Barnett Waddingham
a true partnership approach

RESEARCH

Impact of pension schemes on UK business

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Contents

UK companies are contributing less...
but for how much longer?

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Introduction

"The amount of cash that sponsors are committing to pay down deficits has fallen for the fifth year in a row"

Our 5th annual report on the FTSE350 shows that in 2014 the UK's largest public companies contributed less towards defined benefit (DB) pension schemes than at any point since 2009. Whether it is the case that scheme sponsors are either unwilling, unable or have not needed to maintain the pace of funding seen over the early part of the decade, the increase in deficits seen towards the end of 2014 will almost certainly translate into pressure from scheme trustees to reverse, or at the very least arrest, this trend in 2015 and beyond.

Our report summarises the data collected from over 200 companies within the FTSE350 that sponsor DB pension arrangements. Separate analyses have been carried out for FTSE250 companies as well as companies within different industry sectors.

In carrying out our research we have received valuable input from the Centre for Global Finance at the University of the West of England.

Some of the highlights in our report are:

Deficit contributions continue to fall

The amount of cash that sponsors are committing to pay down deficits has fallen for the fifth year in a row. The amount is still an eye watering £7bn although this is around 40% less than the amount being paid only a few years ago. However, with the aggregate deficit at its highest level since 2009, it is unclear if this trend can continue for much longer.

One saving grace for sponsors may be The Pensions Regulator's (TPR) revised Code of Practice for DB schemes, which is intended to guard against recovery plans which damage the sustainable growth of the employer. However, our research highlights that sponsors, trustees and advisers will have much to think about especially where the triennial valuation cycle falls in 2015.

"EIOPA's work threatens to increase Scheme Funding shortfalls for FTSE350 sponsors to more than one fifth of the index's total stock market value; this represents a latent pension risk to sponsors of UK DB schemes"

Regulatory risk for FTSE350 sponsors

The European Insurance and Occupational Pensions Authority (EIOPA), which supervises pensions in the European Union (EU), has launched a set of market stress tests in addition to an assessment of potential changes to funding requirements for pension schemes across the EU.

Our research shows that certain adverse market conditions would see the total Scheme Funding shortfall of FTSE350 sponsors increase to over £200bn. Furthermore, the quantitative assessment aspect of EIOPA's work threatens sponsors with a 'risk free' valuation method which would increase deficits to over £400bn in an unstressed scenario; this equates to over one-fifth of the index's market capitalisation and represents a latent pension risk to sponsors of UK DB schemes.

Other highlights

- We examined the extent of DB deficit contributions against shareholder rewards - although payments to fix deficits equated to around 13% of dividends returned in 2014, this measure shows a clear improvement for investors over recent years.
- We have also examined how companies consider their pension risks within the context of the other business risks to which they are exposed. We found that 80% of companies with material funding shortfalls recognised their DB pension scheme as a principal business risk within their annual report and accounts.
- Defined contribution (DC) continues to be the method of choice for accruing future benefits as firms in the FTSE350 saw the average amount paid into DC schemes increase by nearly one fifth in 2014. This reflects the new impetus towards DC savings under the now established auto-enrolment regime as well as the direct switch from DB accrual as this form of benefit is discontinued by more and more of the UK's largest firms.

The FTSE350 still had 170 companies offering current employees the benefits of a DB pension somewhere within their global operation at the time of reporting their 2014 financials. However, as we show later in the report, the shift towards DC continues apace. We await with interest over the coming year to see if the new DC freedoms, coupled with the end of contracting-out, will accelerate this development even further.

I would like to thank Michal Bobula and John O'Malley from Barnett Waddingham for their work in helping prepare this report.

Please contact me for further information on the results of this research or we would be very pleased to provide those covered by this analysis with a free bespoke report that will show how your company compares with your peers in the FTSE350.

Nick Griggs
Head of Corporate Consulting

Background

"Although those companies reporting earlier in the year also saw a modest increase in their collective shortfall, the plummeting discount rates in December delivered a substantial hit to FTSE350 sponsors of DB plans"

DB scheme deficits and contributions

In 2014, the aggregate IAS19 deficit[1] for companies in the FTSE350 increased markedly from £53.3bn to £64.7bn. This was largely driven by the 119 companies reporting in December whose aggregate deficit increased by over £10bn alone. Although those companies reporting earlier in the year also saw a modest increase in their collective shortfall, the plummeting discount rates at the December year-end[2] delivered a substantial hit to FTSE350 sponsors of DB plans.

For FTSE350 companies reporting in December, the average disclosed discount rate was over 1% lower than the preceding year as underlying corporate bond yields fell by a similar margin. The resulting actuarial losses that were booked against scheme liabilities led to the highest aggregate deficit for the FTSE350 index since 2009.

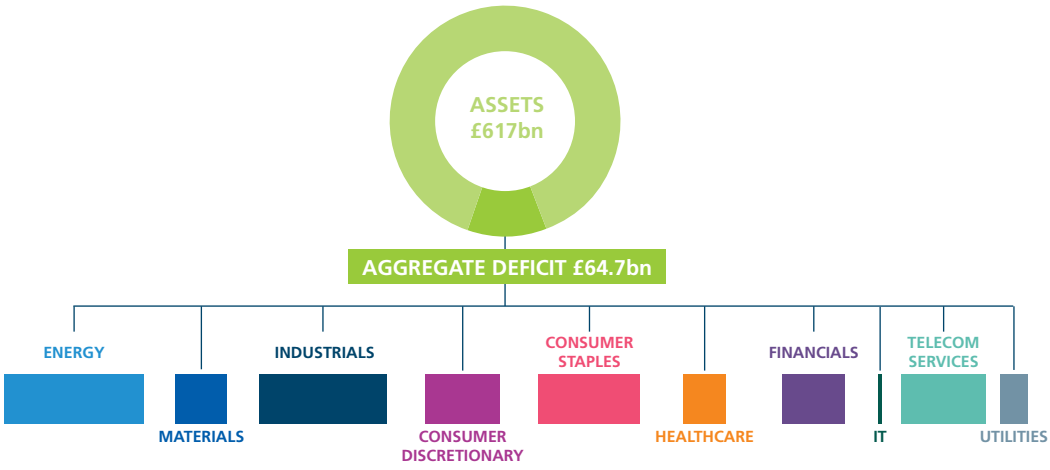
What is more, the market conditions in the first few months of 2015 look to ensure that companies whose year-end falls during this period are likely to disclose substantial actuarial losses and deepening deficits.

On a more positive note, strong investment returns over 2014 ensured that the assets side helped to undo some of the damage done by falling bond yields.

The chart below shows how the aggregate deficit was split between the different sectors, with the more mature industries continuing to share the bulk of DB shortfalls.

It was interesting to note that the Financial sector, which has the largest share of DB obligations of all sectors, actually saw its aggregate deficit fall in 2014. This was driven by several of the larger schemes in the sector, whose use of asset-liability matching tools mitigated the impact from falling bond yields. When combined with good performance from the 'growth' assets and/or the payment of deficit contributions, deficits were down over the period.

Fig.1 **FTSE350 aggregate deficit by sector**



1 As disclosed in the latest set of published accounts up to and including 31 December 2014 and ignoring the 53 companies with an IAS19 surplus or neutral position.

2 Accounting for pension costs – FTSE100 - Barnett Waddingham's survey of assumptions used at 31 December 2014, www.barnett-waddingham.co.uk/comment-insight/research/2015/06/15/accounting-pension-costs-survey-31-december-2014

"The extensive actuarial losses seen since 2009 have predominantly been caused by falling corporate bond yields, which has resulted in a sharp drop in IAS19 discount rates over the period"

One of the other big factors influencing DB funding levels in 2014 was over £7bn paid by FTSE350 companies to reduce these stubborn DB deficits. However, this was the lowest amount paid to clear deficits since the beginning of our annual research.

In the graphic below, the dark green bars show the expected reduction in deficits since 2009, given the £52bn of deficit contributions[3] being paid from that point. However, rather than seeing shortfalls removed, net actuarial losses, shown by the light green bars, have largely offset the benefit of these contributions amidst falling bond yields. Since 2009 cumulative actuarial losses have totalled £43bn.

