HYMANS ROBERTSON

Putting pensions in context

FTSE350 Pensions Analysis 2020

Executive Summary

Welcome to Hymans Robertson's twelfth annual FTSE350 pension analysis report, which puts the Defined Benefit (DB) pension schemes of the FTSE350 in the context of the businesses that support them.

Since our last report, the onset of the COVID-19 pandemic and the economic measures taken to try and contain it have led to an extremely challenging environment for schemes and their sponsors. Unprecedented peace-time levels of Government spending have helped cash-starved sponsors survive lockdowns, delaying or preventing waves of insolvency. The Pensions Regulator ("TPR") has issued a range of guidance on what they expect, trying to strike a balance between member security and sponsor sustainability. In this report, we consider the potential shorter term and longer term implications of COVID-19 on DB funding, by exploring the following themes:

1. **Shorter term impact of COVID-19 on DB funding plans.** The initial impact of COVID-19 was not generally reflected in the company accounts that we assess in this analysis, given most companies have a 31 December year end. We've therefore instead assessed the impact of COVID-19 by comparing the credit ratings of companies with their DB recovery plans. For schemes with a rated sponsor, 71% have an investment grade sponsor and a DB recovery plan of under seven years, meaning they are well placed to cope with COVID-19 stresses. However, 9% have a sub-investment grade sponsor and a DB recovery plan of seven years or longer, meaning they have little capacity to absorb COVID-19 stresses.

2. **Longer term impact of covenant risk on DB endgames.** We've assessed the longer term covenant risk by looking at the risk of corporate default ahead of the scheme reaching insurance buy-out. 43% of schemes have a 33% chance of sponsor default before they reach buy-out funding. These schemes are risking an insolvency event triggering a haircut to members' benefits. They need to develop a plan B for mitigating this longer term covenant risk, and should be considering options including security for the pension scheme, capital backed solutions and superfund transactions.

I hope you find this report interesting and informative. Please contact me or one of the team if you would like to discuss any aspect of our analysis.

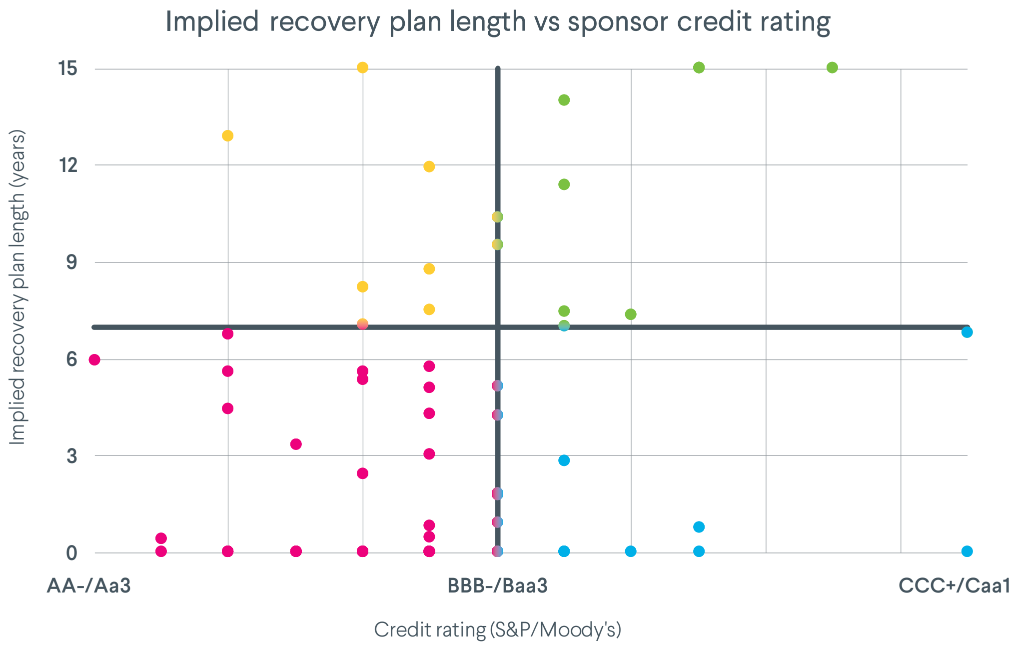
Alistair Russell-Smith

Partner and Head of Corporate DB Consulting
alistair.russell-smith@hymans.co.uk
020 7082 6222

Shorter term impact of COVID-19

The pension deficits and corporate earnings in this report are generally pre COVID-19. They are based on the most recently available year end accounts, which was usually 31 December 2019, before the pandemic had impacted DB funding and corporate earnings. Therefore, we've considered the potential impact of COVID-19 by comparing credit ratings (where available) with DB recovery plans.

There are 93 rated FTSE350 companies that sponsor DB schemes. The chart below plots the credit rating of these companies with the recovery plan length required to pay off the IAS19 deficit, based on disclosed contribution levels.



Top left quadrant

- **10%** of schemes have an investment grade sponsor, but an implied recovery plan of seven years or longer.
- These schemes have a low risk of sponsor default, but little capacity to extend funding plans if the sponsor does require additional breathing space.

Top right quadrant

- **9%** of schemes have a sub-investment grade sponsor and an implied recovery plan of seven years or longer.
- These schemes may be more concerned about covenant risk, and do not easily have the capacity to further extend funding plans.

Bottom left quadrant

- **71%** of schemes have an investment grade sponsor and implied recovery plan of less than seven years.
- These schemes should be well placed to get through the pandemic, with a low risk of sponsor default and time to extend funding plans if required.

