Asset Management

Global Portfolio Solutions

July 2017

Trouble Beneath the Surface

2016 Review of FTSE 350 Defined Benefit Pension Schemes

Executive Summary

- On aggregate FTSE 350 companies' UK pension schemes held up reasonably well in 2016. This was despite material declines in interest rates and elevated uncertainty driven by political events.
- Our analysis highlights that, while the aggregate picture represents a fairly benign outcome overall, there is a very significant variation between outcomes of large schemes compared to smaller schemes. This polarisation of outcomes was largely driven by hedging and governance arrangements. Now, more than ever, we believe individual UK schemes are likely to be in very different funding positions.
- Trustees face the same concerns of meeting their long-term funding objectives. Emerging challenges will make this more difficult. We highlight three new challenges that warrant particular focus for trustees to successfully navigate in the coming years:

  Challenge 1: Generating returns in an uncertain world

  Challenge 2: Positioning portfolios to meet schemes' growing cashflow requirements

  Challenge 3: The "Pensions Debate"

GSAM's Annual UK Pension Review

Our global team of pension strategists has been conducting annual pension research for over 15 years.

For the UK, we perform a comprehensive review of the defined benefit (DB) pension schemes of every company in the FTSE 350 based on information provided in their annual report and accounts.

In this, the fourth edition for the UK, we start by looking back at how schemes have fared during what was a turbulent 2016 and highlight the most notable trends that have influenced schemes' outcomes over the past year. We then discuss some of the key investment and governance challenges we see facing pension scheme trustees over the coming years.

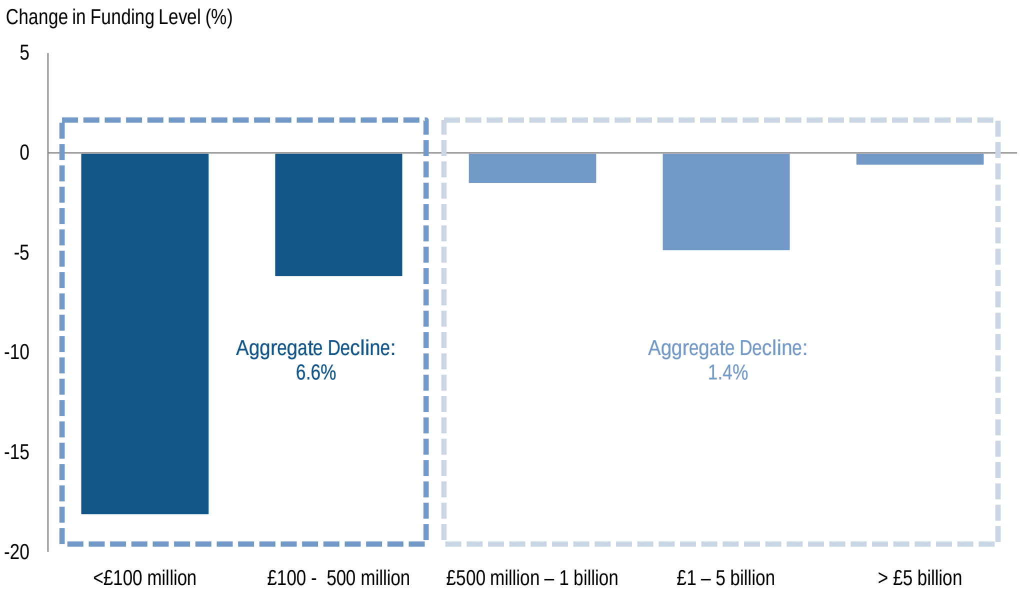
Much of the analysis in this paper focusses on changes in the accounting funding position for schemes which is typically valued by reference to AA-rated UK corporate bond yields. However, we feel many of the conclusions drawn can be meaningfully extrapolated to other liability measures such as Technical Provisions and "Self-sufficiency" measures that many trustees rightly focus on.

Following this publication, we intend to conduct further research into these challenges, and publish our findings in separate papers over the coming months.

Key Findings

- The aggregate funding level of FTSE 350 schemes declined 1.5% in 2016.
- Many schemes suffered due to the dramatic decline in real and nominal yields in 2016, despite strong growth asset performance and a potential boost from the weakening of Sterling over the year.
- Compared to recent years, we observed a much wider range of funding level movements in 2016, with over 40% of schemes suffering a funding level decline of 5% or more.
- Most notably, smaller schemes suffered to a much greater extent than larger schemes over the year, indicating that it is a challenge for smaller schemes to manage risk effectively.
- On aggregate, schemes with less than £500m of assets suffered a 6.6% deterioration in funding level, compared to a 1.4% decline for schemes with more than £500m of assets.
- FTSE 350 schemes continue to appear affordable on the whole, despite a large increase in liability values over the past few years.

Exhibit 1: Dispersion of Funding Level Changes Over 2016 by Scheme Size



Source: GSAM, Company Annual Reports.

Against this backdrop, trustees need to understand the impact that 2016 had on their scheme and ensure they are clear on how they are aiming to meet the challenges they face, both old and new, in the coming years.

2016: A Year of Hidden Dispersion

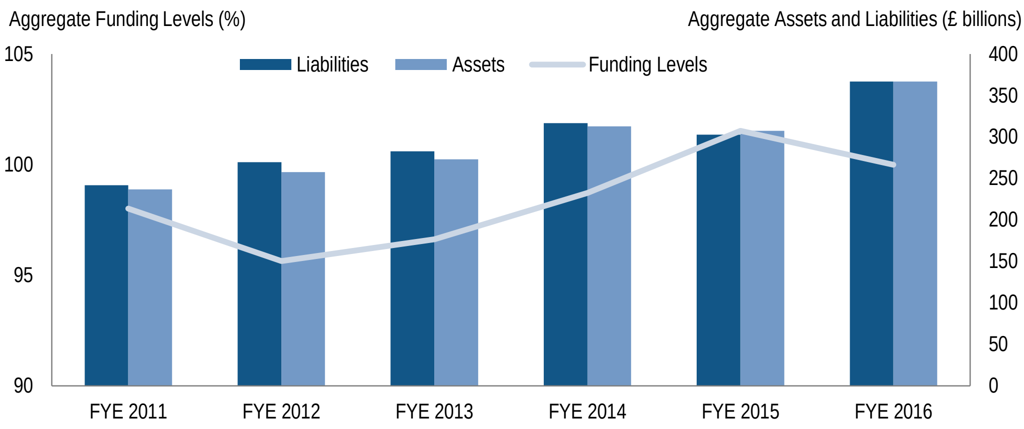
2016 was a year characterised by significant market movements, unexpected events and growing dispersion between schemes. We have observed that:

1. FTSE 350 scheme funding levels held up surprisingly well in aggregate…
2. …But many schemes, in particular smaller ones, underperformed the aggregate materially.
3. Despite this, FTSE 350 pension schemes appear affordable on average.

