588m)**. If the swap had not been completed the assets would have been **£4461m**.

Buy-in

In November 2018 the Trustees entered into a bulk annuity insurance contract buy-in for £580m. A consequence was that the members involved lost their pension increase exchange (PIE) resulting in a past service cost of £5m. In addition some members had a change of their rate of pension increases resulting in a credit of £15m recognised as exceptional past service item in the profit and loss account.

Acquisition of the buy-in insurance policy is treated as an investment decision of the trustees and so related asset value movement goes through OCI. For IAS 19, fair value of the buy-in is matched with the valuation of insured member benefits. As sections of the pension scheme were in surplus this gave rise to **£94m loss** in the OCI.

Breakdown of Assets

Dec	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Equities	-	-	76	169	260	633	651	654	748	632	745
Bonds	3480	3605	3127	2606	3233	2867	2219	2329	1801	1806	1782
Other	-	-	-	-	-	-	20	22	-	-	119
Property/infrastructure	316	325	295	277	197	157	123	128	114	97	-
Hedge funds/insurance policies	1	2	49	172	234	264	236	225	203	187	-
Insurance policies Buy in	530	553	544	530	-	-	-	-	-	-	-
Cash & equivalents	134	149	140	183	240	183	86	50	27	89	-
Longevity Swap	-588	-602	-339	-305	-298	-271	-65	-67	-23	-118	-
Total	**3873**	**4032**	**3892**	**3632**	**3866**	**3833**	**3270**	**3341**	**2870**	**2693**	**2646**

Other pension scheme numbers

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	Total
Employer Contributions	82	67	82	90	90	93	102	103	91	82	59	**941**
Benefits paid	187	187	194	195	201	165	158	145	140	139	130	**1841**
DC payments	26	25	23	21	18	16	16	15	8	9	8	**185**
Discount rate	1.8	1.4	2.1	2.9	2.5	2.6	3.8	3.5	4.5	4.2	4.7	
Inflation assumption	3.4	3.0	3.0	3.2	3.2	3.3	3.0	3.0	3.4	2.9	3.0	
Mortality												
Men 65	21.7	21.7	22.6	22.5	24.5	22.4	23.2	23.1	23.0	21.9	21.8	
Women 65	24.1	24.1	24.6	24.5	24.4	24.5	25.7	25.6	25.5	25.1	25.0	
Assets / benefits paid	20.7	21.6	20.1	18.6	19.2	23.2	20.7	23.0	20.5	19.4	20.4	

Comment

In 2011 ITV Plc was under some performance pressure. It undertook a pension scheme derisking exercise through a longevity swap which had little upfront cost. Subsequent interest rate movements and the flat line nature of longevity experience, in contrast to improved assumptions likely to have been included in the swap, have meant large 'out of the money' positions have arisen: £588m at 31/12/2021. 2023 longevity tables will make the cost of the swap look worse offset by interest rate rises.

Without the longevity swap the scheme would have been in surplus and employer contributions could have been far lower. The buy-in has had the same effect. The value of the position also has to be set against the much reduced value of the assets. In the last 10 years £940m has been paid into the scheme in cash.

£98m was spent on a buy-in over and above book values. Money left in cash would have been protected from the [25%] asset value fall in 2022, given the asset portfolio is linked to actuarial (not cash) liabilities. In 2022 cash payments were covered 27 times by assets held. This falls significantly in 2023.

Keysight Technologies Inc

Keysight is a major USA technology group focussed on electronic test and measurement equipment. The Group has a market capitalisation of $32bn. Profit before tax in the year to October 2022 was $1285m. Keysight is strongly in favour or the ESG agenda. Its CEO states it will "build a better planet".

Pension Scheme

The UK pension scheme is held by Keysight Technologies UK Ltd

Key numbers

Oct	2021	2020	2019	2018	2017	2016	2015	2014
	£m	£m	£m	£m	£m	£m	£m	£m
Scheme Assets	629	668	676	596	588	548	465	438
Liabilities	-592	-573	-571	-509	-544	-594	-490	-464
	37	**95**	**105**	**87**	**44**	**-46**	**-25**	**-26**

Buy-in

In March 2021 a buy-in transaction was completed for £257m. The asset value of this buy-in at 3/10/2021 is shown as £235m.

In Keysight Technologies Inc's 10K for the year ended 31/10/2022 the buy-ins are shown under "Other investments" in the table of DB Plan assets. At 31/10/21 they are shown at $364m and at 31/10/2022 at $254m – a currency and actuarial led reduction of 30%.

A further buy-in of £58m was transacted in March 22.

Breakdown of Assets

Oct	2021	2020	2019	2018	2017	2016	2015	2014
	£m	£m	£m	£m	£m	£m	£m	£m
Equities	35	34	189	168	229	196	166	160
Bonds	295	567	416	362	291	288	240	223
Diversified Growth Funds	65	68	71	65	67	62	58	33
Other	-1	-1	0	1	1	2	1	1
Property	-	-	-	-	-	-	-	21
Insurance policies Buy in	235	-	-	-	-	-	-	-
Total	**629**	**668**	**676**	**596**	**588**	**548**	**465**	**438**

Other pension scheme numbers

Oct	2021	2020	2019	2018	2017	2016	2015	2014	
	£m	£m	£m	£m	£m	£m	£m	£m	Total
Employer Contributions	1	1	14	19	21	20	20	25	**121**
Benefits paid	23	25	22	21	23	20	14	19	**167**
DC payments	2.7	1.9	1.9	1.8	2.8	2.4	1.2	3.2	
Discount rate	1.9	1.7	1.9	2.8	2.6	3.8	4.0	4.0	
Inflation assumption	3.5	3.0	3.0	3.2	3.4	3.3	3.3	3.3	
Mortality									
Men 60	-	-	-	-	-	-	28.7	28.6	
Women 60	-	-	-	-	-	-	30.9	30.1	
Assets / benefits paid	27.3	26.7	30.7	28.4	25.6	27.4	33.2	23.1	

Comment

Of the £676m assets in 2019, £120m had been contributed in cash in the previous 6 years. In 2019 the surplus in the scheme was £105m. Unnecessarily contributed, much of the value has now been given to a life insurer.