Bottom right quadrant

- **11%** of schemes have a sub-investment grade sponsor, but an implied recovery plan of under seven years.
- These schemes may be more concerned about covenant risk, but do have the time to extend funding plans if required. They may look for security in exchange for lower or longer contributions.

| Our view

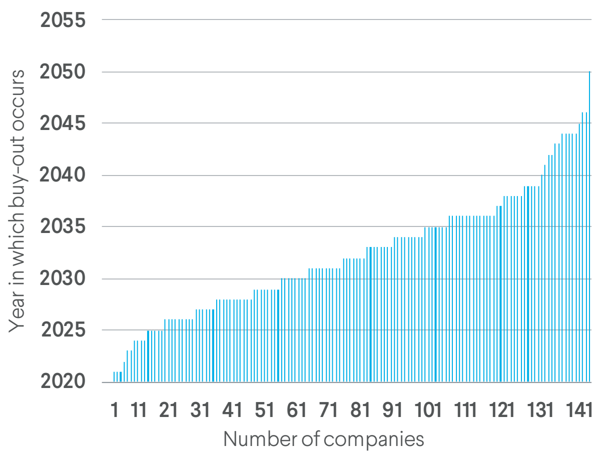
52% of FTSE350 schemes have a sponsor that is not rated, so they are not assessed in our analysis. It seems likely that some of these will be significantly impacted by COVID-19. However, for schemes with a rated sponsor, it is reassuring that 71% have an investment grade sponsor and an implied recovery plan of under seven years. These schemes should be well placed to cope with the impact of the pandemic. However, 9% of schemes have a sub-investment grade sponsor and an implied recovery plan of seven years or longer. These schemes are likely to be significantly impacted by the pandemic. The sponsors and trustees of these schemes need to establish an appropriate funding plan that balances member security with the sustainability of the employer.

Longer term impact of covenant risk on DB endgames

DB schemes have more exposure to covenant risk than is sometimes appreciated. Not only are schemes exposed to a sponsor being unable to pay deficit contributions, but even after deficit contributions stop, schemes remain exposed to covenant risk. This is because an employer insolvency event triggers the wind-up of the scheme, forcing early annuitisation. Unless the scheme is fully funded on an insurance buy-out basis, members face the risk of a haircut to benefits in this situation.

We've started assessing this dynamic by estimating in the chart (right) the expected timescale to insurance buy-out for each scheme in the FTSE350. *Note that this chart excludes the 26% of schemes that will take longer than 30 years to buy-out.*

Estimated time to buy-out

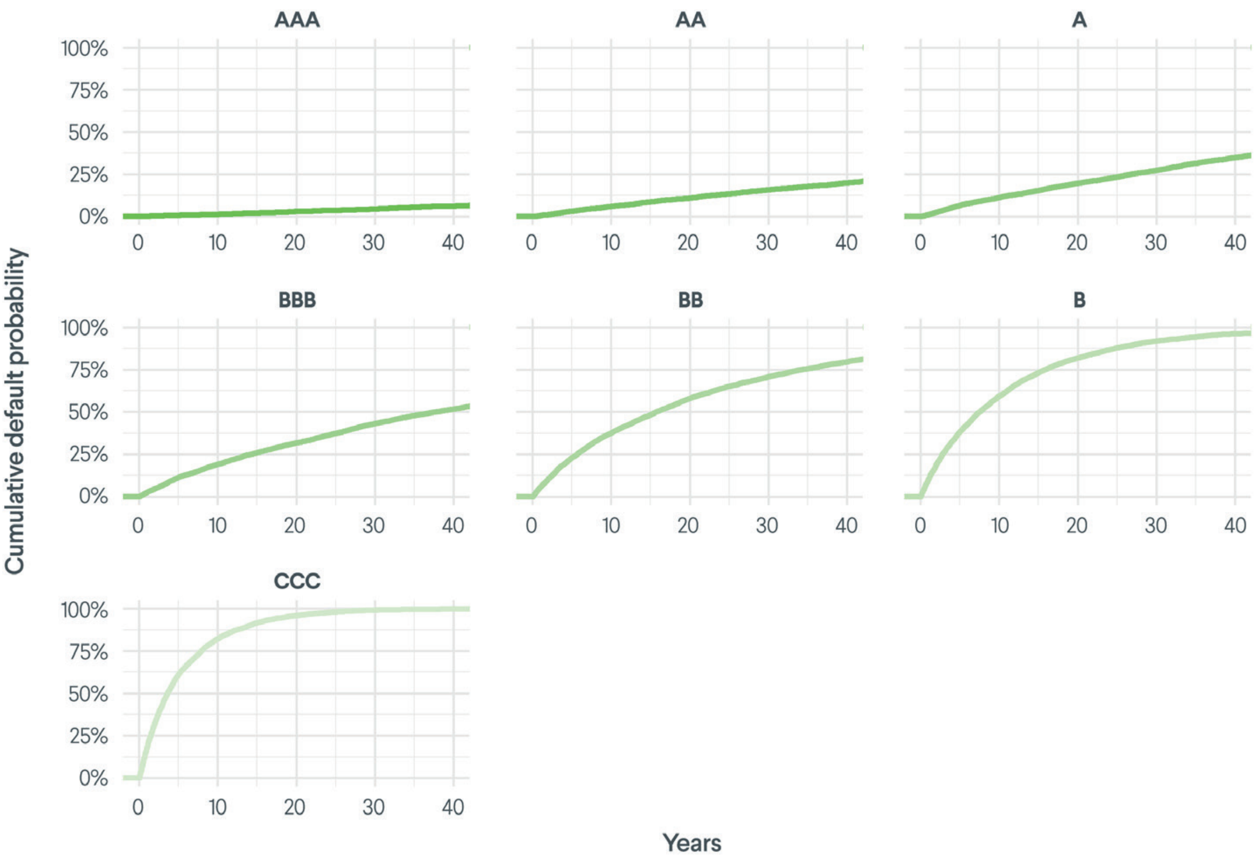


Our projections show the following:

Timescale:	5 years	10 years	15 years	20 years	25 years	30 years
Proportion of schemes reaching insurance buy-out	7%	27%	49%	67%	72%	74%

These projections will only deliver 100% of members' benefits with certainty if there is no employer insolvency event before the scheme reaches buy-out funding. We have therefore then layered on top of the scheme buy-out projection the risk of corporate default over the same timeframe.

To gauge this, we looked again to credit ratings – an indication of the likelihood that an entity defaults on the debt it has issued. Combined with our in-house modelling we derived probabilities for the cumulative times to default for credit ratings as shown below:



There is a significant variation in the expected time to default under the various ratings (i.e. a 50% chance of corporate default). For example, this is 40+ years for an A rated company but less than 10 years for a B rated company.

