The Trustee toolkit downloadable

Funding your DB scheme

Tutorial two: Valuing the scheme's liabilities

By the end of this tutorial you will better understand:

- the purpose of the scheme funding measure
- the purpose of the PPF measure
- the purpose of the accounting measure
- the purpose of the solvency measure

This tutorial is part of Scenario one.

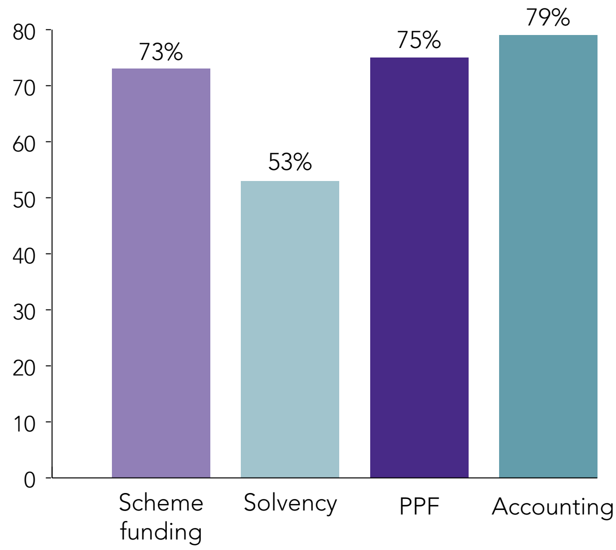
Glossary

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

The Pensions Regulator

Funding level

Christine is a new trustee of the Calendar Graphics scheme. She is looking at a bar chart provided by Bernard, the scheme actuary, which shows the scheme funding level based on four different measures. Bernard has also provided a table of figures.



	Assets (£m)	Liabilities (£m)	Surplus/ deficit (£m)	Funding position (£m)
Scheme funding	7.5	10.2	(2.7)	73%
PPF	7.5	10	(2.5)	75%
Accounting	7.5	9.5	(2)	79%
Solvency	7.5	14.2	(6.7)	53%

Key terms

Bernard has provided a list of key terms.

- 'Funding level' – the assets as a percentage of the liabilities.
- 'Funding position' – the monetary value of any surplus/deficit.
- 'Funding target' – desired funding level, usually 100% on the ongoing basis.
- 'Valuation' is the process of:
  - assessing the scheme's funding position in relation to benefits from past service
  - where relevant, working out the cost of benefits from future service and any deficit in respect of benefits for past service
- 'Basis' – the set of assumptions and method used in the valuation.

Funding level

In the table provided by Bernard, Christine can see that the scheme has a given set of assets which have been measured at market value for each calculation. In Christine's scheme this is £7.5 million. If the value of liabilities equalled the assets at £7.5 million, the funding level would be 100% and there would be no deficit or surplus.

Deficit

In Christine's scheme the value of liabilities does not equal the value of assets for any of the measures. If the value of liabilities is greater than the value of assets, then the scheme is in deficit. The greater the value of liabilities in relation to the value of assets, the larger the deficit and the lower the funding level.

The size of the deficit varies according to whether the assumptions are stronger (more prudent) or weaker (less prudent). For example, the solvency measure uses stronger assumptions than the scheme funding measure and therefore usually gives a greater deficit than if the scheme funding measure is used.

Assumptions

It is the trustees who effectively determine the size of the liabilities by their choice of assumptions. Trustees should act prudently when choosing assumptions, having regard to their duty to protect members' past service benefits and the level of risk which the employer covenant can support.

An appropriate outcome is likely to reflect a reasonable balance between prudently recognising the need to pay benefits while minimising any adverse impact on an employer's sustainable growth and, therefore, its long term ability to support the scheme.

Why use these different measures?

Each measure gives the answer to a different question and trustees and employers need to know the answers to all four questions. For the remainder of this tutorial we will look at each measure in turn to explain the question it answers.

Scheme funding measure

The scheme funding measure is also known as the ongoing measure, technical provisions or the Part 3 measure because it relates to the requirements under Part 3 of the Pensions Act 2004.

Why do trustees need to know the funding level under the scheme funding measure?

If there is a deficit on the scheme funding measure, as there is in the case of the Calendar Graphics scheme, the scheme will be required to have a recovery plan.

How is the funding position worked out?

This is the difference between the value of the scheme's assets and liabilities. This measure assumes that the employer will continue in the future and the scheme's recovery plan to eradicate the scheme's deficit on this measure may be made up by:

- additional contributions from the employer over a period of years into the future (known as 'deficit reduction contributions')
- investment returns from the scheme's assets

The funding of the scheme on this measure would be at risk if the employer were to become unable to support the scheme during that time. If the employer became insolvent during this period, it is unlikely that the scheme would have enough assets to secure members' benefits in full by buying insurance policies (to immediately secure pensions in payment and pensions that will become payable in the future) at short notice.

Depending on the strength of the employer covenant, it can be particularly risky to allow for any extra return from volatile investments (eg equities) when agreeing the assumption about investment return. An employer with a weak covenant will be less able to plug any gap left if the scheme assets perform less well than assumed in the recovery plan.

Benefits paid as they fall due

When considering the scheme funding measure, the important thing to remember is that the scheme does not need to pay benefits all at once, but as they fall due. For example, Christine's colleague, Giles, currently pays contributions into the scheme and is accruing benefits. The scheme does not have to pay benefits to Giles until he retires. Once Giles becomes a pensioner, he will not receive all his benefits at once, but month by month until he dies. For this purpose trustees need to make a prudent estimate of the contributions required to be able to pay the benefits at the right time.

