
EMPLOYEES' PENSION SCHEME, 1995

12TH VALUATION REPORT

AS ON 31ST MARCH 2008

**P.A. BALASUBRAMANIAN,
ACTUARY.**

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ACTUARY

To

Employees' Provident Fund Organisation
(Ministry of Labour, Govt. of India)
Bavishya Nidhi Bhawan
14, Bhikaji Cama Place
New Delhi 110066

Dear Sirs

As required in your communication ref. No. Actuarial/ 18(3) / 2008 / 85835 dated 19th February,2010 I have completed the 12th Valuation of Employees' Pension Scheme, 1995 as on 31 st March, 2008.I have pleasure to submit the Valuation Report

I wish to acknowledge with thanks cooperation extended to me by all concerned Officers and Staff in providing required data and information for the valuation exercise..

Thanking you

Yours faithfully



P.A.Balasubramanian

Date:17th August,2012

EMPLOYESSS' PENSION SCHEME, 1995

REPORT OF ACTUARIAL VALUATION
AS ON 31ST MARCH, 2008

| CONTENTS | Page No. |
|---|----------|
| 1. INTRODUCTION | 3 |
| 2. EXECUTIVE SUMMARY | 3-6 |
| 3. BENEFITS VALUED | 6 |
| 4. MEMBERSHIP | 6-7 |
| 5. RECEIPTS AND PAYMENTS AND ASSETS OF THE FUND | 7-8 |
| 6. DATA FOR VALUATION | 8-10 |
| 7. EXPERIENCE ANALYSIS | 10 |
| 8. FUNDING OBJECTIVE | 11 |
| 9. METHODOLOGY FOR VALUATION | 11 |
| 10. VALUATION BASIS | 11-15 |
| 11. AMENDMENTS TO EPS '95 | 15-16 |
| 12. VALUATION RESULTS | 16-18 |
| 13. COMMENTS AND RECOMMENDATIONS | 19-20 |
| 14. RELIANCE AND LIMITATIONS | 20-21 |
| 15. ANNEXURES – 1, 2, 3, 4 | 22-25 |
| 16. APPENDIX – A, B, C,D | 26-29 |

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**Report of Actuarial Valuation as on 31 March 2008 of
EMPLOYEE PENSIONS SCHEME, 1995**

1. Introduction

1.1 I have been requested by EPF Organization vide reference letter dated 19th February 2010 to carry out valuation of EPS 95 as on 31 March 2007, 2008 and 2009 and submit the report.

1.2 The purpose of valuation is to value the assets and liabilities of EPS '95, review the rate of contribution and quantum of pension and other benefits and to determine the surplus/deficit of the EPS fund and in case of surplus recommend the rate of discretionary additions to the basic pension payable for the valuation period.

1.3 The valuation is being made pursuant to section 32 of EPS '95 Scheme.

1.4 Current valuation is made as on 31 March 2008. Previous annual valuation was made as on 31 March 2007.

2 Executive Summary of 12th Valuation Report As On 31st March, 2008

I have completed the valuation of assets and liabilities of EPS '95 as on 31st March, 2008 for which data of members and pensioners were made available.

2.1. Members and Pensioners

Of the 4,05,85,860, members of the Scheme as on 31st March, '08 individual member data was provided for 2,26,69,949 members. Out of this data, only data in respect of 76,89,298 members were found consistent and out of this on removal of duplicate records only 21,00,518 records were useable for valuation calculations. Efforts to supplement more data complete in all respects were not successful.

As for Pensioners, data in respect of 14,33,248 (out of actual number 18,05,012) and 7,27,787 beneficiary pensioners(out of actual number 11,47,60) were provided to determine all Pensioners' liability.

With the limitation in data availability (very severe in respect of current members) as mentioned above, valuation of liability of the Pension Scheme had to be projected to arrive at an estimate based on actual valuation using available data and assumptions on demographic and economic factors considered reasonable and appropriate to the Scheme. Owing to data constraint there is an element of uncertainty as to the value of total liability of the Scheme and the resultant financial position of EPS'95 Fund.



2.2 Receipts and Payments and assets of the Scheme

During the inter-valuation period, 1 04 2007 to 31 03 2008 contribution income was Rs. 9012.46 Cr. investment income was Rs. 7171.90 Cr and total benefit outgo being Rs.4176.75 Cr.. As a result the Fund increased to Rs.95,920.57 Cr as on 31st March, 2008.

The assets of the Scheme as on 31st March, 2008 comprise Deposit in Public Account Rs. 36,809.06 Cr, investments in securities Rs. 59151.99 Cr and cash etc. Rs(-)40.49 Cr. The return on the assets was 8.31 % during 2007-'08 The investments in Securities to a greater extent (74 %) have outstanding term to redemption / maturity of less than 10yrs with weighted average term of 8.4yrs. This is too short compared to average duration of emerging liabilities which is quite long. There is mismatch of duration of assets and liabilities exposing the Fund to mismatch risk and uncertainty of the rate of return .A review of investment management is recommended to streamline the same with clear objective to manage efficiently and effectively so as to optimize the returns having regard to asset liability matching requirement and also taking into consideration investment guidelines under National Pension Scheme regulated by PFRDA.

Consistent with the valuation of liability, assets were valued at Book Value

2.3. Valuation Basis

Assumptions have been made as judged reasonable and appropriate, having regard to the nature and term of the liabilities and assets and expected trend over the future of the elements forming the valuation basis.

Main assumptions:

Interest Rate: 8% for pre retirement period and 7% for post vesting period.

Salary increase: 6% p.a. during the period of service.