The table below shows the percentage of schemes failing to reach insurance buy-out for a given risk of corporate default. It shows that 22% of schemes have a 50% chance of corporate default before reaching insurance buy-out. Furthermore, 43% of schemes have a 33% chance of corporate default before reaching insurance buy-out.

Risk of corporate default over time	50%	33%	20%
Percentage of schemes that have failed to reach insurance buy-out over that time	22%	43%	73%

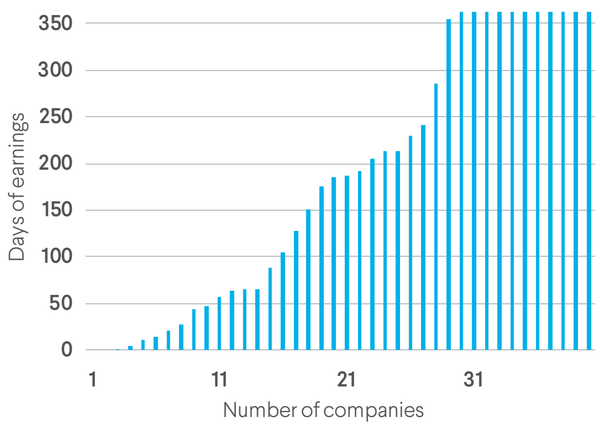
It's worth noting that default on debt does not necessarily mean default on the pension promise. Nevertheless, the analysis shows that covenant support cannot be taken for granted and that for a significant proportion of schemes, there is a material risk of sponsor default before reaching insurance buy-out.

These schemes need to be considering ways to mitigate this longer term covenant risk. Security and capital backed solutions may help, but superfund transactions may also be worth considering for these schemes. This is because superfunds protect against insolvency risk by severing the link to the sponsoring employer. A ceding employer insolvency event no longer triggers scheme wind-up, risking a haircut to members' benefits.

For the 43% of schemes with a 33% chance of corporate default before insurance buy-out, we've assessed the days of corporate earnings required to instead transfer the scheme into a superfund now.

The table below shows the percentage of these schemes that could transfer into a superfund for a given proportion of corporate earnings.

Days of earnings required to transfer to superfund



Days of earnings to transfer into a superfund	Less than two weeks	Less than one month	Less than six months
Percentage of schemes	13%	20%	48%

48% could transfer to a consolidator now with less than six months earnings. This is 20% of the 93 rated FTSE350 companies. This shows that for a significant minority of FTSE350 schemes, transferring to a superfund should be a serious consideration. From a trustee perspective, it mitigates the 33% risk of corporate default before reaching insurance buy-out. From a company perspective, it gives a clean break from the DB scheme for less than six months' earnings.

Our view

43% of FTSE350 schemes have a 33% chance of corporate default before reaching insurance buy-out. This is a material risk, and funding strategies should be evolved to address this risk. Options include pledging security to the pension scheme, capital backed solutions and superfund transactions.

To add further depth to our analysis we asked Lincoln Pensions' covenant experts for their thoughts on how these results might extrapolate to the broader, unrated, FTSE350 population and also to what extent credit ratings and covenant strength might differ.

| Lincoln Pensions' view

The analysis has been performed based on the 93 companies within the FTSE350 that: i) are sponsors of a DB scheme; and ii) have a credit rating. A question to address is if this analysis is representative of other DB sponsors in the FTSE350 that do not have credit ratings.

In our experience, DB sponsors in the FTSE350 that have credit ratings are, compared to their unrated counterparts, on average:

- significantly larger;
- more likely to be a financial institution;
- running lower leverage; and
- older.

Based on these factors, it is not unreasonable to assume that the credit quality of the unrated sponsors in the index would be less favourable than the rated companies considered in this analysis. So if this analysis were to be extended to all companies in the FTSE350 with a DB scheme, then we expect this would reduce the 71% of schemes in the most favourable bottom-left quadrant (see page 3).

Does a corporate credit rating always equate to a covenant rating?

Whilst credit ratings can serve as a broad proxy for industry-wide analysis, trustees tend to use covenant ratings to assess the scheme-specific characteristics that impact the security of members' benefits. Differences between the two can sometimes be material and can arise as a result of several factors, including (inter alia):

- Longer maturity – most corporates tend to issue debt instruments that mature over the short to medium term (<10 years), whilst pension schemes are longer-term liabilities;
- Understanding of the UK DB regulatory framework – credit rating agencies try to benchmark corporates across geographies, so their methodologies are not designed to pick up the idiosyncrasies applicable to the UK (such as the way DB schemes need to be funded);
- Volatile quantum – funding volatility only plays a second order impact on most credit ratings, while it is an increasingly relevant considerations for UK trustees; and
- Legal structure – schemes can have access to mechanisms that enhance the security on offer to members (e.g. contingent assets, cross guarantees).

In the event of an insolvency, what value would a pension scheme have access to?

An insolvency of a scheme's sponsor / wider Group does not necessarily mean that a scheme would realise zero value. This is a complex area; however, it is important to understand:

- What is the scheme's legal structure?
- Who are the scheme's competing creditors?
- What corporate assets are secured by other creditors?
- What is the impact of cross guarantees and other obligations?

So, whilst the analysis in this report, based on readily available credit ratings, is insightful, ratings do not correlate entirely with covenant and insolvency likelihoods and outcomes will be highly case-dependent. In cases of potential sponsor distress, this highlights the need for a combination of expert actuarial and covenant advice to ensure the best outcomes are reached (from both a company and scheme perspective).

