“Initiating dialogue with the trustees early can help ensure negotiations set off from a realistic starting point.”

Paul Geeson  
Deloitte Partner and Actuary
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“Company-side review of the current Investment Strategy can reveal strategies that better suit your risk appetite and cash flow objectives.”

Richard Slater
Deloitte Partner and Investment Specialist
Executive summary

UK Defined Benefit ("DB") pension schemes are often a key financial risk for their sponsors and, depending on the risk profile of the scheme, a small change in market conditions can result in significant additional contributions being required.

With potentially significant cash injections at stake, achieving a successful outcome to a scheme funding valuation is vital if a company is to balance the funding requirements of its pension scheme with the need for repayment of debt, investment in the business and returns to shareholders.

Guidance from the Pensions Regulator and recent market practice has resulted in renewed focus on the importance of trustees and companies working collaboratively and the need for an integrated approach to pension scheme risk management. Given this, we consider it essential that company representatives are well equipped to deal with the valuation process as part of a wider integrated risk management framework.

In order to help with this, we have updated our corporate guide to pension scheme valuations to include our latest thinking and recent market practice. It has been designed to give you essential background to the process, so that you can determine your company’s optimal strategy for the valuation.

Our five key recommendations for a corporate valuation strategy are to:

01. Prepare a company proposal and initiate dialogue with the trustees early to ensure that negotiations set off from a realistic starting point.
02. Be proactive in presenting the sponsor covenant and consider any options to improve the covenant.
03. Conduct a company-side review of the current Investment Strategy to consider if other strategies better suit your risk appetite and cash flow objectives.
04. When negotiating the valuation assumptions, consider the latest industry views before accepting the same methodology as adopted three years ago.
05. When agreeing the Recovery Plan, ensure you consider the full range of options to deal with the deficit and the alternative funding options to manage cashflow and protect against the risk of overfunding.

We hope that you find this guide a useful first step to constructing your valuation strategy.

Paul Geeson
Deloitte
1. Introduction

Background
Under the scheme specific funding regime established by the Pensions Act 2004, trustees have to undertake a full actuarial valuation at least once every three years. Trustees are required, by law, to manage the valuation process, set assumptions and prepare a “Recovery Plan” to remove any deficit. In most cases, the trustees are required to agree these items with the sponsoring employer and hence the valuation outcome is effectively a negotiation with a delicate balance of negotiating power, varying according to circumstance.

Balance of powers
The Trust Deeds and Rules of some pension schemes (around 10% in our experience) give the trustees unilateral control to set ongoing contribution levels. In these cases, legislation requires that the trustees consult with the sponsoring employer, however, ultimately the sponsor’s agreement to the contribution schedule is not required. In our experience of these situations, trustees will typically still wish to engage the sponsor in genuine discussions around the appropriate actuarial assumptions and the Recovery Plan. However, the relative negotiating position of the trustees is much stronger in these cases.

For the remaining majority, the trustees and sponsor usually need to agree the appropriate actuarial assumptions and Recovery Plan. This gives a balanced negotiating position between the trustees and sponsor, where both parties engage in genuine discussions to reach an agreement. Should the trustees and sponsor not be able to agree actuarial assumptions and a Recovery Plan, then the trustees must report this to the Pensions Regulator who is likely to investigate. Early notification of delays or problems is encouraged by the Pensions Regulator who tends to ask the trustees and sponsor to try again to progress towards agreeing an acceptable Recovery Plan perhaps with some useful guidance to each party. The Pensions Regulator could impose contribution requirements on the sponsor if no agreement can be reached.
Valuing assets and liabilities

Legislation requires that the value of the scheme assets be taken at market value and the assessed value of the scheme’s liabilities (the “Technical Provisions”), must be measured on a prudent basis.

A key factor that drives the Technical Provisions is the set of actuarial assumptions proposed by the scheme actuary. These assumptions are, in turn, largely driven by:

- financial conditions at the valuation date;
- the scheme’s “Investment Strategy”;
- the sponsoring employer’s strength (the “Employer Covenant”);
- population demographics and scheme experience; and
- the requirement for prudence.

Recovery Plans

Historically, trustees have been guided by the Pensions Regulator that a funding shortfall should be eliminated “as quickly as an employer can reasonably afford.” In its latest Code of Practice for funding, the Pensions Regulator revised its guidance to reflect the importance of trustees and sponsoring employers working collaboratively and to recognise there is often a need to invest in businesses to achieve sustainable growth.

Brexit

Until the conclusion of the extensive period of negotiations required before an actual exit, we will not fully understand the long-term consequences of the outcome of Brexit on the UK economy and defined benefit pension schemes in particular.

In the short-term, trustees and sponsors should remain vigilant, particularly given the potential for increased market volatility. Any impact will be specific to the scheme and sponsor, for example, it will depend on the nature of the sponsor’s business, its strategy and its exposure to both the EU and other overseas markets.

As part of an integrated approach to risk management we anticipate trustees will wish to consider the impact of this uncertainty and the scheme and sponsor’s exposure to these changes and develop a strategy for dealing with these risks.

Valuation timescales

The statutory deadline for completing a funding valuation and signing off the revised recovery plan and schedule of contributions is 15 months from the effective valuation date. In the majority of cases, agreement is reached within this timescale. However, in some cases negotiations go beyond that deadline.

If this occurs, we would advise that the trustees and sponsor send a joint letter to the Pensions Regulator, explaining the reasons for delay and advising when agreement is expected to be reached.
In our view, establishing a corporate valuation strategy that is tailored to your specific circumstances early in the valuation process can often result in a more efficient valuation, reduce management time spent on the valuation and ultimately achieve a contribution profile that fits with your company’s business plans.

**Get in early to avoid “anchoring”**

One of the crucial elements to a successful corporate valuation strategy is planning to set out the company’s proposals and views early in the process. Initiating dialogue with the trustees early not only shows a willingness to address the funding position, but will ensure that negotiations set off from a realistic starting point.

If the scheme actuary prepares initial valuation results on a basis which is overly prudent and discusses these with the trustees, prior to receiving company input, the trustees may find it hard psychologically to move away from these – the initial results become an “anchor point” for the trustees’ expectations. Similarly, once the trustees have made a formal proposal to the company, there is likely to be a natural reluctance to accept material changes to those proposals. Providing the trustees some initial markers should broaden the range of results that they are willing to consider.

Having an assessment of what is affordable for the sponsoring employers prepared in advance will aid Recovery Plan negotiations later in the process and also help to “anchor” a realistic position.

**Consistency**

The Pensions Regulator’s guidance states that the actuarial assumptions should be consistent from one valuation to the next, with any changes justified by reference to changes in “legal, demographic or economic circumstances”.

Understanding the scale of the deficit (or surplus) on a consistent set of assumptions (derived in the same way but updated for current financial positions) allows companies to decide on how much preparation is required and then to have a productive initial dialogue with the trustees.

Given how markets have significantly changed in recent years, the set of assumptions which is “consistent” with the prior assumptions may not be obvious. Typically actuarial valuations have used a “gilts plus a margin” approach to set the discount rate assumption, where the margin is a prudent long-term estimate of the scheme’s asset performance above the yield on gilts.