Setting the technical provisions

As part of an integrated approach to risk management, trustees should choose to set the assumptions which determine the technical provisions for their scheme at a level appropriate for the strength of the employer covenant. This should take into account the employer's ability to address a range of likely adverse outcomes over an appropriate period.

Trustees should choose prudent assumptions and, in any event, be particularly wary of relying on a weak assumption about the returns on equities and other volatile investments.

Prudent assumptions

Actuaries refer to 'best estimate' assumptions. This means there is an equal chance that the actual experience will be better or worse than that assumed.

In order to set a prudent assumption, there must be less than 50% chance that the actual experience will be worse than expected, ie that actual experience will lead to a higher value of liabilities than that assumed. The more prudent, the less chance there is that the actual experience will be worse than assumed. For example, a prudent investment return assumption would be assuming poorer returns than expected on average. A prudent mortality assumption would be to assume people live longer than expected on average.

The accounting measure is unlikely to be sufficiently prudent and should not be taken into account when choosing assumptions for the scheme funding measure.

Is there a range of possible results?

Yes, there is a range of possible results in calculating a valuation on a scheme funding basis because of the trustees' discretion in choosing assumptions. However the law requires all assumptions (financial and non-financial) to be chosen prudently.

You will find more information on this topic in the Tutorial: 'Impact of assumptions' later in this module.

The Pensions Regulator (TPR) has expressed its concern about assumptions which might not materialise being used in both the technical provisions and the recovery plan.

Solvency measure

Why do trustees need to know the funding level under the solvency measure?

For two reasons.

1. If the employer wants to, or must, walk away from the scheme before all the scheme's liabilities are fully-insured, the solvency funding position will show the size of the debt on the employer at that point.
2. When assessing the employer covenant, one of the indications of the covenant strength is what the scheme would receive on insolvency of the employer. The amount due is calculated using the solvency measure. The covenant might be considered strong if the employer is able to meet the whole of the solvency deficit and might be considered weak if it can only meet a small part of the insolvency debt.

The solvency measure can also be useful for trustees to provide a benchmark of how much it would cost to insure the benefits fully with an insurance company.

What is this measure?

The solvency measure is used when a scheme is wound up and refers to the estimate of the cost of securing scheme liabilities with annuities purchased from a regulated insurance company. It is also known as the 'buy-out' or s75 measure.

Where trustees can envisage closing and winding up a scheme (eg where it is not supported by a meaningful employer covenant) they may want to consider replacing the scheme funding measure with the solvency measure. They will need the employer's agreement, as increased contributions will be needed.

How is the funding position worked out?

The funding position on the solvency measure is the difference between the value of the scheme's assets and the cost of securing insurance company annuities to buy out benefits accrued to date.

When schemes are wound up the active members become deferred members, so there is no future salary growth to take into account.

The assessment of liabilities on this measure is the actuary's best estimate as to the costs of purchasing these annuities.

How does the solvency measure compare with the others?

Insurance companies generally invest in low risk/low return assets. Consequently, the liabilities are very high on this measure. This, in turn, means that the solvency liabilities are usually larger than the funding, accounting and PPF liabilities.

Is there a range of possible results?

No, the solvency level depends on market rates for insurance company annuities on the date in question.

PPF measure

Why do trustees need to know the funding level under the PPF measure?

The PPF funding position influences the size of the risk-based portion of the levy a DB scheme must pay in order to remain eligible for the PPF.

What is this measure?

Like the Calendar Graphics scheme, most DB schemes are eligible for the PPF and required to pay a levy to it. Schemes are required by the PPF to calculate their funding position in a prescribed way for the purpose of assessing the levy. This is usually done in conjunction with their normal triennial valuation.

How is the funding position worked out?

PPF compensation is lower than scheme benefits (eg 90% of accrued pension benefits for those under PPF normal pension age, subject to a cap). Different rules apply to calculation of PPF compensation for other types of members. The PPF measure assumes that all active members leave service on the date of the valuation so no future salary increases are taken into account.

How does the PPF measure compare with the others?

Because the PPF basis is close to a solvency (buy-out) basis, save that the protected pension promises are lower, trustees may find they have a larger deficit on the PPF basis than they do on a scheme funding basis. This is despite the fact that PPF compensation is typically less valuable than the full benefits which members accrue under the scheme's rules.

However if the employer covenant is weak, the trustees are likely to calculate the scheme funding measure using assumptions close to those used on a solvency basis. For such schemes, the funding deficit is likely to be larger than the PPF deficit.

Is there a range of possible results?

There is no flexibility with the PPF measure, everything is prescribed.

Accounting measure

Why do trustees need to know the funding level under the accounting measure?

This is because employers, like Calendar Graphics, have to disclose the accounting funding position in their accounts.

What is this measure?

Company balance sheets should give a fair reflection of the company's financial position. If the scheme in deficit, like the Calendar Graphics scheme is, it is effectively an unsecured creditor of the company. The debt therefore needs to be shown on the company balance sheet. Conversely, if there is a surplus in the pension scheme, this should be reflected in the financial statements.

How is the funding position worked out?

There are rules on the way in which the value of the liabilities is calculated for this purpose and some of the assumptions are prescribed. Accounting standards used in the UK to measure liabilities include IAS19 and FRS17.

How does the accounting measure compare with the others?

One characteristic of this measure is that liabilities are calculated using AA bond yields. Depending on how the assumptions are derived on the scheme funding basis, the financial position of the scheme on the accounting basis may be better or worse than the financial position on the scheme funding basis.

TPR has warned that trustees should not assume that the accounting measure is sufficiently strong to meet statutory funding objective purposes.

Is there a range of possible results?

FRS17 and IAS19 prescribe certain assumptions but there is some degree of flexibility (eg assumptions for the rate of salary increases and mortality rates have to be best estimates rather than being fully prescribed).