Alex Hutton-Mills
Managing Director | Lincoln Pensions

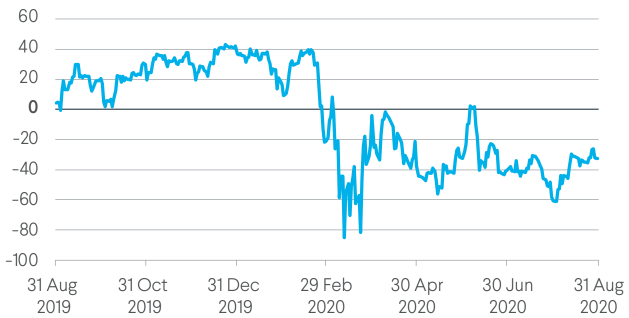
Richard Farr
Managing Director | Lincoln Pensions

FTSE350 analysis

Pension deficits

Up until the onset of the COVID-19 pandemic in late February, the aggregate FTSE350 IAS19 funding position was relatively stable. However, the position deteriorated rapidly in February and March as assets fell in value, and lower yields increased liabilities (although IASI19 liabilities remained lower than other gilts-based liability measures with widening credit spreads). Since then, IAS19 funding positions have improved a bit but remain worse than a year ago – whilst growth assets picked up again, spreads narrowed significantly driving IAS19 discount rates to historic lows. The result is that the aggregate FTSE350 IAS19 funding position has moved from a £20bn surplus to a £20bn deficit over the year. The graph below shows how the aggregate IAS19 funding position for FTSE350 companies has changed between 31 August 2019 and 31 August 2020.

Surplus / Deficit (£bn)

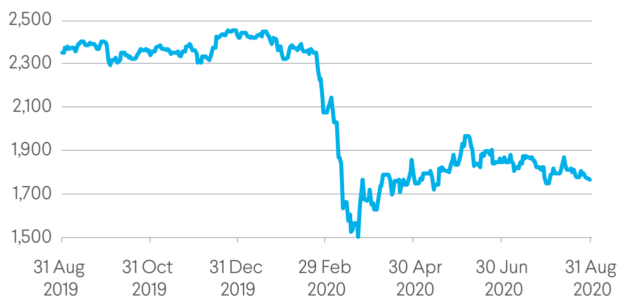


Company performance

The market cap of the 193 companies in the FTSE350 that sponsor a defined benefit pension scheme has reduced from £2,351bn at 31 August 2019 to £1,767bn at 31 August 2020.

The actual spending on defined benefit pensions has fallen from £15bn (reported contributions in year end accounts up to 31 March 2019) to £13bn (reported contributions in year end accounts up to 31 March 2020). The £13bn of pension contributions compares with £112bn of dividend payments to shareholders.

FTSE350 Defined Benefit Pension Scheme Sponsors Market Cap (£bn)



Date	2018/19	2019/20
Earnings	£341bn	£389bn
Pension contributions	£15bn	£13bn

Our view

The sharp reduction in market capitalisations, and slow recovery from the low of March 2020, indicates that "business as usual" is some way off and the market is pricing in a short to medium term reduction in company earnings, with many companies having already cut or held back dividends. Despite this, the relatively low pension contribution amounts vs earnings suggests companies on the whole ought to be able to continue to support their schemes. However, this masks the company specific situation, which shows some strained situations at an individual company level.

Ability to support pension schemes

To put pension schemes in the context of the businesses that support them, we consider four company metrics: **security, affordability, fluctuation and expenditure.** These are explained on the following page. We calculate these metrics for each company in the FTSE350 with a defined benefit pension scheme, based on information from the latest year end company accounts between 31 March 2019 and 31 July 2020 (depending on when companies file their accounts), and expressed relative to market capitalisation in August 2020. These metrics are then plotted on four axes to give a diamond shape – the larger the shape, the bigger the pension scheme burden on the sponsoring company.

The charts on the next page show how the median shape has changed over the last five years for the FTSE350.

Our key findings on the changes over the past year are set out below.

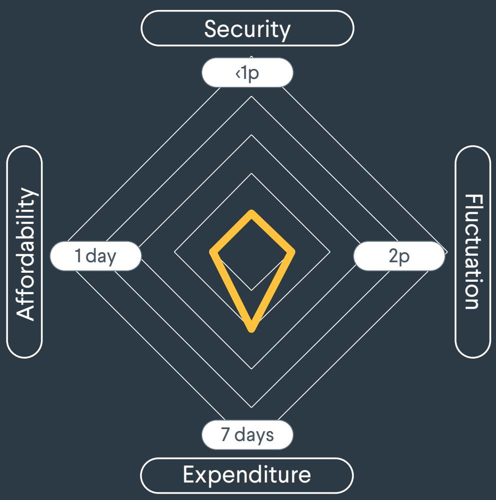
- Security has remained broadly unchanged. The typical company's IAS19 pension deficit equated to ‹1p in the pound of market cap (2018/19: also ‹1p in the pound of market cap).
- Affordability has seen an improvement. The typical company could pay off its IAS19 pension deficit with one day of earnings (2018/19: three days of earnings).
- Fluctuation has seen an improvement. The typical company has 2p of un-hedged IAS19 pension liabilities in the pound of market cap (2018/19: 5p of un-hedged pension liabilities). However, this improvement is principally driven by a change in methodology this year to include an approximate allowance for leverage in LDI portfolios.
- Expenditure has reduced slightly. The typical company could generate its annual pension contributions with seven days of earnings (2018/19: nine days of earnings).

These metrics become particularly useful when comparing the spread of scores across the FTSE350, which is set out on pages 12 and 13. Appendix 2 then sets out the scores for all companies in the FTSE350 with a defined benefit pension scheme.

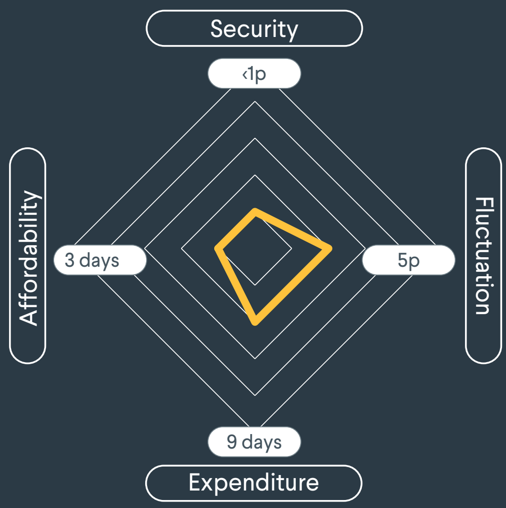
| Our view

All four metrics remaining relatively constant or improving suggests companies, on average, remained well placed to support their pension schemes prior to the onset of COVID-19. However, COVID-19 will flow through to next year's metrics and may well show material declines in scores.

