Institute of Actuaries of India

Liyaquat Khan
President

November 22, 2003

To,
All fellow members,

Dear All,

Re: Actuarial Practice Standard 12 (APS 12) - Investigations of Retirement Benefit Schemes: Choice of Actuarial Assumptions for the Actuarial Valuations Required Under Accounting Standard 15 (AS 15).

It is almost a year now that we have been engaged with issues relating to the choice of actuarial assumption for the valuations required under AS 15.

The **Actuarial Practice Standard 12 (APS12)-**– Investigations of Retirement Benefit Schemes: Choice of Actuarial Assumptions for the Actuarial Valuations Required Under AS 15 (Ver. 1.00) comes into effect for valuations of defined benefit types of Retirement Benefit schemes in respect of an accounting year incepting on or after 1st April 2003. The APS12 is practice standard i.e., mandatory.

Issuance of this APS is an important step by IAI to strengthen our resolve to “Serve the Cause of Public Interest” in the area of Retirement Benefit provisioning. This APS along with the GN11 (Ver. 1.00) should provide a comprehensive framework within which actuaries can discharge their responsibilities.

With Regards,

Yours Sincerely

Liyaquat Khan

Actuarial Practice Standard (APS 12): INVESTIGATIONS OF RETIREMENT BENEFIT SCHEMES: CHOICE OF ACTUARIAL ASSUMPTIONS FOR THE ACTUARIAL VALUATIONS REQUIRED UNDER AS 15

Classification: Practice Standard

Legislation or Authority:

1 There is no legislation which has impact on this APS
2 AS15 of the Institute of Chartered Accountants of India
3 GN –11: Actuarial Investigations of Retirement Benefit Schemes

Author

Pensions and Social Security Board (PSB)

Application

This **Actuarial Practice Standard**, which is practice standard, applies for any actuarial valuation of retirement schemes of Defined Benefit kind carried for an accounting entity by an actuary as required under the provisions of Accounting Standard No. 15 issued by the Institute of Chartered Accountants of India.

This APS should be applied in relation to requirements of Section III, Para 7 – Choice of Actuarial Assumptions of GN 11.

The provisions of this **Practice Standard** are applicable to all Fellow members who carry out such actuarial valuation irrespective of the fact whether they do so as an employee of an insurer or an employee of the accounting entity for which the valuation is being done or as a consultant.

Status

Issued under due process in accordance with the "Principles and Procedures for issuance of Guidance Notes (GNs) (Version. 2.00)" [adopted by EC on 04 03 2003]

This Actuarial Practice Standard shall constitute a practice standard on professional matters within the meaning of Rule 29(*ℓ*) of the Rules of the Society.

Version: 1.00 effective from for valuation in respect of an accounting year incepting on or after 01 04 2003
Version: 1.01 effective from 01 01 2012

1. Objective

The Objectives of this **Actuarial Practice Standard** are:

i. To supplement the provisions under GN-11 regarding choice of Actuarial assumptions, more particularly as given in Para 7 of Section III of GN-11 and as these relate to quantification of liability for expensing in the books of accounts under Accounting Standard 15.

ii. To provide a cap; minimum or maximum as the case may be for values of actuarial assumptions keeping in view economic scenarios prevailing at the valuation date.

iii. To ensure consistency in values adopted amongst different assumptions for the same investigation.

This APS is not intended to be a substitute for the Actuary's professional judgment and responsibility.

Actuaries are encouraged to adopt values more prudent than suggested under this APS if circumstances make this appropriate in the Actuary's professional opinion. However under no circumstances should such assumptions lead to a lower liability than would be the case if provisions of this APS were applied.

In exceptional case where the Actuary decides that the bases in accordance with this APS are not appropriate, he/she may chose to adopt different bases with justification for the source to be recorded in the Actuarial Report.

2. Scope

The provisions of this APS and as particularly specified under Para 4 apply in relation to Para 6.3 of Section III of GN 11 i. e. when the valuation for the purpose of AS 15 is being carried out under the assumption of "ongoing concern."

3. Valuation Methodology

For arriving at the actuarial values of liability for the purpose of Accounting Standard No. 15, actuary will adopt the methodology as applicable under the Projected Accrued Benefit Method as described in Para 3.6.4 of GN 11.

4. The bases for Actuarial Assumptions

4.1 DISCOUNT RATE (not to be higher than):

i. Gross redemption yield per annum on Central Government 20 (twenty) years Securities prevailing at any time during the period of one hundred days preceding the valuation date plus 2% p.a. rounded up to nearest quarter percent p.a.

ii. Values of gross redemption yield figures published by National Financial Dailies are to be used for this purpose.

Illustration

If the highest gross redemption yield per annum on Central Government 20 years Securities as published in a National Financial daily during the period of one hundred days preceding the valuation date is 6.71% p.a. the maximum discount rate that can be adopted for the valuation will be 8.75% p.a. (6.71 + 2.00 rounded up to the nearest quarter).