1. FTSE 350 Scheme Funding Levels Held up Surprisingly Well in Aggregate

Given the turbulence and uncertainty in markets in 2016, one might have expected to see a marked decline in scheme funding levels over the year. In reality, the outcome was relatively benign, with the aggregate FTSE 350 scheme funding level falling 1.5% over the year, albeit accompanied by a significant increase in asset and liability values. In fact, this trend has now persisted for some time as demonstrated by Exhibit 2 below. Over the past five years, the aggregate FTSE 350 scheme asset and liability values have grown by over 50%, however funding levels have been very stable, close to the 100% funded mark.

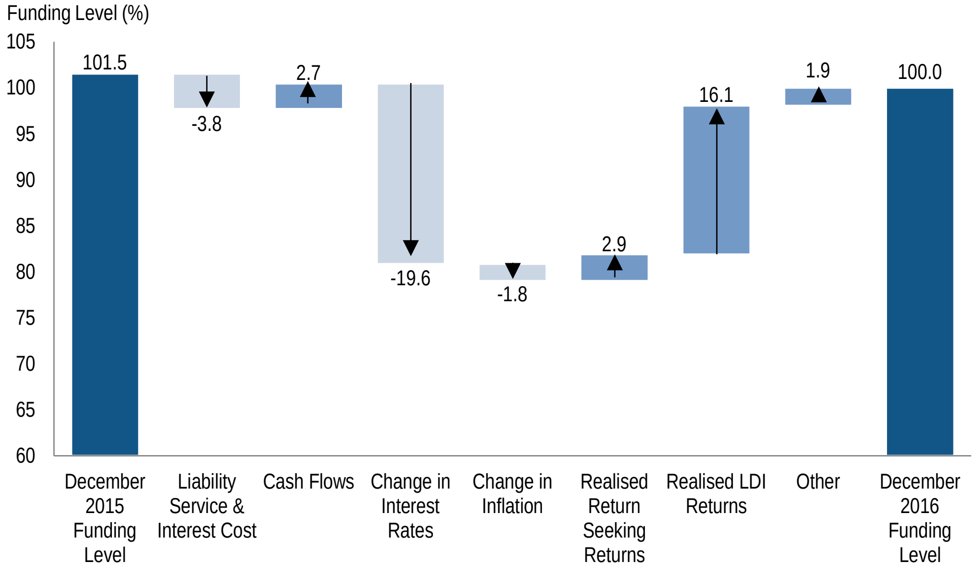
Exhibit 2: Stable Funding Levels, Despite a Large Increase in Liability Values



Source: GSAM, Company Annual Reports.

Exhibit 3 below sets out the drivers of the aggregate funding level change for FTSE 350 companies with December year ends through to December 2016:

Exhibit 3: Attribution of Aggregate Funding Level Change for FTSE 350 Companies (December FYE)



Source: GSAM, Company Annual Reports.

There were three main drivers of funding level change over the year:

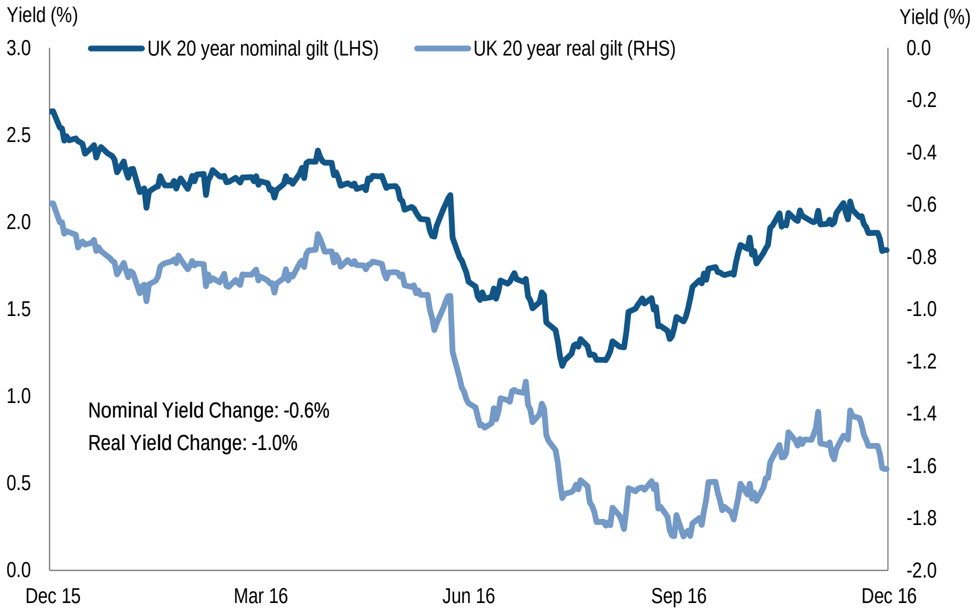
1. **A Dramatic Fall in UK Interest Rates:** UK long-dated government bond yields fell by over 1% in 2016, primarily in the latter half of the year, reaching the lowest levels ever seen in October 2016 as shown in Exhibit 4 on the following page. This fall in yields, sparked by the UK Referendum on EU membership, had a profound impact on the value of pension scheme liabilities, increasing the aggregate liability value of FTSE 350 schemes by over 25% in 2016.
2. **A Firm Year for Growth Assets:** Despite political uncertainty, global equity markets had a strong year overall, with returns of over 9%[1]. On average, we estimate that growth assets contributed nearly 3% to FTSE 350 companies' scheme funding levels[2]. These growth assets, however, could not keep pace with the increase in scheme liabilities.
3. **Sterling Weakness:** The other major change affecting UK pension schemes in 2016 was the dramatic depreciation in the value of sterling in the wake of the UK referendum. Sterling fell over 15% against the US dollar between May and October 2016, generating significant positive returns for UK pension schemes with unhedged investments held overseas. This potential one-off windfall acted as a much needed boost for many schemes.

