The Trustee toolkit downloadable

How a DB scheme works

Scenario one

In this scenario you will learn how, in principle, the actuary calculates the scheme's liabilities for pension benefits payable as they fall due.

As you work through this scenario you will be tested on your knowledge at decision points. Here you will have the option to work through a related technical tutorial before returning to the scenario or you can skip the tutorial. You can always work through the tutorial separately later if you would prefer. This scenario includes two tutorials:

- The basics
- Managing the liabilities

Glossary

A detailed glossary of technical terms can be downloaded from the Resources tab when you log in at **www.trusteetoolkit.com**

The Pensions Regulator

A new responsibility?

You had to miss the last trustee meeting, but you've just got the minutes. "The interim valuation is nearly complete and it was agreed that Charlotte would have a meeting with the actuary before it is finalised. It was also agreed that one of the member-nominated trustees (MNTs) should attend that meeting." Charlotte has also asked you to come with her to meet the scheme actuary. You're not sure about this idea, but you meet Charlotte anyway.

Charlotte says: "I don't think you've met Robert, the scheme actuary, yet. He used to advise the company as well, but you may remember the company agreed last year to appoint its own actuary. Robert will be at our next meeting but it will help if a couple of us have an idea of the issues beforehand. You probably remember Robert advised us when the company was in financial difficulties, and we concentrated on amending the benefits for future service. This year we have the interim valuation, and we may need to focus more on past service. I feel it's particularly important in these circumstances that one of the MNTs is fully engaged in the discussion.

A meeting with the actuary

Of course, you agree. A couple of days later you find yourself in the foyer of the actuary's office.

Charlotte says: "I thought, if it's OK with you, that I'd ask Robert to give a general rundown of how he sets about doing a valuation of the scheme's liabilities. That will help us to understand how it's done – so we can ask sensible questions at the board meeting."

Robert says: "My job is to work out what it will cost to provide the members' benefits as they fall due, even though the accurate answer will depend on some factors we don't yet know about.

This includes the benefits they have already earned, and the benefits they are accumulating now, and will go on accumulating as long as they work for the company and remain in the scheme. I have to take account of how much money there is in the fund at present. Then I have to work out what contributions are needed to secure enough money in the scheme to pay those benefits when they fall due."

You remark that Robert seems to be in the business of making predictions, rather than calculations. You rather wish you hadn't said it – he doesn't seem very amused.

Robert says: "Well, 'predictions' makes it sound like fortune telling. It's rather more precise than that. There are elements of the calculations which we know already. However, there are other elements that we can't know in advance. We have to make assumptions about those matters, and it's important that we all agree on those assumptions. Obviously these assumptions are founded on information and experience, rather than being wild guesses. But it's essential to review them regularly in the light of recent experience or knowledge."

Decision point: Known or assumed?

Robert gives you some examples of the things he knows and the things he has to assume when carrying out the valuation. Look at the options below. Which are known, which are assumed and which are both?

1. Demographic factors (mortality rates; rates of early or late retirement)
2. Financial factors (rates of salary increase; inflation rates)
3. Member information (current salary; current age; length of future service)
4. Scheme benefit basis (pensionable salary definition; death in service benefits; normal pension age)

Answers at the back

Need help with this question? Read the **Tutorial 'The basics'**

Robert tells it straight

Robert is at the next board meeting to present the first draft of the interim valuation.

Robert says: "Well, I have to tell you that since the last triennial valuation, the situation has not improved. The benefits are going to cost more to provide than we thought. This is partly for reasons you know about.

For example, everyone is living longer, so we have to assume your members will be drawing their pensions for longer too. You can probably think of other reasons as well. These considerations apply not only to benefits already accrued and to any deficit relating to those, but also to benefits which people are currently accruing."

Robert continues in the same vein, and swiftly comes to the conclusion of his presentation. He says: "So, all in all, this means that providing these benefits is becoming more and more expensive. If the stockmarket does well, the value of your fund might increase. The yield on your fixed interest investments may also improve. In that case you would be in a better position. But it's unlikely that these gains could outweigh the extra costs I've outlined."

Charlotte says: "Well Robert, thank you very much for your incisive presentation. What we have to do now is get our heads around these calculations. In particular we need to make sure we understand the assumptions you have used before we can agree them."

After Robert has left and you have all had time to draw breath, you begin to consider the impact of these calculations. Charlotte says: "Now that we know what the problems are, we shall have to think carefully about how we set about solving them. We know from our discussions last year that the company had been finding it difficult to afford a defined benefit scheme. We may have to take this into account."

Edmund says: "Things have got better since we restructured last year. However it would still be very difficult for the company to increase its contributions by very much."

Alicia says: "I think we have already gone as far as we can to reduce the benefits relating to future service. But that makes no difference to the deficit in relation to past service."

Adrian says: "If I understood it correctly, the bigger the fund is, the smaller the contribution needs to be. Maybe we could invest more in equities when the stock market is doing well. Would this reduce the employer's contribution?"

Rodney says: "Well, what about all these assumptions? How do we know how long us pensioners will live after we retire? Maybe it's not as long as Robert says. Perhaps we should look at that?"

Charlotte says: "You may be right Rodney, and Adrian may be right too. But striking the right balance is going to be really hard. Our chief concern is the members' interests, so our assumptions must be prudent. On the other hand, we need to understand the employer's plans for sustainable growth. There is no point in pushing the company too hard because people want their jobs as well as their pensions."

Decision point: What shall we do?

The board is really concerned about what Charlotte has said and how difficult it will be to strike the right balance that she mentioned. In the discussion which follows, several people suggest courses of action. Which do you think is the right one?

1. Amend benefits for future service
2. Change to a higher risk investment strategy to increase the size of the fund
3. Insist on higher regular employer contributions for current service and immediate plugging of the deficit for past service
4. Negotiate a timeframe with the employer to plug the deficit whilst increasing his contributions for current service

Answers at the back

Need help with this question? Read the **Tutorial 'Managing the liabilities'**

Rounding up

Finally you decided that you would have to agree a length of time with the employer over which he should plug the deficit and increase his contributions for future service.

> Now that you have completed this scenario we would recommend that you begin to work through the 'Check your scheme' worksheet for this module.

Answers

Decision point: Known or assumed?

The first two answers are assumed, the third is both and the fourth is known.

We know some of the member information (current age, current salary). However, we cannot possibly know at present the length of future service. We have to make an assumption about this. The scheme benefit basis category contains a list of items from the scheme rules in relation to pension benefits, all of which are known factors. We can't know either of the financial factors in advance, so we have to use assumptions for both of them. Similarly, none of the demographic factors can be known in advance, and all are assumptions. We use national statistics to determine assumptions about mortality rates and knowledge of the scheme to determine assumptions about rates of early or late retirement.

These lists are not exhaustive. You can probably think of some other known and unknown factors in all four categories.

Decision point: What shall we do?

The last answer is the most sensible plan. It should mean that the deficit will eventually be plugged but at a pace the employer can afford, enabling the business to continue and cover benefits relating to current service. Changing to a higher risk investment strategy might also work as it may provide higher investment returns to pay for scheme benefits. It's very unlikely that you would choose this approach on its own without being confident that the employer could make good any losses suffered.

Either solution means taking some risk in the hope of supporting the employer which may be rewarded if the employer thrives and is better able to support your scheme. Before taking on this risk you would need to be comfortable that the employer will be strong enough to address likely adverse consequences if the risk materialises because your key objective is to pay promised benefits when they are due.

Although amending benefits for future service may help you reduce the amount of benefits you have to pay eventually, isn't going to help with plugging a deficit that relates to benefits already earned.