

GN 29: Accounting for Interest Guarantee on Provident Funds under AS 15 (Revised).

Classification:

Recommended Practice within the meaning of Section 4 “Breach of Professional Guidance” of **Professional Conduct Standards (PCS) Ver. 2.0.**

Legislation or Authority:

1. Accounting Standard (AS) 15 Employee Benefits (Revised 2005) issued by the Institute of Chartered Accountants of India – referred to herein as AS 15 (R).
2. ASB Guidance on Implementing AS 15 (R) issued by Accounting Standards Board of the Institute of Chartered Accountants of India.
3. Guidance Note: 26 (GN 26)
4. Profession Conduct Standards (PCS Ver. 2.0 / 27th May 2003) issued by Institute of Actuaries of India.
5. PF Act
6. Income Tax Act, and Income Tax Rules,..

Author:

Advisory Board for Pension and Social Security

Application:

This Guidance Note applies to any actuary advising on actuarial valuation relating to interest guarantee on Provident Funds prepared

- as a requirement under AS 15 (R) and/ or at the request of a client who may be an employer or a trustee of a Provident Fund and
- others who might be relied upon by a client/ employer/ insurer as a professional actuary giving professional advice.

Compliance:

Members are reminded that they must always comply with the PCS and this GN imposes additional requirements under specific circumstances. Check PCS for recommended Gns

Status:

Exposure Draft issued under due process in accordance with the “Principles and Procedures of Guidance Notes (GNs) (Ver2.00) [adopted by EC on 04032003]

Version

Effective From

0.1(1st Draft)

01-04-2008

Objective:

This Guidance Notes provides guidance to actuaries in making actuarial valuations and preparing actuarial reports related to interest guarantee on Provident Funds under circumstances stated in paragraph above on compliance. The valuation methods,

assumptions required and related reports are discussed briefly in this guidance and actuaries are required to refer GN 26 in addition.

Background:

This is described in the Appendix, Part I .

The background stated above implies that in any year when the interest earned on the monies in the fund and consequently the rate of interest intended to be credited to the fund monies is less than that declared and credited by the central government managed provident fund the employer has to make good the shortfall. This potential situation leads to the argument that exempted provident funds are similar to defined benefit plans and actuarial valuation of the liability is required.

If an enterprise is having a defined contribution plan with a defined benefit under pin, either by way of a minimum interest rate or minimum benefits, the question is similar

The opinions of members of ICAI, legal or other experts and members within our own profession have not so far reached any semblance of uniformity but there have been requests from employers to our embers for an actuarial valuation. A brief summary of different opinions and a brief description of some valuation methods relevant in the context are given in Appendix, Part II and Part III

1) Elaboration on the objective of this GN

The objective of this GN is to advise actuaries taking up the relevant valuation work on the preliminary considerations before accepting such assignment, the approach which might be followed in the valuation and the manner of reporting.

Guidance:

1. Preliminary considerations

1.1 At this stage of developments on this issue, it would be difficult for a practicing actuary to take a stand on the need for setting up a provision towards the implied interest guarantee. It is hence desirable to leave it to the employer's decision and where the employer approaches the actuary with a request for a valuation the request may be considered after the actuary satisfies himself that the client is aware of the uncertainties involved in the valuation and that he is equipped with the necessary skills and expertise to undertake the work.

1.2 Where the client does not seem to be aware of the relevant uncertainties, before the work is undertaken it is also desirable for the actuary to discuss the nature of uncertainties associated with the valuation and any specific issues associated with the management of the company's exempted fund, the scope of the work and the approach to be followed in the estimates for the provision.