[1] Returns show for MSCI World Global Developed Index hedged into GBP.

[2] The figures published here are estimated and unaudited as of 31 December 2016, and are subject to potentially significant revisions over time. Actual returns may vary significantly from the performance information presented above.

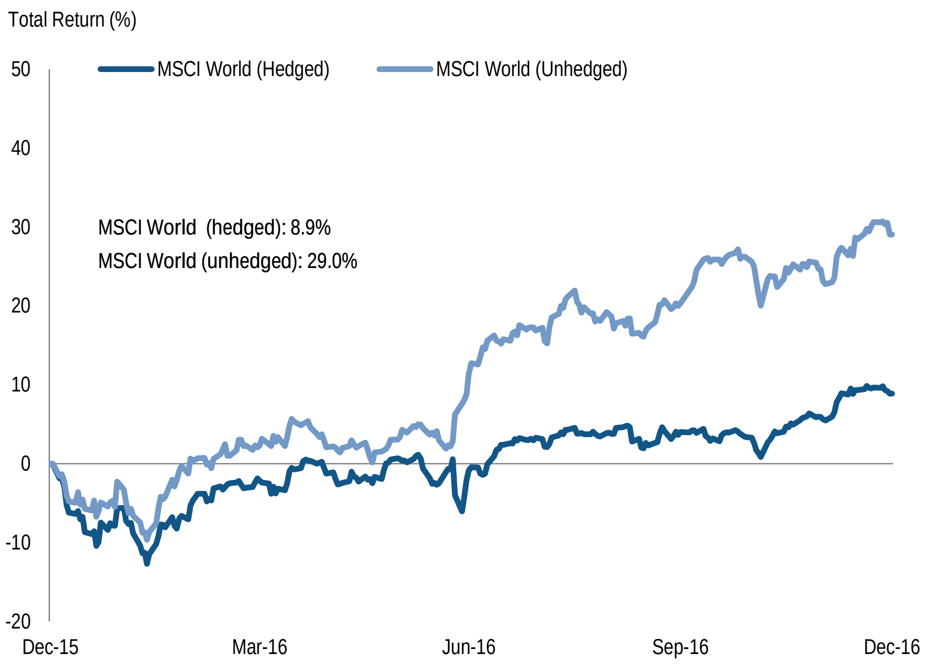
Exhibit 4: 2016 Market Movements

UK Interest Rate Movements



Source: GSAM Plottool. As of 31 December 2016.

Global Equity Performance

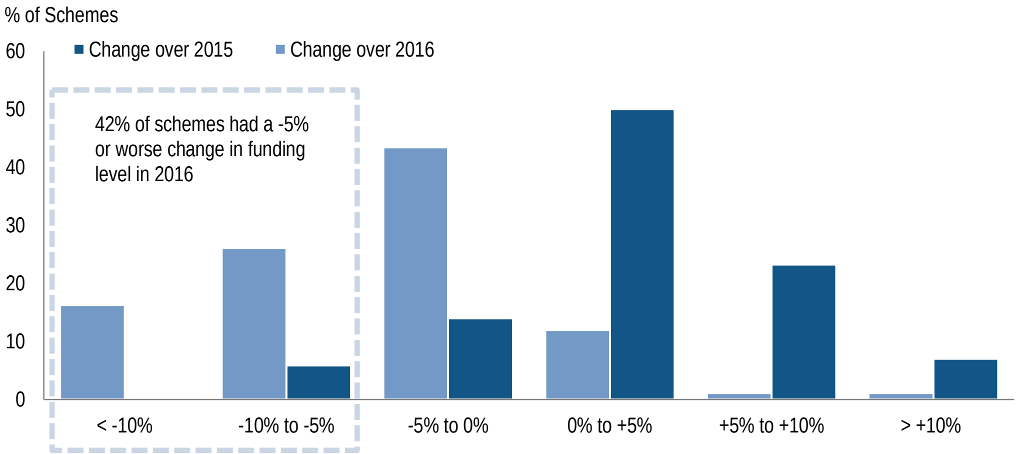


Source: GSAM Plottool. As of 31 December 2016.

2. Many Schemes, in particular smaller ones, Underperformed the Aggregate Materially

While the average UK pension scheme fared relatively well in 2016, there was a wide range of outcomes among individual schemes. Portfolios were impacted in a variety of ways based on the way their portfolios were positioned from a risk management standpoint, in particular in their interest rate, inflation and currency hedging positions. Around 40% of schemes saw a fall in funding level of 5% or more, while around 15% of schemes realised a decline in funding level of 10% of more as shown in Exhibit 5 below.

Exhibit 5: Schemes Experienced a Wide Range of Outcomes

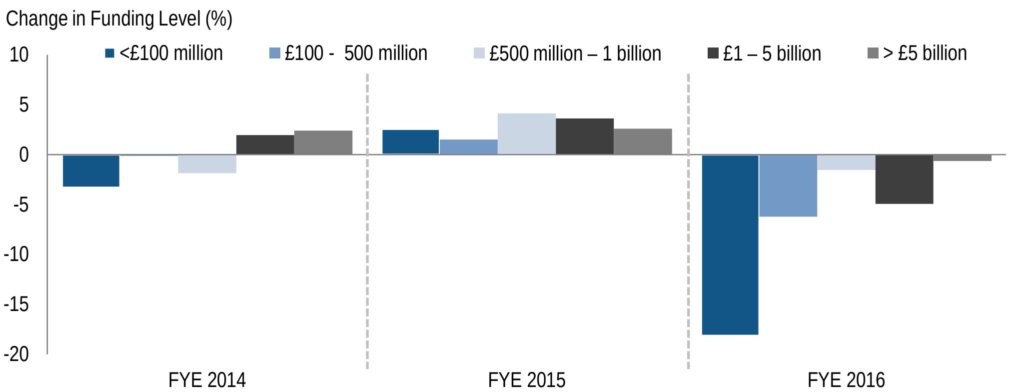


Source: GSAM, Company Annual Reports.