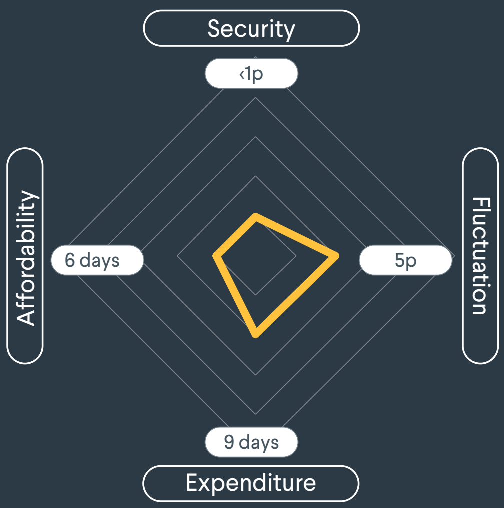
FTSE350 median – 2019/20



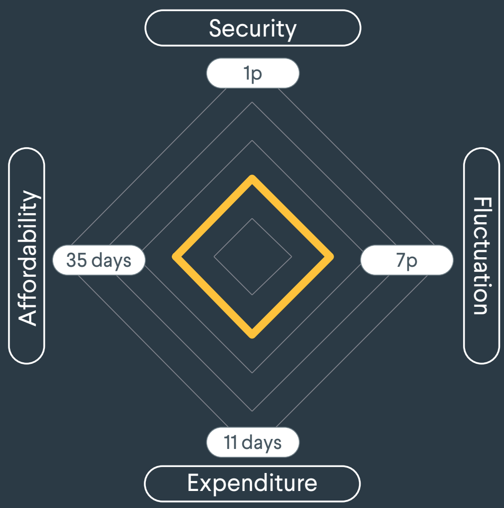
FTSE350 median – 2018/19



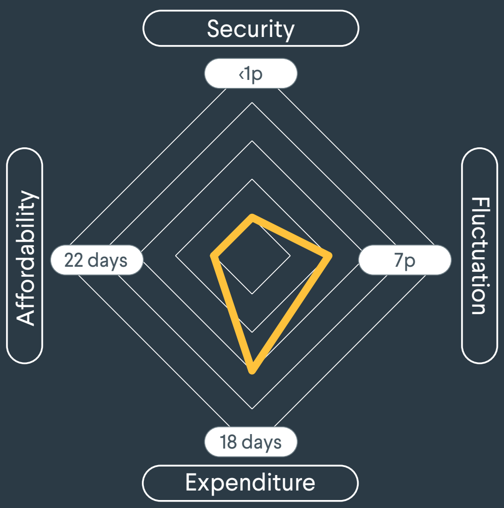
FTSE350 median – 2017/18



FTSE350 median – 2016/17



FTSE350 median – 2015/16



Pension metrics:

Security: pension deficit expressed as pence in the pound of company market cap

Affordability: the number of days of earnings to pay off the pension deficit

Fluctuation: un-hedged pension liabilities expressed as pence in the pound of company market cap

Expenditure: the number of days of earnings to generate the annual pension contributions

These charts rank the 193 FTSE350 companies with a defined benefit pension scheme on each of our four metrics, and hence show the spread across the FTSE350.

Security

Pension deficit expressed as pence in the pound of company market cap

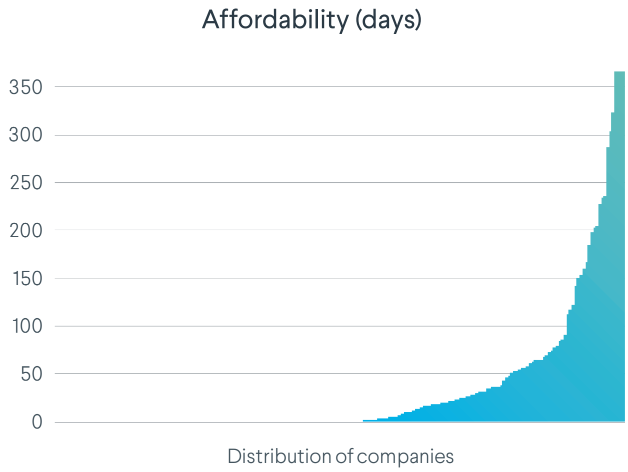
There remain no companies with a deficit greater than the market cap. Deficits remain manageable relative to market cap.

91% of companies have a pension deficit of less than 10p in the pound of market cap.

86% of companies have a pension deficit of less than 5p in the pound of market cap.

Affordability

The number of days of company earnings to pay off the pension deficit



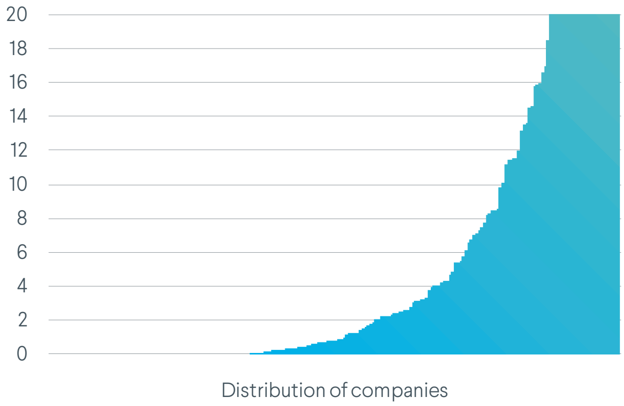
There are four companies that need more than one year (365 days) of earnings to pay off the pension deficit.

93% of companies could pay off the deficit with less than six months (183 days) of earnings.

Fluctuation

Un-hedged pension liabilities expressed as pence in the pound of company market cap

Fluctuation (p)



Three companies have un-hedged pension liabilities in excess of their market cap, i.e. the un-hedged liabilities are more than 100p in the pound of market cap.