Changes to market conditions may mean, however, that return expectations relative to gilts may have changed since the last valuation so the margin modelling should be revisited. In particular, in the current environment of ultra-low gilt yields, expected returns may not be best measured relative to gilts at all.

Employers should be prepared to challenge the interpretation of consistency applied by the trustees if an overly simplistic approach has been adopted.
Example – Consistency in practice
At March 2014, the trustees of a £200m scheme set a single overall discount rate to be 4.9% p.a. This was equivalent to gilt yields plus 1.25% p.a. The 1.25% allowance represented a prudent estimate of the expected outperformance over gilts of the scheme assets over the long term, given market conditions at that date. Our investment model suggested there was a c. 75% chance of achieving at least this level of return. (Note that a confidence level greater than 50% must be chosen in order to allow for a margin for prudence.)

At the next valuation, in March 2017, the trustees suggested retaining the 1.25% margin over gilts. However, market conditions had by then changed significantly. The same investment model, updated for March 2017 market conditions, suggested that a 1.5% allowance over gilts could be achieved with the same level of confidence. We argued that a 1.5% allowance was consistent with the 2014 valuation results rather than simply assuming it had remained 1.25%.

Had the 1.25% allowance been retained, the scheme’s Technical Provisions would have been some £10m higher.

How much prudence is in the assumptions?
Whilst pension scheme legislation requires that pension schemes are funded on a prudent basis, rather than a best estimate basis, it is useful for all stakeholders to understand the best estimate position (i.e. with no margins for prudence). This illustrates the quantum of prudence which has been incorporated into the valuation basis and therefore in theory the level of expected overfunding agreed. These results can act as a useful anchor point to set expectations on a reasonable level of funding.

Example – Consistency in practice
At December 2016, the trustees of a £150m scheme proposed a discount rate of 2.7% p.a. This was equivalent to gilt yields plus 0.75% p.a. and reflected the trustee’s view that the Employer Covenant had deteriorated over the last year.

We successfully helped the company to demonstrate that the Employer Covenant was broadly similar to the last valuation and as a result the trustees revised the discount rate to 3.1% p.a. which reduced the scheme’s Technical Provisions by just under £10m.

Maintaining a positive relationship
A key decision will involve which assumptions to propose, which issues are “must-win” points and which could be conceded during the negotiations. This aspect varies widely from one valuation to another, depending on the individuals involved, the general relationship between the trustees and employer and any other discussions taking place concurrently. In some cases, our clients have sought to challenge and negotiate on all key actuarial assumptions, whilst in other cases our clients have accepted the majority of the trustees’ proposals and only negotiated on the most material assumptions e.g. discount rate.

In our view, the key for employers is to have a robust negotiation whilst maintaining a positive long-term working relationship with the trustees. Your adviser should facilitate this outcome through their approach to challenging the trustees and their advisers.
3. Integrated Risk Management

The Pensions Regulator encourages trustees to adopt “Integrated Risk Management” (IRM) in determining how much risk their scheme is taking. Trustees are usually unable to eliminate all risk in their schemes and so must actively manage the risk taken. There are three fundamental risks facing most defined benefit pension schemes:

- investment risks;
- covenant risks; and
- funding risks.

IRM brings together these risks and considers them not only in isolation, but also the relationships between the risks and how one might impact the others. Trustees now need to consider for example, what would a 20% fall in the equity markets do, not only to the scheme’s assets and funding level, but also to the sponsoring employer. If such a fall was to occur, could the now weakened sponsoring employer still provide a strong enough level of funding to the scheme?

**IRM in the funding valuation**

Trustees are required to set their assumptions prudently with regards to both the Employer Covenant and the Investment Strategy. The weaker the Employer Covenant and the higher risk the Investment Strategy, the greater margins for prudence they will typically adopt.

The trustees will usually seek a formal “covenant review” conducted by specialist advisors. These advisors typically rate the sponsoring employer(s) and any other group entity providing support to the scheme on a scale from strong to weak, with various options in between.

The scheme actuary, often in collaboration with the trustee’s investment advisors, will also consider the risk borne by the Investment Strategy relative to the scheme’s liabilities.

The combination of these two factors is then used to set the discount rate. This is often set with reference to the return on gilts, which are generally considered “risk free”.

To illustrate the potential impact of the Employer Covenant assessment and Investment Strategy on the funding position, we can consider an example scheme with £85m of assets and liabilities of £100m when valued on a basis consistent with a “tending to strong” Employer Covenant and “medium risk” Investment Strategy. Overleaf we have set out how a change in Employer Covenant and/or Investment Strategy could change the discount rate assumptions and resulting deficit.
**Figure 1. Impact of Employer Covenant & Investment Strategy on discount rate**

<table>
<thead>
<tr>
<th>Discount Rate Assumption</th>
<th>Strong</th>
<th>Tending to strong</th>
<th>Tending to weak</th>
<th>Weak</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Investment Strategy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium Risk</td>
<td>Gilts + 1.5% p.a.</td>
<td>Gilts + 1.0% p.a.</td>
<td>Gilts + 0.75% p.a.</td>
<td>Gilts + 0.5% p.a.</td>
</tr>
<tr>
<td>Lower Risk</td>
<td>Gilts +0.5% p.a.</td>
<td>Gilts + 0.3% p.a.</td>
<td>Gilts + 0.1% p.a.</td>
<td>Gilts + 0.0% p.a.</td>
</tr>
</tbody>
</table>

**Figure 2. Impact of Employer Covenant and Investment Strategy on deficit**

<table>
<thead>
<tr>
<th>Surplus/(Deficit)</th>
<th>Strong</th>
<th>Tending to strong</th>
<th>Tending to weak</th>
<th>Weak</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Investment Strategy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Higher Risk</td>
<td>£17m</td>
<td>(£2m)</td>
<td>(£10m)</td>
<td>(£20m)</td>
</tr>
<tr>
<td>Medium Risk</td>
<td>(£6m)</td>
<td>(£15m)</td>
<td>(£20m)</td>
<td>(£25m)</td>
</tr>
<tr>
<td>Lower Risk</td>
<td>(£25m)</td>
<td>(£30m)</td>
<td>(£34m)</td>
<td>(£36m)</td>
</tr>
</tbody>
</table>

**Monitoring**

Historically trustees would regularly monitor the funding levels, but not changes to the Employer Covenant or Investment Strategy and only incorporate changes once every 3 years at the next valuation.

More recently trustees are commissioning their advisors to regularly monitor some of the key risks their schemes are exposed to, with trigger points and pre agreed actions if one of those triggers are met. For example, if investment performance is particularly positive this could trigger a level of de-risking in the Investment Strategy, or if the sponsor’s credit rating falls additional contributions would be required.

Opposite we show the Deloitte Pension Risk Dashboard we use with both trustee and corporate clients alike. This monitors some of the key risks and shows when trigger points are met and the actions to be taken. Approaches such as this give stakeholders a simple way to adopt Integrated Risk Management into their business as usual processes.

Companies should consider how they wish to input into this trustee-led monitoring. It may represent an opportunity to better understand and manage the levels of risk borne by their schemes, but it may also create new challenges, for example cash demands at times when cash in the business is limited.