We believe this highlights the importance of careful risk management for pension schemes[3]. Trustees should aim to achieve persistent, stable and positive returns rather than rely on a few concentrated exposures to close their funding gap.

The theme of wide variation in funding levels is even more remarkable when analysing schemes of different asset sizes. As highlighted in Exhibit 6, there was little differentiation in funding level change by scheme size in 2014 or 2015. However, in 2016, schemes with less than £500m of assets realised an aggregate 6.6% deterioration in funding level, compared to a 1.4% decline for schemes with more than £500m of assets.

Exhibit 6: Smaller Schemes Suffer the Most During Periods of Stress



Source: GSAM, Company Annual Reports.

We believe the poor performance of smaller schemes is indicative of the governance challenges associated with trying to manage risk and implement a sophisticated investment strategy with limited resources and scale of assets. While in the more benign market conditions experienced in 2014 and 2015 the gap was relatively small, the difference is notable in a year of significant uncertainty and unexpected outcomes.

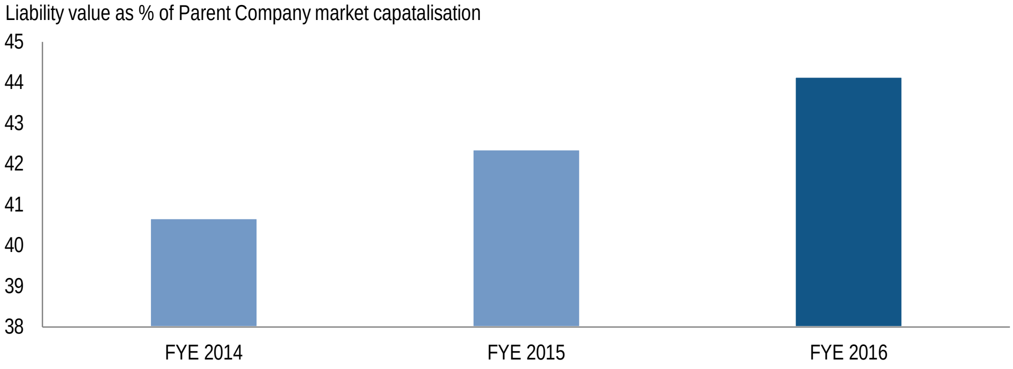
[3] The portfolio risk management process includes an effort to monitor and manage risk, but does not imply low risk.

We note that the FTSE 350 universe of pension schemes is not representative of the broader universe of UK schemes – a universe in which 85% of schemes have assets of less than £500m. As such, now more than ever, we believe schemes across the UK are likely to be in very different funding positions.

3. FTSE 350 Pension Schemes Appear Affordable on Average

Our final theme assesses how the affordability of pension schemes has progressed in recent years. Exhibit 7 below shows how schemes have grown relative to their corporate sponsors in recent years:

Exhibit 7: FTSE 350 Schemes Represent a Growing Burden on Sponsors



Source: GSAM, Company Annual Reports.

It is crucial for pension schemes that the sponsor company is able to support the scheme and it is a fundamental consideration for trustees when setting the investment strategy – a sentiment echoed by the Pensions Regulator in recent comments.

Highlights From the Pensions Regulator's 2017 Annual Funding Statement[4]:

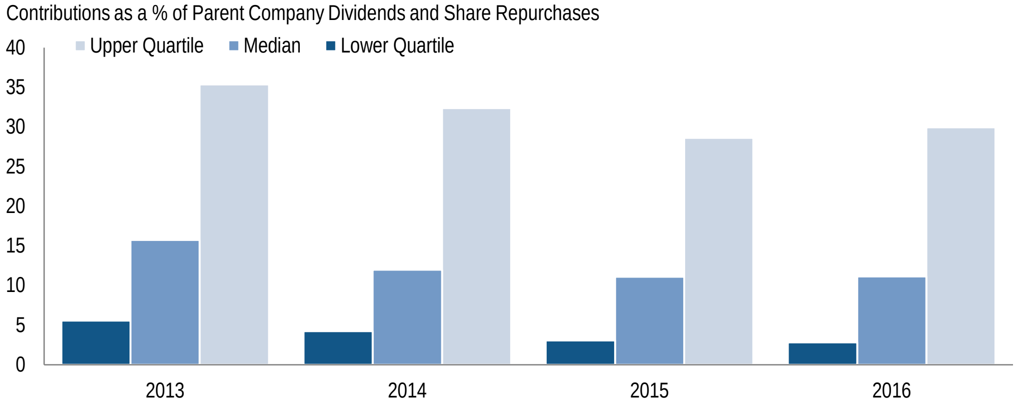
1. "Trustees should focus on the ability of the employer to contribute cash to the scheme while there remains good visibility of covenant."
2. "We expect schemes where an employer's total distribution to shareholders is higher than deficit reduction contributions being paid to the pension scheme to have a relatively short recovery plan and that the recovery plan is underpinned by an appropriate investment strategy that does not rely excessively on investment outperformance."

Whilst the outright size of a scheme relative to the sponsor is important, the ability of the sponsor to provide cash to fund contributions for the scheme is more crucial.

On this front, our analysis suggests that UK pension schemes continue on average to be affordable for sponsors. Exhibit 8 on the following page shows total pension scheme deficit reduction contributions paid by FTSE 350 companies expressed as a proportion of total company expenditure on dividends and share repurchases.

[4] http://www.thepensionsregulator.gov.uk/docs/db-annual-funding-statement-2017.pdf

Exhibit 8: Pension Schemes Continue To Be Affordable Despite Growing Deficits



Source: GSAM, Company Annual Reports.