In March 2021 a buy-in for £257m out of a pension scheme of £629m was completed with a further £58m shortly after. Both these buy-ins were with Just Group plc with Willis Towers Watson acting as the scheme's actuary and as the instigator of the risk transfers because it said they were opportunistically good value. The market cap of Just Group is around £900m – a fraction of Keysight's market value.

The 2022 Group accounts shows a 30% mark down on the combined value of the buy-ins.

Employer contributions in the 6 years to 2019 were nearly £120m – in line with actual cash payments. The cash contributions as part of the general portfolio have lost a substantial amount of their value.

National Grid Plc

National Grid plc is an energy company operating in the United Kingdom and the United States. The Company's businesses supply gas and electricity to various customers and communities. Its segments include UK Electricity Transmission, UK Electricity Distribution, UK Electricity System Operator (ESO), New England and New York. UK Electricity Transmission segment includes the high-voltage electricity transmission networks in England and Wales. Its networks comprise approximately 7,216 km of overhead line, 2,551 km of underground cable and 347 substations. The UK Electricity Distribution segment includes the electricity distribution networks of Western Power Distribution in East Midlands, West Midlands and Southwest of England and South Wales. The Company operates as the electricity system operator (ESO) across Great Britain. It also has gas distribution networks, electricity distribution networks, and high-voltage electricity transmission networks in New England and New York.

Pension Scheme

The company has security arrangements with the trustee of £286m as at 31.3.22 in the form of surety bonds but these may be provided as letters of credit or cash. Counter indemnities are also taken out.

Key numbers

March	2022	2021	2020	2019	2018
	£bn	£bn	£bn	£bn	£bn
Scheme Assets	16.9	14.7	14.4	15.5	15.3
Liabilities	-14.3	-13.6	-12.8	-14.3	-14.2
	2.6	1.1	1.6	1.2	1.1

Buy-in

In year ended 31.3.20 the Trustees entered into 2 bulk annuity insurance contracts (buy-ins). These were funded by existing assets - £2.8bn of gilts were exchanged for the buy-in with Rothesay Life and £1.6bn of gilts with Legal & General. The portfolio risk had then already been addressed by buying the assets transferred.

2020 Accounts state "Pricing of policies was highly competitive, methodology for calculating buy-ins differs from price paid resulting in recognition of actuarial loss of £0.7bn on purchase." Recorded in OCI.

2021 Accounts Pension note states that for year ended 31.3.21 included in "Return on plan assets in excess of interest" is an actuarial loss in respect of buy-in policies of £0.1bn.

2022 Accounts Pension note for unquoted liability matching assets "Includes buy-in policies held by NGUKPS with a total value of £2.7 billion (2021: £4.1 billion; 2020: £3.3 billion)."

Longevity Swap

In March 2018 the Trustees entered into a £2bn longevity swap with Zurich covering around 6k pensioners. A significant portion of the longevity risk has been reinsured by Zurich with Canada Life Reinsurance.

Aon acted as lead transaction adviser for swap and reinsurance arrangement. Also provided actuarial and investment services, including negotiating insurance terms with Zurich and reinsurance with Canada Life Re.

Chair of Group Trustee – Jon Carlton; FD National Grid plc – Andrew Bonfield; Aon – Martin Bird

In the 2018 accounts the note from the finance committee states that the longevity swap was enacted in March 2018 and further details were in the pension notes. Full details or amounts/costs are not given in this note. In the National Grid plc 2022 accounts the negative asset in relation to the longevity swap is **£80m**.

Breakdown of Assets

March	2022	2021	2020	2019	2018
		£m	£m	£m	£m
Equities	1932	1356	1464	1965	2233
Bonds	2741	3767	3837	3625	3949
Gov't securities	786	1836	2051	6114	5629
Property	1124	669	688	857	963
Diversified alternatives	1766	712	893	771	789
Liability-matching assets**	**8113**	5864	4982	1751	1174
Longevity swap	-80	-64	-51	-35	-
Cash	477	284	251	299	426
Other	6	256	249	160	167
Total	**16865**	**14680**	**14364**	**15507**	**15330**

Liability Matching Assets**	£m	Description
Quoted	2023	Consists of pooled funds which invest mainly in fixed interest securities.
Unquoted	6090	Includes buy-in policies held by NGUKPS with a total value of £2.7 billion (2021: £4.1 billion; 2020: £3.3 billion).
Total	**8113**	**Included within liability-matching assets above is £6.6 billion (2021: £2.5 billion; 2020: £2.8 billion) of repurchase agreements. These are used to increase the market exposure of the liability-matching portfolios.**

Other pension scheme numbers

March	2022	2021	2020	2019	2018	
	£m	£m	£m	£m	£m	Total
Employer Contributions	167	138	156	174	150	**785**
Benefits paid	919	731	752	837	770	**4009**
Discount rate	2.78	2.0	2.4	2.4	2.6	
Inflation assumption	3.6	3.2	2.7	3.3	3.2	
Mortality						
Men 60	22.0	21.8	22.1	22.0	22.3	
Women 60	23.8	23.7	23.8	23.6	23.9	
Assets / benefits paid	18.4	20.1	19.1	18.5	19.9	

Comment

Purchase of Longevity swap has resulted in a reduction of plan assets of £80m as at 31.3.22.
Buy-ins have given an actuarial loss totaling £0.8bn to date.

AG Barr Plc

A.G. Barr P.L.C. is a United Kingdom-based branded consumer goods company, which is involved in soft drinks business. The Company's Barr Soft Drinks unit consists of brands, such as IRN-BRU, Bundaberg, Barr Flavors, KA, D' N' B, OMJ!, Rubicon, San Benedetto, Simply Fruity, Rubicon RAW, Strathmore, Snapple, Sun Exotic, Tizer, Xyber and Boost. Its Funkin unit consists of pre-mixed cocktails, syrups, mixers and purees for behind the bar and at home making. The Company offers a range of products, including Diet Cola, Lemonade, Ginger Beerm, Diet Lemonade, Orangeade, Pineapple, Red Kola, Xtra Cola, Bubblegum, Cherryade, Cola, and Cream Soda. It is engaged in producing oats, porridge, oat drink, bircher muesli and low sugar granola. The Company operates in nine United Kingdom locations with approximately 70 fleet of vehicles for distribution

Pension Scheme

Key numbers

January	2022	2021
	£m	£m
Scheme Assets	113.9	116.0
Liabilities	-114.9	-123.9
	-1.0	**-7.9**

Buy-in

In April 2016 the Trustees purchased an annuity policy with Canada Life for £34.7m. In the accounts at 31.1.2017 this buy-in was in the scheme assets at £31.5m. At 31.1.2019 it was at £30.8m.