We recommend companies consider what they think the key risks to their schemes are, if they are happy to continue to run these risks, relative to the cost of hedging them and how they would propose to deal with them should they occur. Sharing this thinking with the trustees can avoid the trustees developing their own approaches in isolation that may end in a difference of opinion as to how to deal with these risks.

In the next two sections we look at the Employer Covenant and Investment Strategy in further detail.
4. Employer Covenant

**Background**

IRM and regulator guidance before IRM has seen greater and greater focus on the Employer Covenant and it now plays a key role in funding and investment decisions.

The Pensions Regulator expects an assessment of covenant strength to focus on the financial position of those entities with statutory obligation to support the pension scheme ("the Statutory Employers"). Limited reliance should be placed on the strength of the wider corporate group unless there are legally enforceable obligations (such as guarantees) in place.

**Assessing the Employer Covenant**

The Pensions Regulator encourages open and transparent collaboration between trustees and employers to reach balanced funding solutions.

During an Employer Covenant assessment, the employer(s) will be required to provide detailed financial information. Failure to provide the information requested may result in the trustees taking a more conservative view of the Employer Covenant.

Employers may find the trustees' covenant assessment process intrusive and time-consuming. Importantly, in our experience, CFO's and employer representatives often disagree with the results of the assessment, often feeling that the covenant adviser has taken too conservative a view of the business' prospects.

We therefore encourage companies to take a pro-active approach to covenant assessment and engage with the trustees during the process. The Pensions Regulator recognises that a strong, ongoing employer is the best support for a scheme. However, where investment in sustainable company growth is prioritised over scheme contributions, the employer is required to justify how such investment will benefit the scheme. Some employers may commission an independent covenant assessment themselves in advance of the valuation process. This helps the employer to control the process and messaging, providing the opportunity to consider likely areas of concern which may be raised by the trustees' adviser and put in place mitigation. It also enables the required information to be collated in a reasonable timescale.

Importantly, understanding the change in Employer Covenant since the last valuation enables the company to prepare a defence where covenant has deteriorated. Conversely, if it is clear that the Employer Covenant has improved, the company can use this information to support a stronger opening proposal to the trustees.
Example – Challenging a deterioration in Employer Covenant
During preliminary valuation assumptions the Trustees informed the Employer that its advisors considered the covenant had deteriorated since the previous triennial valuation. Naturally, the Employer was concerned that this would lead to the Trustee adopting more prudent valuation assumptions, resulting in an increase in deficit contributions.

We were engaged by the Employer to review the Trustee’s covenant advice. We successfully challenged a number of the Trustee advisors’ assumptions and supported the Employer in clearly articulating the business strategy to the Trustee and the rationale underpinning its growth plans. As a consequence, the Trustees took greater comfort on the achievability of the Group’s forecasts, and agreed with the employer on its view of covenant.

Actions to take
Your corporate pensions advisors working in conjunction with Employer Covenant specialists are able to advise on the sensitivity of the funding deficit to the covenant rating. It is then possible to consider if a series of actions could improve your Employer Covenant and if the net impact (after considering the impact on other creditors and cost of debt) will be positive or negative to the group’s overall financial position.

As an example, we can consider the scenario where the sponsoring employer’s parent grants the Trustees an unsecured Guarantee for the full buy-out deficit, enabling the Trustees to take account of the wider Group when assessing covenant.

Figure 3. Net impact of improving Employer Covenant via an unsecured Parent Guarantee
5. Investment Strategy

**Investment strategies**

Lower risk strategies typically involve investing in assets such as fixed interest and inflation linked bonds and/or putting in place interest rate and inflation hedges. These can provide a good match with the liabilities of the scheme, with an increase in interest rates resulting in a fall in the value of these bonds and a similar fall in the scheme’s liabilities, resulting in little change in the deficit.

The disadvantage of low risk strategies are that they typically require more employer cash contributions to fund than higher risk strategies. Although, with a higher risk strategy there is the risk a large deficit could develop and additional contributions could be required.

The degree of the mismatch between the assets and liabilities is a key driver of funding volatility. For example, the Deloitte Funding Tracker follows the progress of 3 similar, illustrative, UK Defined Benefits schemes with different investment strategies.

At the start, each scheme had liabilities of £500m and assets of £400m and profiles typical to that of the average UK scheme. To track just the impact of the investment strategies, we have removed the impact of the accrual of benefits and the impact of deficit reduction contributions paid by the sponsors.

The “Return Seeking” scheme’s Investment Strategy has a 80% exposure to equities and other return seeking assets and a 20% exposure to government and corporate bonds.

The “Lower Risk” scheme’s Investment Strategy has a 20% exposure to equities and other return seeking assets and an 80% exposure to government and corporate bonds.

The scheme with a “Hedging Strategy” has a 80% exposure to equities and other return seeking assets and a 20% exposure to government and corporate bonds, but has a leveraged hedging strategy in place removing the majority of the interest rate and inflation risk.

**Figure 4. Movement in deficit since 2014**

At the start, each scheme had liabilities of £500m and assets of £400m and profiles typical to that of the average UK scheme. To track just the impact of the investment strategies, we have removed the impact of the accrual of benefits and the impact of deficit reduction contributions paid by the sponsors.
**Investment Strategy impact on the funding valuation**

The scheme actuary will usually review the Investment Strategy (often with the help of the trustee's investment advisors) and select a prudent return rate on the investments in order to discount the future liabilities.

If the scheme is invested in a high proportion of return-seeking assets such as equities, a higher discount rate could be more justified than if the scheme was mainly invested in less risky asset classes such as government bonds.

The level of complexity in discounting the future liabilities can vary hugely from a single discount rate, to a dual discount rate, to a full discount rate curve. In any case the discount rate assumption(s) should be prudent.

For the corporate it is important to analyse this area to ensure that the assumptions setting is going to provide a fair reflection of the expected Investment Strategy and importantly how that will change over time. In many situations actuarial methodology and assumptions can assume that effectively all pensions are to be backed by UK government bonds or corporate bonds. This may not be the case and lead to inappropriate prudence in the valuation and higher contribution requirements than otherwise needed.

**Reviewing the Investment Strategy**

The company with its advisors can undergo a high level Investment Strategy review, independently of the trustees, to gain a firm understanding of the types of strategies and changes that better suits their risk appetite and cash flow objectives.

For example, the corporate could consider requesting the trustees review the Investment Strategy with a view to optimising the reward/risk profile to allow an increase in the discount rate which will, in turn, reduce the deficit.

For all schemes, the trustees have the power to set the Investment Strategy and they may not be willing to increase the risk within the Investment Strategy but are likely to be willing to consider options that enhance returns without risk increases.

The trustees might be considering implementing their own changes to the Investment Strategy. It is important the company can feed its views into this process as early as possible, to ensure any strategy changes do not unexpectedly affect the level and timing of cash contributions the company could be expected to pay. In some circumstances the company may be willing to agree higher contributions and deficit in order to achieve a reduction in risk within the scheme. ALM studies can help a company to determine its preferred risk/reward trade-off.
6. Actuarial assumptions

**Introduction**
The Pensions Act 2004 introduced the term “Technical Provisions” to describe the amount required, on an actuarial calculation, to make provision for the scheme’s liabilities.

