

GN26: Pension Fund Terminology

Classification

Recommended Practice

Legislation or Authority

The Pension Scheme Surpluses (Valuation) Regulations 1987. SI 1987/412.

The Occupational Pension Schemes (Disclosure of Information) Regulations 1996. SI 1996/1655.

The Institute of Chartered Accountants in England and Wales. *Accounting for pension costs*. Statement of Standard Accounting Practice No.24. 1998.

Application

Any Actuary preparing either a report on the finances of a retirement benefit scheme in accordance with Guidance Notes GN9 or GN17 or statements required by the Disclosure of Information Regulations.

The purpose of this Guidance Note is to provide descriptions of funding methods and not to provide guidance on the suitability of particular methods for particular circumstances. Actuaries are expected to use their own professional judgement.

The Pension Schemes Surpluses (Valuation) Regulations 1987 refer to *Pension Fund Terminology: Specimen Descriptions of Commonly Used Valuation Methods* published by the Institute of Actuaries and the Faculty of Actuaries in 1986. Copies of this document can be obtained from the Editor.

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Status

Approved under Due Process.

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1.0	01.01.96
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1 Introduction

- 1.1 Resulting from the paper on pension fund terminology issued in 1984 by the Pension Standards Joint Committee and subsequently discussed at Staple Inn, the Councils of the Institute and Faculty decided to publish specimen descriptions of the various funding or valuation methods in that report. This was primarily intended to be a reference document to provide common understanding (both within and outside the profession) where titles of pension funding methods are quoted.

- 1.2 The Councils wish to emphasise that the publication of these descriptions in no way inhibits actuaries from exercising professional judgement as to the funding methods they use and that the descriptions are primarily to be regarded by members as a useful form of shorthand, avoiding the necessity of full definition in cases where the methods are used, while ensuring consistent use of terminology. However, there is nothing to prevent members explaining, in addition, the funding method in their own words.
- 1.3 Where one of the methods is used with modification, for example in the treatment of past service liabilities, reference should be made to the method adding a suitable description of the amendments. Where, however, alternative methods can be used as a reference point, the appropriate title should refer to the method which requires the least modification to achieve the desired result.
- 1.4 There is also included a description of the Projected Accrued Benefit Method which is specified in The Pension Scheme Surpluses (Valuation) Regulations 1987 (SI 1987/412)

2 Glossary

2.1 Actuarial Liability

- 2.1.1 The value, using actuarial methods and assumptions, placed on the obligations of a pension fund for outgoings, including expenses expected to fall on the fund after the date to which the calculations relate. It includes the present value of future instalments of pensions in payment and related contingent benefits, the present value of future payments in respect of deferred pensioners and a provision for all other members (referred to as active members). The method of calculating the Actuarial Liability in respect of existing pensioners and deferred pensioners is common to all funding methods. The provision for active members is defined by the specific funding method used.
- 2.1.2 Whether or not allowance is to be made for discretionary payments, for example increases to be made to pensions after award, is not specified by the method and the treatment of such payments should be described in the valuation assumptions.
- 2.1.3 Whether the actuarial liability takes account of the present value of future contributions is part of the definition of specific funding methods.

2.2 Actuarial Value of Assets

The value, following actuarial practice, placed upon the assets for the purpose of the valuation. It could be an assessed value, the market value or some other value.

2.3 **Actuarial Surplus**

The difference between the Actuarial Value of Assets and the Actuarial Liability.

2.4 **Funding Ratio**

The ratio of the Actuarial Value of Assets to the Actuarial Liability.

2.5 **Standard Contribution Rate**

The contribution rate (employer and employee) appropriate to a particular funding method before taking into account any Actuarial Surplus. It is normally expressed as a percentage of pensionable pay.

2.6 **Modified Contribution Rate**

The contribution rate (employer and employee) obtained by adjusting the Standard Contribution Rate to allow for any Actuarial Surplus. It is normally expressed as a percentage of pensionable pay. There are various ways of amortising the Actuarial Surplus and hence of adjusting the Standard Contribution Rate. The method used should be appropriate for the purpose.