In September 2019 another policy was purchased with Canada Life at a cost of £22.7m. Total cost of both policies was £57.4m. At 31.1.2022 the total value of the buy-in policies included in the pension scheme assets was £46.4m representing a loss of £11m.

Breakdown of Assets

January	2022	2021	2020	2019	2018	2017
	£m	£m	£m	£m	£m	£m
Equities	6.3	31.4	29.1	29.7	30.0	46.4
Bonds	33.0	20.8	21.1	24.8	28.0	28.2
Debt	21.8	6.8	7.1	8.1	9.4	-
Property	-	-	-	-	-	0.5
Cash	6.4	6.4	4.4	8.2	6.3	5.2
Buy-in policy	46.4	50.6	54.8	30.8	31.6	31.5
Total	**113.9**	**116.0**	**116.5**	**101.6**	**105.3**	**111.8**

Comment

A G Barr provides a straight-forward example of the impact of buy ins. Disclosure is good. The first detail provided after the market rates changed significantly will be noteworthy.

Babcock International Group Plc

Babcock International Group PLC is a United Kingdom-based aerospace, defence and security company. The Company is engaged in naval business and provides value-add services across the United Kingdom, France, Canada, Australasia and South Africa. Its segments include Marine, Nuclear, Land and Aviation. The Marine segment is engaged in designing, building and supporting of naval ships, equipment and marine infrastructure. The Nuclear segment provides engineering services in support of decommissioning program and projects, training and operation support, new build program management and design and installation in the United Kingdom. The Land segment provides vehicle fleet management, equipment supports and training for military and civil customers. The Aviation segment offers engineering services to defence and civil customers, including pilot training, equipment support, airbase management and operation of aviation fleets delivering emergency and offshore services

Pension Scheme

Key numbers

March	2022	2021
	£m	£m
Scheme Assets	4733.1	4623.6
Liabilities	-4541.5	-4902.5
	191.6	**-278.9**

Longevity Swap

In 2009 the Trustees of Babcock set up a longevity swap agreement with Credit Suisse for £750m to run over 50 years (details of the contract below).

At 31.3.2010 these agreements had a negative balance sheet value of £158m. In addition, the group has agreed to fund the incremental cost of the executed longevity swaps over a 20 year period at an annual cash cost of £7m. In the 2022 accounts these additional payments have increased to £15.6m.

Also, in the 2022 accounts the longevity swaps were revalued using a different basis. The restatement reduced the retirement benefit surplus by £26.9m.

The negative asset value at 31.3.22 is £293.7m.

19. Longevity Swap Contract

In December 2009 the Scheme entered into an agreement with Credit Suisse. Under the terms of this contract the Trustee is committed to pay a series of fixed payments over a 50 year term to Credit Suisse and in return Credit Suisse will make variable payments to the Trustee to cover the Scheme's obligation to pensioners and their dependants. The value of the contract at year end is shown below:

	Expiration	2021 £'000	2020 £'000
Liability driven investment swaps	November 2059	**(53,800)**	(65,642)

During the year to 31 March 2021, the Scheme's gross commitment to make fixed payments was £19,737,376 and Credit Suisse's gross variable payments due to the Trustee was £18,299,654.
The net payment of £1,437,722 is shown as payments in respect of this investment (see note 22).

Under the terms of this contract the Trustee had placed collateral to the value of £53,800,000 at 31 March 2021 (2020: £65,650,000).

The value of the longevity swap is affected by changes in underlying assumptions such as discount rate, inflation and the mortality scaling factors.

Extra Longevity Swap Payments

The Group's cash contribution rates payable to the schemes are expected to be as follows:

	Devonport Royal Dockyard Scheme	Babcock International Group Scheme	Rosyth Royal Dockyard Scheme	Babcock Rail Ltd section of the Railways Pension Scheme	Other	Total
Future service contribution rate	21.6%	51.1%	–	12.5%	15.3% – 48.0%	–
Future service cash contributions	£12.1m	£5.3m	–	£0.4m	£2.1m	£19.9m
Deficit contributions	£18.6m	–	£66.6m	£1.6m	£1.5m	£88.3m
Additional longevity swap payments	£7.3m	£3.6m	£4.7m	–	–	£15.6m
Expected employer cash costs for 2022/23	£38.0m	£8.9m	£71.3m	£2.0m	£3.6m	£123.8m
Expected salary sacrifice contributions	£6.3m	£0.4m	–	£0.5m	£0.6m	£7.8m
Expected total employer contributions	£44.3m	£9.3m	£71.3m	£2.5m	£4.2m	£131.6m

Assets and scheme position

The fair value of the assets and the present value of the liabilities of the Group pension schemes at 31 March were as follows:

	2022				2021 (restated)			
	Principal schemes £m	Railways scheme £m	Other schemes £m	Total £m	Principal schemes £m	Railways scheme £m	Other schemes £m	Total £m
Fair value of plan assets								
Growth assets								
Equities	31.6	14.3	30.6	76.5	55.0	12.5	23.0	90.5
Property funds	364.0	0.1	5.1	369.2	437.1	2.1	4.7	443.9
High yield bonds/emerging market debt	44.1	–	0.4	44.5	348.4	–	–	348.4
Absolute return and multi-strategy funds	46.0	182.9	31.8	260.7	428.5	194.6	25.4	648.5
Low-risk assets								
Bonds	1,924.1	77.2	77.5	2,078.8	1,422.9	54.7	83.4	1,561.0
Matching assets*	2,094.0	1.3	101.8	2,197.1	1,682.7	1.7	108.5	1,792.9
Longevity swaps	(283.5)	–	(10.2)	(293.7)	(250.9)	–	(10.7)	(261.6)
Fair value of assets	4,220.3	275.8	237.0	4,733.1	4,123.7	265.6	234.3	4,623.6
Percentage of assets quoted	100%	100%	100%	100%	100%	100%	100%	100%
Percentage of assets unquoted	–	–	–	–	–	–	–	–
Present value of defined benefit obligations								
Active members	756.0	65.7	35.8	857.5	857.6	126.1	39.4	1,023.1
Deferred pensioners	1,066.2	93.5	132.7	1,292.4	1,227.3	107.4	152.4	1,487.1
Pensioners	2,170.4	167.9	53.3	2,391.6	2,205.1	136.1	51.1	2,392.3
Total defined benefit obligations	3,992.6	327.1	221.8	4,541.5	4,290.0	369.6	242.9	4,902.5
Net assets/(liabilities) recognised in the statement of financial position	227.7	(51.3)	15.2	191.6	(166.3)	(104.0)	(8.6)	(278.9)