A key factor that drives the assessed value of the scheme’s liabilities, and hence the funding position, is the set of actuarial assumptions proposed by the scheme actuary around future financial and demographic factors. The assumptions include the discount rate, future inflation, salary growth and life expectancy.

In this section, we outline the key actuarial assumptions and current areas of debate when setting these assumptions.

**Discount rate**
This is typically the most financially material assumption and, hence, the subject of significant negotiation.

The Code of Practice states that “discount rates used in setting technical provisions must be chosen prudently, taking into account either:

- the yield on assets held by the scheme to fund future benefits and the anticipated future investment returns; and/or
- the market redemption yields on government or high quality bonds.”

There are a number of differing approaches to derive the discount rate assumption. Whichever approach is adopted, the discount rate should take into account the Investment Strategy and the strength of the Employer Covenant.

**Is a dual discount rate appropriate?**
Historically, a number of scheme actuaries adopted a dual discount rate approach to funding valuations, with a different discount rate applied pre-retirement to that applied post-retirement. The rationale underlying this approach is that schemes are assumed to hold a higher proportion of return-seeking assets (e.g. equities) to back non-pensioner liabilities and de-risk into a higher proportion of matching assets (e.g. UK Government bonds) when members retire.

As schemes have matured in recent years, the post-retirement discount rate has become a much more material assumption than the pre-retirement rate. For a typical pension scheme, changing the post-retirement discount rate will change the liabilities by three times more than an equivalent change to the pre-retirement discount rate.

Some employers have started to challenge the implicit assumption that schemes will fully switch their investments into bonds over the next few years as members retire. For many schemes, provided that the Employer Covenant is sufficiently strong, it is entirely feasible to continue running the scheme with 40%-50% of the assets invested in growth assets even if the vast majority of members are retired. If this is the case, then the de-risking assumption underlying the dual discount rate approach is not applicable and a single discount rate can be adopted to cover both pre and post-retirement periods.
Example – Static vs dual discount rates
Our client’s pension scheme had historically adopted different discount rates pre and post-retirement. The discount rates were based on the yields available on swaps, with an allowance for the outperformance of scheme assets over and above swap yields. Broadly 40% of the liabilities were in respect of active and deferred members and 60% were in respect of pensioners.

We argued that using separate discount rates pre and post-retirement is mainly suitable for immature schemes where “dynamic” future de-risking would be expected. In this case, the scheme was already quite mature with 60% pensioner liabilities and the Employer Covenant was adequate to support some allocation to risk-seeking assets over the long-term.

We proposed that a “static” long-term Investment Strategy, fixed around the current investment proportions of 70% matching and 30% risk seeking assets, be assumed. Our client was able to agree with the trustees a static Investment Strategy and the use of a single discount rate, resulting in a reduction in the value of the liabilities of c. £100m.

Discount rate based on a yield curve
Historically, either a single discount rate or two discount rates (pre and post-retirement) have been adopted. In recent years, more and more schemes have started to consider using a more detailed approach which captures the full ‘shape’ of the interest rate curve. Under a ‘yield curve’ approach, each year’s projected benefit payments are discounted at a different rate, in line with the underlying interest rate applicable to that year.

The full yield curve is theoretically more accurate than dual or single discount rates and we expect the trend towards them to continue.

For schemes whose Investment Strategy is only loosely matched to the liabilities it could be argued that such an approach brings a degree of spurious accuracy to a valuation process. The argument is stronger however for schemes with a liability driven Investment Strategy where matching is considered on a year-by-year basis.

Baseline
Discount rates are commonly set relative to gilt yields (or a gilt yield curve) with a margin added to reflect the expected long-term outperformance of risk-seeking assets held by the pension scheme, known as a “gilts plus a margin” approach. The rationale for this approach is that gilts provide the closest matching asset for pension liabilities, hence measuring the liabilities in this way takes the cost of matching of the liabilities as the starting point and then adds an explicit margin for expected outperformance of non-matching assets.

Data published by the Pensions Regulator shows that on average schemes with valuations between September 2014 and September 2015 adopted a margin of 1.01% p.a. above gilts, when they have valued the liability on a yield curve (or adopted an assumption equivalent to valuing the liability on a yield curve).

1. The Pensions Regulator: Scheme Funding Statistics 2017
We note that schemes with a high proportion of return seeking assets often adopt an assumption with a higher margin than 1.01% p.a. and schemes with a high proportion of lower risk assets often adopt an assumption with a lower margin than 1.01% p.a.

Over the last few years we have continued to see a decline in gilt yields, which has seen lower discount rates and higher liabilities where a “gilts plus a margin” approach has been used. Concerns around the impact of these ultra-low gilt yields have led some trustees and scheme actuaries to consider alternatives.

Two alternative approaches are to set the discount rate based on:

• Inflation plus a margin for investment outperformance, using the rationale that the scheme’s Investment Strategy may have a target to achieve returns equal to inflation plus x%, and

• Targeting a particular confidence level based on the investment allocation and expected future investment returns for each asset class. Under this approach, a model of future investment returns is used at each valuation date and the return which corresponds to a particular confidence level, e.g. 65% confidence of achieving the chosen return over a 20 year period, is adopted.

Employers should review the alternative approaches available and give consideration to which is most appropriate to their particular scheme.
Inflation

Most pension scheme benefits are linked in some way to inflation, whether through pension increases, revaluation in deferment or salary increases. The relevant assumptions are usually set relative to an overall inflation assumption.

Some pension benefits may increase in line with the Retail Prices Index (RPI), whilst others are in line with the Consumer Prices Index (CPI).

RPI Inflation

A market-based measure of future RPI inflation can be obtained by observing the difference between nominal yields on fixed-interest gilts and real yields on RPI-linked gilts. The Bank of England publishes daily data of this yield gap at a range of durations up to 40 years. This typically forms the starting point for setting the RPI inflation assumption.

However, the yield gap is not the whole story. There are a number of pieces of research which suggest that many investors are willing to pay a premium for the protection against inflation provided by RPI-linked gilts and that there is a relative under-supply of such gilts. For example, there are c. £1trillion of inflation-linked UK pension liabilities, whilst there are only c. £300bn of inflation-linked gilts to hedge these liabilities.

The “Inflation Risk Premium” effect means that the yield gap calculation can overstate the market expectation of future inflation. The latest research generally suggests that the inflation risk premium could be up to 0.3% p.a., although some research points to an even higher premium.

In recent years, it has therefore become more common to make a deduction to market-implied inflation when setting the inflation assumption. Typically, such deductions have been in the range 0.1% – 0.3% p.a.. Employers may therefore be able to argue for a higher deduction than previously adopted.

Figure 6. Movement in RPI inflation expectations

Long term inflation expectations have stayed relatively stable (between 3% and 4%) since January 2014, but in late 2016 there was a noticeable increase in long term inflation expectations, further increasing liabilities.
CPI Inflation
As there is no tradable market in CPI-linked assets, there is no directly observable market-based measure of future expected CPI inflation. The typical approach to setting a CPI assumption is to make a deduction to the RPI assumption to reflect methodological differences in the construction of the two indices.