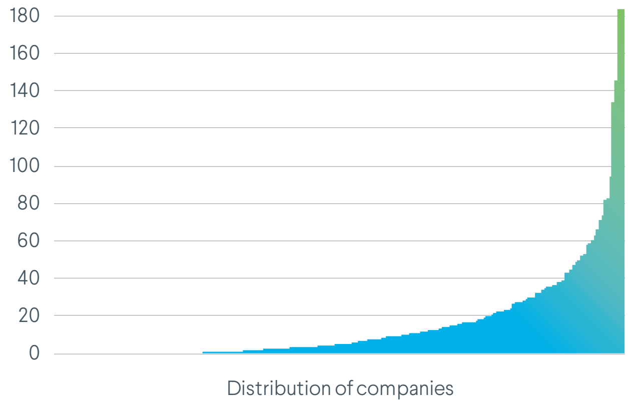
86% of companies have un-hedged pension liabilities of less than 20p in the pound of market cap.

77% of companies have un-hedged pension liabilities of less than 10p in the pound of market cap.

Expenditure

The number of days of company earnings to generate the annual pension contributions

Expenditure (days)



Three companies put more than half a year's earnings (183 days) into its pension scheme.

82% of companies put less than one month (31 days) of earnings into their pension scheme and 49% of companies put less than one week (seven days) of earnings into their pension scheme.

There are no companies that paid pension contributions but reported negative earnings.

Appendix 1

Methodology

Hymans Robertson has relied on external sources of information in compiling this report. Whilst every effort has been made to ensure the accuracy of the data, Hymans Robertson cannot verify the accuracy of such data. The views expressed in this report are based upon information in the public domain and the methodologies detailed in this report. The information contained is not intended to constitute advice and should not be used as a substitute for scheme specific advice. Users should not place reliance on this report; Hymans Robertson will not be held liable for any loss arising from use and/or reliance upon the report.

We have analysed the 193 companies in the FTSE350 that have defined benefit pension schemes sufficiently material to be disclosed under IAS19 in their annual reports. This excludes all investment funds and trusts, and is based on the FTSE Group listing at 30 June 2020. We have included UK and overseas funded and unfunded defined benefit schemes. Any figures or proportions quoted in this report in relation to the "FTSE350" relate only to these 193 companies.

We have used market capitalisation in August 2020 to calculate our Security and Fluctuation metrics.

The following information has been taken from companies' most recently published annual reports. We have referenced annual reports with effective dates from 31 March 2019 and 31 July 2020, depending on when the relevant accounts were filed.

- **Pension data** - extracted from IAS19 disclosures
- **Earnings data** - extracted from performance statements. We have referenced EBITDA, i.e. earnings before interest, tax, depreciation and amortisation.
- **Staff, pension and other costs** - extracted from the notes to accounts.

Where necessary, figures have been converted to sterling using appropriate exchange rates.

For company expenditure, we have taken the total expenditure on pensions covering contributions for both the accrual of benefits and the repayment of deficits. These figures are as reported in companies' annual reports and include both regular contributions and one-off contributions.

We have included both funded and unfunded defined benefit pension liabilities in our analysis.

To determine un-hedged pension liabilities, we have taken pension liabilities less the value of bond or insurance type assets held by the pension scheme. Leverage is approximately allowed for in this calculation by taking twice the value of government bonds and LDI funds, capped at 80% of total assets. Bond type assets are taken from the IAS19 disclosures. They include government bonds, corporate bonds, LDI funds and buy-ins. There is now a wide range of bond type assets, and so the calculation of this metric does vary at a company level depending on how individual companies disclose their pension scheme asset allocation in their accounts.

Credit rating information has been taken from Bloomberg as at 19 August 2020.

When a company makes any pension deficit adjustment for IFRIC14, our analysis references the IAS19 pension surplus / deficit prior to the IFRIC14 adjustment.

Our analysis for companies that operate sections in the Railways Pension Scheme is after the liability / deficit reduction on account of franchise adjustments and employees' share of the deficit.

Details of assumptions and methodology for our impact of COVID-19 and buy-out/superfund analysis are as follows:

- **Impact of COVID-19 -** recovery plan length is inferred from the IAS19 deficit and annual contributions payable. We have used seven years as the point separating "short" and "long" recovery plans.
- **Buy-out/superfund analysis -** assets and liabilities are projected forward in time, reflecting current investment strategy and deficit reduction contributions. Contributions are assumed to stop once schemes reach full funding on a technical provisions' basis (assumed to be 90% of buy-out). Buy-out pricing assumes schemes are 70% pensioners at the point of transaction. For the superfund analysis we have assumed superfund pricing to be in line with a gilts flat valuation.

Appendix 2

Company scores

'NE' refers to companies disclosing negative earning (i.e. losses)

Basic materials

Company	Accounting date	Security	Affordability	Fluctuation	Expenditure
Anglo American	31-Dec-19	0	0	0	1
Antofagasta	31-Dec-19	1	18	1	0
Croda International	31-Dec-19	1	56	9	15
Essentra	31-Dec-19	2	35	14	9
Evraz	31-Dec-19	4	36	11	5
Ferrexpo	31-Dec-19	2	21	2	0
Fresnillo	31-Dec-19	0	6	0	0
Glencore	31-Dec-19	0	0	0	0
Johnson Matthey	31-Mar-20	0	0	0	27
KAZ Minerals	31-Dec-19	0	5	1	0
Mondi	31-Dec-19	3	46	2	0
Rio Tinto	31-Dec-19	2	30	1	4
Smith (DS)	30-Apr-20	5	73	27	8
Smurfit Kappa Group	31-Dec-19	12	199	16	17
Synthomer	31-Dec-19	8	287	17	39
Victrex plc	30-Sep-19	0	0	0	3
Sector median		**1**	**25**	**2**	**4**