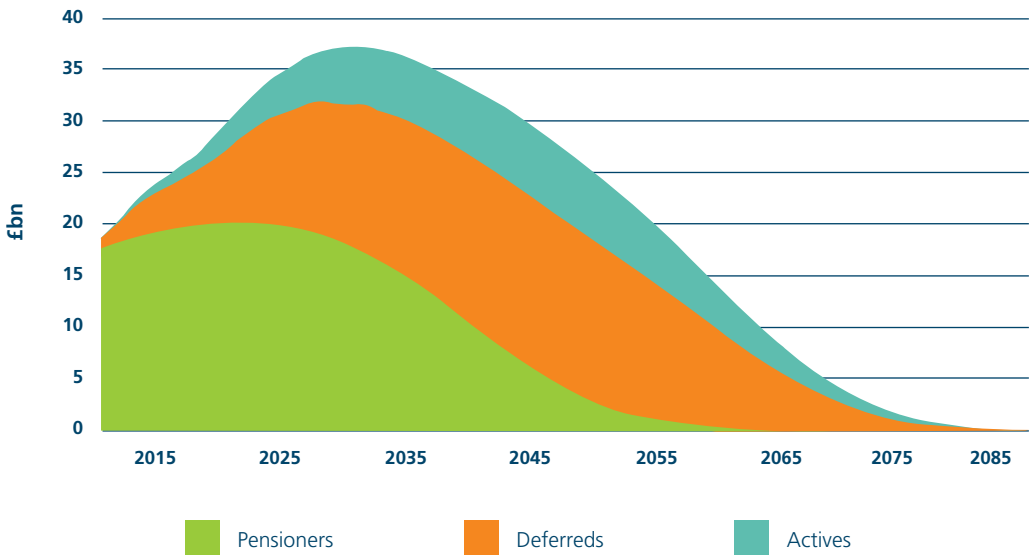
Fig.2 **Progression of aggregate pension deficit since 2009**

The extensive actuarial losses seen since 2009 have predominantly been caused by falling corporate bond yields, which has resulted in a sharp drop in IAS19 discount rates over the period.

DB pension schemes provided by FTSE350 companies are projected to make payments of £1.4tn over the next 60+ years to meet their obligations, of which £970bn is due in the next 30 years. The main factors influencing the amount expected to be payable are future levels of inflation and life expectancies which have remained comparatively stable over the last few years. The typical RPI inflation assumption shows a modest drop of around 0.2% between 2009 and 2014 albeit with a bit more volatility in the intervening period.

3 Deficit contributions approximated by subtracting disclosed service cost (in respect of future pension provision) from the amount of contributions being made into the DB pension scheme.

Fig.3 **Projected payments to current and future pensioners**



These schemes currently hold £617bn of DB pension assets and so must rely on investment performance and further pension contributions from employers to be able to meet the £1.4tn required if DB obligations are to be provided in full.

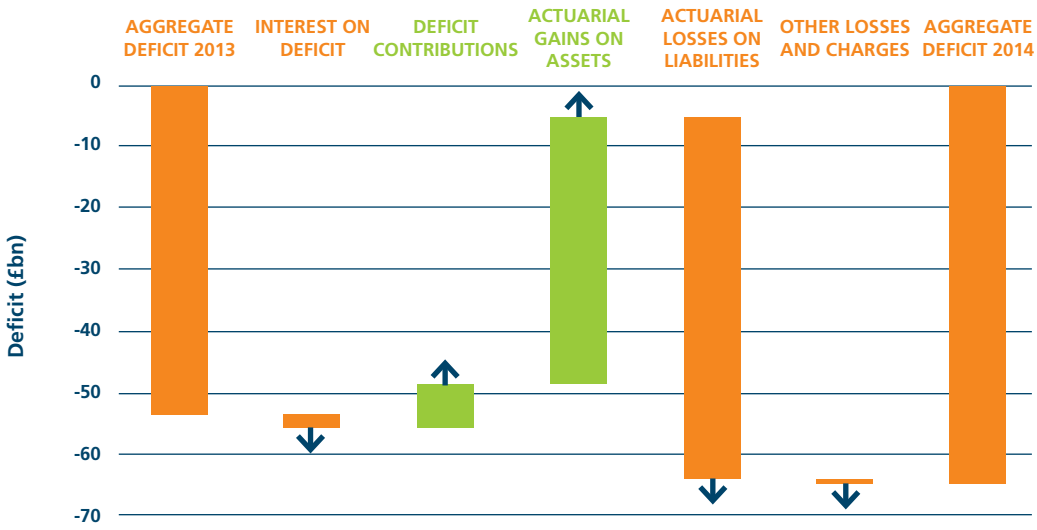
During a period when assets have performed well and significant contributions have been paid some deficits have not reduced because the assumed level of future investment returns (represented by discount rate) has fallen. This means that the pension assets held by the companies can be expected to meet a lower proportion of the future payments and schemes remain dependent on companies to cover the remainder of their obligations.

In 2014, companies in the FTSE350 adopted discount rates that were on average approximately 2.0% pa below those used in their 2009 accounts. For a typical scheme this would equate to an increase of around 50% in the current value of the DB obligation.

A more detailed analysis of the increase in the aggregate deficit over the last year is shown in the graph to the right. It shows how actuarial liabilities have worsened, as corporate bond yields fell significantly in 2014, particularly at the December year-end. It is this which has driven the worsening in the aggregate deficit. The sizable investment gains, in addition to considerable deficit contributions, have not been enough to offset these losses.

Fig.4

Analysis of change in aggregate deficit in 2014



It is noticeable that the trend of falling deficit contributions continued from previous years. In 2014, employers committed over £7bn to clear funding shortfalls although this is over 40% less than the average comparable figures paid in each year from 2009 to 2012, and nearly 20% less than payments in the preceding year.

Fig.5

Deficit reduction contributions	2009	2010	2011	2012	2013	2014
	£12.5bn	£12.3bn	£12.2bn	£11.0bn	£8.8bn	£7.2bn

Impact on free cashflow

"For the FTSE350 deficit contributions as a proportion of total free cashflow have nearly halved in 2014"

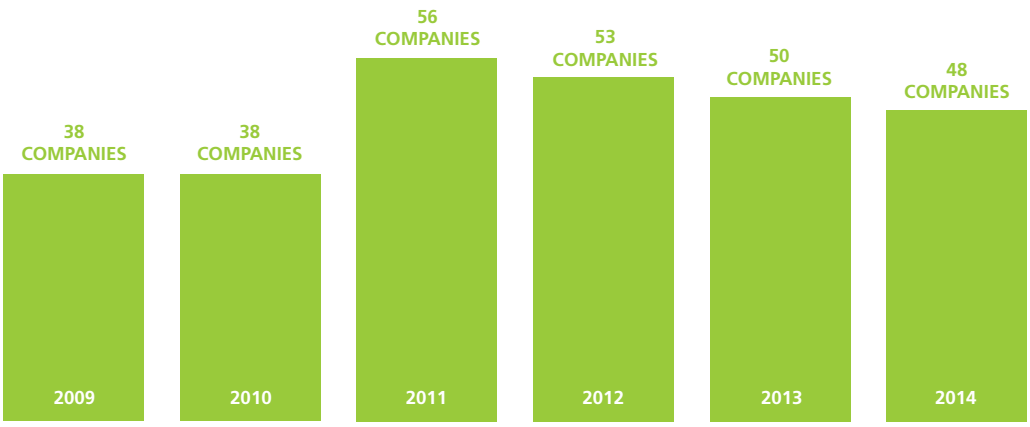
In this section, we consider the impact that DB schemes are having upon financial flexibility for FTSE350 companies. Whether measured against the ability of companies to generate cash or alternatively, against profit and loss measures, the contributions required to pay down DB scheme deficits must compete with many other financial commitments.

Many employers will have become acutely aware of TPR's new Code of Practice for funding DB schemes, particularly where a triennial Scheme Funding valuation has taken place in the past year or so. The main thrust of the new Code is that it is intended to provide more freedom for those employers whose DB commitments are affecting their sustainable growth.

One measure of a company's performance is its ability to generate cash which may be utilised in turn to provide the financial resources to make additional investments, repay debt, build reserves or return cash to the shareholders.