Before 2011 independent forecasters generally assumed CPI would be around 0.7% lower than RPI inflation, but changes to the methodology used to calculate CPI in 2011 has led to a larger difference. Independent forecasters generally now expect the gap to be around 1.0% p.a. For example, the Office for Budget Responsibility estimated the gap to be 1.0% p.a. in the long run in its Economic and fiscal outlook March 2015.

In our experience Scheme Actuaries typically recommended CPI assumptions for prudent scheme funding valuations of around 0.7% – 1.0% lower than the RPI assumption.

Salary increases
An assumption for salary increases is typically required for schemes that are open to the accrual of benefits, or that have been closed to the accrual of benefits but retain a link to final salary for the members still employed by the company.

Salary increase assumptions are extremely company specific and, ultimately, within the control of the company. This is one assumption therefore where trustees should actively seek input from the company. The salary growth assumption should reflect the company’s expectations for long term wage inflation for the active members of the scheme.

It is typical to set this assumption by considering the real rate of salary growth in excess of RPI inflation. Historically assumptions have been in the range of 0.5% to 1.5% p.a. above RPI inflation. However, more recently many companies have reduced their expectations of future salary increases.

Companies should also consider the workforce actively accruing benefits within their schemes. With the vast majority of schemes now being closed to new entrants, members accruing benefits (or with a salary link) are often older than the average age of the workforce and often less likely to receive promotional increases. In fact we have seen a number of cases of companies arguing that the salary increases for these members are likely to be in line with RPI or CPI inflation, or potentially even below this level.
Demographic assumptions

Pensions Regulator guidance states that the “mortality tables used must be based on prudent principles, having regard to the main characteristics of the members as a group and expected changes in the risks to the scheme.” The assumption typically has two key components: the base table representing current mortality and the allowance for future improvements in life expectancy.

Mortality base tables

Most pension schemes in the UK use tables produced by the Continuous Mortality Investigation (CMI), an arm of the Actuarial Profession. The latest tables produced by the CMI are known as the “S2” series SAPS tables and are an update of the “S1” series SAPS tables. These are based on mortality experience of members of occupational pension schemes over the period from 2004 to 2011. The SAPS investigation resulted in 18 different “S2” series tables including separate tables by gender, pension amounts, health status and member/dependant status.

Since first being published in 2008, the SAPS tables have gained widespread adoption and we now see the vast majority of trustees propose using the SAPS tables.

Schemes should ensure that the base mortality assumption reflects the profile of the membership. If the scheme is sufficiently large, the scheme actuary may carry out an analysis of actual mortality experience to compare against the standard tables and highlight any scheme specific characteristics.

The most common analysis conducted by providers is based on:

- **the size of members’ pensions** – as it has been observed that members with large pensions typically live longer than average; and

- **the post codes of members’ primary residence** – as it has been observed that members living in affluent areas typically live longer than average.

As the scheme actuaries will have access to actual and projected pension amounts and the CMI have published “S2” series tables including different allowances for different categories of pension amounts, basic analysis around scheme specific characteristics can be conducted in a relatively straightforward manner (although more detailed analysis is possible).

Postcode analysis can be used as an alternative to this and can provide a more granular analysis of members’ mortality. The output of this kind of analysis is usually adopting a standard table (such as the “S2” series tables) with an adjustment factor.

For some of the largest schemes it is alternatively possible to determine scheme specific mortality base tables by analysing the mortality experience within the scheme.

Statistics published by the Pensions Regulator showed 92% of schemes in deficit adopted the SAPS base tables between September 2014 and September 2015 and of these the majority made no adjustment to the tables².

---

2. The Pensions Regulator: Scheme Funding Statistics 2017
Allowance for future improvements in life expectancy

In 2009, the CMI published new projections of future improvements in life expectancy which have been updated each year since. The CMI projection model requires various assumptions, but the most significant is an assumption for the long-term trend rate of future mortality improvements.

In our experience most schemes adopt a trend rate assumption of between 1.25% – 1.75% p.a. and the latest Pensions Regulator data suggests that 69% of schemes in deficit adopted the CMI projections with a 1.5% p.a. long term trend rate between September 2014 and September 2015.

Figure 7. Distribution of base table assumptions

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAPS with less than 80% adjustment</td>
<td>1%</td>
</tr>
<tr>
<td>SAPS with an 80% to 100% adjustment</td>
<td>28%</td>
</tr>
<tr>
<td>SAPS (no adjustment)</td>
<td>55%</td>
</tr>
<tr>
<td>SAPS with a 100% to 120% adjustment</td>
<td>14%</td>
</tr>
<tr>
<td>SAPS with over 120% adjustment</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>8%</td>
</tr>
</tbody>
</table>

Source: The Pensions Regulator: Scheme Funding Statistics 2017

Figure 8. Distribution of projections

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMI with 1% or less long term trend</td>
<td>3%</td>
</tr>
<tr>
<td>CMI with between a 1% and 1.5% long term trend</td>
<td>9%</td>
</tr>
<tr>
<td>CMI with 1.5% long term trend</td>
<td>69%</td>
</tr>
<tr>
<td>CMI with a greater than 1.5% long term trend</td>
<td>13%</td>
</tr>
<tr>
<td>Other/Not stated</td>
<td>6%</td>
</tr>
</tbody>
</table>

Source: The Pensions Regulator: Scheme Funding Statistics 2017
There were a number of changes to the 2016 version of model, which also introduced a smoothing factor that controls how reactive the model is to recent actual data compared to the general trend through them. The core smoothing factor is 7.5 and we are expecting to see most schemes adopt a smoothing factor of 6.5 to 8.5.

A decrease in the smoothing factor would imply that you have more faith in the recent mortality improvement data which has shown relatively high mortality and so would decrease your liabilities at the current time. An increase would imply that you have more faith in the future expectations of mortality improvements.

Proportion married
Often actuaries make a standard assumption that around 80% to 90% of pension scheme members are married and hence attract a spouse’s pension on their death. In most schemes, spouses receive half the member’s pension on death of the member and the value of this benefit can amount to as much as 20% of the total scheme liabilities.

There has been a significant reduction in the proportion of the population classified as married since the early 1970s. In 1972, over 70% of the population was married, however, by mid 2010 this had fallen to 51% and it is forecast that the number of marriages in the UK will continue to decline.

The latest data released by the Office of National Statistics show that approximately 72% of the male population in England and Wales over age 65 is married or cohabiting and 50% of the female population in England and Wales over age 65 is married or cohabiting.

Commutation
On retirement, members usually have the option of exchanging part of their pension for an immediate tax-free lump sum. Generally, the terms under which a pension may be exchanged (or commuted) for cash at retirement are less valuable than the pension on a prudent funding basis, as these are usually set based on a best estimate set of assumptions. Therefore, assuming members elect to commute some of their pension can reduce the schemes’ liabilities.

In our experience most members elect to take the full amount of cash and therefore it could be argued that it is reasonable to make some allowance for commutation.

Transfers out
With the introduction of “Freedom and Choice” for defined contribution pension schemes we are seeing increasing numbers of members transfer their benefits out of defined benefit pension schemes to defined contribution schemes to access these freedoms. Generally, the cash equivalent transfer values paid are based on a best estimate set of assumptions and therefore assuming some members elect to transfer their benefits out of the scheme at retirement can reduce the schemes’ liabilities.