Communications

Company	Accounting date	Security	Affordability	Fluctuation	Expenditure
Airtel Africa	31-Mar-20	0	2	0	0
BT Group	31-Mar-20	11	53	39	66
Euromoney Institutional Investor	30-Sep-19	1	20	3	3
Informa	31-Dec-19	0	10	7	2
ITV	31-Dec-19	6	67	14	38
Pearson	31-Dec-19	0	0	30	0
RELX plc	31-Dec-19	1	64	4	9
RHI Magnesita N.V. (DI)	31-Dec-19	21	204	28	3
Spirent Communications	31-Dec-19	0	0	1	29
Trainline	28-Feb-20	0	0	0	0
Vodafone Group	31-Mar-20	0	0	3	1
WPP	31-Dec-19	2	27	3	6
Sector median		**1**	**15**	**4**	**3**

Consumer, cyclical

Company	Accounting date	Security	Affordability	Fluctuation	Expenditure
Barratt Developments	30-Jun-19	0	0	0	8
Bellway	31-Jul-19	0	0	0	0
Berkeley Group Holdings (The)	30-Apr-19	0	0	0	0
Cineworld Group	31-Dec-19	0	1	1	0
Coats Group	31-Dec-19	10	168	0	45
Compass Group	30-Sep-19	0	0	0	5
Crest Nicholson Holdings	31-Oct-19	1	17	16	24
DCC	31-Mar-20	0	0	0	1
Diploma	30-Sep-19	1	63	2	3
Dixons Carphone	02-May-20	52	593	5	50
Ferguson	31-Jul-20	0	0	0	7
Frasers Group	28-Apr-19	0	0	0	0
Grafton Group Ut	31-Dec-19	1	25	7	4
Howden Joinery Group	28-Dec-19	2	70	6	58
Inchcape	31-Dec-19	0	0	47	14
InterContinental Hotels Group	31-Dec-19	1	35	1	0
International Consolidated Airlines Group SA (CDI)	31-Dec-19	0	0	372	59
Kingfisher	31-Jan-20	0	0	0	9
Marks & Spencer Group	30-Mar-20	0	0	0	12
Mitchells & Butlers	28-Sep-19	0	0	30	43
Next	31-Jan-20	0	0	0	3
Persimmon	31-Dec-19	0	0	1	5
Redrow	30-Jun-19	0	0	3	3
Signature Aviation	31-Dec-19	1	23	3	30
Taylor Wimpey	31-Dec-19	2	36	8	20
TI Fluid Systems	31-Dec-19	12	86	29	4
Travis Perkins	31-Dec-19	0	0	0	7
TUI AG Reg Shs (DI)	30-Sep-19	38	204	0	30
Vistry Group	31-Dec-19	0	0	2	10
Watches of Switzerland Group	28-Apr-19	0	14	2	3
WH Smith	31-Aug-19	0	0	0	5
Whitbread	27-Feb-20	0	0	4	134
William Hill	31-Dec-19	0	0	0	13
Sector median		**0**	**0**	**1**	**7**

Consumer, non cyclical

Company	Accounting date	Security	Affordability	Fluctuation	Expenditure
4Imprint Group	28-Dec-19	2	79	2	23
Aggreko	31-Dec-19	0	0	0	4
Ashtead Group	30-Apr-20	0	2	1	0
Associated British Foods	14-Sep-19	0	0	14	9
AstraZeneca	31-Dec-19	2	153	6	10
Babcock International Group	31-Mar-20	0	0	0	83
Barr (A.G.) *	25-Jan-20	2	75	8	16
British American Tobacco	31-Dec-19	1	11	12	0
Britvic	29-Sep-19	0	0	0	30
Bunzl	31-Dec-19	0	16	3	7
C&C Group	29-Feb-20	1	19	12	1
Capita	31-Dec-19	49	234	72	82
Coca-Cola HBC AG (CDI)	31-Dec-19	1	25	4	5
Convatec Group	31-Dec-19	0	13	0	1
Cranswick	31-Mar-20	0	0	0	4
Dechra Pharmaceuticals	30-Jun-19	0	0	0	1
Diageo	30-Jun-19	0	0	1	16
Experian	31-Mar-20	0	0	0	3
G4S	31-Dec-19	10	113	34	27
Genus	30-Jun-19	0	0	2	37
GlaxoSmithKline	31-Dec-19	2	59	4	10
Greencore Group	27-Sep-19	17	237	60	43
Greggs	28-Dec-19	0	1	4	0
Hays	30-Jun-19	0	0	0	22
Homeserve	31-Mar-20	0	0	0	5
Imperial Brands	30-Sep-19	2	19	10	6
Intertek Group	31-Dec-19	0	8	1	0
Mediclinic International	31-Mar-20	4	48	46	27
Morrison (Wm) Supermarkets	02-Feb-20	0	0	0	3
PZ Cussons	31-May-19	0	0	0	23
QinetiQ Group	31-Mar-20	0	0	0	11
Reckitt Benckiser Group	31-Dec-19	0	6	0	0
Sainsbury (J)	07-Mar-20	0	0	33	8
Savills	31-Dec-19	1	18	4	17
Smith & Nephew	31-Dec-19	0	7	0	3
SSP Group	30-Sep-19	2	22	3	1
Tate & Lyle	31-Mar-20	6	151	0	13
Tesco	29-Feb-20	14	228	33	22
UDG Healthcare Public Limited Company	30-Sep-19	0	0	0	2
Unilever	31-Dec-19	0	5	17	12
Vesuvius	31-Dec-19	0	3	8	16
Sector median		**0**	**6**	**2**	**9**

* Scheme asset value excludes a Central Asset Reserve special purpose vehicle

Diversified

Company	Accounting date	Security	Affordability	Fluctuation	Expenditure
Drax Group	31-Dec-19	0	0	7	12
John Laing Group	31-Dec-19	0	0	0	95
Sector median		**0**	**0**	**3**	**53**

Energy

Company	Accounting date	Security	Affordability	Fluctuation	Expenditure
BP	31-Dec-19	2	15	1	3
Royal Dutch Shell 'A'	31-Dec-19	14	53	81	9
Royal Dutch Shell 'B'	31-Dec-19	0	0	0	0
Serco Group	31-Dec-19	0	0	0	11
Vivo Energy	31-Dec-19	2	24	3	2
Wood Group (John)	31-Dec-19	0	0	39	7
Sector median		**1**	**8**	**2**	**5**