Our analysis once again shows that there are a significant number of companies paying deficit contributions higher than their free cashflow[4]; the unfortunate consequence for these companies is the need to rely upon external sources of finance or to draw upon their cash reserves. This in effect represents the 'hidden cost' of pension provision, potentially having more widespread implications on the business.

Fig.6 **Deficit contributions greater than free cashflow**



In 2014, total deficit contributions represented 4.6% of total free cashflow for the FTSE350, which is nearly half of the equivalent figure in 2013 (8.9%). On an individual level, there were 31 companies who did not pay deficit contributions compared with 22 in 2013.

4 Free cashflow is cash generated by a company over and above that required to maintain or expand its asset base. Adjustment has been made for treatment of interest paid which has been included in the operating cashflows throughout the sample.

"For 59 companies, annual deficit contributions are higher than the contributions in respect of pension benefits being earned each year for current employees"

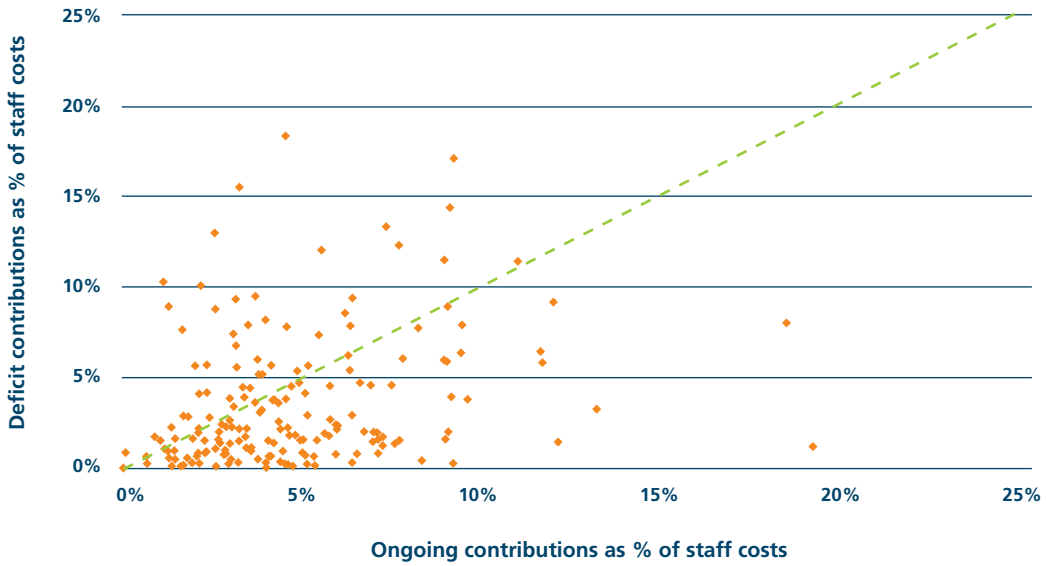
With triennial valuation cycles now having to comply with a Code of Practice that on the face of it appears to be more flexible, it may be that companies are being spared from excessive recovery schedules especially where they can demonstrate that this would be contrary to their corporate objectives for sustainable growth. However, the fall in contribution levels generally pre-dates the revised Code, so it may simply be more of a function of all parties acknowledging that the extensive level of payments in the earlier part of the decade cannot continue indefinitely, particularly in light of the apparent failure to eradicate deficits (at least on an accounting basis). Even when we disregard high-profile, once-off contributions by FTSE350 sponsors (which are evidently unsustainable), the trend of decreasing deficit contributions is noticeable throughout.

To put this in the context of the total expenditure on staff, deficit contributions were 4.1% of overall staff costs in 2014. This is unchanged from the previous year[5].

By comparison, the cost of providing future pension provision for current employees, including defined contribution arrangements, was 4.8% of total staff costs in 2014 (2013: 4.7%).

The graph below compares deficit contributions against ongoing pension contributions for current employees (i.e. DB future service contributions and DC payments) in 2014.

Fig.7 **Pensions contributions as % of staff costs**



The analysis shows that there were 59 companies in the FTSE350 paying higher deficit contributions than the contributions for future pension provision for current employees (represented by those above the green line). These companies had an average deficit per employee of around £18,500 (2013: £17,500), which was significantly higher than the FTSE350 average of £10,500 (2013: £9,500).

5 This average includes those companies not making any deficit contributions. The average figure for only those companies paying deficit contributions was 4.8% (2013: 4.6%)

"Companies in the Utilities sector once again contributed the most towards future pension provision for employees as a proportion of staff costs. Meanwhile, companies in the Consumer Discretionary sector once again contributed the least"

The level of deficit contributions is comparatively large when compared with the amounts that companies are setting aside for the ongoing savings of current staff. Furthermore, it varies greatly between companies and for 18 companies deficit contributions exceeded 10% of total staff costs (whereas only 11 companies saw future service contributions exceed this threshold).

Unsurprisingly, there is greater variability when considering the level of deficit contributions compared with future service contributions as finance teams' efforts in dealing with the former are necessarily reactive in light of fluctuating DB shortfalls. For 6 companies, deficit contributions were equivalent to more than one quarter of total staff costs.

Interestingly 15 companies with a surplus on an IAS19 basis continue to pay more in the form of deficit contributions than they pay for future pension provision. These companies are presumably targeting a low risk investment strategy or buy-out within a fairly short time-frame.

For those companies in the FTSE350 with DB schemes, the total amount paid towards reducing DB deficits in 2014 represented around one third of the total contributions paid towards pension provision (at 32 pence in the pound). Within the context of auto-enrolment and the ambitious goal of nudging younger generations towards saving for retirement, it is remarkable to consider the level of resources that UK businesses are still having to commit towards legacy benefits, a substantial portion of which will relate to beneficiaries who are no longer in their employment.

Over 40% of companies operating in the Consumer Staples and Consumer Discretionary sectors are paying more in deficit contributions than they are for future pension provision for current employees. Conversely, all of the companies in the Energy and Telecommunication sectors are paying more towards future pension provision than towards plugging deficits.

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Big Schemes Survey: £1bn+

Many pension innovations stem from big schemes and work their way through to smaller schemes as the strategies become more refined and accessible.

Our survey of the largest private sector DB schemes in the UK with assets of over £1bn focuses on scheme type, asset allocation, investment performance, deficit contributions, and adviser fees. Some of the highlights of our latest survey include:

- 57% of final salary schemes in our survey are closed to new members and a further 24% are also closed to future accrual, leaving just 19% open to new members.
- 75% of schemes have a deficit on their company accounting basis, unchanged from the previous year.
- The average annual employer deficit contribution was £94m, but ranged from £7m to £400m.
- The average 3-year investment return was about 8.5% per year (for end dates ranging between March 2013 and March 2014), and the 5-year return was about 9.5% per year. These returns were significantly larger than the 1-year return which was around 5.5%.
- The average Pension Protection Fund levy paid was £3.2m.
- The average annual investment management fee was around 0.2% of assets, which is unchanged from the previous year.

www.barnett-waddingham.co.uk/bigschemessurvey

Please look out for our latest research on big schemes.

Impact on shareholders

"In theory, companies with pension deficits face a trade-off and must choose to either pay higher contributions to reduce deficits or make investments and pay dividends"

The presence of a DB deficit is an interesting issue for shareholders and there is evidence that certain events related to DB schemes can have a negative impact on a company's share price[6].

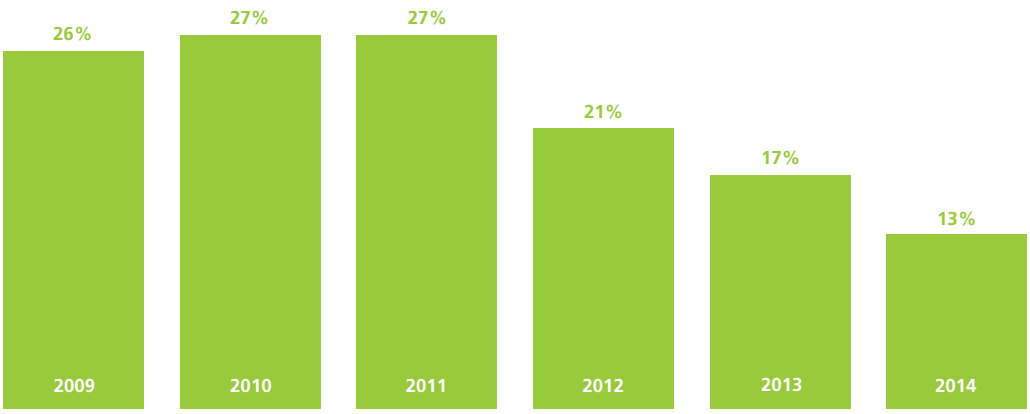
In theory, companies with pension deficits face a trade-off and must choose to either pay higher contributions to reduce deficits or make investments and pay dividends.