On average in 2016, for every £100 paid out by FTSE 350 companies, around £90 was returned to shareholders through dividends and share repurchases, and £10 was put in to the pension scheme. Since 2013, this chart shows a downward trend, suggesting pension scheme contributions have become a decreasing burden on companies over this period. As highlighted on the previous page, this is an area of focus from the Pensions Regulator for schemes with upcoming valuations.

Following the increase in deficits that UK schemes have experienced in 2016, we believe we may see an increase in future contributions for schemes currently going through their triennial actuarial valuation.

Another Year Gone, Same Old Challenge

As we have highlighted in previous years, stagnating funding levels represent a familiar challenge for UK pension schemes. Even if funding levels remain unchanged over the course of a year, this can still have a meaningful impact on the likelihood of a scheme meeting its funding goals.

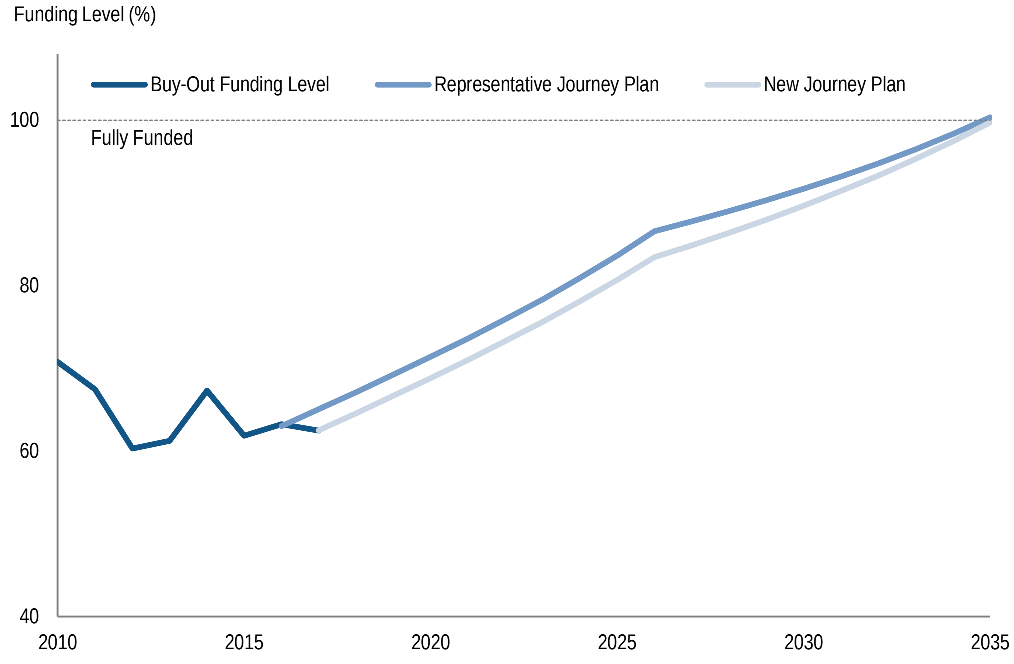
In Exhibit 9 below, we consider how the average UK pension scheme's estimated "buy-out" funding level has changed during 2016 (i.e. an approximate measure of how close a pension scheme is to a position in which the scheme could be transferred to an insurer).

In March 2016, the aggregate buy-out funding level for the combined nearly 6,000 UK schemes was 63%. From this position, a combination of 10 years of sponsor contributions and investment returns of gilts + 2.0%p.a. would have allowed full funding in 20 years – this is not atypical of the type of "Journey Plan" many trustees use to manage their schemes.

We estimate that over the twelve months to March 2017, the average self-sufficiency funding level fell by around 1%, leaving schemes around 3% behind the plan as funding levels were expected to improve[5]. In order to correct for this, we believe there are three main actions trustees can take:

- **Accept a Longer Time to Achieve Full Funding:** As a result of the 1% decline over 2016, the expected time until full funding extends by around 5 years.
- **Request Additional Contributions:** In order to bring the total UK pension scheme universe back on track, a cash injection of £80 billion would be needed, equivalent to around 4% of UK GDP.
- **Seek Higher Investment Returns:** An extra 0.4% p.a. of investment returns would be needed, roughly equivalent to a 10% higher allocation to return seeking investments.

Exhibit 9: 2016 is Likely to Have Caused Many Schemes to Fall Behind Their Journey Plans



Source: GSAM, PPF Purple Book.

Against this backdrop, we believe trustees should take the time to understand the effect that 2016 had on their journey plan and, where necessary, ensure the correct levers are deployed sooner rather than later to help guide their scheme back on track.

[5] The figures published here are estimated and unaudited as of 30 June 2017, and are subject to potentially significant revisions over time. Actual returns may vary significantly from the performance information presented above.

Old Challenges Exacerbated by New

We see three new challenges that we expect trustees to face over the coming years. We believe these warrant particular focus from trustees so they can refine their investment strategies to suit an evolving economic and regulatory environment.

Challenge 1: Generating Returns in an Uncertain World

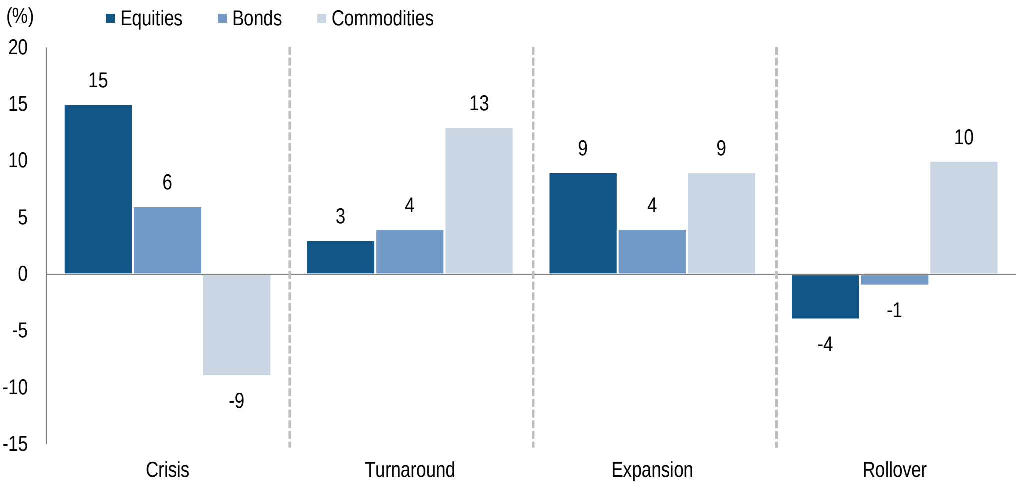
While geopolitical events in 2016 gave rise to a challenging year for UK pension schemes, the broad global economic environment has been relatively benign and we expect this to continue for the next few years. We believe the majority of developed nations are in the expansionary phase of the economic cycle, and anticipate a period of the most synchronised global growth we have seen since 2010.