2. Factors to be considered

- 2.1 It is preferable for the valuing actuary to retain the history of the EPFO's performance and in particular the interest rate earned, interest rate credited to accounts of individual members, the size of the EPFO managed fund and the yield on a suitable central government security such as the 10 year bond.
- 2.2 All the normal features relating to demographic aspects of an employee benefit valuation would be applicable in the valuation of an interest rate guarantee.
- 2.3 Apart from the normal demographic aspects certain special features such as proportion of employees making additional contributions to the fund and the size of funds involved, the proportion of members obtaining loans from the fund, their size and rate of interest charged by the fund on such loans would also be relevant for the valuation.
- 2.4 There may be certain financial features which are peculiar to the fund such as the appropriateness of the investments by term to the emerging liabilities in the fund, delays in investing, proportion of funds held as loans to members, etc and it could be that these need special consideration in the valuation. Aspects relating to these features may be discussed with the employer before deciding on such items and arriving at a final figure for incorporation as a provision in the accounts.
- 2.5 The method to be chosen for the valuation should consider the degree of refinement and complexity required for the calculations in relation to the likely size of the guarantee as a proportion of the client's financial operations as also the actuary's familiarity and skills in application of the method.

3. Data to be obtained

The data to be obtained is similar to that required for valuation of an employee benefit. However, additional information relating to individual member's PF contribution/ additional contribution, accrued balances, outstanding loans and installment repayments, interest rate earned and declared (credited to members' accounts) over the last, say, 3 to 10 years and amounts of shortfall, if any, made good by the employer should also be obtained. In short, all information relevant to projection of fund position in future should be sought.

4. Valuation objectives

- 4.1 The valuation method adopted finally should be consistent with the valuation objectives as defined or agreed with the employer.
- 4.2 The period for the projections should be not less than 5 years and not more than the weighted average of the outstanding term of the liabilities being valued. A period longer than such outstanding term would imply allowance for new members into the fund in which case the employer has to provide the basis on which allowance for new members into the fund may be made.
- 4.3 The manner in which the provision for shortfall has to be defined may be agreed with the employer. For example, if a fund has some amount of excess over the amount required for declaring a particular rate of interest either because of past surpluses built up in a similar fashion or because of a current surplus the statistical or other method by which such margin may be defined is to be agreed with the employer. Similarly the criterion of "ruin" for such surplus may also be defined and agreed.

4.4 Since the valuation goes beyond a normal employee benefit plan the components in the valuation have to be defined in advance. Such components would relate to the inputs required, the data to be derived from the inputs, the output required and the target results.

5. Valuation components and assumptions:

Guidance provided under GN 26 would apply to this GN also. All the assumptions and the nature of impact of a change in any of the assumptions has to be discussed with the employer.

Other aspects:

6. Where the actuary finds that there are other alternatives for either improving the interest rate earned on the investments (namely scope for better investment management and performance) or on the interest rate to be declared by for example deciding on a policy of a defined gap between earned rate and declared rate the matter may be discussed with the employer.
7. The presentation of results should be preceded by a simple explanation of the method followed and a brief description of the uncertainties involved in the calculations.
8. The structure of the report may be similar to the one described in GN 26 but all aspects relating to the management of the fund including ALM policy for investments, interest rate charged on loans to members and degree of surplus retained in the fund due to a gap in the rate credited to members' accounts and rate actually earned may be covered by the report.
9. A list of other considerations to be kept in mind the actuary is given below. The list is by no means exhaustive.
 - The assumption that the difference between guaranteed rate and earned being same in the future may lead to recognizing too large a liability if current difference is large or too small a liability if current difference is too small.
 - Any disadvantages with respect to the application of Black's model will get reflected in the valuation.

Using the Black's model assumes that there are no equity related investments. If the fund is exposed to equity either currently or in the future using Black's model alone may not be appropriate. In such cases either a combination of Black's model and Black-Scholes model will be required or need to make some implicit assumptions in the parameters used in the Black's model; either of these methods will further complicate the calculation coupled with lesser transparency.

A suitable Economic Scenario Generator is required to generate future interest scenarios.

Results are subject to simulation error and choice of number of simulations is additional assumption to be made.

- For deterministic modeling it has to be decided whether there should be single deterministic scenario or multiple deterministic scenarios and if multiple the type of scenarios that are to be used
- With respect to stochastic modeling parameters are to be calibrated to Indian market, minimum number of simulations, suitable risk measure etc.,

Any issues related to prospective unlocking method to be further analyzed

- The EPFO interest rate is difficult to model as it is an administered rate where it is declared by the Trustees every year. Hence it is difficult to predict or project the behavior of the fund managers. This requires further study in to the past behavioral pattern and rates declared related to the performance of underlying assets. This requires a study into the basis of past performance and factors that were taken in to account while declaring the guaranteed rates.