Over the last 6 years the total dividends paid by FTSE350 companies which sponsor DB schemes was around £300bn. Over the same period cash paid into DB schemes to reduce funding deficits equalled approximately £64bn. Clearly, DB deficit contributions are not only of a sufficient scale to materially impact on potential investment opportunities but also to reduce the visible rewards to equity investors and increase the cost of equity.

While the amounts paid vary significantly across the FTSE350, deficit contributions as a proportion of net dividend payments were at the lowest level in 2014 since the inception of our research.

The total amount of deficit contributions paid by companies in our study was around 13% of dividends paid in 2014; this is lower than 2013 (17%) and the graphic below shows a clear trend in the past few years, with the 2014 figure around half of that only a few years ago. Although this is a function of the lower overall amount of deficit payments in recent years, whereas dividends have increased steadily, this will be a positive indicator for investors who will demand a priority be given to those willing to provide capital.

Fig.8 **Total deficit contributions as % of total dividends paid**



6 *'Impact on a company's share price of its final salary pension scheme' – Barnett Waddingham research, www.barnett-waddingham.co.uk/comment-insight/briefings/2013/02/22/note-3-impact-on-share-price-final-salary-pension*

"For those returning a dividend in 2014, 27 companies also paid deficit contributions worth more than half of the amount of the dividend (2013: 24 companies)"

In 2014, 24 companies paid more in deficit contributions than they paid to shareholders in the form of dividends (2013: 28). Of these companies, 13 companies paid no dividend whilst paying deficit contributions to an affiliated DB scheme.

For the FTSE350 as a whole, the issue of the pension contributions limiting dividend payments to equity investors does appear to be less problematic than in recent times. Nonetheless, as in some of these cases highlighted above, pension contributions may represent an impediment to attracting investors in an equity market environment where cash rewards are considered ever more important, particularly in a sideways or 'trading' market and low bond yield environment. The same trade-off applies in terms of limiting share buybacks which are currently seen as an important strategy for equity value maintenance in an uncertain capital investment landscape. We may speculate that in certain cases pension contributions reduce returns for investors and have a negative impact on companies' valuations and the cost of capital.

It is important to note that not all companies are equally impacted by the need to make pension contributions. Amongst FTSE350 companies, there is a large variation and while many firms can afford contributions alongside dividends and capital expenditure, some others have to make difficult trade-offs.

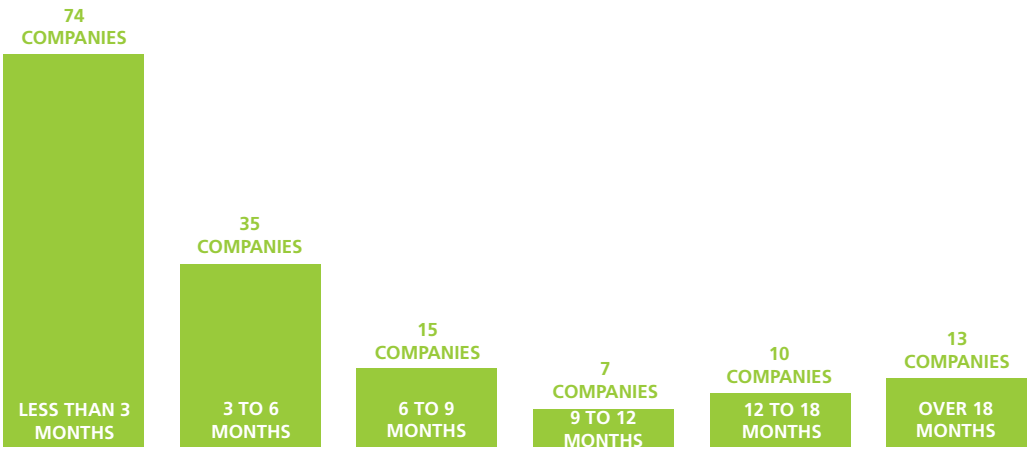
Impact on cash holdings

"For 23 companies, it would take over one year to repay the IAS19 deficit using the net cash generated from core activities"

Many companies continue to face difficulties in generating cash reserves, with the DB scheme consuming a significant proportion of the cash that is generated from core operations. Since 2009, the total deficit contributions paid into DB schemes were equivalent to over 5 months' worth of all cash generated in 2014 through core business activities[7].

Looking at the 2014 financials, we estimate it would take companies on average over 6.5 months[8] to clear their IAS19 deficit using net cash[9] generated from their core activities. This compares with an average of over 5.5 months in 2013. The distribution of periods required by FTSE350 companies in 2014 is shown in the graph below.

Fig.9 **Time needed to clear current IAS19 deficit using net cash generated from businesses' core activities**



This demonstrates that companies continue to divert a significant proportion of the cash they generate towards their DB schemes and this looks unlikely to change markedly in the short term. If companies are aiming for a full buy-out, we have estimated that on average 17 months of cash generated from core operations would be needed to achieve this, based on market conditions at the time of the company's 2014 accounts (2013: 21 months of cash).

Whilst trading conditions in many sectors remain tough, the level of cash being held by many large companies has triggered much comment over the past couple of years, with some quite marked examples of 'cash hoarding'. In total, the 218 companies analysed were holding £125bn in cash at their 2014 year end (2013: £112bn)[10].

Many are starting to view cash surpluses held by UK companies as problematic to equity investors as it should either be put to productive use or paid back to investors though special dividends or share repurchases[11]. If cash is returned to investors in this way, then attention will move from cash holdings back to cash generation ability, thereby focusing minds again on how such cash is being applied as it is generated at the margin. An alternative might be to use surplus cash to reduce or even remove (through buy-out) a pension deficit.

7 Operating cash flow is a measure of net cash generated each year from core activities. 8 This ignores one outlier as well as companies with negative net operating cash flows.
9 'Net cash' refers to the cash generated from operations after paying for the costs of those operations.

"4 out of every 10 companies that have seen an increase in their deficit contributions between 2013 and 2014 have simultaneously seen their cash holdings decrease"

Potential to buy-out

Clearly, using cash reserves to address the pension scheme deficit may not been seen as a priority. However, many companies will be looking to de-risk their DB schemes which would be expected to increase longer term pension costs. Whilst a full buy-out might have only been an aspirational target a few years ago has this now changed?

In our survey, 95 of the companies analysed would be able to achieve a full buy-out of their funded liabilities from their cash holdings alone (2013: 105 companies), although for 32 of these companies it would have involved committing over 50% of their total cash holdings.

The normal level of cash held will vary significantly from company to company but around 70% of the companies in our study could be defined as holding excess cash[12]. Around 4 out of 10 of these firms with excess cash could afford to buy-out the scheme with it. Half of them could clear their IAS19 deficit from excess cash.

Meanwhile, there were 26 companies in our survey that would have been able to fund a buy-out based on the increase in their cash holdings between 2013 and 2014.

10 This excludes companies in the Financial sector, where some or all of the capital is held to fulfil regulatory obligations and is thus not 'discretionary'

11 "UK companies sit on giant piles of cash", www.ft.com/cms/s/0/379d917a-25c9-11e3-8ef6-00144feab7de.html#axzz375RTyMTn.

12 Ozkan, A. and Ozkan, N. (2004). Corporate cash holdings: An empirical investigation of UK companies, Journal of Banking & Finance, Volume 28, pp. 2103-2134 suggests that the average cash ratio is 10% for UK firms

Impact on balance sheet

"On the whole, a positive market performance over 2014 resulted in a marginal reduction of DB scheme deficits as a percentage of the market capitalisation of FTSE350 companies. This ratio decreased to 4.8% in 2014 (5.3% in 2013). This ratio was marginally higher for the FTSE250 and for companies in certain industry sectors."