We do not, however, expect this stable economic picture to continue indefinitely. See Exhibit 10 below, in which we have illustrated the economic cycle as defined by four distinct phases. As can be seen, markets have performed differently historically during each phase.

We believe the US economy is in the latter stages of the "expansion" phase of the economic cycle. Since entering the expansion phase in 2011, equity markets have already generated very strong returns of over 90%[6]. The room for further increases may be modest.

Furthermore, we believe we may start to see the US economy move in to the "rollover" phase of the economic cycle within the next 2-3 years, which has historically been characterised by higher volatility and poor performance from risk assets. This situation is alarming given many schemes have not experienced the healthy improvement in funding levels that would typically be expected during the expansionary phase of the cycle, as a result of the significant fall in interest rates over this period.

Exhibit 10: Historically Asset Classes Have Had Lacklustre Performance During the "Rollover" Phase



Source: GSAM, Haver Analytics.

[6] MSCI World 50% hedged to GBP.

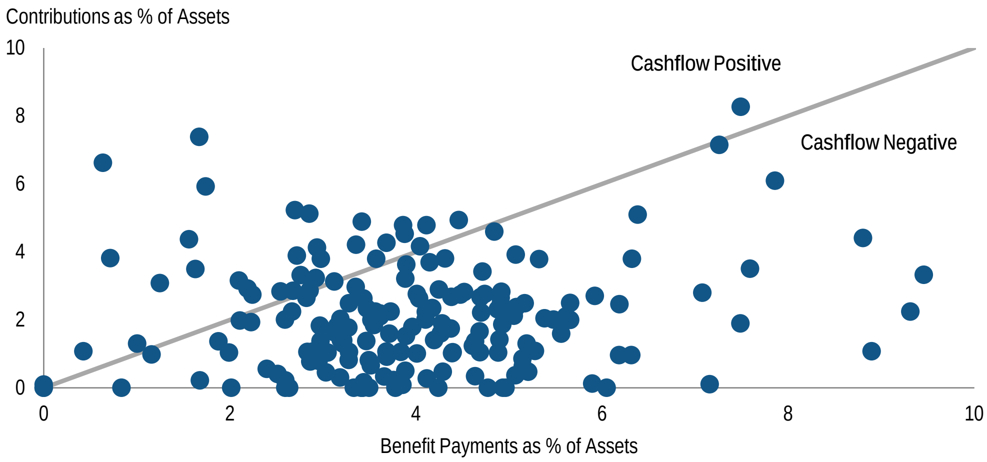
We believe trustees should focus on the following areas to help navigate the coming years:

- **Ensure Overall Risk Exposure is Appropriate:** With the potential for volatility and future drawdowns, trustees should ensure that the overall level of risk is set appropriately in order to meet their long-term objectives, taking into account company covenant and the impact of potential downside funding level scenarios.
- **Ensure Hedging is Appropriate:** A key source of risk for pension schemes is interest rate and inflation risk. By ensuring these are managed appropriately, schemes may be able to free up risk budget to be "spent" on areas of the portfolio that are expected to generate additional returns. Additionally, schemes that haven't traditionally hedged currency exposure may benefit from locking in the potential one-off windfall gains from sterling's depreciation over 2016 by increasing hedging of overseas currency exposure.
- **Diversify Market Exposures:** Investing in assets that are less sensitive to market downturns is an effective tool for managing risks. We advocate a "risk factor" approach to portfolio construction, which seeks to look past traditional asset class allocations to the underlying drivers of risk and return (corporate growth, behavioural biases etc.). We believe this approach avoids unintended concentrations of risk resulting in a more diversified and robust portfolio.
- **Look to Alternative Sources of Return:** Given limited expected gains from traditional markets, we believe alternative sources of return offer the opportunity to help schemes generate steady positive returns with reduced exposure to negative outcomes if traditional markets perform poorly.
- **Adopt a Dynamic Approach:** At GSAM, we employ a "cycle aware" investment framework which seeks to adjust portfolio positioning as the economic cycle evolves. This process places as much emphasis on managing risk as with identifying return opportunities. At the current stage of the cycle we believe a dynamic approach can be particularly effective, as we anticipate a period of modest upward movement in markets, but increasing volatility, providing opportunity to add value.

Challenge 2: Positioning Portfolios to Meet Schemes' Growing Cashflow Requirements

As closed pension schemes mature, they experience an increasing requirement to pay out benefits to members. When these outgoing payments exceed any incoming contributions, a scheme is "cashflow negative". In 2016 over 79% of the FTSE 350 schemes were in this cashflow negative position, and this is only expected to become a more persistent issue as schemes mature; we estimate that within five years, nearly 90% of FTSE 350 schemes will be in this position.