Financial

Company	Accounting date	Security	Affordability	Fluctuation	Expenditure
3i Group	31-Mar-20	0	0	0	5
Aviva	31-Dec-19	0	0	30	20
Barclays	31-Dec-19	0	0	0	36
Beazley	31-Dec-19	0	0	2	2
Brewin Dolphin Holdings	30-Sep-19	0	0	5	8
British Land Company	31-Mar-20	0	0	4	1
Close Brothers Group	31-Jul-19	0	0	0	0
Derwent London	31-Dec-19	0	0	0	2
Direct Line Insurance Group	31-Dec-19	0	0	0	0
Grainger	30-Sep-19	0	5	1	2
Great Portland Estates	31-Mar-20	0	3	1	3
Hammerson	31-Dec-19	0	0	0	0
HSBC Holdings	31-Dec-19	0	0	3	0
Investec	31-Mar-20	0	0	0	0
Just Group	31-Dec-19	0	0	0	0
Land Securities Group	31-Mar-20	0	0	0	0
Law Debenture Corp.	31-Dec-19	0	0	3	2
Legal & General Group	31-Dec-19	8	231	18	18
Lloyds Banking Group	31-Dec-19	0	0	0	146
London Stock Exchange Group	31-Dec-19	0	0	0	6
M&G	31-Dec-19	0	0	0	22
Man Group	31-Dec-19	0	0	0	0
Ninety One	31-Mar-20	0	3	1	0
Paragon Banking Group	30-Sep-19	3	77	8	10
Phoenix Group Holdings	31-Dec-19	0	0	11	20
Provident Financial	31-Dec-19	0	0	0	47
Prudential	31-Dec-19	0	0	0	0
Rathbone Brothers	31-Dec-19	1	27	5	11
RIT Capital Partners	31-Dec-19	0	0	0	0
RSA Insurance Group	31-Dec-19	0	0	0	53
Schroders	31-Dec-19	0	0	1	0
Scottish Inv Trust	31-Oct-19	0	29	1	9
SEGRO	31-Dec-19	0	0	0	0
St. Modwen Properties	30-Nov-19	0	0	0	0
Standard Chartered	31-Dec-19	3	10	2	3
Standard Life Aberdeen	31-Dec-19	0	0	0	16
Virgin Money UK	30-Sep-19	0	0	0	231
Sector median		**0**	**0**	**0**	**2**

Industrial

Company	Accounting date	Security	Affordability	Fluctuation	Expenditure
Avon Rubber	30-Sep-19	4	398	8	14
BAE Systems	31-Dec-19	27	621	81	71
Balfour Beatty	31-Dec-19	0	0	16	48
BHP Group	30-Jun-19	0	5	1	0
Biffa	27-Mar-20	0	0	26	12
Bodycote	31-Dec-19	0	0	0	1
Chemring Group	31-Oct-19	0	0	2	2
Clarkson	31-Dec-19	0	0	0	3
CRH	31-Dec-19	2	37	5	5
Electrocomponents	31-Mar-20	0	21	0	19
Energean	31-Dec-19	0	44	0	0
Equiniti Group	31-Dec-19	8	85	13	3
FirstGroup	31-Mar-20	20	32	199	34
Fisher (James) & Sons	31-Dec-19	1	22	23	33
Go-Ahead Group	29-Jun-19	0	0	622	73
Halma	31-Mar-19	1	56	2	15
Hill & Smith Holdings	31-Dec-19	2	62	2	8
Ibstock	31-Dec-19	0	0	0	7
IMI	31-Dec-19	1	32	8	10
Marshalls	31-Dec-19	0	0	4	0
Meggitt	31-Dec-19	10	160	11	35
Melrose Industries	31-Dec-19	10	118	24	38
Morgan Advanced Materials	31-Dec-19	24	324	38	35
Morgan Sindall Group	31-Dec-19	0	0	2	0
National Express Group	31-Dec-19	11	64	33	0
Oxford Instruments	31-Mar-20	0	0	0	63
Renishaw	30-Jun-19	1	142	7	19
Rolls-Royce Holdings	31-Dec-19	4	40	24	52
Rotork	31-Dec-19	1	65	2	14
Royal Mail	29-Mar-20	0	0	0	202
Smiths Group	31-Jul-19	0	0	0	16
Spectris	31-Dec-19	1	32	0	2
Spirax-Sarco Engineering	31-Dec-19	1	55	3	15
Ultra Electronics Holdings	31-Dec-19	4	186	12	28
Weir Group	31-Dec-19	4	122	10	16
Sector median		**1**	**32**	**5**	**15**

Technology

Company	Accounting date	Security	Affordability	Fluctuation	Expenditure
Auto Trader Group	31-Mar-20	0	0	0	0
Aveva Group	31-Mar-20	0	0	1	2
Micro Focus International	31-Oct-19	10	38	15	1
Sage Group	30-Sep-19	0	18	0	1
Sector median		**0**	**9**	**1**	**1**

Utilities

Company	Accounting date	Security	Affordability	Fluctuation	Expenditure
Centrica	31-Dec-19	6	28	0	60
National Grid	31-Mar-20	0	0	0	23
Natwest Group	31-Dec-19	0	0	0	32
Pennon Group	31-Mar-20	0	0	5	27
Severn Trent	31-Mar-20	4	91	1	18
SSE	31-Mar-20	0	0	7	12
United Utilities Group	31-Mar-20	0	0	21	36
Sector median		**0**	**0**	**1**	**27**

Appendix 3

Report authors:

Alistair Russell-Smith
Partner and Head of Corporate DB Consulting

Stuart Gray
Actuary

Iain Church
Actuary

Technical analysis produced by:

Calvin Ng
Actuarial Trainee Consultant

Zaid Ifran
Actuarial Trainee Consultant

Data collection by:

Kostas Androutsos
Hardeep Bhamra
Eve Dixon
Dan Guest
Ira Hills
James McShane