Market capitalisation

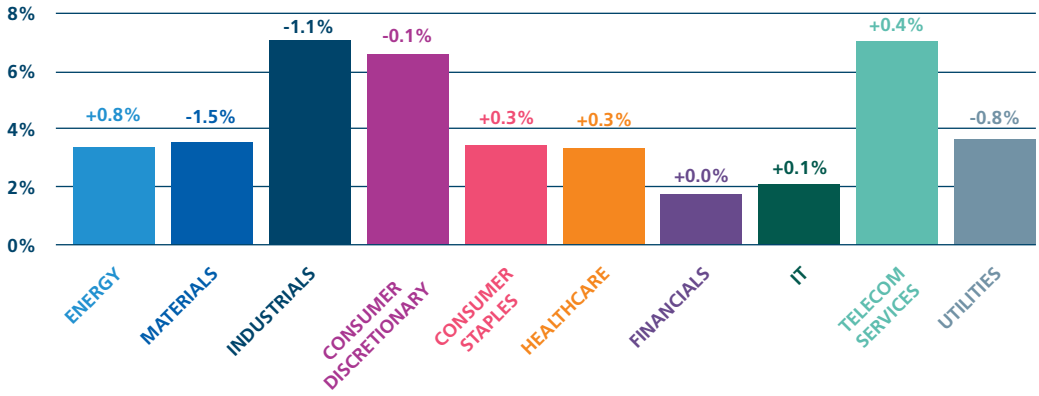
In previous years we have highlighted the significant number of FTSE350 companies who have a DB scheme deficit that has a major impact on the company's balance sheet.

On the whole, a positive market performance over 2014 resulted in a marginal reduction of DB scheme deficits as a percentage of the market capitalisation of FTSE350 companies. This ratio decreased to 4.8% in 2014 (5.3% in 2013). This ratio was marginally higher for the FTSE250 and for companies in certain industry sectors.

A handful of companies have been consistently amongst the worst performers under this metric over the past number of years. For example, 4 companies in our survey had deficit-to-market cap ratios that were amongst the 10 highest for the fifth successive year in 2014. In these and other cases, the problem would be even more stark if not for the strong recovery in stock market values seen in the period following the global financial crash. Nonetheless, it will have been disheartening for many such firms to have seen their DB liabilities remain as a relatively substantial presence on the balance sheet.

The chart below highlights differences across the individual sectors.

Fig.10 Deficit as % of market capitalisation by sector (and % change from 2013)



For 18 companies the deficit exceeds 10% of the market capitalisation of the company (2013: 18 companies). Interestingly, there were 6 companies with a surplus that exceeded 10% of their market capitalisation.

The size of DB scheme deficits as a proportion of market capitalisation seem to heading, albeit very slowly, in the right direction. This can be attributed to both pension plan asset recoveries, deficit contributions paid by the company and value creation within companies as economic conditions have improved.

"On average, companies in our survey saw their gearing ratio worsen by 3.7% owing to the presence of DB deficits (2013: 3.7%). For 12 companies, the increase in gearing was more than 10%"

Fig.11

Deficit as % of the Market Cap (if the DB scheme is ignored)	2009	2010	2011	2012	2013	2014
	14.3%	6.2%	5.7%	5.3%	4.4%	4.2%

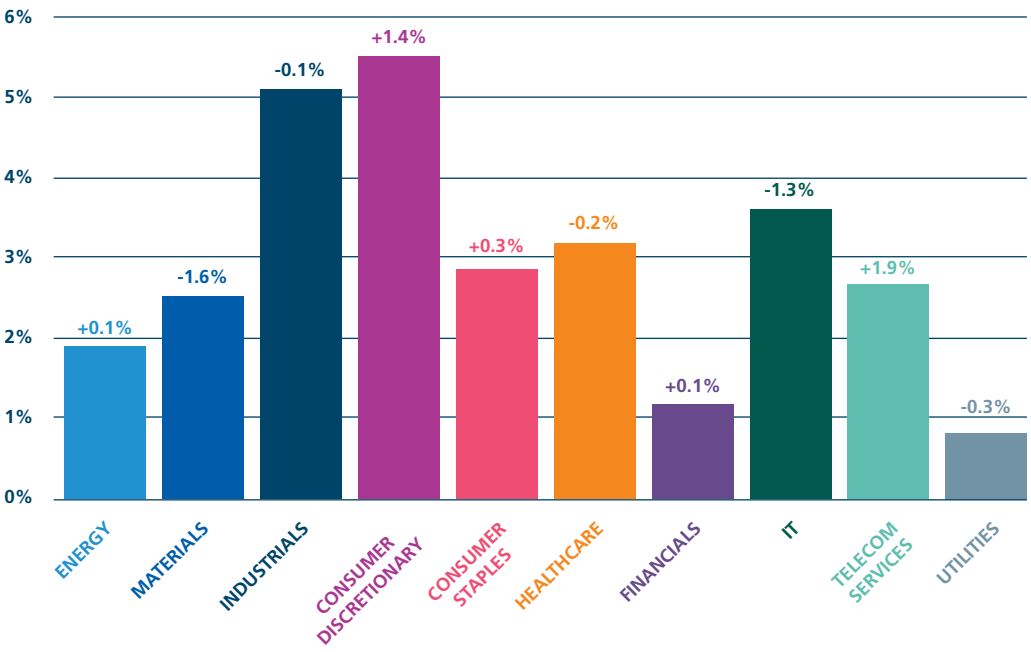
Ability to raise finance

One potential consequence for a company with a large pension scheme deficit disclosed on the balance sheet is the impact it will have on the company's gearing ratio (a measure often used to assess financial risk or long term solvency). For a number of companies the DB scheme deficit exerts a significant impact on the gearing ratio, which could ultimately impact on a company's ability to raise new finance or indeed to refinance its existing debt.

In some cases, the increased gearing caused by the pension deficit may increase a company's cost of debt financing. Gearing ratios will typically vary from sector to sector, often depending on the level of fixed assets against which borrowing can be secured or factors such as industry earnings volatility. In some cases, the increased gearing caused by the pension deficit may increase a company's cost of debt financing.

The graph below shows the impact of the pension scheme on the gearing ratio by sector in 2014 and includes the change from the equivalent figure in 2013. The effect of DB deficits on gearing is most pronounced in the Industrials and Consumer Discretionary sectors, and least pronounced in the Financials and Utilities sectors.

Fig.12 **Increase in gearing by sector (and % change from 2013)**



Impact on risk

"In the FTSE350, 19 companies had pension obligations that exceeded the market capitalisation of the company."

The pension scheme as a principal risk for the business

To comply with disclosure regulations, FTSE-listed firms are obliged to acknowledge their key business risks, as well as the steps being taken to mitigate them. We examined the disclosed Principal Risks for the 20 firms with the highest deficit as a proportion of market capitalisation. We found that 80% of these firms listed their DB pension scheme as a principal source of risk either explicitly, or under one of a number of competing financial risks.

Based on their 2014 disclosures, a number of companies noted that the risk associated with their pension scheme has increased in the financial year. None of the companies stated this risk has decreased. Where recognised as a key risk, the recurring key risks factors mentioned included pension asset values and actuarial assumptions.

The steps being taken to mitigate pension risk included (but was not limited to) the following:

- statutory recovery plans
- scheme closure
- insuring liabilities
- pension increase exchanges/amendments to benefits
- investment diversification
- asset-matching strategies
- regular reporting and monitoring

Given the direct impact of the pension scheme on the income statement and balance sheet, it is not surprising that companies are recognising their DB liabilities as a key strategic risk.

There is a clear imperative to manage and control this risk and there are a number of tools that are available to employers.