*Withdrawals: Smoothed rates based on experience of EPS members (as reflected by a sample study)

Early retirement: As per Scheme experience

Mortality Rates: Pre retirement: * 90% LIC assured lives Mortality Table (94-96)

Post vesting: LIC annuitants Mortality Table (96-98)

(*revised compared to previous valuation)

2.4 Valuation Results

Total value of liability in respect of current Members and Pensioners and Beneficiary Pensioners net of value of future contributions of current Members as per valuation projection including certain provisions is Rs. 1,50,123 cr. as on 31 st March,2008. The

Scheme Fund as on that date is 95920 cr. resulting in deficit of Rs.54,203 cr compared to the deficit of Rs. 41,119 cr. as at 31st March 2007. The current deficit is the net effect of several factors, mainly:

- i. Increase in membership from 3,57,30,290 to 4,05,85,860 (of which new Entrants are 77,71,348--19.15%) and of pensioners from 26,53,181 to 29,52,622 and higher accrued liability of existing members but with inadequate contribution. (Increase in Liability).
- ii. The continuing effect of raised pensionable salary limit from Rs.5000/- to Rs.6500/- made effective for all members in the past without infusion of additional funds to meet the higher liabilities.
- iii. Valuation carried out using available data set and projected data set (to project to the total membership distributed as regards age, pensionable salary and past pensionable service similar to the corresponding characteristics of the limited records made available) and estimating liability based on these two valuation results.
- iv. Specific addition to the liability in respect of (a) employees where Employers' contribution was in arrears and (b) pension claims pending settlement.
- v. Inadequacy of contribution rate owing to changed economic scenario and membership behaviour especially related to exit from the scheme. (resulting in funding deficit).
- vi. Constraints on data quality and different characteristics of members' data as compared to the data provided for the previous valuation

Measures for corrective action are suggested in the following para.

2.5. Recommendations:

- a. Make one time lump sum contribution of Rs.54,203 Cr to Pension Fund. OR The existing contribution rate of 9.49% of pensionable salary (8.33% by Employer and 1.16% by the Government) will need to be raised to 14.5%. OR Achieve (with professional investment management) return on investment of not less than 9% p.a. over the future combined with increase in contribution rate by not less than 2%.
- b. Consider raising the superannuation age to 60 years from 58 years. However the effect on the Liability will depend on how the change will be structured, having regard to the expectation of members.
- c. Streamline investment management separating the assets supporting the liability of existing members' group from those of current pensioner group with clear objective to optimize returns having regard to assets-liability matching requirements and risk-reward consideration.
- d. Suitable mechanism to be put in place for effective control on contributions receivable and benefit outgo especially pensions.
- e. Large Scale improvements MUST be made as regards data maintenance and availability for periodical valuation. It is essential to make available data for 100% membership and pensioners and required individual data for new entrants/exits. To achieve this objective immediate steps are required to set up



Statistical Section at the Head Quarters and the Regional Offices of EPFO adequately manned with suitable skill set, supported by IT infrastructure, with responsibility to capture all required information correctly for every member and pensioner and update information periodically to serve the purposes of administration and valuation.

- f. Any review of the Scheme (including measures (a) and (b) above) should be based on appropriate actuarial assessment with complete and consistent data made available for the purpose.

3. Statement of Benefits Valued (Sections' reference is to EPS'95 Scheme)

Superannuation pension (section 12 & 13)

Early retirement pension (section 12)

Disability pension (section 15)

Death Benefit (spouse's pension and children's pension/ Pension to nominees or parents) (section 16)

Withdrawal benefit (deferred pension/return of contributions) (section 12 & 14)

Current Pension (to member pensioners and beneficiary pensioners)

Details of various benefits applicable on the happening on certain contingencies are covered in sections (12) to (16) of the Scheme.

4. Membership

4.1 As per information available from EPFO, the number of members covered under the scheme as on 31 March 2007 was 3,57,30,290.

4.2 During the financial year 2007-08 there has been addition of new members joining the scheme and reduction in members to exit by way of death in service, superannuation, early retirement, withdrawals and there was net increase of 48,55,570 members resulting in total members increasing to 4.05,85,860 as on 31 st March,2008 as per details below.

4.3 Current Members

Table 1

| Mode of exit/Entry | No of members 2006 - 07 | No of members 2007 - 08 |
|--|----------------------------|----------------------------|
| Death in service | 35,382 | 33,983 |
| Superannuation | 91,438 | 2,72,418 |
| Retirement | 1,51,453 | 1,63,349 |
| Disablement retirement | 453 | 2,464 |
| Withdrawals (with deferred pension) and Withdrawals (with return of contribution) | 15,66,230 | 24,43,564 |
| Total Exits | 18,44,956 | 29,15,778 |
| Total Membership net of exits | 3,05,43,704 | 3,28,14,512 |
| New members during the financial year | 51,86,586 | 77,71,348 |
| No of members as on 31 st March | 3,57,30,290 | 4,05,85,860 |

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4.4 Current Member Pensioners and Beneficiary Pensioners

On 31.03.07 there were 26,53,181 pensioners of different categories receiving pensions. The number of pensioners has increased to 29,52,662 as on 31.03.2008 as per details below.

Table 2

| Category | As at 31.03.07 | Additions 2007-08 | Exits 2007-08 | As at 31.03.08 |
|-----------------------------|------------------|-------------------|---------------|------------------|
| Member Pensioners | 15,92,879 | 2,37,348 | 25,215 | 18,05,012 |
| Widow(er) pensioners | 5,50,504 | 60,544 | 13,108 | 5,97,940 |
| Children Pensioners | 4,83,865 | 59,198 | 22,438 | 5,20,625 |
| Orphan Pensioners | 11,898 | 2,124 | 796 | 13,226 |
| Nominee / Parent Pensioners | 14,035 | *1,784 | ---- | 15,819 |
| Total | 26,53,181 | 3,60,998 | 61,557 | 29,52,622 |
| * net addition | | | | |

The figures of additions in Table 2 when compared to exits in Table 1 (entering pensioner category) as reported by EPFO appear inconsistent.

5. Receipts and Payments

5.1 Receipts and Payments in respect of EPS'95 Fund for the financial year 2007-08 are given in Table 3 below

Table 3

Amounts in Rs Crore

| Receipt | FY 06-07 | FY 07-08 | Payment | FY 06-07 | FY 07-08 |
|---|-----------------|------------------|-------------------------------|-----------------|------------------|
| 1. Opening Balance | 73235.58 | 83,837.66 | Withdrawal/Retirement Benefit | 1206.62 | 1309.09 |
| 2. (a) Contributions - Employers | 6710.66 | 8022.46 | Life Assurance benefit | 1.84 | 0.92 |
| 2. (b) Contributions - Government | 469.43 | 561.24 | Pension | 2324.23 | 2727.97 |
| 2. (c) Arrears by Government | 870.57 | 428.76 | Total benefits | 3532.69 | 4037.98 |
| Total contributions (2a + 2b + 2c) | 8050.66 | 9012.46 | Expenses | 114.56 | 138.77 |
| 3. Interest on investments | 6146.78 | 7274.33 | Accrued Interest | 77.39 | 102.44 |
| 4. Other receipts - contribution account | 130.56 | 76.18 | Other Payments | 1.28 | 0.88 |
| | | | Closing Balance | 83837.66 | 95920.57 |
| Total | 87563.58 | 100200.64 | Total | 87563.58 | 100200.64 |

(Source: as per audited accounts)

(subject to rounding off error)

5.2 Statement of Assets

Table 4

| Particulars | Amount in Rs.Crore | |
|---|--------------------|----------------|
| | As on 31.03.07 | As on 31.03.08 |
| Deposits in Public Account | 32934.83 | 36809.06 |
| Central/State Government securities/PSU Bond & PSB FD | 50769.10 | 59151.99 |
| Cash/Remittance in transit | 158.01 | (40.49) |
| Total | 83861.94 | 95920.56 |

(Source: as per audited accounts)

5.3 Inter-valuation period

During this inter-valuation period 01.04.07 to 31.03.08, 61024 new establishments were added to the EPFO resulting in additional membership to the Scheme of 77,71,348 persons including increase in membership of existing establishments.