Disclosures:

1. The net liability/ (asset) to be recognized in the Balance Sheet as on a valuation date will be:
 - A. Value of the Interest Rate Guarantee
 - B. Accumulated Balance in the Provident Fund
 - C. Present Value of the Obligation = A+ B
 - D. Fair Value of Plan Assets
 - E. Liability recognized in the Balance Sheet = A+B-D

2. For the purpose of determining the expense to be recognized in the Statement of Profit and Loss, the current service cost will be set equal to the expected PF contribution over the next year [following the valuation date] in respect of the existing members **plus** the cost of the interest rate guarantee for the next year. The model used by the actuary should enable year-wise build-up of the cost of the interest rate guarantee.

APPENDIX

Part I: Background

2) Provident funds and exempted provident funds

The Employees' Provident Fund Scheme 1952 of India applies to every establishment which is a factory and any other establishment employing 20 or more persons as defined in Section 1 Exceptions under certain circumstances are defined in Section 16. However, Section.17. provides for grant of exemption to employers who manage their own provident funds through trustees. The main conditions for exemption can be summarized as follows:

- a) Rate of contribution is not lower than under EPF scheme
- b) Benefits granted are on the whole not less than under EPF
- c) the rate of interest on monies in the provident fund and credited to the provident fund account is not less than the interest rate credited by the trustees of the central government managed provident fund.
- d) the provident fund is managed through trustees nominated in accordance with law.
- e) The pattern of investment of monies in the fund are as directed by the Central Government. (Investments are prescribed by Rule 67 of Part XII of the Income tax Rules, 1962

3) Interest guarantee

There is an implied interest guarantee because of the following provision (para...of EPF Scheme)

The account of each employee shall be credited with interest calculated on opening balance as on the 1st day of the accounting year at such rate as may be decided by the Board of trustees but shall not be lower than the rate declared by the Central Government under paragraph 80 of the said scheme.

If the Board of trustees are unable to pay interest at the rate declared by the Central Government for the reason that the return on investment is less or for any other reason, then the deficiency shall be made good by the employer.

As per the provisions of Exempt Provident Fund if the fund underperforms for three years continuously the exempt status will be lost and all monies will be transferred to the RPF.

Part II: Opinions

Opinions within ICAI

The Guidance Note issued by the Accounting Standards Board (ASB) of the Institute of Chartered Accountants of India (ICAI) read in conjunction with para 26 (b) of Accounting Standards 15 (revised 2005) treats exempted provident funds with an embedded interest rate guarantee as Defined Benefit Plans. Accordingly the relevant provisions of AS 15 (R) relating to measurement principles and disclosure requirements will apply to such plans.

There seems to be no clear view/ official stand taken by the ICAI and some members seem to support the argument that the benefit falls under a defined benefit plan while some others seem to support the argument that mere fact of a potential shortfall in any future year could always be dealt with by an appropriate contribution from the employer and the liability can be dealt with on a cash basis and there is no need to apply an accrual basis to determine the liability.

Opinions of legal/ other experts

The position with regard to opinion of legal/ other experts concerned seems to be no different from the ICAI's and as yet no clear view seems to have emerged.

In the case of exempt provident fund the corpus can be invested only in certain specified class of instruments i.e the Company does not have complete flexibility to manage the corpus to optimize yield. While the return on the exempt provident fund depends from year to year on the interest rate scenario the return on the EPF declared by EPF to its members is to some extent dependent on the actual yield, any reserves built and perhaps equally importantly on the government's need to satisfy employee unions and their representatives in the Parliament. The return on contribution is mandated by the government and is not a specified amount across years. It varies from year to year based on interest rate scenario in the economy.

The obligation of the Company to meet the interest shortfall can be more appropriately classified as contingent liability. Paragraph 10 of AS 29, Provisions, Contingent Liabilities and Contingent Assets defines contingent liability as a possible obligation that arises from past events and the existence of which will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the enterprise.