Danny Wong, Associate - Business Risk Practice

"Barnett Waddingham have been helping clients to analyse, mitigate and monitor pensions risk for over 25 years. Given the growing complexity, uncertainty and change businesses now face, I look forward to using my broad risk and business experience combined with the quantitative skillset and professionalism that one can expect from our actuaries, to deliver real insights that inform business decisions for value protection or creation. In particular, I believe that we can work closely to improve practices and differences between firms in the FTSE100 and FTSE250 with respect to risk maturity"

"7 companies in the FTSE350 had an equity holding in their scheme that was more than 50% of the market capitalisation of the company"

Impact of DB pensions risk

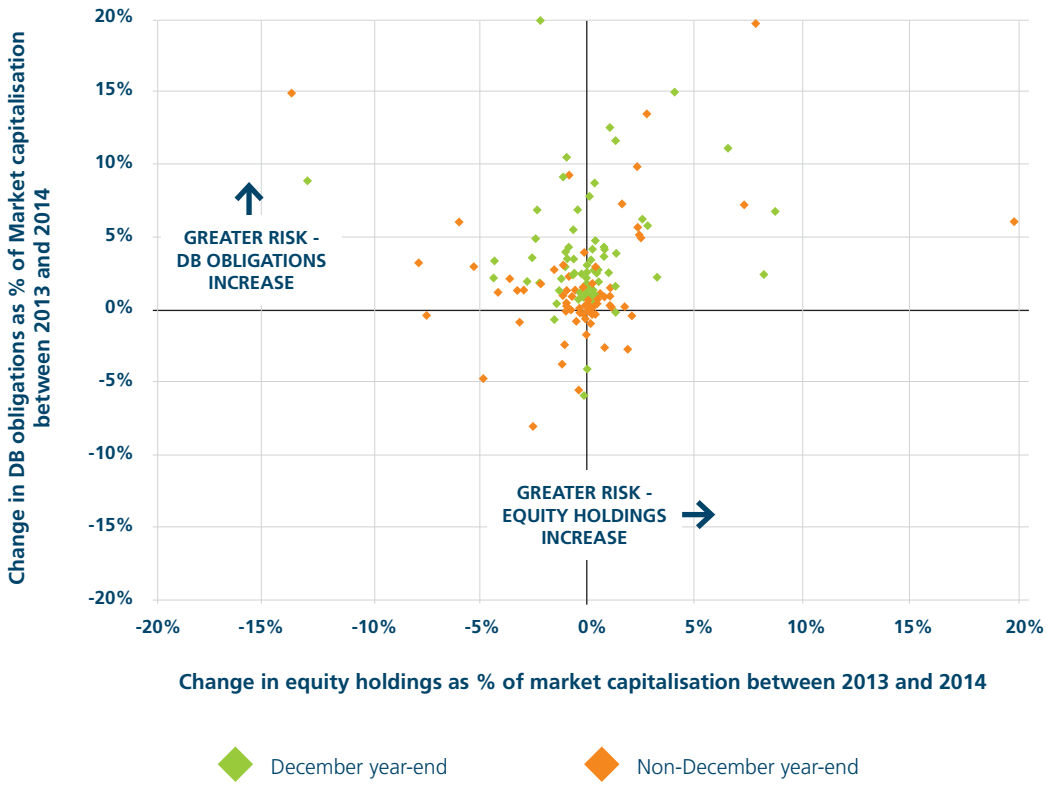
In 2014, the total DB scheme funded assets for FTSE350 companies totalled £617 billion.

In addition to studying how the deficit or surplus in the pension scheme affects the company balance sheet, we have also considered the potential risk posed by the DB pension scheme to the business. This has been investigated by considering the size of the pension obligations in relation to the size of the company.

The exposure of the company to equity markets via their pension scheme is often considerable. Of the companies analysed, there were 7 with an equity holding in their scheme which was more than 50% of the market capitalisation of the company (2012: 8 companies), whilst 19 companies have total pension obligations that exceeded their market capitalisation (2012: 17 companies).

The below graph shows how DB pension scheme obligations and equity holdings, as a proportion of market capitalisation, have changed since last year.

Fig.13 **DB obligations and equity holdings**



"On average, DB schemes saw their equity holdings reduce from 38% to 35% in 2014; meanwhile bond holdings (including government and corporates) increased marginally to around 42% (2013: 41%)"

Some of the year-on-year changes in the value of DB obligations and equity holdings observed in 2014 have been marked, representing a significant proportion of market capitalisation in a number of cases. Given the movement in bond yields at the end of 2014 it is not surprising that a greater proportion of December valuations have seen an increase in the value of the pension obligation as a percentage of market capitalisation (above the horizontal axes). It does again highlight the unpredictable nature of market conditions which have a sizeable impact on a company's finances.

The influence of low interest rates on DB deficits is well known at this stage. Furthermore, with interest rate rises predicted by the market already 'priced in' to IAS19 disclosures, even in the event that rising yields were to surpass current market expectations, the overall scale of DB obligations would remain challenging. We estimate that in the optimistic scenario of yields at the long-end of the curve rebounding to more than 0.5% p.a. above the level already anticipated by the market[13], the aggregate deficit for the FTSE350 would nearly halve in size, but still equate to around £33bn.

Historically the level of equities held by a DB scheme was seen as an indicator of the level of risk within the pension scheme. Over the last few years changes in the discount rate and inflation assumptions affecting the measurement of pension liabilities have also caused significant volatility in IAS19 funding levels. This is illustrated in the graph below.

Fig.14 **Impact of real yield risk on IAS19 funding level**

13 In this scenario, for simplicity we have assumed that the change in yields affects the value of fixed-income investments but not equities.

"Total net actuarial losses in 2014 were £15.6bn; this is twice the value of deficit contributions paid over 2014 by companies in our survey"

The graph shows that those schemes that have chosen to hedge a greater proportion of their interest rate risk are less exposed to the kind of fluctuation witnessed in 2014. Thus, we see that those schemes with a net actuarial gain from changes to real yields (on the right half of the graph) are less likely to be found in the bottom quadrant, as they are sufficiently well matched to avoid a worsening in their overall funding level.

Actuarial gains and losses, although not reported in a company's Profit & Loss account, are the main cause of change in the pension scheme liability disclosed on the balance sheet. Over the last 6 years annual actuarial gains and losses on assets and liabilities have on average resulted in a 6% annual movement in the equity position of FTSE350 companies. This shows the significant volatility that the pension scheme brings to a business.

For some companies the movements have been even more severe with 9 companies seeing actuarial gains and losses on average leading to changes in equity of more than 50%.

The below table shows how this metric has trended since 2009.

Fig.15

	2009	2010	2011	2012	2013	2014
Absolute movement in actuarial gains/losses as proportion of total equity	9.8%	4.7%	5.0%	5.7%	3.7%	4.6%

In 2014, actuarial gains and losses were larger than in the previous year which is not surprising given the level of volatility in the markets over the year. The total net actuarial losses in 2014 for companies in our study was £15.6bn; to put this in perspective, this is around 2.5% of the total funded DB pension assets of the FTSE350 or alternatively, over twice the value of deficit contributions paid over 2014 by companies in our survey.

The bulk annuity market

2014 was a very successful year for the UK bulk annuity market with over £13bn of bulk annuity transactions being completed – a new record. However, the number of transactions completed was actually lower than in 2013. The key driver for the record volume of business was a few very large transactions which were completed in 2014, notably the £3.6bn transaction completed by the ICI Pension Fund and the TRW Pension Scheme's £2.5bn partial buy-out. These transactions illustrated the continuing strong appetite of both insurers and reinsurers for pension risk transfer.

While activity for the first part of 2015 has been slightly more muted, influenced by an increase in pricing due to the fall in yields on gilts and corporate bonds, we would anticipate another robust year.

The opportunity for schemes which have already partly de-risked to exchange their low yielding assets, such as gilts, for a pensioner buy-in at little or no cost is likely to remain attractive. The general level of pricing volatility means that opportunities to transact may only be available for a short time, therefore it is important for schemes and employers to be well-prepared and to monitor pricing regularly if they wish to take advantage.

Medical underwriting, a rapidly growing area of the market, now offers an additional option for employers. The underlying principles of medical underwriting, allied to the desire of the specialist providers to establish their market presence, had led to some very competitive pricing being available. The development of 'top-slicing', where the highest liability pensioners are insured, has opened up the option to schemes of all sizes as evidenced by the deal with Taylor Wimpey for over £200m. This approach can provide a highly cost effective way of removing any concentration of longevity risk associated with the large liability members – in a recent 'top-slicing' case for the scheme of a global engineering firm advised by Barnett Waddingham we managed to complete the buy-in at no cost to scheme funding, and with pricing over 10% less than for a traditional transaction.