2.7 **Control Period**

The period over which the Standard Contribution Rate has been calculated to remain constant, assuming that the Funding Ratio at the beginning and end of the period is 100 per cent. The Control Period, which is normally one year or more but which could be less than one year, should be specified.

3 Specimen Descriptions of Accrued Benefits Funding Methods

3.1 Accrued Benefits Funding Methods are a major category of funding methods in which the Actuarial Liability for active members is based on pensionable service accrued up to the valuation date or to the end of the Control Period, as appropriate. The treatment of benefits not directly linked to pensionable service is not specified but left to actuarial judgement, subject to the need for consistency between successive valuations. The Standard Contribution Rate is derived from the definition of the Actuarial Liability appropriate to the particular Accrued Benefits Funding Method being used. It is the rate sufficient, after taking into account the Actuarial Liability at the beginning of the Control Period and the benefits expected to be paid during the Control Period, to provide for the Actuarial Liability at the end of the Control Period.

3.2 Differences between the various Accrued Benefits Funding Methods arise from the treatment of decrements in membership and increases in pensionable pay when calculating the Actuarial Liabilities for active members. This affects

the value placed not only on the Actuarial Liability but also on the Standard Contribution Rate.

- 3.3 When projecting pay during the Control Period, or thereafter when required by the particular funding method, allowance is made for general increases in pay levels and also for career progression, where appropriate. Once the link with pensionable pay is deemed to be broken by the particular funding method, the amount of benefit could be assumed to continue to increase by other means, for example, at the statutory revaluation rate for preserved pensions.
- 3.4 Contributions and payments of benefits during the Control Period and numbers of members, amounts of pension and pensionable pay at the end of that period are projected using a common method for all Accrued Benefits Funding Methods. Normally allowance is made for all types of decrements, for example death in service, early withdrawal, early and normal retirement etc. Whether or not allowance is made for new entrants during the control period is not specified but left to actuarial judgement and should be stated in the actuarial assumptions.
- 3.5 Standard Contribution Rates are calculated for Accrued Benefits Funding Methods by a common methodology, expressed in the following formulae:

n = Control Period

AL_0 = Actuarial Liability calculated as at the valuation date.

AL_n = Actuarial Liability calculated as at the end of the Control Period in respect of active members, pensioners and deferred pensioners where numbers of members, pay and pensions are projected to that date according to the actuarial assumptions.

$B_{(0,n)}$ = Expected payments of benefits during the Control Period, projected according to the actuarial assumptions.

$S_{(0,n)}$ = Expected pensionable pay during the Control Period, projected according to the actuarial assumptions.

$SCR_{(0,n)}$ = Standard Contribution Rate payable during the Control Period.

Therefore,
 $SCR_{(0,n)} = [PV(AL_n) - AL_0 + PV(B_{(0,n)})] / PV(S_{(0,n)})$

where PV(***) stands for the present value of ***, as at the valuation date.

If future entrants are taken into account, both the numerator and denominator of the formula would make allowance for them.

3.6 Specific types of Accrued Benefits Funding Methods are described in paragraphs 3.7 to 3.11.

3.7 **Projected Unit Method**

The Actuarial Liability for active members either as at the valuation date or as at the end of the Control Period is calculated taking into account all types of decrement. In such calculations pensionable pay is projected from the relevant date up to the assumed date of retirement, date of leaving service or date of death as appropriate. This method is also known as the Projected Unit Credit Method.

3.8 **Current Unit Method**

The Actuarial Liability for active members is calculated taking into account all types of decrement. In calculating the Actuarial Liability as at the valuation date pensionable pay is not projected. In calculating it as at the end of the Control Period, pensionable pay is projected to that date. In such calculations, allowance is made for increases in the benefits between the relevant date and the assumed date of retirement, date of leaving service or date of death as appropriate. The increases to be included are those applicable to preserved pensions as required by legislation or by the rules.

3.9 **Partly Projected Unit Method**

The Actuarial Liability for active members is calculated as for the Current Unit Method except that, where pensionable pay is not projected in that method, some but not full allowance is made in the Partly Projected Unit Method.