Many companies and trustees have considered making an allowance for transfers out in the funding valuation, but at the time of writing, we have seen few that have actually made an allowance for this for scheme funding. Instead they have agreed to wait for the next valuation when more experience within the scheme is available and to then review this experience before deciding if they will allow for some transfers out at the next funding valuation.
Other assumptions
There are a number of other assumptions including withdrawal, pre-retirement mortality, early, late and ill health retirements and pension increases that can be material to schemes and we would recommend these are also reviewed.

Potential impact of adopting alternative assumptions
Negotiating these assumptions can significantly reduce the deficit, although the level of reduction will be significantly less if you have previously negotiated the assumptions. However this is still usually a worthwhile exercise to prevent excess margins for prudence developing.

The table below illustrates the typical high-level summary we provide to corporate clients when advising them on alternative funding assumptions.

The scheme illustrated has assets of £100m and liabilities of £140m using the trustees proposed assumptions.

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Trustee proposal</th>
<th>Deloitte View</th>
<th>Company view</th>
<th>Impact on deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deficit under trustee’s proposed assumptions</td>
<td></td>
<td></td>
<td></td>
<td>£40m</td>
</tr>
<tr>
<td>Discount rate</td>
<td>Single equivalent gilt yield plus 0.5% p.a.</td>
<td>Red</td>
<td>Single equivalent gilt yield plus 0.7% p.a.</td>
<td>(£5m)</td>
</tr>
<tr>
<td>RPI Inflation</td>
<td>Market implied inflation</td>
<td>Round</td>
<td>Market implied inflation less 0.2% p.a.</td>
<td>(£3m)</td>
</tr>
<tr>
<td>CPI Inflation</td>
<td>RPI less 0.7%</td>
<td>Red</td>
<td>RPI less 0.9%</td>
<td>(£3m)</td>
</tr>
<tr>
<td>Mortality Base Tables</td>
<td>S2NA with a 95% scaling factor</td>
<td>Green</td>
<td>N/a</td>
<td>N/a</td>
</tr>
<tr>
<td>Allowance for future projections</td>
<td>CMI 2013 projections with a long-term improvement rate of 1.75%</td>
<td>Red</td>
<td>CMI 2016 projections with a long-term improvement rate of 1.5% p.a.</td>
<td>(£4m)</td>
</tr>
<tr>
<td>Commutation</td>
<td>No allowance</td>
<td>Red</td>
<td>80% of maximum pension commuted</td>
<td>(£5m)</td>
</tr>
<tr>
<td>Proportion Married</td>
<td>85%</td>
<td>Red</td>
<td>70%</td>
<td>(£3m)</td>
</tr>
<tr>
<td>Deficit under Company’s proposed assumptions</td>
<td></td>
<td></td>
<td></td>
<td>£17m</td>
</tr>
</tbody>
</table>

- Green: Unlikely area for challenge/assumption unlikely to contain excessive prudence
- Red: Potential area for challenge/assumption may contain excessive prudence
- Orange: Likely area for challenge / assumption likely to contain excessive prudence
7. Dealing with a deficit

With regular monitoring it is unlikely that the trustees or sponsoring employer will be surprised with a large deficit at the valuation date. Instead the trustees or sponsoring employer are likely to know well in advance if there is expected to be a significant deficit. Having a plan to deal with this at the start of the valuation process tends to lead to better outcomes.

How to deal with a deficit

To deal with the deficit, the employers can consider and discuss a number of options with the trustees that can be broadly categorised into the following key areas including actuarial assumptions as previously discussed:

- **1. The assumptions used to value the liabilities**
- **2. The length and shape of the Recovery Plan**
- **3. The use of contingent assets**
- **4. Alternative funding solutions**
- **5. Benefit changes and other solutions**

Overleaf we consider the range of available options open to the corporate and when these may be most attractive/suitable.

It is worth noting that many of these options can be considered together as part of an integrated proposal and that the likelihood of the trustees agreeing to any particular requests will depend on the specifics of the overall proposal. For example, the trustees may agree to use slightly weaker assumptions (resulting in a smaller deficit) or a longer recovery plan, if the employer is investing profits back into the business for sustainable growth rather than paying out significant dividends. Conversely, if the corporate proposes increasing the risk in Investment Strategy, the trustees will usually expect the employer to quickly reduce any deficit caused by poor investment returns.

Ultimately the trustees are likely to accept a proposal that they view as striking an appropriate balance between: quickly improving the funding position of the scheme, improving the security of the member’s benefits and allowing the employer to continue to grow its business.
## Figure 10. Options to deal with a deficit

<table>
<thead>
<tr>
<th>Options to deal with a deficit</th>
<th>When might the option be suitable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The assumptions used to value the liabilities</td>
<td>Trustees adopted overly prudent assumptions</td>
</tr>
<tr>
<td>Negotiate the level of prudence in valuation assumptions</td>
<td>●</td>
</tr>
<tr>
<td>Increase risk in Investment Strategy</td>
<td>●</td>
</tr>
<tr>
<td>Grant additional security (e.g. parent company guarantees)</td>
<td></td>
</tr>
<tr>
<td>Improved rank in the event of insolvency</td>
<td></td>
</tr>
<tr>
<td>Negative pledges</td>
<td></td>
</tr>
<tr>
<td>2. The length and shape of the Recovery Plan</td>
<td>Inflation link payments</td>
</tr>
<tr>
<td>Lengthen contribution period</td>
<td></td>
</tr>
<tr>
<td>Allow for asset out performance</td>
<td></td>
</tr>
<tr>
<td>3. The use of contingent assets</td>
<td>Contingent contributions</td>
</tr>
<tr>
<td>Contingent assets</td>
<td></td>
</tr>
<tr>
<td>Escrow accounts</td>
<td></td>
</tr>
<tr>
<td>Bank guarantees</td>
<td></td>
</tr>
<tr>
<td>4. Alternative funding solutions</td>
<td>Asset Backed Contributions</td>
</tr>
<tr>
<td>Reservoir trusts</td>
<td></td>
</tr>
<tr>
<td>5. Benefit changes and other solutions</td>
<td>Close to future benefit accrual</td>
</tr>
<tr>
<td>Reduce/stop discretionary benefits</td>
<td></td>
</tr>
<tr>
<td>Bespoke alternative corporate solutions</td>
<td></td>
</tr>
</tbody>
</table>
8. Recovery Plans

The length and shape of the Recovery Plan

Once the funding position of a scheme is agreed, the next step is to agree the Recovery Plan necessary to fund any resulting deficit. Historically, the Pensions Regulator has guided that deficits should be eliminated “as quickly as the employer can reasonably afford”, however in July 2014 the Pensions Regulator’s new objective “to minimise any adverse impact on the sustainable growth of an employer” came into force.

We are now seeing many trustees recognising that employers need to invest in their businesses and in some cases, allowing for employers to prioritise investment in their business over making funding available to the scheme, where this improves the strength of the employer covenant and security of members benefits.

Some of the key options regarding the profile of the Recovery Plan are as follows:

- **Inflation link payments**: The employer could seek to link the annual cash deficit reduction contributions to a measure of inflation, for example the Retail Prices Index. There is a clear economic rationale to this approach and the impact of linking contributions to inflation can harness the power of compound interest and help to keep short term contributions (e.g. for the period to the next valuation) relatively unchanged even in the face of an increased deficit.