* The Babcock International Group Pension Scheme, Devonport Royal Dockyard Pension Scheme and Rosyth Royal Dockyard Pension Scheme invest in segregated portfolios, pooled investment vehicles and derivative contracts. The Trustee has authorised the use of derivatives by the investment managers for efficient portfolio management purposes including to reduce certain investment risks such as interest rate risk and inflation risk. The principal investment in derivatives is gilt repurchase agreements, interest rate and inflation swaps in the liability matching portfolio; total return swaps in the return seeking portfolios. These derivatives are included within the matching assets and equities classifications. The matching assets category includes gross assets of £3,966 million (2021: £3,860 million) and associated repurchase agreement liabilities of £1,872 million (2021: £2,177 million). Repurchase agreements are entered into with counterparties to better offset the scheme's exposures to interest and inflation rates, whilst remaining invested in assets of a similar risk profile.

The schemes do not invest directly in assets or shares of the Group.

The longevity swaps have been valued in line with assumptions that are consistent with the requirements of IFRS 13 using Level 3 inputs. The key inputs to the valuation are the discount rate and mortality assumptions.

Comment

The innovative Babcock longevity swap in 2009 was unfortunate in being just ahead of the direction change in mortality. It has been a heavy weight ever since. The recent change in methodology to assess the out of the money position shows a determination to address issues. The collateral provided is not the only indicator. Level 3 data can include the cost of closing the position.

Rolls Royce Holdings Plc

Rolls-Royce Holdings plc is a United Kingdom-based engineering company. The Company is a broad-based power and propulsion provider. The Company's segments include Civil Aerospace, Defence, Power Systems, and New Markets. The Civil Aerospace segment is engaged in the development, manufacture, marketing and sales of commercial aero engines and aftermarket services. The Defence segment is engaged in the development, manufacture, marketing and sales of military aero engines, naval engines, submarine nuclear power plants and aftermarket services. The Power Systems segment is engaged in the development, manufacture, marketing, and sales of integrated solutions for onsite power and propulsion. The New Markets segment is engaged in the development, manufacture, and sales of small modular reactor (SMR) and new electrical power solutions. The Company has customers in over 150 countries and operates in more than 50 countries worldwide

Pension Scheme

Key numbers

Dec	2021	2020
	£m	£m
Scheme Assets	9128	9762
Liabilities	-8010	-8879
	1118	883

Longevity Swap

In November 2011 the trustees of Rolls Royce completed a £3bn longevity swap with Deutsche Bank. On 31.12.11 the longevity swap was included in the scheme assets as a negative £79m. This increased to a negative £126m by the following year.

At 31.12.2013 the longevity swap was valued on an external fair market basis rather than using the same assumptions as used for the valuation of the scheme's liabilities. This gave a positive figure of £3m. If the same basis of valuation for the previous year had been used there would have been a negative amount of £156m.

By 31.12.2018 the longevity swap was a negative asset of £292m.

Buy-in

In June 2019 the trustees completed a £4.6bn buy-in with L&G. As part of this deal the longevity swap was transferred to L&G. As a result of this transaction an asset re-measurement net loss of £600m went through OCI.

Not clear where buy-in is included in net assets.

Breakdown of Assets

Fair value of scheme assets at 31 December

	2021			2020		
	UK schemes £m	Overseas schemes £m	Total £m	UK schemes £m	Overseas schemes £m	Total £m
Sovereign debt	5,756	217	5,973	7,220	276	7,496
Derivatives on sovereign debt	–	–	–	–	–	–
Corporate debt instruments	3,122	389	3,511	2,878	521	3,399
Interest rate swaps	54	–	54	52	–	52
Inflation swaps	106	–	106	(55)	–	(55)
Cash and similar instruments [1]	(811)	144	(667)	(1,156)	10	(1,146)
Liability driven investment (LDI) portfolios [2]	8,227	750	8,977	8,939	807	9,746
Listed equities	–	101	101	–	71	71
Unlisted equities	54	–	54	64	–	64
Synthetic equities [3]	43	4	47	41	12	53
Sovereign debt	–	4	4	–	–	–
Corporate debt instruments	802	–	802	709	–	709
Cash	–	2	2	–	6	6
Other	2	–	2	9	(2)	7
At 31 December	9,128	861	9,989	9,762	894	10,656

Media Communications

November 2011 Press Release

Aerospace and engineering firm Rolls-Royce has announced the completion of a longevity swap transaction completed to give additional security to the members of its final salary pension scheme. In a longevity swap contract with Deutsche Bank, Rolls-Royce have offloaded some £3 billion worth of pension liabilities, covering some 37,000 pensioners.

Rolls-Royce said the costs of the transaction would be borne by the pension fund and that it would have no material cost on funding.

Under the longevity swap transaction, Rolls-Royce pension fund trustees and Deutsche Bank have agreed on an average life expectancy. If pensioners live longer than this then Deutsche Bank make payments to the pension fund to help them meet their liabilities. If the reverse happens, the cost of making pension payments drops and the fund will have to make payments to Deutsche Bank.

Andrew Shilston, Rolls-Royce Finance Director, said: “We have made sure that as our pensioners live longer in retirement we have made proper provision for them. This is the latest in a series of measures we have taken to achieve greater certainty for our future funding requirements”.

Andrew Reid, Managing Director and European Head of Pensions Origination, Deutsche Bank, said; “Deutsche Bank has shown clear leadership in this growing market. Our team from across the Corporate & Investment Bank combined structuring expertise with Deutsche Bank’s balance sheet strength to deliver a cost effective solution for the Rolls-Royce Pension Fund.”