The annual contribution (including Govt contribution and arrears) has increased from 8050.66 (2006-'07) to Rs 9012.46 crs arising from net addition to membership (from entry of members from new establishments as well as addition of new members in existing covered establishments) and salary increases.

There has been no change in rates of contribution to EPF '95 during the inter-valuation period. Employer contribution continued to be made at 8.33% of pensionable salary and government contribution at 1.16% of pensionable salary (As a result of valuations in the past recommendation had been made to increase the contribution rate. At the previous valuation as on 31.03.07 recommendation included raising total contribution to 13 %).

During the inter valuation period 2007-'08 total income by way of contribution was Rs.9012.46 cr., investment income Rs.7171.90 cr. and benefit outgo Rs.4037.98 cr. The Fund has increased from Rs.83837.66 cr. to Rs.95920.57 cr. as on 31 March 2008.

6. Data for Valuation

6.1 Current Members

6.1.1 Data compiled from 80 offices in 26 regions of EPFO covering 2,26,69,949 members and from 75 offices (under 36 ROs) covering withdrawals with payment of cash benefit (cumulative for all years up to date) of 49,09,572 members, as on 31.03.08 were submitted for processing.

6.1.2 On removal of duplicates only 76,89,298 Records remained. On checking the data for completeness of all information required for calculation of the liability for pension,

death benefit, and withdrawal payment to current members, only 21,00,518 individual data records of members were found useful. After consistency check 20,06,811 member data could be used for making valuation of liability. High volume of data did not contain basic information like date of birth, date of joining FPS/EPF, pensionable salary etc. I was given to understand that there was no scope for completing the blank fields in the rest of the (incomplete) data provided, though essential.

6.1.3 I have drawn the attention of EPFO orally and in writing and talked to RPFC –I (Pension) with a view to mitigate the data constraint to some extent. EPFO vide its communication Ref. No: Actuarial/18(3)2008/13142 dt.21st Sept.2011 informed that I have to complete the valuation exercise with the data constraint explained above.

6.1.4 As against 405.86 lakh active members of EPS '95 as on 31.03.08 useable data for valuation (20.07 lakh) is 4.95%. Representativeness of data processed for valuation is unknown and in projecting the liability for the actual number of members based on this small volume of data results in greater uncertainty of the actual liability. In making the projection there is implicit assumption that the member profile especially as to actual distribution by age, service and pensionable salary and by gender and marital status of members is no different from what the valuation data file represents.

6.2 Current Pensioners

6.2.1 Member pensioners data found complete for valuation covers 14,33,248 pensioners and compared to actual pensioners 18,05,012 (79% of actual numbers). Beneficiary pensioners data found complete for valuation covers 7,27,787 pensioners as against actual number 11,47,610 (63% of actual numbers).

6.2.2 Based on data valued, liability for actual number of current member pensioners and beneficiary pensioners has been projected. In the process, there is implicit assumption that distribution by age, gender, amount of pension and pension option exercised of the data set represents and replicates the characteristics of the class of actual pensioner group. This results in some extent of uncertainty in value of actual liability though the probability of large deviation is much lower as compared to liability determined in respect of current members.

6.3 Exit Members

6.3.1 In terms of the EPS '95 in respect of members who withdraw from the scheme on resignation with scheme certificate or eligibility for deferred pension, liability for deferred pension needs to be determined for those surviving as on each valuation data. The actual number of such members is not available. Members for which data are made available are considered and deferred pension liability is calculated and included in the liability for withdrawal benefit.



6.4.1 I have relied completely on EPFO as to correctness of the data provided and applied valuation checks to remove inconsistent data. Based on the processing of validated data the following average parameters emerge:

Average age of Members: 35.71 yrs

Average past service in EPS '95: 5.69 yrs

Average pensionable salary (p.m): Rs 3566

6.4.2 In the absence of information on the above for the total membership, consistency of valuation data set could not be checked, though found on average measurement basis consistent with similar parameters arising in the last valuation except as regards average pensionable salary which currently happens to be higher by 11%. This apart, distribution of number of members by age attained, and past pensionable service and proportion of total pensionable salary at each age based on current valuation data differs with that based on data used for previous valuation. This will result in variation in valuation results and lack of consistency in results when compared to previous valuation.

7. Experience Analysis

7.1 A valuing actuary is required to analyze the actual experience as regards the demographic and economic factors forming the basis for determining the liability since the last valuation, so as to take note of any significant changes and accordingly consider changes in any of the factors to be made for current valuation of liabilities.

The factors are:

7.2 Demographic factors:

1. Mortality rate of current members
2. Mortality rate of current pensioners
3. early retirement rate (including disablement)
4. superannuation rate
5. other exits (withdrawals)

7.3 Economic factors:

1. Rate of interest
2. Rate of salary increase including inflation

7.4 No data has been made available with required information (as not maintained) to enable proper analysis of experience related to demographic factors and salary increases, to be carried out. However some sample data relating to exits by withdrawal and early retirement was provided giving the number of members tabulated according to age at exit. Though it is not known to what extent this data is representative of the experience of the scheme, this has been used to project to the total membership to derive the indicative experience of withdrawal, compare on a broad basis, with that expected on the previous valuation basis for withdrawal from scheme and decide the rates to be used in the current valuation.

8. Funding Objective

Funding objective is to ensure that the EPS '95 fund is solvent i.e. there are adequate assets to meet the pension benefits of the scheme to all eligible pensioners and accrued pension liabilities of current members and further that the contribution rate is adequate to meet the emerging pension benefits of all members and beneficiaries.