Exhibit 11: Increasing Number of Cashflow Negative Schemes

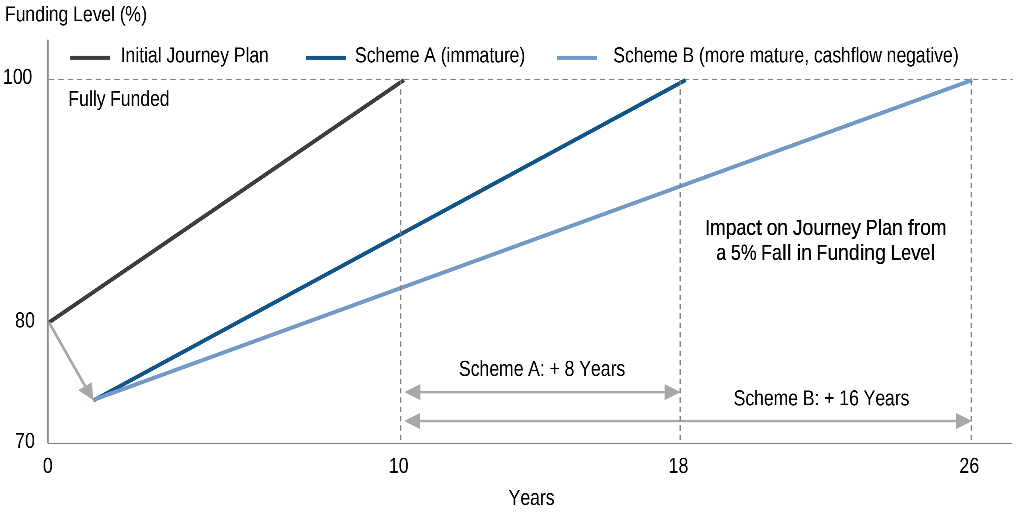


Source: GSAM, Company Annual Reports.

This transition from a cashflow positive to a cashflow negative position has a profound impact on the investment arrangements of pension schemes:

Investment Strategy: The need to pay out benefits increases the returns that schemes must generate if they are to meet all benefit obligations. This means that more mature, cashflow negative schemes are more sensitive to adverse outcomes than less mature schemes. To illustrate this, Exhibit 12 below compares two schemes, both in a very similar initial position, but differing in that "Scheme A" is very immature, while "Scheme B" is more mature. Both Schemes have a Journey Plan designed to achieve full funding within 10 years. We have then demonstrated the impact on the expected time to achieve full funding, arising from a 5% sudden fall in the funding level of both schemes. All else being equal, Scheme A will take an additional 8 years to achieve the Journey Plan goal, whereas Scheme B will take an addition 16 years due to the impact of being more cashflow negative.

Exhibit 12: More Cashflow Negative Schemes Are More Susceptible to Funding Level Shocks



Source GSAM.

As a result of this cashflow impact, more mature schemes need to consider how to make sure they are able to meet benefit payments in future years without adversely impacting their funding position. Additionally, it is important to review the cashflow position regularly, particularly following material events such as Enhanced Transfer Value exercises, to ensure the investment strategy remains appropriate to generate the required levels of return. Trustees should therefore ensure they have a suitable governance model to monitor the investment strategy effectively.

Implementation: The need to invest scheme assets in such a way that they can be easily realised to meet cashflow needs without unwanted side effects is an important question, and one that most schemes have not previously had to consider. We see three primary approaches available to trustees in order to achieve this:

- **Rebalancing:** Cashflows can be used as an opportunity to rebalance the portfolio towards a long-term target allocation. Through this approach, investments that are overweight relative to target are sold, and the proceeds used to meet benefit payments. This can be an effective approach, albeit governance intensive, requiring detailed understanding and information of portfolio positioning. This may be appropriate for modestly cashflow negative schemes.
- **Distributing Shareclasses:** By holding investments that distribute income (such as dividends) rather than reinvesting it in the fund, schemes can generate an income stream without the need to sell investments and incur costs. This is a cost-effective approach, but bears additional risks and considerations, particularly if distributed income is meaningfully higher than the required benefits payments.
- **Cashflow-Matching:** Designing a portfolio explicitly to meet near-term cashflow requirements as part of a liability-matching solution can be an effective way for cashflow negative schemes to meet their needs in an accessible way. A thoughtful cashflow-matching portfolio can increase the likelihood of meeting pension payments, while offering an attractive expected yield to help achieve a scheme's required asset growth. This approach may be particularly useful for schemes that are, or expect to be in the near future, significantly cashflow negative.

Making the best use of trustee governance to align portfolios with cashflow requirements is expected to be an area of great focus for UK pension scheme trustees, with the Pensions Regulator commenting on trustees' need to address the area.

Challenge 3: The "Pensions Debate"

In recent years the regulatory and industry environment has added to the complexity of managing a pension scheme. Over 2016 we saw the impact of Brexit, and several high profile stories push UK DB pensions to the forefront of media and industry discussion. Against this backdrop, trustees are faced with the challenge of cutting through speculation and rhetoric to understand how they should learn from the past and the potential impact of future regulation on their schemes. We see three key areas of focus for trustees:

Contributions and Affordability: The impact of the Brexit vote on UK schemes' deficits triggered a significant debate on affordability of UK schemes, bringing to the boil many discussions that have simmered for several years. We categorise the main points under the following headings:

- **Contributions**: Are UK schemes receiving enough contributions or a large enough share of profits earned by the sponsor? Certainly this is an area of focus for the regulator, however, we note that while the affordability of FTSE 350 schemes appears reasonable on several measures, this may not be indicative of the case for many other UK schemes.
- **Change the System**: Is the current way of measuring liabilities and funding schemes appropriate? Should schemes who are long-term investors really be subjected to the vagaries of daily yield and market movements or can the "actuary's magic pencil" ease the funding issue facing many schemes? This is an area of significant debate with precedent that could be adapted from other countries. We believe that schemes should focus on the security of making benefit payments and ensure that funding discussions focus on how this is to be achieved now and over the long-term.
- **Changing the Rules**: Are pensions promises from the past too generous and should schemes be able to change the rules? This is particularly of note for schemes caught on the wrong side of historical legal wording, ensuring benefits must be linked to RPI inflation rather than offering the potential to move to the typical lower rate of CPI inflation. Additionally, should schemes where the sponsor is in distress, be able to amend benefits?

Member Protection: The impact of corporate action on member benefit security has been an area of significant focus over 2016 as a number of high-profile cases made the headlines. Of key interest for trustees will be whether the new UK government seeks to provide enhanced powers to the Pensions Regulator to scrutinise corporate action. The Conservative manifesto certainly set out strong wording pointing to the potential for new legislation, but the exact structure and timing of any new powers is uncertain and no mention of upcoming legislation was noted in the recent Queen's speech[7].