Deutsche Bank have apparently offloaded much of the longevity risk to reinsurers as part of this transaction. French reinsurer SCOR participated in this part of the transaction with SCOR Global Life SE entering into their first longevity reinsurance transaction in the UK. They say that they have reinsured a “significant share of the longevity risk assumed by Deutsche Bank, following the completion of a GBP 3 billion longevity swap transaction between Deutsche Bank and the Rolls-Royce Pension Fund in the UK.”

Gilles Meyer, CEO of SCOR Global Life, commented; “This deal confirms the transaction execution capability of the Longevity team in London. We have successfully and effectively been able to transpose the market-leading brand characteristics for which the wider SCOR team is known onto a new and innovative market. We are delighted to have been able to partner up with Deutsche Bank on this transaction.”

Denis Kessler, Chairman and CEO of SCOR, said; “The completion of this transaction is a key milestone in terms of demonstrating the Group’s ability to deliver on the initiatives set out in the “Strong Momentum” plan. We look forward to being a leading part of the Longevity market over the years to come.”

Aon Hewitt acted as lead advisor to the Trustees for this longevity swap transaction. Martin Bird, Managing Principal at Aon Hewitt, said; “The Rolls-Royce Trustees entered into the swap to further enhance the security of all the members’ benefits. We worked closely with the Trustees to decide that this was the right approach for them to take and also that the swap was structured in a way that offered the best possible terms on price, security and other key longevity hedge features.”

Again, we can see significant longevity risk being handed off from pension fund to an arranging bank and ultimately to reinsurers. The way this transaction is structured almost begs for it to be transferred to the capital markets in insurance-linked security form, particularly as the payments between the bank and the fund are based on longevity divergence from an agreed average.

June 2019 Press Release: Rolls Royce signs £4.6bn pension deal with L&G

Rolls Royce has agreed a £4.6bn partial buy-in deal with Legal and General for its defined benefit pension scheme.

In an announcement today (June 6), the parties stated the deal was the largest bulk annuity transaction ever made in the UK market, surpassing L&G’s previous record of £4.4bn with British Airways.

The partial buyout with the Rolls-Royce UK Pension Fund covers the benefits of about 33,000 in-payment pensioners, and follows a previous deal made in 2016 – when L&G agreed a £1.1bn buyout of the 11,000 members of the Vickers Group pension scheme, which is part of the Rolls-Royce Group.

As a result of the transaction, Legal & General will be responsible for the administration and payments of the pensions to the relevant scheme members once the transaction moves to buyout.

L&G stated the deal also involved the transfer of a hedging portfolio and the restructuring of an existing longevity swap held by the pension scheme.

The provider has now transacted more than £6bn in global bulk annuity transactions in 2019 and has transacted four of the five largest UK bulk annuity deals, it added.

Laura Mason, chief executive of L&G Retirement Institutional, said: "Working collaboratively with the scheme and its advisers, we can provide the security of insurance, whilst also ensuring that the scheme members benefit from the quality customer service for which the L&G group is known.

"The scale of the transaction provides further opportunities for us to invest directly in the UK economy and make a positive difference in our towns and local communities."

Joel Griffin, head of global pensions and benefits at Rolls-Royce, said the company was "delighted to be able to offer greater stability and certainty for the members of the Rolls-Royce UK Pension Fund, by protecting the benefits of around 33,000 pensioners for the future through this transaction.

"This would not have been possible without the close collaboration and commitment of our trustees and advisers over many years, ensuring that the scheme is well-funded," he concluded.

Extract from 2022 financial report appendix

The extract below shows the scheme's assets had fallen £3.9bn in the year to £5.3bn.

The report states "Funding has improved on the solvency measure"

Pensions

UK Defined Benefit (DB) Plan

- UK DB Plan (RRUKPF) closed to future accrual on 31 December 2020 (closed to new hires in 2007). Around 6,000 employees have a benefit in RRUKPF and most are now building up savings in our DC plan
- RRUKPF represents 75% of gross pension liabilities and 91% of gross pension assets for the Group
- It has £5.2bn of assets and surplus of £594m (IAS 19 basis*). Assets have reduced by £3.9bn. This is largely due to the decrease in the value of the fund's liability matching assets as a result of rises in UK Government and corporate bond yields. Accordingly, liabilities fell by £3.4bn largely due to higher discount rates
- The fund was not a forced seller of any assets in September or October when UK Government bond yields spiked, as it had sufficient collateral in its liability matching portfolio. No loans were needed from the employer. Funding has improved on the solvency measure
- The next statutory funding valuation is due as at 31 March 2023. The statutory funding position at 31 December 2022 was estimated to be 109%
- Cash contributions:

2020: £24m 2021: £99m** **2022: £1m**

Comment

By the time the longevity swap was wrapped up in the £4.6bn buy-in in 2019, it was costing the scheme £292m. This is against its initial headline of a £3bn deal in 2011. In the 2019 accounts a further £600m loss was taken through OCI. This deal was in anticipation of a buyout in 2019 and 2020. The liabilities passed to Legal & General. "There is no impact upon the income statement arising from the transaction." Overall losses of £0.9bn against the value of assets acquired to meet liabilities valued on an AA bond yield basis were taken against OCI and did not affect earnings. There is no comment on the return on shareholder money made.

In 2011 and 2019 the professional involvement made the standard self-congratulatory statements.

The impact of the longevity swaps and buy-ins is unexplained and needs further analysis.

Hays Plc

Hays PLC is a United Kingdom-based company, which is engaged in providing qualified, professional, and skilled recruitment. The Company operates in four geographic regions, such as Australia & New Zealand, Germany, United Kingdom & Ireland, and Rest of World. The Company's consultants work in a range of sectors covering 20 professional and skilled recruitment specialisms. Its specialisms include technology, accountancy and finance, construction and property, engineering, life science, office support, banking, sales and marketing, and other. The Company's Find & Engage recruitment marketing model is based on its ability to engage with active (seeking jobs) and passive (potentially available, but not seeking jobs) talent pools, enabling it to deliver white-collar candidates. The Candidate engagement with its content and marketing provides data and lays the foundation for its next phase of insight. It operates in approximately 256 offices in 32 countries globally

Hays has a market capitalisation of £2.1bn. It has a strong net cash financial position. It is a recruiter and has a theme of "working for tomorrow". It has net fees of £1,2bn and operating profits of £210m.