Contribution rate of 8.33% of pensionable salary by employer and 1.16% of pensionable salary by government remain without change since inception of the scheme though changes in the rules of the scheme (like pension salary cap increase) in the nature of effectively improving applicable pension amounts were made with significant impact on the liability (resulting in inadequacy of the contribution rate and deficit in the fund) as revealed in the reports of past valuations.

9. Methodology for valuation

9.1 The Aggregate method is used. It values all benefits for active members. The actuarial liability is based on the total benefits expected to be awarded taking into account both pensionable service accrued up to valuation date and potential service after that date. Allowance is made for contributions to be paid after the valuation date at the level of contribution rate fixed for the Employer and the Government.

9.2 The actuarial liability as at the valuation date is calculated taking into account all types of decrements- death in service, early withdrawal with or without scheme certificate, early and superannuation retirement. In such calculations (including calculation of present value of contributions payable) pensionable pay is projected from valuation date up to the assumed date of retirement date of leaving service or date of death (and dates of payment of contribution) as appropriate. Allowance is made both for general increase in pay and also for career progression.

9.3 The amount of benefits payable on various contingencies arising after valuation date including allowance made for contributions receivable is discounted to the valuation date to calculate present value of liability of active members.

Deferred pension liability in respect of members who left service early prior to valuation date is calculated allowing for contingencies of death and retirement and discounted to the valuation date.

9.4 Actuarial liability in respect of Member Pensioners and Beneficiary Pensioners is based on the pension amount drawn on valuation date allowing for contingencies as applicable (i.e. death, remarriage, termination of benefits as per Rules of the Scheme for children) and discounted to the valuation date.

10. Valuation Basis

10.1 Demographic Factors

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Considering the size of membership of the scheme and pensioners and beneficiaries maintenance of required data (complete and accurate) on continuing scale would have facilitated in experience analysis being made for the scheme relating to mortality rate, withdrawal rate, early retirement rate, disablement rate and mortality rate of member pensioners and beneficiary pensioners and thus serve as a base for assumptions on these factors for the future. There is no mechanism in EPFO to ensure such data maintenance and there is a lack of information to base assumptions on the scheme experience. I have considered the profile of membership of the scheme which has a mix of industries - small, medium and large establishments, unskilled, semi-skilled and skilled workers, and administrative employees spread over the country, aggregate exit information as provided by the office. I have also considered published table especially of mortality of assured life, annuitants of LIC and industry experience of withdrawals and early retirements. Having regard to the above considerations I have used my best judgment to arrive at the assumptions as under:

10.1.1 Mortality rate of current members:

Latest available published table of assured lives is LIC 94-96. More than 10 years has elapsed since then and the overall trend in mortality is improvement in survival rates (reducing death rates). However having regard to class of lives covered in the scheme (mentioned above) and indicative trend of number of deaths (aggregate) on comparison of actual to expected as applied to projected age wise distribution of members based on the sample valuation data provided, keeping in view the limitations of aggregate comparison, I consider it is appropriate to use LIC 94-96 mortality table with adjustment for reduction in mortality by 10% at all ages..The basis is 90% LIC 94-96 Mortality Table (assured lives)

Refer annexure for mortality rates.

10.1.2 Mortality rate of pensioners and beneficiary pensioners:

In the absence of information on the scheme experience, I have used LIC annuitants table LIC (96-98) (as mentioned in the annexure) being a standard published mortality table and more reliable at ages above 60 yrs.

10.1.3 Retirement Rates

Having regard to the nature of establishment where the members are employed and limited information on age wise retirements indicative of trend and overall industry experience I have provided for early retirements at 10% at age 50,6% at age 51,8% at age 57 and uniformly at 4% between age 52 to 56.

10.1.4 Withdrawal Rates

There is no complete experience data from the Scheme but sample data of age wise distribution of withdrawing members for a few years were provided. Though how far this

sample is representative of the members withdrawing from the scheme is unknown this sample data was used to project for the total membership taking the number of withdrawals in to consideration and indicative withdrawal rates were derived and smoothed for use in the valuation having regard to overall industry experience and the nature of establishments where members are employed. I have used higher withdrawal rates (as mentioned in annexure) as this results in total exits closer to the actual, compared to previous valuation.

10.2 Economic Assumptions

10.2.1 Interest Rate

10.2.1.1 The assets of the pension scheme as on 31.03.08 comprise of deposit in public account (38.35%) on which the government credit interest on fixed rate of 8.5% p.a and investment in securities in central government, state government and PSUs of short, medium and long term and fixed deposits of short/medium term (61.65%) carrying coupon/interest rate respectively at different rates.

10.2.1.2 The return on the assets (calculated using total earnings on the assets and using average assets during the accounting year) was 8.31% during 2007-08(8.04% during 2006-07)

10.2.1.3 In determining the rate of interest for valuation of liabilities, while return on existing assets is kept in view, the return expected on reinvestment of maturing securities in the future needs to be taken into account. Besides return expected on the investment of the excess funds over payment of the pension scheme in the future is on important factors. The interest on deposits in public account currently stands at 8.5% pa while in the immediate future it may be assumed to continue as this rate, there could be a review in future aligned to government's fiscal policy leading to lower rate of interest on such deposits in public account.

10.2.1.4 The return on investments in government securities and PSU securities and fixed deposits of PSU banks are subject to fluctuations in future because of influence of market forces. The trend as Indian economic factors indicate is lower rate of interest over the long term in the future.

There is one Fund for the EPS'95 the assets of which cover the prospective pension liability of current members as well as pension outgo for current pensioners. While liability duration for current members is quite long, for current pensioners' liability duration is short as there is immediate cash outgo year to year implicitly involving disinvestment of assets supporting this liability. Even in the existing context of all assets being in a single Fund it would entail investments in shorter term securities to the extent required to meet the asset matching requirement for Pensioners' liability. As a continuing scheme using current income flow to meet the current pension outgo implies inter generation transfer of assets covering liability of the current members to current pensioner group with consequent opportunity cost devolving on current members (reflecting in lower returns on the invested assets of this group)

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10.2.1.5 Further in respect of current members pension vests on superannuation/ early retirement which is at a more distant future. Determination of post vesting Pension liability involves using an interest rate to discount the vested pension for lifetime to the valuation date. Being a long distant future time uncertainty increases as to the rate of return to be expected and this risk should be appropriately reflected in deciding rate of interest to discount post vesting liability of current members.