Assessing Value: A growing focus for many schemes has been ensuring value is gained at each stage of the process from receiving advice, to investing, and managing scheme assets. This focus has been significantly enhanced following the publication of the FCA's review of the asset management and consulting industry. A potential focus is on the value added from strategic asset allocation advice – an area that has typically not been considered by trustees but which is of critical importance. As the line between consultants and asset managers continues to blur, we believe the adoption by consultants of asset management techniques for displaying added value in a clear and transparent way can only be a beneficial development.

[7] https://www.gov.uk/government/speeches/queens-speech-2017.

Conclusion

2016 was a year that exposed each scheme's approach to risk management. While some schemes performed well, assisted by careful liability risk management and a potential windfall from the weakness of the sterling, others experienced a meaningful deterioration in funding position.

We believe that scheme funding positions are more differentiated and we encourage trustees to take the time to understand how their schemes have been affected by significant market movements, changes to sponsor covenants and the impact to their scheme's long-term strategic objectives.

On aggregate FTSE 350 funding levels have improved very little over the past five years, despite the global expansionary environment and strong returns from many asset classes. With the prospect of higher volatility to come, we believe it is important that trustees have a clear plan as to how to navigate the coming years including:

- An asset allocation approach exploiting a range of sources of return.
- A robust risk management framework to understand, monitor and manage the scheme's risk exposure.
- A governance model that facilitates nimble decision-making to help navigate the expected volatile environment ahead.

In the coming months we intend to conduct further research into each of the specific challenges trustees face and publish our findings in separate papers.

Appendix

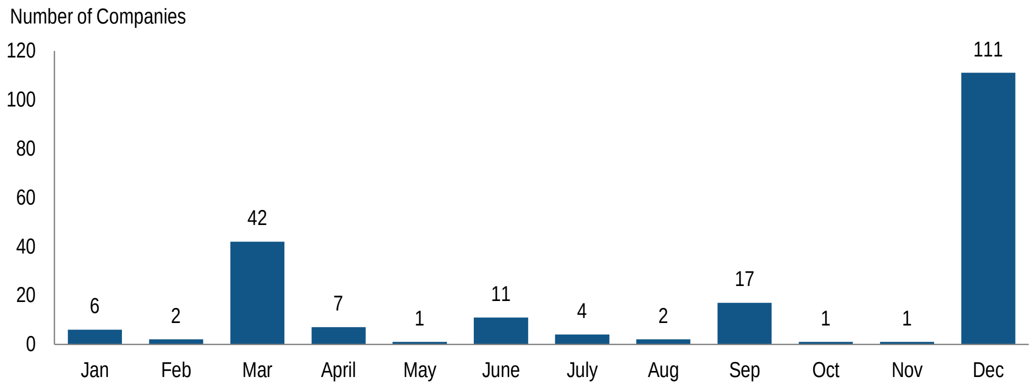
Explanation of Analysis

For our annual review of the UK DB pension market we use the FTSE 350 companies' annual reports to source our data. Our aim is to collect as much information about the UK DB pension schemes of these companies as possible. Although there is some variation across companies in terms of level of specificity and month of Fiscal Year End (FYE), we believe there is sufficient commonality across data and a large enough dataset such that the data is robust enough to analyse trends.

At a minimum, we collect asset and liability values, discount rates, service and interest cost, benefit payments, contributions, asset allocation, asset returns, and mortality assumptions. In addition, many companies disclose whether the pension scheme(s) are open or closed to new entrants or future accrual, assumptions for future inflation, and sensitivity of the liabilities to changes in the inflation assumption or discount rate. Finally, although some companies disclose more granular information about their asset allocation, we have captured the most common categorisations: debt, annuities, equities, real estate, cash, and "other."

The majority of the companies in our research have a December FYE (see Exhibit 13). Throughout this report, at times we use the full data set of companies despite the differing FYEs, and at other times we will limit our analysis to just those companies with a December FYE. In either case we disclose which data set is used.

Exhibit 13: Number of Companies by Month of FYE



Source: GSAM, Company Annual Reports.

Measuring Liabilities and Defining Funding Goals

There are several bases for measuring the liabilities of a UK DB scheme, each of which may be appropriate for different purposes when managing the pension scheme.

The **accounting basis** is used to demonstrate the impact of the pension scheme on the corporate sponsor's balance sheet and income statement. The basis typically uses a high quality corporate bond yield or yield curve to discount the liabilities. Trustees may wish to consider the sponsor's perspective and impact on accounting measures when consulting on investment strategy and negotiating contributions when underfunded. In addition, the accounting measure may be particularly relevant for pension schemes where their corporate sponsors have additional regulatory considerations, such as financial institutions which must perform stress tests on their balance sheet. The challenge with the accounting basis is that schemes need to invest in a portfolio of high quality corporate bonds when fully funded, in order to maintain full funding, which may result in concentrated portfolios.

The **technical provisions basis** is used to negotiate sponsor contributions as part of a recovery plan when the scheme is underfunded on this measure, and is a moderately prudent estimate for the amount of assets needed to be pay future benefit payments. The technical provisions basis grants advance credit for future investment returns from the portfolio, implying that at least the assumed level of investment returns must be generated on average throughout the remaining life of the scheme if all benefits are to be paid. This implies that the scheme may not be able to significantly de-risk when 100% funded on a technical provisions basis and maintain the fully funded position without the need for additional contributions.

Therefore, many schemes set a longer-term, more secure funding goal. A **self-sufficiency basis** measures the level at which a scheme could fully de-risk the portfolio and still expect to pay member benefits as they fall due with minimal reliance on the sponsor. For this basis liabilities are typically discounted using the yield on UK government bonds, which reflects the assumption that, when fully funded on this measure, assets are assumed to generate a return in line with UK Government Bonds.

In this report, the data we collect from companies' annual reports reflects an accounting basis.

Disclosures

De-risking strategies should not be construed as providing any assurance or guarantee that as a result of applying the strategy an investor will reduce and/or eliminate risk, as there are many factors that may impact end results such as interest rates, credit risk and other market risks.

Past performance does not guarantee future results, which may vary. The value of investments and the income derived from investments will fluctuate and can go down as well as up. A loss of principal may occur.

The portfolio risk management process includes an effort to monitor and manage risk, but does not imply low risk.

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