A similar issue was proposed to be dealt with by IFRIC Draft Interpretation D9 – Employee Benefit Plans with a promised return on contributions or notional contributions (Issue D9).

Issue D9 proposed that an employee benefit plan where contribution is made each year based on employee's current salary and the employee receives a benefit (lump sum or annuity) equal to the contribution plus guaranteed fixed return on the contribution is a defined benefit plan. However where the benefit is provided based on future asset returns the liability is measured as equivalent of the fair value of the assets upon which the benefit is specified. There was no consensus on this interpretation and Issue D9 was finally withdrawn.

Issue D9 re-emphasized defined benefit accounting for plans with guaranteed return. In the case of exempt provident funds the interest rate to be credited is mandated based on the interest rate prevailing in the economy, yields on the class of instruments in which PF trust can invest etc and therefore the benefit conferred on the employee is largely linked to return being generated on the underlying assets of the corpus, therefore based on Issue D9, at each balance sheet date, if the shortfall is funded by the Company the Company's obligation relating to provident fund contributions can be considered as fully met. At any point of time the discontinuance liability is the maximum liability of the company. In case of PF the discontinuance liability is the corpus of the fund which is invested so there is no additional liability on account of PF any interest shortfall in future is a future liability and can not be accounted in the current year.

Paragraph 30 of AS 15 (R) provides that when sufficient information is not available to use defined benefit accounting for a multi-employer plan a company can account for the plan as if it were a defined contribution plan and make appropriate disclosures.

Considering the practical issues in making reasonable actuarial assumptions for valuing interest shortfall obligation ASB should adopt the guidance for multi-employer plan above for provident fund contributions and permit defined contribution accounting with adequate disclosures.

In the alternative, considering differing views on the issue of defined benefit accounting for interest shortfall relating to provident fund contributions, ASB can withdraw guidance on question 9 and re-issue the guidance as an exposure draft seeking comments. Even in IFRS there has been no consensus on this issue and the draft IFRIC interpretation was withdrawn.

Opinions within our own profession

- a. 5.1 Even within our own profession opinion seems to be divided and while some favour actuarial valuation using an appropriate method whereas some believe that the determination of the liability can not be based on any sound actuarial principles/ techniques. Those in the first category recommend and in fact appear to be already using such methods.

Part III: Methods of valuation

Deterministic Approach: Deterministic valuation where the difference is projected forward based on the assumption that any difference between achieved return and CPF declared will continue at the same rate. The liability is calculated using these in interest rates and discounted to the valuation date.

Closed Form Approach: Conceptually the valuation of benefit under consideration is similar to the valuation of interest rate floor. The standard closed form approach that can be used to value these types of benefits is the Black's model used for pricing stock options.

Note: The above 2 methods have been proposed by Dr Sriram. For further details please see papers by him submitted to GCA... and titled...

Cash Flow Model Approach: A cash flow model approach wherein future interest rates are modeled using a Stochastic Interest Scenario Generator and the net liability is determined under each of the interest rate scenarios. The output of this approach would be a distribution of the net liabilities, which can be rank-ordered to determine net liability corresponding to a chosen risk measure. The risk measure can be a percentile approach, say, 95th percentile of the distribution or Conditional Tail Expectation (CTE) approach, say, liability corresponding to CTE (95%) of the distribution.

NAIC model based approach: A multiple deterministic scenario approach, several scenarios of future interest rates are used. Examples of these are the 7 Required Interest Rate Scenarios as stated in the NAIC model Actuarial Opinion and Memorandum Regulation which were first specified in New York Regulation 126, so some actuaries refer to them as the New York 7 scenarios.

A liability can be determined using each of these deterministic scenarios and average net liability can be used as net liability.

methods of simulating future cash flows to simple methods of corporate planning and projections to establish, albeit on a rough basis, the likely shortfall to be contributed by the employer in future years. Such valuations also seem to have been undertaken/ advocated as the concerned actuaries have come across clients demanding/ requesting for such guidance and advice.