10.2.1.6 For the above reason as a matter of prudence it is required to use a lower discount rate for valuing liability of current pensioners and post vesting pension cost of current members.

10.2.1.7 Going by the current position of investment applicable to pension scheme (all of fixed interest types), having regard to the above considerations I consider valuation rate of interest of 8% during contributory service of members and 7% during pension payment period would not be unreasonable. This rate may need to be reviewed in the future valuation depending on the investment scenario as it emerges having regard to asset-liability matching requirement of the Scheme.

10.2.2 Salary Increases

No data with required information is available to study the trend of increase in pensionable salary of members. As mentioned in earlier sections of this report, I considered the type of establishments covered, the profile of employees and skills sets, the movement in average pensionable salary on aggregate basis and a sample study of age and salary distribution over recent two year period as per the data provided and relevant general experience as regards salary increases. Having regard to the above factors and based on my discussion with EPFO, in my view salary increase at 6% p.a over the future would not be inappropriate. Accordingly I have assumed salary increase at 6% pa over the future.

10.3 Other Assumption

There are elements which include proportion married, age difference of member and spouse, number of children and their ages, remarriage rates which need consideration in the valuation liabilities. There is no data relating to the scheme to give indication of the experience on the above elements. I have considered the assumption made in the previous valuation and related information from general population and allowed for this broadly. These assumptions have a minor effect only on the valuation of liabilities.

10.4 Valuation of Assets

10.4.1 Assets include Deposits in Public Account Rs.36809.62cr (which is credited with fixed rate of interest decided by the Central Government) and investments in Securities Rs. 59151.99 cr which portfolio is managed by SBI (Fund Manager).

*Investments comprise Central government securities (37%) State Govt. Securities

(4%), State Govt. Development loans guaranteed by State Govt. (20%) and Bonds and Fixed Deposits in Public Financial Institutions (39%). These investments carry different coupon rates/ interest rates and varying terms short/ medium/ long.

(* Percentage based on statement of category wise investments at Face Value and interest earning rate of EPS'95 Investment holdings as on 31 03 2008)

10.4.2 Of the invested Securities (Rs. 59152 cr) 35% mature within 5 years, 39% between 6 to 10 years and 26% beyond 10 years, the last maturity year being 2037.

10.4.3 Weighted Average Term of these Securities (face value wise) is 8.4 years. This average duration is too short compared to the average duration of emerging pension liabilities of current members which is quite long taking into account the future the service years and lifetime thereafter. This indicates duration mismatch of assets to liabilities which exposes the Fund to the uncertainty of interest rate risk and mismatch risk.

10.4.4 Assets of the Fund are taken on book value basis for the valuation purposes consistent with valuation liabilities.

10.5 Valuation Basis

Changes are made to assumption as regards mortality rates and withdrawal rates compared to previous valuation. Assumption as to Pensioners' mortality, valuation interest rate and salary escalation rate remain same. The basis is as under:

Table 5

| Elements | Current |
|-----------------------------|---|
| Mortality rates - members | 90% LIC 94-96 |
| Mortality rate - pensioners | LIC 96-98 |
| Interest rate | 8% pre retirement period and 7% post retirement period |
| Salary Increase | 6% |
| Withdrawal rates | Age <21 21-25 26-30 31-35 36-40 41-50 >50 Rate% 4 10 8 5 3 2 1 |

11. Amendments to EPS '95 Scheme

11.1 Govt. of India had issued the following amendments effective from date of publication:

1) Gazette Notification No. G.S.R 431(E) dated 15th June, 2007. The eligible service for superannuation / early retirement pension has been changed to minimum 10 yrs (as against 20 yrs) subject to retirement at the age provided in the Scheme.

2) Gazette Notification No. G.S.R 438(E) dated 9th June, 2008.

Table B giving factors for computation of past service benefit under the ceased Family Pension Scheme for existing members on exit from employment and Table D giving factors for return of contribution on exit from employment have been revised downwards.

3) Gazette Notification No.G.S.R 688(E) dated 26th September, 2008. Para 12 A and 13 of EPS, '95 have been deleted (in effect benefit of commutation and Return of Capital are totally removed for all pensions where commencement of pension is on or after 26th September, 2008 and reduction factor for early retirement pension has been increased from 3% to 4% with effect from 26th September, 2008.

11.2 Though the valuation exercise is carried out as on 31st March, 2008 the above amendments will have impact on value of retirement and other benefits payable on and from the effective date to current members including Family Pension part applicable to those current members who were covered by FPS, 1971. I have, therefore allowed for the revised scheme provisions as applicable from 1st April of the year following the specified effective date and existing scheme provisions till then.

12. Valuation results & Observations

12.1 Based on the assumptions mentioned in the earlier paragraphs, the actuarial liability was calculated using the limited volume of data (21,00,518 records) of active members.

Based on the distribution of this data according to age, past service and pensionable salary projected grouped data age wise for the total members on the valuation date (4,05,85,860) were derived giving estimated number of members and total pensionable salary for each age group subdivided into completed pensionable service. Whereas total active members on valuation date is available in the Annual report of the Scheme there is no information on the total pensionable salary for the total membership. Therefore the total pensionable salary was derived based on the amount of contribution income for the financial year 2007-08 as per audited accounts and the rate of contribution by Employer (8 1/3%) with adjustment for arrears of contribution. On this grouped data actuarial liability was calculated on the same valuation assumptions as applied to actual data set. There is significant variation in estimated liability of current members based on valuation of actual data set and that based on projected data set.

12.2 It is not known how far the data set valued is representative of the total membership of the Scheme. Therefore, neither the estimation based on the results of actual data set nor the valuation results based on the derived grouped data of members (which has inherent limitation as a grouped data) could be taken as the actuarial liability in respect of members in service .Keeping in view overall consistency of certain practical valuation ratios for the different benefits I have blended the valuation calculations of these two sets of valuations as considered appropriate in my view to determine the estimated final actuarial liability for active members. In this respect the estimated liability for current members is not comparable with the corresponding estimate made at previous valuations.

12.3 The volume of valuation data for Member Pensioners and Beneficiary Pensioners being a higher proportion of actual numbers, the final liability was projected based on the

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Valuation calculations and annual outgo on Pensions allowing for adjustment for arrears of Pension payment as available in the Annual Accounts and Report of EPS '95 Scheme. The valuation results are given in the Table below.