Pension Scheme

Key numbers

December	2022	2021
	£m	£m
Scheme Assets	675.5	902.4
Liabilities	-573.5	-855.8
	102.0	**46.6**

Buy-in

In August 2018, Hays Pension Trustee Limited entered into a bulk purchase annuity policy (buy-in) contract with Canada Life Limited for a premium of £270.6m in respect of the existing pensioners of the Hays defined benefit Scheme as at 31 December 2017. Their ultimate aim is a complete buyout.

At 30.6.2019 the buy-in was included in the DB Scheme's assets at £263.5m and at 30.6.22 the buy-in policy is shown as an asset of £191.6m.

(NB - Insight run the LDI funds for Hays. A breakdown of these funds show quoted assets of £383.5m and negative unquoted assets of £243.8m giving a net figure of £139.7m)

Breakdown of Assets

December	2022		2019	2018
	£m		£m	£m
Equities	0		89.3	85.5
Bonds and gilts	218.4		124.3	339.5
Absolute return funds	31.2		37.3	37.7
LDI funds	139.7		241.6	258.5
Real estate	65.9		53.1	50.7
Buy-in policy and other insurance	191.6		263.5	0
Cash	28.7		18.0	20.9
Total	**675.5**		**827.1**	**792.8**

In relation to the LDI funds the valuations have been determined as follows: – Repurchase agreements (where the Scheme has sold assets with the agreement to repurchase at a fixed date and price) are included in the Consolidated Financial Statements at the fair value of the repurchase price as a liability. The assets sold are reported at their fair value reflecting that the Scheme retains the risks and rewards of ownership of those assets;

The LDI portfolio is managed by Insight (a Bank of New York Mellon company)

Comment

Hays entered into a £263m buy-in during 2019. At June 2022 the asset acquired was valued at £191m. The Group has a plan to achieve a buyout of the scheme. At June 2021 it had a £24m actuarial deficit. It paid a £16m deficit contribution to the scheme.

It has cautious longevity assumptions with 45 year old life expectancies of male 23.2 years, female 25.8 years, down from a 2021 assumption of 25 years and 27.3 years.

One year mortality = £20m

The exceptionally high mortality assumptions will have protected the balance sheet in 2019 and made the transaction of doubtful value for shareholders.

Merchant Navy Officers Pension Scheme

Pension Scheme

Buy-in / Longevity Swap

In 2014 the Trustees arranged a £1.6bn longevity swap (First to use a Guernsey-based captive specially created by WTW to assist clients in accessing reinsurers. Specifically set up for ease of flipping to a buy-in within five years).

In 2017 the trustees arranged a £500m buy-in with L&G. Two further buy-ins were arranged with PIC. The first one was in Feb 2020 for £1.6bn and included the longevity swap. The second was in Feb 2022 for £400m.

Total cost was £2.5bn and the asset value in pension scheme accounts at 31.3.2022 was £2069.5m.

NB There still appears to be a final premium/repayment due under the PIC agreements.

The Fund's buy-in policies have been valued on an insurance buy-out basis, as provided by the Insurer.

12.6 Insurance policies

The Scheme held insurance policies at the year-end as follows:

	2022 £m	2021 £m
L&G Buy-in	484.6	523.1
PIC Buy-in	1,252.7	1,406.3
PIC Buy-in 2	332.2	-
	2,069.5	1,929.4

As at the end of the Fund year the pensioner population includes the following insured members:

- L&G Buy-in – 2,002 (2021: 2,197)
- PIC Buy-in – 12,498 (2021: 12,793)
- PIC Buy-in 2 – 1,815 (2021: Nil)

A bulk insurance policy is valued at the fair value of the liability as calculated and provided by the insurer in accordance with the related obligation. The valuation is determined using assumptions over pension increases, inflation and interest rates and longevity.

Breakdown of Assets

December	2022	2021
	£m	£m
Equities	0	0.4
Bonds and gilts	556.9	787.3
Pooled investment vehicles	478.4	758.4
Derivatives	492.4	541.7
Insurance policies	2069.5	1929.4
Cash and other	73.3	62.4
Total	3670.5	4079.6

Comment

The scheme has been carefully shepherded into buyouts by its advisors since 2014. The £1.6bn longevity swap in 2014 was not well timed – but the impact is never made clear as the longevity swap was converted into a PIC buyout. The value achieved is not transparent,

QinetiQ Group Plc

QinetiQ Group plc is a United Kingdom-based science and engineering company. The Company operates in the defence and security markets. The Company operates through two divisions: Europe, Middle East and Australasia (EMEA) Services and Global Products. EMEA Services division combines its facilities to provide capability generation and assurance, underpinned by long-term contracts. Global Products division delivers solutions to meet customer requirements and it is technology-based. The Company serves sectors, which include defence, financial services, marine, aviation and aerospace, government, space, energy and utilities, law enforcement, and telecommunications. It manages and operates testing and evaluation capabilities for air, land, sea and target systems. The Company's geographical location includes the United States, Australia, Europe and the Rest of the World. It specializes in air threat representation, test and evaluation, unmanned targets, and mission rehearsal

Pension Scheme

Key numbers

March	2022	2021
	£m	£m
Scheme Assets	2065.7	2071.8
Liabilities	-1703.5	-1857.5
Net pension before tax	362.2	214.3
Deferred tax liability	-96.4	-45.5
	265.8	**168.8**

Buy-in

In April 2019 the Qinetiq trustees arranged their first buy-in with Scottish Widows for approx £700m. As a result of the transaction, the accounting pension surplus recorded on the Group's balance sheet reduced by an estimated £120m.

In June 2021 the second buy-in was completed with Legal & General for £132.3m. As a result of this the accounting pension surplus reduced by £25m.

(NB As part of the agreement, an umbrella contract was established, which enables future transactions with Legal & General to be completed quickly and easily on the same pre-agreed terms when favourable pricing opportunities arise.)

Breakdown of Assets

March	2022	2021		2019	2018
	£m	£m		£m	£m
Equities	220.8	187.6		178.8	174.7
LDI investment	291.8	362.3		690.8	1050.9
Asset backed security investment	501.7	455.6		0	0
Alternative bonds	208.6	254.8		304.4	232.9
Corporate bonds	97.4	98.0		96.0	311.3
Property funds	29.5	76.6		145.6	138.7
Cash	78.5	49.3		75.1	80.2
Insurance buy-ins	645.9	588.0		566.4	0
Outstanding payment in respect of buy-in	0	0		-96	0
Derivatives	-8.5	-0.4		2.5	1.8
Total	2065.7	2071.8		1963.6	1990.5

Comment

The Chair of the scheme commented on the buy-in.