The 'pension freedoms' that came into force in April 2015, have also been positive for the bulk annuity market. The dramatic fall in demand for individual annuity policies has increased the focus on bulk annuities, with existing providers re-targeting their capital resources and others being encouraged to enter the market. The emergence of new providers, such as Scottish Widows, over the second half of 2015 should increase the levels of competition, resulting in lower prices.

Gavin Markham, Partner at Barnett Waddingham

"A partial buy-in or buy-out transaction represents an important part of the toolkit for any employer looking to progress their DB scheme's de-risking journey. Employers need to be alive to the opportunities and developments in the market, and ensure their scheme is in a suitable position to respond. For example, the use of medical underwriting, through a top-slicing approach, now offers a potentially cost effective way of removing risk for schemes of all sizes."

Regulatory risk - If European Regulators had their way – EIOPA's 'holistic balance sheet' for UK plc

EIOPA, which is the supervisory body for pensions in the EU, has been busy trying to engage stakeholders across the continent on the solvency of pension schemes.

In recent months, EIOPA has launched a quantitative assessment on the future shape of funding requirements for pension schemes, and alongside this a stress test to determine how sensitive pension Scheme Funding positions are to changes in market conditions and longevity. The stress test will look at how volatility in funding positions might impact on financial stability.

The stress test for DB schemes will be based on both the Scheme Funding basis and EIOPA's suggested 'holistic balance sheet' approach and will test the impact on schemes of two adverse market scenarios and one longevity scenario.

We have undertaken this stress test for the FTSE350 DB sponsors by estimating the impact of EIOPA's adverse scenarios on aggregate assets and liabilities. This is summarised below.

Fig.16 **National balance sheet (scheme funding)**

The baseline scenario sees an aggregate Scheme Funding shortfall of around £20bn as at 31 December 2014[14]. Under the Adverse Market Scenario 1, which relates to a so-called 'double hit' of falls in asset prices in developed economies and further falls in gilt yields[15], the Scheme Funding deficit would increase to approximately £200bn. In the Adverse Market Scenario 2, which also includes an increase in inflation due to higher oil prices, the Scheme Funding deficit would increase to nearly £210bn. In either case, this extraordinary level of deficit for FTSE350 DB sponsors would equate to around 10% of the market capitalisation of the FTSE350 index at the end of 2014. Although pension shortfalls would be one of a number of competing setbacks in either scenario, this would still represent a fundamental problem for UK plc. The scale of the issue would be such that DB deficits in such scenarios would even dwarf the aggregate profit before tax disclosed by DB sponsors in the FTSE350 in 2014.

The stress test also includes a scenario which sees the mortality rate fall by approximately 20% - this would lead to an increased deficit of £55bn for the FTSE350 sponsors.

The scenarios are intended to represent extreme adverse conditions. The probability of these shocks occurring is estimated to be less than 0.5% over a quarter. Still, the current challenging market conditions demonstrate that the unthinkable can happen and it is important that sponsors are aware of the risks carried by their scheme, and for which they will be ultimately responsible.

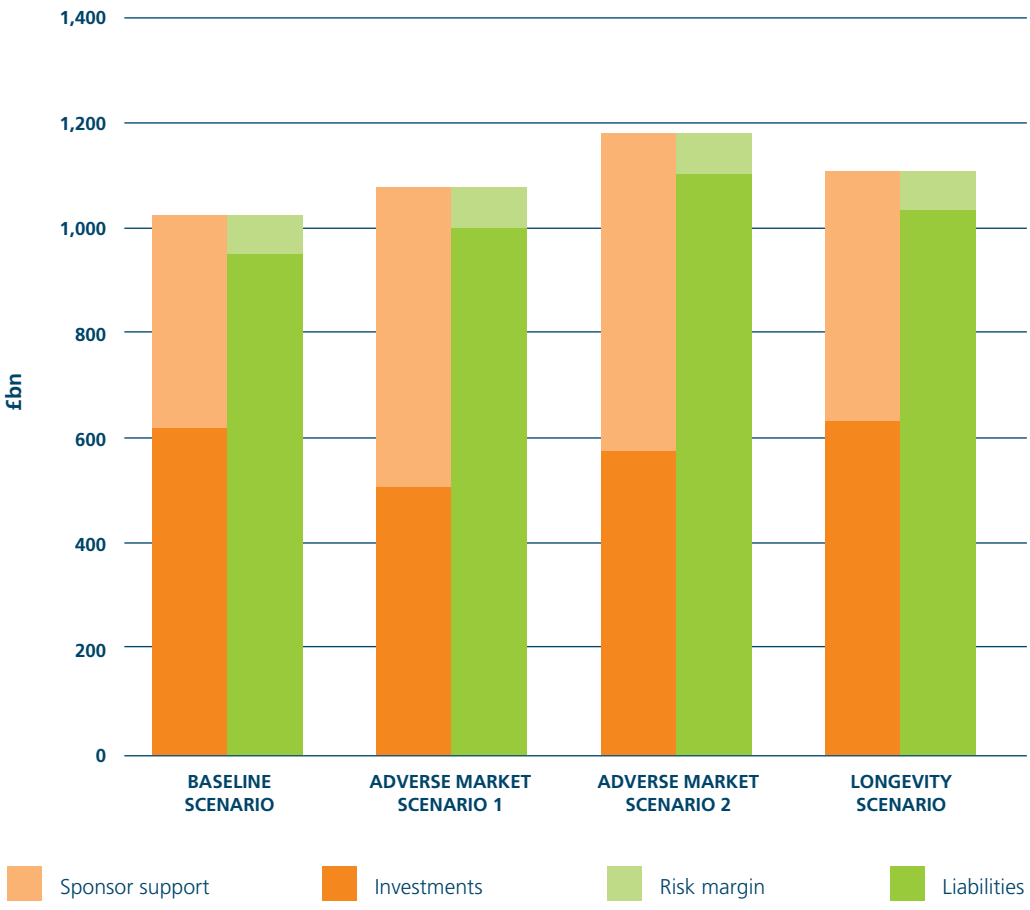
14 The Scheme Funding basis has been derived by taking the accounting liabilities at 31 December 2014 (which involves an approximate roll-forward from earlier in the year in some cases) and making general assumptions relating to each Scheme Funding basis, having regard to each scheme's disclosed asset allocaton, duration and key actuarial sensitivities.

15 Details of the shocks are set out in the European Systemic Risk Board's document "Scenarios for the European Insurance and Occupational Pensions Authority's EU-wide pension fund stress test in 2015", which is available at EIOPA's website: https://eiopa.europa.eu/financial-stability-crisis-prevention/financial-stability/occupational-pensions-stress-test

Indeed, the other aspect of EIOPA's work – the quantitative assessment – looks in detail at the sponsor's ability to support their scheme. Under the holistic balance sheet, the employer covenant will be quantified and included as an asset of the pension scheme. EIOPA are exploring a number of ways of doing this. The simplest, which will be available to the strongest employers, is to value sponsor support as the amount needed to make the holistic balance sheet 'balance' – i.e. the deficit.

Fig.17

Holistic balance sheet



Under the 'nuclear option', schemes could be required to value their liabilities using a 'risk-free' discount rate, and include a margin for risk. For the FTSE350 employers sponsoring DB schemes, we estimate the aggregate deficit – or sponsor support required – would be just over £400bn, a whopping increase of £380bn compared to the deficit under the current Scheme Funding regime. This represents around 20% of the market capitalisation of the FTSE350 index. Under the stresses, the deficit increases further still.

Based on the results of the quantitative assessment, EIOPA will consider what a future funding regime for pensions might look like – including how a deficit might translate into required contributions – and put recommendations to the European Commission. While the Commission has previously rejected the idea, in Europe it seems nothing ever goes away completely and there is a danger that a future Commission could revisit this. The impact on individual schemes and sponsors will vary widely and will be key to EIOPA's advice to the Commission. The UK is set to hold a referendum by the end of 2017 on whether or not to remain a member of the EU, so there is an outside chance that the UK will wave goodbye to all that. But based on the numbers suggested by our work, UK companies cannot afford to ignore this issue.