- **Lengthen contribution period**: If the employer has short term cash constraints or alternative uses for cash (e.g. investment in the business) the employer could seek to increase the period of time over which the contributions are to be paid into the scheme. However the ability of the employer to agree this with the trustees will depend on the strength of the Employer Covenant, the long-term sustainability of the employer and the risk inherent in the Investment Strategy.

- **Allow for asset out-performance**: The employer could also seek to take into account any expected asset out-performance (i.e. over and above that assumed in the discount rate assumptions). Depending on the Investment Strategy, there could be potential for assets to produce a return greater than the prudent discount rate assumptions. The trustees may be more willing to reflect this additional return where there are contingency plans, if these higher returns are not achieved.

As a result, allowing for some or all of the “best estimate” out-performance when setting the Recovery Plan leads to reduced employer deficit reduction contributions. However, if the assets fail to meet the higher return assumption, the deficit will not reduce and additional employer deficit reduction contributions will be required at the next funding valuation.
The figure below illustrates the financial impact of the options listed above assuming a baseline Recovery Plan to remove a £10m deficit over a 10 year period.

**Figure 11. Illustrative Recovery Plan profiles**

![Illustrative Recovery Plan profiles](image)

**Assumptions:** Scheme has a deficit of £15m (£85m of assets and £100m liabilities). Asset performance is 1% p.a. above the discount rate.

In this illustration:

- inflation-linking the Recovery Plan reduces the Year 1 contributions by c. 10% from the baseline Recovery Plan;
- extending the recovery period by 5 years reduces the Year 1 contributions by c. 25% from the baseline Recovery Plan; and
- allowing for 0.5% p.a. asset out-performance reduces the Year 1 contributions by c. 45% from the baseline Recovery Plan.

If, for illustration, it were possible to agree all of the above (i.e. a 15 year, inflation linked Recovery Plan that allows for asset out performance) the Year 1 contributions would reduce by c. 80% from the baseline Recovery Plan. However, in our experience, it would be unusual to agree all of these options together unless the Employer Covenant was strong, there were very good reasons for not quickly paying down the deficit (e.g. using the cash to invest in the employer) and/or there were contingency plans in place.
Recovery Plan Market Practice

Historically, the Pensions Regulator had set a 10 year trigger point for reviewing submitted Recovery Plans. This was not intended to be a target, simply a way for the Pensions Regulator to identify plans which could warrant further investigation. Nevertheless, many trustees and employers did view this as a de facto maximum acceptable length.

A greater focus on affordability (rather than getting the length under 10 years) combined with increasing deficits has seen increasing Recovery Plan lengths.

The latest Pensions Regulator data shows that for schemes with valuation dates between September 2014 and September 2015, the average Recovery Plan is 6.3 years, with 25% of schemes adopting a Recovery Plan over 10.0 years and 5% of schemes adopting a Recovery Plan over 16.8 years.

There are a number of trends we see with Recovery Plans:

- **Employer Covenant** – schemes with weaker Employer Covenants often have longer recovery plans, usually as a result of the affordability of contributions.

- **Return Seeking Assets** – schemes with a higher proportion of return seeking assets often have longer recovery plans. The reason for this is less clear, but may be to benefit from a higher expected return on assets compared to the discount rate, or perhaps the employer has a weaker covenant and the scheme invests in more Return Seeking Assets to keep the contribution requirements low.

- **Funding Levels** – unsurprisingly schemes with larger deficits relative to the size of the scheme often have longer recovery plans than average. Data from the Pensions Regulator suggest scheme with funding levels less than 70% have an average recovery plan length of 12.15 years compared to 4.6 years for schemes that are 90% to 100% funded.

Figure 12. Distribution of Recovery Plan lengths

![Figure 12. Distribution of Recovery Plan lengths](Source: The Pensions Regulator: Scheme Funding Statistics 2017)
Over-funding risk
The funding valuation is based on prudent assumptions, so if actual experience is better than assumed, it is possible a surplus could develop in future.

If you are not planning to use a surplus to buy-out the scheme with an insurer when this becomes affordable and instead run the scheme until the death of the last member, it is important to consider how you could efficiently benefit from this surplus. Currently there is a 35% tax charge on refunds from a scheme to its employer.

In the next few sections we consider contingent assets and alternative funding solutions that offer varying levels of protection against this risk.

Under-funding risk
The difference between a well-funded and a poorly-funded pension scheme is felt most in poor trading conditions. The trustees of well-funded schemes are likely to have more flexibility in negotiating the Recovery Plan if cash in the business becomes constrained, for example they might agree to extending the recovery plan or allowing for some asset out performance.

For poorly-funded schemes that already have long Recovery Plans and already allow for some asset out performance, there is very little flexibility remaining and the trustees may have no choice but to ask for an increase in contributions at the worst time for free cashflow in the business.

We would caution against trying to minimise cash contributions to the maximum extent possible and instead advocate a balanced approach and to keep your scheme well-funded. Such an approach not only protects members benefits, but means there should be enough flexibility in the system, for both the business and pension scheme, should cash become constrained.
9. Contingent assets

The use of contingent assets
Contingent assets provide additional funds to the pension scheme in specified circumstances, e.g. employer insolvency. They typically take the form of charges over assets, escrow accounts, reservoir trusts and bank guarantees etc. Whilst they do not directly "fund" a deficit, the additional security provided by these arrangements may enable trustees to agree less prudence in the funding assumptions (as discussed in section 6) and/or allow greater flexibility in the length and shape of the Recovery Plan (as discussed in sections 7 and 8). Some of the options include:

• **Contingent contributions**: The employer or another group entity could arrange to make additional cash contributions to the pension scheme contingent on certain events.

  For example, the contributions could be linked to profitability or free cash flow. This would allow the employer to make contributions when they are affordable and therefore prevent the employer from overcommitting in the short term.

  Alternatively, the contributions could be contingent on events that cause the Employer Covenant to deteriorate. For example, the contributions could be linked to dividend payments or be required if the employer takes on additional debt, or disposes of part of its business. Whilst companies generally do not like restricting corporate activity in this manner, these restrictions may be preferable to the higher deficit reduction contributions otherwise required.

• **Contingent assets**: Similarly to contingent contributions, the corporate could agree to transfer non-cash assets to the scheme in certain circumstances or events. Potential assets include: property and stock as well as other intangible assets such as patents or brands.

**Figure 13: Examples of potential Contingent Assets**

<table>
<thead>
<tr>
<th>Tangible Assets</th>
<th>Corporate Assets</th>
<th>Intangible Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property, Plant &amp; Machinery</td>
<td>Cash, currencies and financial instruments</td>
<td>Copyrights, trademarks and patents</td>
</tr>
<tr>
<td>Stock</td>
<td>Receivables</td>
<td>Brands</td>
</tr>
<tr>
<td>Software</td>
<td>Loans</td>
<td>Other Contracts</td>
</tr>
<tr>
<td>Art collections</td>
<td>Submissions</td>
<td>Other Investments (e.g. Joint Ventures)</td>
</tr>
</tbody>
</table>
• **Escrow accounts**: An escrow account is usually a cash account held at a bank in the name of the corporate, but that the corporate cannot draw upon, unless agreement is reached with the trustees. In the event certain conditions are met (for example, the scheme is not fully funded in 5 years, or the sponsor becomes insolvent) the funds are transferred to the scheme.