"The buy-in improves the risk profile and investment efficiency of the scheme for all members and represent a significant step towards securing the benefits promised." And no more.

The deals undertaken resulted in write downs against book values of £145m on £810m. As the real longevity assumptions true up, there will not be a rebound in value to enable the scheme to seek better pensions or support current provision levels.

RSA Group

RSA Insurance Group Ltd is an international general insurer. The Company provides personal, commercial and specialty insurance products and services direct-to-customers. Its segments include Scandinavia, Canada, UK & Ireland, Central Functions and non-core. Its segments are based on geography and all are engaged in providing personal and commercial general insurance services. The Central functions segment includes the Company's internal reinsurance function and Group Corporate Center. Its core businesses are Scandinavia, Canada, and the United Kingdom and International. The Company's non-core business consists of the Middle East operation.

Pension Scheme

Key numbers

December	2021	2020
	£m	£m
Scheme Assets	9410	9855
Liabilities	-8679	-9401
Other net surplus measurements	-254	-179
	477	275

Longevity Swap

In 2009 the trustees of RSA Group DB pension scheme completed a gilt swap and longevity insurance deal with Goldman Sachs and its insurance division Rothesay Life to protect almost half of their liabilities from future longevity risk. This allowed the scheme to secure £1.9bn of its pensioner liabilities without the need for a buy-in or buyout annuity plan.

At 31.12.2021 the value of the asset and longevity swap had a negative asset value of £3,636m. Other investments have a value of £12,946m giving a net asset value of £9,410m.

Breakdown of Assets

December	2021	2020		2009	2008
	£m	£m		£m	£m
Equities	596	669		1508	1173
Government debt	6616	6850		0	0
Non Government debt	3656	3494		0	0
Bonds	0	0		3414	3453
Derivatives	1053	1061		0	0
Property	659	636		131	345
Cash	86	202		158	71
Other (inc annuity contracts, infrastructure and growth alternatives	380	390		1436	0
Value of asset and longevity swaps	-3636	-3447		-1837	0
Total	9410	9855		4810	5042

RSA Pension Scheme Historical Summary

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Equities	1,173	1,508	1,536	1,493	1,182	1,200	1,108	723	764	752	648	822
Bonds	3,453	3,414	3,828	4,588	4,890	5,165	6,447	6,608	8,565	8,887	8,074	8,943
Cash	71	158	109	320	145	66	67	73	61	70	200	90
Property & Other	345	131	169	59	915	925	1,403	1,386	1,483	1,477	1,849	1,952
Present value of funded obligations fully covered by insurance arrangement	0	1,436	1,431	1,510								
Value of obligations under insurance arrangement	0	-1,837	-1,809	-2,157								
Value of asset and longevity swap					-914	-790	-1,525	-1,597	-2,232	-2,387	-2,506	-2,791
Total assets in scheme	**5,042**	**4,810**	**5,264**	**5,813**	**6,218**	**6,566**	**7,500**	**7,193**	**8,641**	**8,799**	**8,265**	**9,016**
Total Liabilities	**-4,536**	**-5,178**	**-5,467**	**-6,002**	**-6,492**	**-6,731**	**-7,598**	**-7,126**	**-8,893**	**-8,940**	**-8,103**	**-8,822**
Net surplus/Deficit	**506**	**-368**	**-203**	**-189**	**-274**	**-165**	**-98**	**67**	**-252**	**-141**	**162**	**194**
Contributions	123	130	125	100	128	122	114	113	110	101	137	107
Mortality rate: Life expectancy at 60												
Male	85.8	87.5	87.5	87.5	87.6	87.6	87.6	88.0	88.1	87.8	87.2	87.0
Female	87.0	88.1	88.1	88.1	88.2	88.8	88.9	89.1	89.2	88.9	88.7	88.5

Comment

RSA was very pleased in 2009 that it had been able to exploit gilt curve anomalies to fund a longevity swap with Rothesay. No additional funding was needed. The costs of the gilt longevity swaps were initially spelt out in the Group figures and then shown in a net format. By the time the group was sold to the Canadian group Intact the longevity swap was out of the money by £3bn. The latest figures show it has reached a negative value of £3.6bn.

In February 2023 the scheme was subject to the largest ever buy-in with Pensions Investment Corporation.

Michelle Wright, head of pensions strategy at LCP, advised RSA and Intact on all aspects of the buy-in process. One hopes LCP pointed out just how much better off all parties would have been without the 2009 transaction and how that value could have helped provide better pensions for past and present employees.

“But the deal sets the tone for record breaking deal volumes in 2023”.

Sponsors are accelerating “their derisking plans in the light of rising gilt yields”.

Commerzbank Finance Ltd

Commerzbank is a German based commercial bank with branches and offices in nearly 50 countries. It acquired Dresdner Bank in 2008 and with it the long-established UK investment bank Kleinwort Benson.

Pension Scheme

Key numbers

December	2021	2020	2019	2018	2017	2016
	£m	£m	£m	£m	£m	£m
Scheme Assets	1328	1477	1292	1092	1282	1394
Liabilities	-2348	-2615	-2375	-2183	-2543	-2628
Sub net	-1020	-1138	-1083	-1091	-1261	-1234
Annuities	990	1051	944	858	875	779
Net position	**-30**	**-87**	**-139**	**-233**	**-386**	**-455**

2017 Accounts Pension Notes

The Company maintains funded pension schemes in the UK for deferred pensioner and pensioner members the Dresdner Kleinwort Pension Plan (DK Plan) and the Dresdner Bank AG London Branch Pension Plan (Branch Plan) Both schemes are operated in London on behalf of group undertakings The assets of these schemes are held in a separate trustee administered fund These are both closed schemes

The trustees of the DK Plan and the Company have agreed a series of contributions in respect of the DK Plan payable from 1 January 2017 to 31 December 2020. This includes contributions of £33.5m during the year end 31 December 2017, intended to clear the deficit as at 1 January 2017, and additional contributions of £33.5m per annum from 1 January 2018, intended to be used to move the scheme to self-sufficiency, that will initially be paid into an escrow account retained on the Company's balance sheet. The Company and the trustees may agree to an alternative approach, in which case the agreement will be superseded. The overall contribution paid to the final salary section of the DK Plan in 2017 was £33.5m. The overall contribution for 2018 is expected to be £Nil.