Valuation Results

12.4 Total liability of members net of value of future contribution including liability for current primary pensioners and beneficiary pensioners of the scheme using the basis for the previous valuation (as on 31 3 2007) is Rs.1,54,836. The valuation results using the (revised) basis for the current valuation as stated in Table 5 are as under (Table 6).

Table 6

| Amount in Rs.Crore | | | |
|-------------------------------|---------------|---|---------------|
| | Assets | | Liabilities) |
| Scheme assets | 95920 | Current members | |
| Value of future contributions | 104400 | (a) Pension benefits | 163992 |
| | | (b) Death benefit | 22980 |
| | | (c) Withdrawal benefit (including members left with scheme certificate) | 38145 |
| | | (d) Current Pensioners and beneficiaries | 27276 |
| | | (e) Expense of administration | 1005 |
| Deficit | 54203 | Reserves for inaccuracy in data | 1125 |
| Total | 254523 | Total | 254523 |

Note: Future Expenses of Pension Administration are provided at 0.7% of value of future contribution plus 1% of liability of current pensioners and beneficiary pensioners. Reserves for inaccuracy in data is provided at 0.5% of value of benefits of current members. Actual provision required could vary depending on the extent of inaccuracy .

12.5 Total value of liability in respect of active Members, Pensioners and Beneficiary Pensioners net of value of future contributions of current Members as per valuation projection is Rs.1,50,123 Cr.as on 31st March 2008.The Scheme Fund as on that date is Rs.95920 Cr. resulting in deficit of Rs. 54,203 Cr compared to Rs.41,119 Cr. as at 31st March 2007.

12.6 The deficit is the net effect of several factors, mainly:

- i. Increase in membership from 3,57,30,290 to 4.05,85,860 (of which new Entrants are 77,71,348--19.15%) and of pensioners from 26,53,181 to 29,52,622 and higher accrued liability of existing members but with inadequate contribution. (Increase in Liability).

- ii. The continuing effect of raised pensionable salary limit from Rs.5000/- to Rs.6500/- made effective for all members in the past without infusion of additional funds to meet the higher liabilities.
- iii. Modified approach to determine valuation liability using results of valuation carried out using available data to project to the total membership distributed as regards age, pensionable salary and past pensionable service similar to the corresponding characteristics of the limited records made available and estimation of valuation results based on the valuation calculations of actual (limited) data set provided and projected data set.(ref:section 12.2)
- iv. Specific addition to the liability in respect of employees where Employers' contribution was in arrears and also for pension claims pending settlement.
- v. Inadequacy of contribution rate owing to changed economic scenario and membership behaviour especially related to exit from the scheme .(resulting in funding deficit)
- vi. Constraints on data quality and different characteristics of members' data as compared to the data provided for the previous valuation.

12.7 Given the quality and too low a proportion of valid data made available for valuation the above results have limitations and could be a broad indication of financial position of EPS'95 as obtaining on the date of valuation .The possibility of firmer conclusion on the extent of deficit in the Fund will be enhanced if complete and accurate data of a greater proportion of total members representing the total membership and the class of Pensioners and Beneficiary Pensioners covered by the Scheme are provided to carry out valuation of liability as also the required individual data of New Entrants and all Exits , to make experience analysis.

12.8 Sensitivity of Valuation results

Valuation results are particularly sensitive to assumptions on interest rates, salary increase rate, mortality rates and withdrawal rates as illustrated below.

| S.No | Change in valuation basis | Change in liability |
|------|---|---------------------|
| 1. | Interest rate falls 0.5% (Valuation rate 7.5%/6.5%) | +10.28% |
| 2. | Interest rate rises 0.5%(Valuation rate 8.5%/7.5%) | (-)9.09% |
| 3. | Salary rate rises by 10% (from 6% to 6.6%) | +3.28% |
| 4. | In service mortality rates lower by 10% | (-)1.6% |
| 5. | Withdrawal rates rise 25% | +2.33% |

Fig

13. Recommendations

1. Make one time lump sum contribution of Rs.54,203 Cr. to the Pension Fund to make good the deficit

OR

As the current contribution rate of 9.49% of pensionable salary (Employers' 8.33% & Govt. 1.16%) is inadequate revise the rate upwards to **14.5%** for the existing members so that the deficit is met by higher future contribution.

OR

Achieve (through professional investment management) return on investment of **not less than 9% p.a** over the future combined with increase in contribution rate (for existing members) of **not less than 2%**.

(Before taking any decision with respect to the above recommendation an actuarial valuation based on **truly representative data of adequate volume and quality** is necessary to assess the deficit with a greater degree of certainty)

2. **Consider raising the superannuation age to 60 years from 58 years** However the effect on the liability will depend on how the change will be structured, having regard to the expectation of members.

3. Investment Management

Investment of funds needs to be separated for assets supporting liability of current pensioners (including beneficiary pensioners) from those of members in service (for the reasons stated in section 10.2.1.4) and further to be streamlined with clear objectives to manage efficiently and effectively having regard to Asset-Liability matching requirements of the two groups (viz members in service and current Pensioners) and optimizing returns on investment to meet the expectation of Scheme members and Pensioners..

The Fund assets are wholly invested in fixed interest instruments. The pension benefits of the Scheme being in real terms (related to salary) though mitigated to some extent by pensionable salary cap of Rs.6500 p.m. it makes sense to invest in real assets like Equities (with prudent investment policy approved by Trustees) as these assets over a long term provide higher returns through dividend income and capital appreciation over fixed interest securities and match the real time cost of Defined Benefit liability and could also give rise to surplus in the fund which may be utilized to meet the expectation of pension increases. It may be worth reviewing the investment strategy for the Pension Fund in light of investment regulations/ guidelines proposed for NPS by PFRDA.

Even within the portfolio of fixed interest securities inclusion of investment in Rated Corporate Bonds/ Debentures and limited trading in Govt. securities will help improve the returns as borne out by the experience of LIC in its management of insurance funds.

4. Control on Fund inflows and outflows

It is not known what process is in place to exercise control on the contribution receivable towards the Pension Scheme from employers in respect of every employee enrolled into the Scheme and if there are gaps in contribution (which need to be treated as

provided in the Rules of the Scheme) as this is relevant for allowing past service credit. A comprehensive and properly designed electronic data File relating to every member, Pensioner and beneficiaries capturing basic information (including contribution) required for administration of the Scheme and periodical actuarial valuation, needs to be created and maintained.

There is need to review the procedure to ensure timely reporting and recording of death of pensioners and beneficiaries as the related control statistics indicate otherwise (which could distort experience analysis).