• **Bank guarantees**: This is effectively a form of insurance whereby a bank guarantees to pay up to a pre-agreed maximum (e.g. the buy-out deficit or set amount) into the scheme in the event the employer fails to meet its obligations to the scheme. A bank guarantee will typically be appropriate where there is concern as to the employer being able to make deficit reduction contributions or fund the deficit. However, these can be expensive to implement, difficult to renew and usually they have a negative impact on the corporates’ ability to borrow.

It is worth noting that some of these options can be structured in such a way that they are “PPF Recognised” and therefore can reduce the PPF Levy that would otherwise be payable by the employer (either directly or via the scheme).

**Contingent assets market practice**
Recent Pensions Regulator data shows that for schemes with a valuation between September 2014 and September 2015, just under 20% had a contingent asset.

**Figure 14. Use of contingent assets by UK pension schemes**

Source: The Pensions Regulator: Scheme Funding Statistics 2017
10. Alternative funding solutions

Alternative funding solutions, whilst more complex than cash, can allow corporate assets to be used to provide upfront pension funding, whilst preserving cash and allowing the corporate to maintain day-to-day operational control of these assets.

**Asset Back Contributions**

**Example – Asset Backed Contributions**

Asset Backed Contributions (“ABCs”) typically work by the employer and the pension scheme establishing a Scottish Limited Partnership (“SLP”) into which group assets (e.g. property, brand, loan notes, receivables, stock) are transferred. These assets will be leased or licensed back to the company, to generate an income stream to provide annual cash distributions to the pension scheme. The diagram below sets out the basic structure. Depending on the assets used and the overall objectives of the corporate, changes can be made to the structure to create bespoke solutions.

An ABC has the following key advantages:

- **Cash preservation** – Cash efficient for the company, as ABCs enable cashflows to be spread over a longer period than a typical Recovery Plan
- **Immediate deficit reduction** – ABCs enable an immediate and often significant improvement to the cash funding position
- **Protect against overfunding** – ABCs can be designed to protect against an overfunding risk (if gilts revert to more “normal” levels, or the scheme experiences better than expected investment returns or lower than assumed longevity or inflation experience) by linking payments to the funding position of the scheme
- **Tax relief** – An upfront tax deduction may be available if certain conditions on the implementation of structures are met
- **Security of member benefits** – Scheme trustees gain access to a valuable corporate asset, with a value independent of the employer’s circumstance
- **PPF levy** – The recognition of the structure as a pension scheme asset can result in reduced PPF levies
- **Control** – The employer still maintains operational control of the underlying corporate assets
For schemes with a smaller deficit or where no suitable assets exist, employers could explore other alternative funding options that offer the trustees similar levels of security to an ABC or Escrow Account. That offers corporates similar protections against over funding to an ABC, but without the cost of the low returns of cash in an Escrow account.

**Reservoir trusts**

Where a corporate is concerned about overfunding and the risk of trapped surplus, it is possible to establish a “Reservoir Trust” to hold a reserve fund for the scheme in the event the scheme’s assets are insufficient to meet the scheme’s liabilities, but where any excess funds can be returned to the employer.

Reservoir Trusts are effectively a modern take on escrow accounts. However, the key difference is that the monies invested in the trust can typically be invested with more flexibility (e.g. in equities and bonds) and achieve higher returns than assets being held in a cash account.

Below we show an example of how a Reservoir Trust works.
11. Other solutions

Benefit changes and other solutions
Whilst we would expect the majority of employers to deal with a deficit using the 4 key areas we have already outlined in this guide, there are some other options which can be appropriate to consider:

• **Closure to future benefit accrual**: Where the scheme is open to future benefit accrual, the employer could consider closing the scheme to accrual and providing future benefits in a new (usually defined contribution) pension scheme. This will cease the future build-up of benefits within the scheme and, in addition, if the salary link can be severed, the funding reserve held for future salary increases (i.e. increases above the increase entitlement to members with a deferred pension) on benefits already accrued can be released, resulting in a one-off improvement in the funding level.

• **Reduce/stop discretionary benefits**: Where the trustees or employer have been granting discretionary increases (for example: discretionary pension increases or allowing members to retire early without reduction) these will either be funded for as they are granted or a funding reserve (i.e. an additional liability) will be held in the expectation they will continue to be granted.

  The employer could engage with the trustees to explore whether it would be possible to cease granting these discretionary benefits. If the employer has been funding for these increases (i.e. a reserve is held in the Technical Provisions), stopping such increases would improve the funding position of the scheme as the reserve is released and the Technical Provisions are reduced. In turn, this would reduce the deficit contributions that the employer is required to pay into the scheme.

  However, if the discretionary benefits have been granted for a number of years, there may be an expectation of the scheme members to continue to receive these benefits. Removing these benefits could result in a negative reaction from the employees and any unions. The potential legal implications of any custom and/or practice in this area would need to be explored.

• **Bespoke alternative corporate solutions**: In very rare occasions, where the corporate has used all of its options to deal with a deficit, the deficit remains unaffordable and it is pushing an otherwise viable business towards insolvency, the corporate can consider bespoke alternative corporate solutions.

  In such circumstances, insolvency is not always the best outcome for the stakeholders (including the Pensions Regulator and the Pension Protection Fund) and the corporate can work with their advisors to see if alternative bespoke solutions can be found.
12. Conclusion

Current funding levels and in particular the sizable deficit of many schemes means that pension scheme funding valuations continue to pose a significant financial challenge for CFOs and corporate pensions managers.

It is essential that company representatives are well equipped to deal with the valuation process, understand the key steps and are familiar with the latest thinking on actuarial assumptions and Recovery Plans.

Our key recommendations on corporate valuation strategy are:

1. Prepare a company proposal and initiate dialogue with the trustees early in the process to ensure that negotiations set off from a realistic starting point.

2. Be proactive in presenting the sponsor covenant and consider any options to improve the covenant. Scheme sponsors themselves are best placed to help trustees understand their business and if the trustees view the employer covenant to have improved, this can significantly reduce the levels of prudence in the valuation (and resulting deficit).

3. Conduct a company-side review of the current Investment Strategy, to gain a firm understanding of the risk this exposes you to and to consider if there are other strategies that better suit your risk appetite and cash flow objectives.

4. When negotiating the assumptions for setting the technical provisions, consider carefully the latest industry views and what consistency means. Do not blindly accept the same methodology as adopted three years ago.

5. When agreeing the Recovery Plan, ensure you consider the full range of options to deal with the deficit and the alternative funding options to manage cashflow and protect against the risk of overfunding.
13. Contacts

Deloitte has an extensive network of professionals working in an integrated way to bring cutting edge pensions advice and solutions to our clients. If you would like to speak to us about any of the opportunities raised in this guide please feel free to make contact with us using the details below or directly through your usual Deloitte contact.

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“Considering the full range of funding options can reduce a deficit, help manage cashflow and protect against the risk of overfunding all at the same time.”

Michael Ingram
Deloitte Senior Manager and Actuary
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