Impact on Profit & Loss account

"The average increase in employer contributions to DC schemes was 17% in 2014"

Service costs

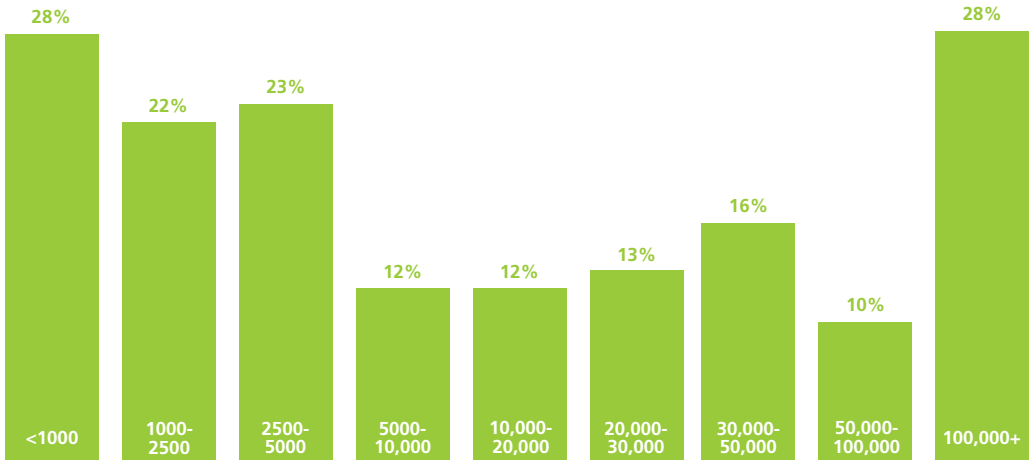
With DB schemes continuing to require high levels of deficit contributions, the cost associated with providing future pension provision remains under increasing pressure for companies in the FTSE350. The average annual cost of pension provision (including DC schemes) earned by employees has averaged around £2,600 per employee over the past 6 years.

With employers in the UK now having to comply with auto-enrolment, those companies in the FTSE350 with substantial UK workforces will have had to comply by enrolling staff in some form of workplace saving scheme if not already the case. In almost all cases, this would be expected to be a DC arrangement for new staff members. Thus, it is not surprising to see DC costs as a proportion of total staff costs increase once more in 2014 to 3.2% (2013: 2.9%; 2012: 2.7%).

The increase in DC employer contributions for the companies in our survey was pronounced. The average increase in employer contributions to DC schemes was 17% (2013: 22%). The average increases in the FTSE100 and FTSE250 were 15% and 19%, respectively.

When viewed by company size, the below graph shows that it was the smallest and largest employers who led the way in this regard. This represent another very substantial increase and auto-enrolment in the UK will have been a driving factor although this will also capture those companies who are closing to DB accrual and who are diverting members into DC schemes potentially for the first time.

Fig.18 **Annual increase in DC service cost**

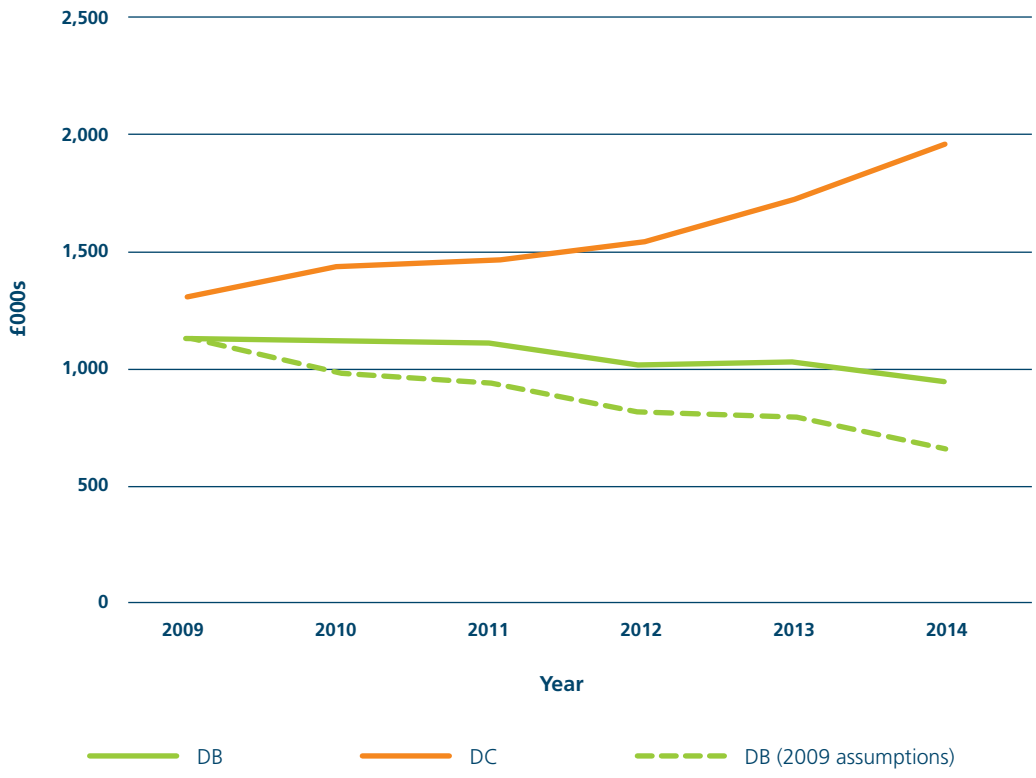


"As DB schemes are already closed to new members and continue to close to accrual, DC provision has become the mainstay for the bulk of future benefits earned."

It is no surprise that DB and DC pension service costs are continuing to diverge. As DB schemes are already closed to new members and continue to close to accrual, DC provision has become the mainstay for the bulk of future benefits earned.

The graph below shows how future service pension costs have moved over the past 6 years. The amount paid into defined contribution arrangments has picked up significantly from 2012 onwards. It also shows the decline in DB provision although it has been partially propped up by the increasing cost of providing DB accrual (illustrated by the gap between the solid and dashed green lines).

Fig.19 **Service cost per employee**



Appendix

All data taken from company accounts published in the year up to and including 31 December 2014. Where comparisons are made with previous years, these are taken from the 2010, 2011, 2012 and 2013 accounts.

Market sector classifications are based on the Global Industry Classification Standard taken from Osiris database.

Fig. 1, 2, 4: Aggregate deficits calculations include unfunded liabilities.

Fig 4 - 8: Deficit contributions approximated by subtracting disclosed service cost (in respect of future pension provision) from the amount of contributions being made into the DB pension scheme. A number of companies are excluded which do not pay deficit contributions based on this method in the relevant years.

Fig 7: Ongoing contributions assumed to equal disclosed DB service costs plus contributions paid into DC arrangements.

Fig 8: Dividend paid calculated as the net dividends paid (dividends paid less dividends received).

Fig 9: 15 companies with a negative average net operating cashflow are excluded.

Fig 10, 11, 13: Market capitalisation recorded at earnings publication date of each company.

Fig 12: Gearing ratio calculated using disclosed long term liability as a proportion of equity plus long term liability. Gearing ratio ignoring the pensions scheme calculated by removing the DB scheme deficit as a long term liability.

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European companies with UK defined benefit schemes

The costs and risks associated with UK DB pension schemes are well known within the industry. With unprecedented changes to occupational pensions in the UK and with further changes in the pipeline, the need for European parent companies of UK subsidiaries with DB schemes to manage these risks has become ever more important.

We publish annual European company surveys that aim to provide parent companies with a useful benchmark of the UK pension exposure against other European-owned companies.

In most cases the parent companies in our surveys are leading players in their industries and are able to absorb reasonably substantial pension costs. However, the impact upon performance and return on investments of the UK subsidiary companies can be more pronounced. Comparisons of these subsidiaries against other UK companies without legacy DB pension liabilities, especially on a cash basis, could be heavily influenced by the pension related costs and cash contributions.

Our reports analyse the contributions paid, levels of deficit and levels of risk within the schemes.

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