4.2 SALARY ESCALATION RATE (not to be lower than):

i. Salary escalation rate obtained by deducting 4% from the chosen discount rate

Illustration
If the chosen discount rate is 8.75% p.a. then the assumption for salary growth would be 4.75% p.a. (8.75 – 4.00).

However, in case the Management of the Accounting Entity provides the rate of expected escalation taking a view over next 5 to10 years, the same should be adopted.

Explanation
Management shall mean a named official of the Accounting entity to be identified in the Actuarial Report.

4.3 ANNUITY RATE (not to be lower than)

Unfunded Schemes – Pension paid on pay-as-you-go basis
Annuity rates arrived at by using discount rate as provided above and annuitants' mortality table published by Institute of Actuaries of India in concurrence with IRDA under provisions of IRDA (Assets, Liabilities and Solvency Margin) Regulations, 2000.

Funded Schemes paying pensions from their own funds

Annuity rates arrived at by using discount rate as provided above and annuitants' mortality table published by Institute of Actuaries of India in concurrence with IRDA under provisions of IRDA (Assets, Liabilities and Solvency Margin) Regulations, 2000.

Funded Schemes required to buy annuities from Insurance Companies
Lowest among appropriate type of immediate annuity rates of Life Insurance Companies prevailing at any time within one hundred days prior to the date of valuation.

4.4 ESCALATION RATE FOR INDEX LINKED PENSIONS IN POST VESTING PERIOD (not to be lower than):

i. Pension escalation rate per annum obtained by deducting 5% p.a. from adopted discount rate per annum.

Illustration
If the adopted discount rate is 8.75% p.a. then the minimum pension escalation rate would be 3.75% p.a. (8.75 – 5.00).

5. Withdrawal, Mortality and Morbidity Rates

Assumptions as considered appropriate for the Accounting Entity

6. Transition

6.1 In respect of an Accounting Entity for which valuation is being conducted for the first time after the introduction of this Actuarial Standard Practice, bases prescribed under Para 4 above apply with immediate effect.

6.2 In respect of an Accounting Entity for which valuation has been conducted prior to the introduction of this Actuarial Standard Practice, a transition period is allowed up to the valuation to be conducted for the accounting period ending on or immediately before 31/03/2007.

6.3 The provisions of this Actuarial Standard Practice will have to be adopted on or before the valuation to be conducted for the accounting period ending on or immediately before 31/03/2007.

6.4 The transition from the assumptions adopted in valuation conducted on or immediately before 31/03/2003 to the provisions of this Actuarial Standard Practice to be adopted in the valuation to be conducted on or immediately before 31/03/2007, should be carried out in broadly uniform steps over the transition period.

6.5 During the transition period if the liability arrived at by the Actuary is less than that required as per provisions of this Actuarial Standard Practice then the valuation report should clearly give the details of:

i. Values of the actuarial assumptions adopted in immediately preceding valuation.
ii. Values of the actuarial assumptions adopted in current valuation.
iii. The values of actuarial assumptions that would have been adopted in the current valuation in accordance with this Actuarial Standard Practice.

7. Review of provisions of this Actuarial Standard Practice regarding actuarial assumptions Institute of Actuaries of India would review the guidelines under this Actuarial Standard Practice from time to time. Such review would be carried out not less than once a year.

Note: This APS includes the followings;

Explanatory Notes to Actuarial Standard Practice 12: Investigation of Retirement Benefit Schemes: Choice of Actuarial Assumptions for the Actuarial Valuations required under AS 15

Accrued Benefits:

1. Benefits accruing, both conditionally or unconditionally, should be taken into account.

Illustration:

In case of a gratuity scheme with eligibility condition of at least 5 years of service for vesting some of the benefits, accruing of benefits will commence from the date of inception of service and not after completion of 5 years of service.

1 In case of Retirement Benefit scheme having scale of benefits graded according to years of service at the time of exit, accruing of benefits for any particular employee will be

with reference to grade in the scale as would be applicable at the time of exit and not with reference to grade in the scale on valuation date.

2 For the purpose of determining accrued benefits, salary would mean amount of remuneration with reference to which retirement benefits are calculated.

Escalation rate for Index Linked pensions in post vesting period:

The escalation rate adopted will be related to only that part of the pension as is subject to escalation.

Guidelines to apply for accounting entity as a whole.

Actuary should ensure that actuarial liability arrived at for the group as a whole is not less than that calculated by using bases prescribed under Para 4 of the Actuarial Standard Practice. Subject to this, however, actuary may, if so considered appropriate, adopt different assumptions regarding salary escalation rates for different sub-groups and such different assumption for any particular sub-group can be weaker than the prescribed basis for salary escalation rates.

Valuation for situations other than "ongoing concern"

In case the valuation is for situation other than of "ongoing concern" (for example an accounting entity closed for business where the weighted average service period is significantly at variance from what is normally observed), assumptions consistent with those prescribed under Para 4 of the this Actuarial Standard Practice and keeping in view the specific situation of the concern need to be adopted.