5. One time exercise needs to be undertaken with simultaneous **setting up of Statistical Section at HQ and all Regional Offices** to complete data entry of all physical forms of existing members received at point of entry into the Scheme, initiate validation process to capture missing data. (A separate Note on the set up and functions of Statistical Section is appended). This needs to be time bound so that future valuation may be carried out with substantial volume of complete, accurate and consistent data the results of which would enable drawing firm conclusions on the financial position of the Pension Scheme emerging based on which appropriate review of contribution and benefits could be made.

6. **Any improvement to the provision of benefits** like increasing the pensionable salary cap (from the existing limit of Rs. 6500) should be considered **only after investigation of the financial position of the scheme and evaluation through actuarial valuation.**

14. Reliance and limitations

14.1 In producing this report I have relied upon data in CDs and information, both written and verbal, supplied by the officials of EPFO HQ. I relied upon the general completeness and accuracy of this information without independent verification. The accuracy of the results presented in this report is dependent on the accuracy of data and information.

14.2 I have reviewed the data for valuation provided for overall reasonableness and consistency with my knowledge of the EPS'95 and I have not carried out independent checks of the data supplied to me. The conclusions set out in this report are dependent on the accuracy and completeness of the information provided to me and constrained by the limitation of data provided. This report and the opinions and conclusions are for the internal use of EPFO only.

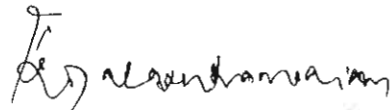
14.3 This report has been prepared on the basis as set out in the report and its annexure. Judgments as to the information contained in the report should be made only after studying the report in its entirety as it may be inappropriate to draw conclusions by review of a section or sections on isolated basis.

14.4 Actual future results will vary from this report as the results of the valuation have been based on limited data made available and certain assumptions and parameters. Supply of higher volume of complete accurate and consistent data as also deviations from these assumptions and parameters could alter the results significantly. These assumptions

and parameters include those which may be influenced by the decisions of the Trustees of EPS'95 Fund (like change of rules of the Scheme) and external factors such as inflation rates, investment yields and general economic environment.

14.5 The assumptions and parameters and valuation of the Scheme are made on 'continuing scheme' basis.

Dated 17th August 2012


P.A. BALASUBRAMANIAN

(Fellow of Institute of Actuaries of India)
(M.No.8)

ASSURED LIVES' MORTALITY

Annexure-(1)

LIC 94-96

| Age | Deaths per million | Age | Deaths per million | Age | Deaths per million |
|-----|--------------------|-----|--------------------|-----|--------------------|
| 14 | 713 | 43 | 2602 | 72 | 45392 |
| 15 | 770 | 44 | 2832 | 73 | 50639 |
| 16 | 823 | 45 | 3110 | 74 | 56404 |
| 17 | 873 | 46 | 3438 | 75 | 62728 |
| 18 | 919 | 47 | 3816 | 76 | 69655 |
| 19 | 961 | 48 | 4243 | 77 | 77231 |
| 20 | 999 | 49 | 4719 | 78 | 85502 |
| 21 | 1033 | 50 | 5244 | 79 | 94519 |
| 22 | 1063 | 51 | 5819 | 80 | 104331 |
| 23 | 1090 | 52 | 6443 | 81 | 114992 |
| 24 | 1113 | 53 | 7116 | 82 | 126553 |
| 25 | 1132 | 54 | 7839 | 83 | 139067 |
| 26 | 1147 | 55 | 8611 | 84 | 151077 |
| 27 | 1159 | 56 | 9433 | 85 | 162298 |
| 28 | 1166 | 57 | 10294 | 86 | 174149 |
| 29 | 1170 | 58 | 11025 | 87 | 186638 |
| 30 | 1170 | 59 | 11951 | 88 | 199775 |
| 31 | 1171 | 60 | 13073 | 89 | 213560 |
| 32 | 1201 | 61 | 14391 | 90 | 227995 |
| 33 | 1246 | 62 | 15904 | 91 | 243072 |
| 34 | 1308 | 63 | 17612 | 92 | 258782 |
| 35 | 1387 | 64 | 19516 | 93 | 275109 |
| 36 | 1482 | 65 | 21615 | 94 | 292031 |
| 37 | 1593 | 66 | 22724 | 95 | 309522 |
| 38 | 1721 | 67 | 25617 | 96 | 327549 |
| 39 | 1865 | 68 | 28823 | 97 | 346073 |
| 40 | 2053 | 69 | 32372 | 98 | 365052 |
| 41 | 2247 | 70 | 36294 | 99 | 384436 |
| 42 | 2418 | 71 | 40623 | | |

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ANNUITANTS' MORTALITY
LIC 96-98 EXPERIENCE

Annexure-2

| AGE | Deaths per million | AGE | Deaths per million | AGE | Deaths per million |
|-----|-----------------------|-----|-----------------------|-----|-----------------------|
| 20 | 919 | 51 | 4719 | 81 | 77335 |
| 21 | 961 | 52 | 5386 | 82 | 84210 |
| 22 | 999 | 53 | 6058 | 83 | 91428 |
| 23 | 1033 | 54 | 6730 | 84 | 98988 |
| 24 | 1063 | 55 | 7401 | 85 | 106891 |
| 25 | 1090 | 56 | 8069 | 86 | 115136 |
| 26 | 1113 | 57 | 8710 | 87 | 123723 |
| 27 | 1132 | 58 | 9397 | 88 | 132652 |
| 28 | 1147 | 59 | 10130 | 89 | 141924 |
| 29 | 1159 | 60 | 10907 | 90 | 151539 |
| 30 | 1166 | 61 | 11721 | 91 | 161495 |
| 31 | 1170 | 62 | 11750 | 92 | 171794 |
| 32 | 1170 | 63 | 12120 | 93 | 182436 |
| 33 | 1171 | 64 | 12833 | 94 | 193419 |
| 34 | 1201 | 65 | 13889 | 95 | 204746 |
| 35 | 1246 | 66 | 15286 | 96 | 216414 |
| 36 | 1308 | 67 | 17026 | 97 | 228425 |
| 37 | 1387 | 68 | 19109 | 98 | 240778 |
| 38 | 1482 | 69 | 21534 | 99 | 253473 |
| 39 | 1593 | 70 | 24301 | 100 | 266511 |
| 40 | 1721 | 71 | 27410 | 101 | 279892 |
| 41 | 1865 | 72 | 30862 | 102 | 293614 |
| 42 | 2053 | 73 | 34656 | 103 | 307679 |
| 43 | 2247 | 74 | 38793 | 104 | 322087 |
| 44 | 2418 | 75 | 43272 | 105 | 336836 |
| 45 | 2602 | 76 | 48093 | 106 | 351928 |
| 46 | 2832 | 77 | 53257 | 107 | 367363 |
| 47 | 3110 | 78 | 58763 | 108 | 383139 |
| 48 | 3438 | 79 | 64611 | 109 | 399258 |
| 49 | 3816 | 80 | 70802 | 110 | 415720 |
| 50 | 4243 | | | | |