Dec 2019 Accounts: Pensions Notes

The DK Plan previously exposed the Company to a number of risks including changes in pensions' legislation and actuarial risk, such as longevity risk, inflation risk, interest rate risk and investment risk. However since buy-in took place the majority of these risks are now mitigated by the insurance policies in place.

In respect of the DK Plan the following table shows the movement in the defined benefit asset during the year ended 31 December 2019:

	Defined benefit obligation	Fair value of plan assets	Net defined benefit asset
	£'000	£'000	£'000
At 1 January 2019	(777,910)	1,081,694	303,784
Included in profit and loss:			
Administrative expenses	-	(1,500)	(1,500)
Interest (cost) / income	(21,434)	29,940	8,506
	(799,344)	1,110,134	310,790
Included in OCI – Re-measurements:			
Actuarial (loss) arising from financial assumptions	(69,136)	-	(69,136)
Actuarial gain arising from demographic assumptions	37,164	-	37,164
Actuarial (loss) arising from experience adjustments	(9,310)	-	(9,310)
Return on plan assets excluding interest income on assets	-	(224,121)	(224,121)
	(840,626)	886,013	45,387
Benefits paid	77,796	(77,796)	-
At 31 December 2019	(762,830)	808,217	45,387

Dec 2021 Accounts: Pensions: Note 22

Following the full insurer buy in of the Plan during 2019, the scheme had an insurance policy that matched the vast majority of the liabilities. On 25 November 2021 the insurance policy was assigned directly into members' names resulting in the settlement of the policy and the related liabilities. The Plan continues to hold surplus assets which are held in separate trustee administered funds and are managed subject to an appropriate level of risk, taking into account they are expected to cover the cost of equalising Guaranteed Minimum Pensions and any extra liabilities identified. This has led to the current asset split shown below.

The allocation of assets as at 31 December 2021 was (all assets had a quoted market price in an active market):

	£m	%
Gilts	41.8	93.5%
Cash and Repos	2.9	6.5%
Total	44.7	100%

The following table shows the movement in the defined benefit asset during the year ended 31 December 2021:

	Defined benefit obligation	Fair value of plan assets	Net defined benefit asset
	£'000	£'000	£'000
At 1 January 2021	(853,105)	902,712	49,607
Included in profit and loss prior to 25 November 2021:			
Administrative expenses	-	(451)	(451)
Interest (cost) / income	(9,809)	10,388	579
Included in profit and loss after 25 November 2021:			
Administrative expenses	-	(49)	(49)
Interest (cost) / income	(2)	82	80
	(862,916)	912,682	49,766
Included in OCI – Re-measurements prior to 25 November 2021:			
Actuarial gain arising from financial assumptions	5,161	-	5,161
Actuarial (loss) arising from demographic assumptions	(2,392)	-	(2,392)
Actuarial (loss) arising from experience adjustments	(6,064)	-	(6,064)
Return on plan assets excluding interest income on assets	-	(1,386)	(1,386)
Included in OCI – Re-measurements after 25 November 2021:			
Actuarial gain arising from financial assumptions	3	-	3
Return on plan assets excluding interest income on assets	-	(1,445)	(1,445)
	(866,208)	909,851	43,643
Benefits paid prior to 25 November 2021	31,971	(31,971)	-
Benefits paid after 25 November 2021	-	-	-
Settlement on the buy-out of the scheme	833,174	(833,174)	-
At 31 December 2021	(1,063)	44,706	43,643

Comment

Commerzbank acquired Dredsner Kleinwort Benson and with it the pension scheme of some of the leading figures of late 20th century investment banking. In the 6 years to 2017 it put £212m into the scheme to bring the assets to £1.1bn. In 2018 it took a £232m write down through the OCI following a buy-in deal with Pension Investment Corporation (PIC). Subsequently, members were given annuities by PIC and there was no P/L settlement impact on the Commerzbank finance accounts. Now there is no scope for inflation linked increases for members.

Other Unforced Errors

Leveraged LDI, Collateral Calls and Illiquid Sales

Interest rate risk is one of the factors trustees need to manage. Gilt yields came after 2000 to be the benchmark tool of choice of actuaries in assessing liabilities. The need to eliminate that risk became central to actuarial and, through it, trustee thinking. Liability Driven Investing provided a technique to deliver it. Situations then arise as to how sufficient returns on a portfolio could be generated and leveraged LDI took hold.

Consequences of derisking have been that UK pension schemes cornered the market in index linked gilts. When the value came under question – as it did for tulip bulbs in 17th century Holland - the exodus had a big impact. This time it led to large collateral calls and the fall of the Government.

The LDI crisis has produced able defences. In the eyes of practitioners it showed that only financially experienced trustees understood what they were doing well enough to be able to respond quickly enough. Better practitioners to be given more power and perhaps trustee bodies could lose member nominated constituents. Further, illiquid investments should be sold because they were likely to cause collateral issues for the "waterfalls" they proposed to deal with any future big market swings. Anyway, illiquids delay derisking transactions. Trustees need to be "pragmatic" in getting rid of them ASAP. As funding had improved, all the more reason to race into the Endgame.

Herein lies the source of the next series of unforced errors by DB pension scheme. Which schemes suffered most from collateral calls and from hurried illiquid sales will take time to emerge. The December 2022 year - end financial statements will provide some data – but it would also be wrong to assume that disclosure will be any other than minimalist.

Accounting and actuarial valuation techniques can provide conflicting drivers. Transparency and explanations for decisions taken, specifically in relation to transactions, should be at a higher standard. Without them there is a struggle to assess whether deals are in the best interest of members and sponsors.

The risk transfer industry prospers and should be ready to set out how its success works for everybody. Time for it to address the charge it has caused countless unforced errors.

Disclaimer

This paper is provided for discussion purposes only, does not constitute an offer or invitation for the sale, purchase, exchange or transfer of any securities or a recommendation to enter into the transactions hereby contemplated, and is not intended to form the basis of any investment decision.

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