3.10 **Defined Accrued Benefit Method**

The Actuarial Liability for active members either as at the valuation date or as at the end of the Control Period is calculated on the assumption that the scheme will be discontinued on those dates. As with the other methods, the Actuarial Liability is normally assessed on the basis of actuarial assumptions consistent with those used for long term funding. It is assumed that members will be entitled to the discontinuance benefits which are defined in the rules of the scheme before reduction of benefits under the application of any priority rules in a fund with a shortfall in assets. Additionally (but not alternatively) calculations may be made which assume that members will receive higher discontinuance benefits, by exercise of discretion, and both the Actuarial Liability and the Standard Contribution Rate would then be calculated by reference to those higher benefits. The Funding Ratio, however, will always be certified by reference to the discontinuance benefits defined in the rules.

3.11 Projected Accrued Benefit Method

The Projected Accrued Benefit Method is required to be used by the Pension Scheme Surpluses (Valuation) Regulations 1987 and relates only to the calculation of the Actuarial Liability as at the valuation date. The Actuarial Liability for active members is calculated as for the Projected Unit Method. Actuarial assumptions and methodology are prescribed in the regulations. Except in certain prescribed circumstances the longest period for eliminating statutory surplus is five years.

4 Specimen Descriptions of Prospective Benefits Funding Methods

- 4.1 Prospective Benefits Funding Methods are a further major category of funding methods. The Actuarial Liability for active members is based on the total benefits expected to be awarded, taking into account both the pensionable service accrued up to the valuation date and potential service after that date. Allowance is made for contributions to be paid after the valuation date at the level of the Standard Contribution Rate.
- 4.2 When calculating the present value of benefits, pay is always projected up to the assumed date of retirement, date of leaving service or date of death as appropriate. When valuing future pensionable pay on which contributions will be charged, pay is always projected over the period for which contributions will be paid. Allowance is made both for general increases in pay levels and also for career progression, where appropriate.
- 4.3 Under all Prospective Benefits Funding Methods allowance is normally made for all types of decrement when calculating both the Actuarial Liability and the Standard Contribution Rate.
- 4.4 The Actuarial Liabilities are calculated for Prospective Benefits Funding Methods by a common methodology, expressed in the following formulae:

AL_0 = Actuarial Liability calculated as at the valuation date.

TB_0 = Total benefits expected to fall due for payment after the valuation date.

S_0 = Expected future pensionable pay in respect of active members.

SCR_0 = Standard Contribution Rate payable from the valuation date.

Therefore, $AL_0 = PV(TB_0) - SCR_0 \cdot PV(S_0)$

where $PV(***)$ stands for the present value as at the valuation date of ***.

4.5 Differences between the various Prospective Benefits Funding Methods arise from the method used to calculate the Standard Contribution Rate. This affects the value placed not only on the Standard Contribution Rate but also on the Actuarial Liability.

4.6 Specific types of Prospective Benefits Funding Methods are described in paragraphs 4.7 to 4.9.

4.7 **Entry Age Method**

The Standard Contribution Rate is determined as the contribution rate which, if payable over the expected future membership of a group of new entrants, would provide for the total expected benefits payable in respect of that group. The method does not define the group. For example, it could be the group consisting of current entrants to the scheme or the entrants who gave rise to the current active members. A single average age of entry or a distribution of entry ages could be used. Alternatively the Actuarial Liability could be calculated individually for each active member.

4.8 **Attained Age Method**

The Standard Contribution Rate is determined as the contribution rate which, if paid over the expected future membership of the active members, would provide for the expected benefits payable in respect of them arising from their future service. The value of the future service benefits is taken as the difference between the value of total benefits and the value of the past service benefits calculated as for the Projected Unit Method. This results in the Attained Age Method and the Projected Unit Method having the same Actuarial Liability but different Standard Contribution Rates.

4.9 **Aggregate Method**

No Standard Contribution Rate is determined. A Modified Contribution Rate is calculated directly as the contribution rate which, if paid over the expected future membership of the active members, would be sufficient, taking into account the Actuarial Value of Assets, to provide for the benefits.