| Annexure - 3 | | | | | | | |
|---|-----|-------|-------|-------|-------|-------|-----|
| EPS -95 Valuation -31.03.2008 | | | | | | | |
| Assumption of Rates of Withdrawal (including scheme certificate) | | | | | | | |
| Age group | <21 | 21-25 | 26-30 | 31-35 | 36-40 | 41-50 | >50 |
| Rates (%) | 4 | 10 | 8 | 5 | 3 | 2 | 1 |

kg

Regional Offices

1. Collection of data covering required information for administration and actuarial valuation (as per format advised) in respect of every member entered / entering EPS'95 from all the offices under the jurisdiction of each RO of the EPFO.
2. Validation of data and ensuring completeness of information by interaction with the offices concerned.
3. Updation of information in respect of all members and pensioners including beneficiary pensioners) with regard to dynamic information such as change in marital status, salary changes, children status.
4. Updation of member status on continuing basis like death, withdrawal, retirement, disability and status with regard to exit of pensioners.
5. Compiling valid data for actuarial valuation annually and submit to controlling office (Statistical Section).
6. Preparing MIS Statements as per requirement for consolidation and review at controlling office.

Controlling Office (EPFO HQ)

1. Monitor the work of Statistical Section at R.Os and provide direction and guidance.
2. Consolidate MIS Statements of R.Os for review (this will include information on EPS'95 contribution from employers as also outgo for various benefits –pension as well as lump sum)
3. Consolidate valuation data from R.Os, carry out validation checks for consistency accuracy and completeness of data and obtain wherever required, revalidated data from R.Os. Take overall responsibility for submission of all required data for actuarial valuation.
4. Carry out statistical analysis annually related to the following:
 - Distribution of Members by age group \ Pensionable salary\ past pensionable service preferably broad industry group wise.
 - Experience as to death, withdrawal, and retirement of Members according to age at exit and deriving decrement rates at each age (and also duration for withdrawal) with guidance of an Actuary.
 - Analysis of salary increase separately for different employee categories \ industry groups.



Resources for effective functioning of Statistical Section

Statistical Section at R.Os and controlling office must be provided with required resources like computers and operators to capture and maintain data in electronic form and covered by network to enable effective functioning.

The staff selected for the section should be capable of utilizing computer applications data processing and programming.

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Age wise distribution of Number, Salary and Salary weighted by service
Sample Data Valued

| Age | Number | Salary | Salary x Service |
|--------------|------------------|-----------------------|------------------------|
| 18 | 657 | 9,19,005 | - |
| 19 | 13,475 | 1,97,47,303 | 1,04,61,446 |
| 20 | 29,391 | 4,43,75,074 | 4,17,32,693 |
| 21 | 39,259 | 6,47,28,008 | 7,77,24,897 |
| 22 | 49,374 | 9,42,14,454 | 13,29,33,190 |
| 23 | 59,577 | 12,74,21,566 | 20,32,28,182 |
| 24 | 65,578 | 16,04,48,877 | 29,19,53,936 |
| 25 | 68,257 | 18,49,52,381 | 37,69,48,684 |
| 26 | 71,945 | 20,31,82,921 | 44,88,79,290 |
| 27 | 70,088 | 20,97,36,151 | 52,98,25,268 |
| 28 | 76,578 | 22,90,74,566 | 66,76,66,044 |
| 29 | 70,749 | 22,70,62,639 | 75,01,13,105 |
| 30 | 72,370 | 23,38,10,426 | 87,97,42,543 |
| 31 | 74,299 | 24,50,38,715 | 1,11,38,14,662 |
| 32 | 75,391 | 25,91,95,575 | 1,28,50,01,395 |
| 33 | 75,638 | 25,94,12,059 | 1,38,25,83,509 |
| 34 | 70,611 | 24,80,58,371 | 1,42,92,59,070 |
| 35 | 68,107 | 24,37,03,294 | 1,49,70,43,395 |
| 36 | 71,359 | 24,75,46,728 | 1,60,97,70,538 |
| 37 | 66,478 | 23,63,63,647 | 1,64,97,59,885 |
| 38 | 70,789 | 24,47,95,703 | 1,77,47,07,868 |
| 39 | 62,734 | 23,42,58,406 | 1,75,93,83,620 |
| 40 | 61,356 | 23,11,83,690 | 1,81,56,97,555 |
| 41 | 58,369 | 21,85,61,964 | 1,78,00,62,888 |
| 42 | 53,704 | 20,85,98,408 | 1,77,23,68,842 |
| 43 | 55,410 | 21,33,93,278 | 1,85,56,10,158 |
| 44 | 49,411 | 20,41,66,072 | 1,83,44,37,207 |
| 45 | 45,085 | 19,20,88,424 | 1,75,44,88,330 |
| 46 | 43,652 | 19,16,52,697 | 1,78,15,74,934 |
| 47 | 39,530 | 17,81,88,817 | 1,69,54,83,379 |
| 48 | 41,804 | 18,30,70,618 | 1,75,51,60,649 |
| 49 | 35,303 | 17,25,32,486 | 1,69,80,21,760 |
| 50 | 31,873 | 16,41,18,268 | 1,63,33,85,599 |
| 51 | 28,309 | 15,20,77,411 | 1,52,81,77,185 |
| 52 | 27,922 | 15,69,02,492 | 1,61,89,49,628 |
| 53 | 26,399 | 15,26,57,185 | 1,58,36,17,339 |
| 54 | 23,232 | 13,64,85,705 | 1,43,27,56,853 |
| 55 | 21,162 | 13,24,35,782 | 1,41,04,10,572 |
| 56 | 20,406 | 13,41,03,278 | 1,42,18,48,586 |
| 57 | 16,006 | 8,79,07,730 | 85,54,41,993 |
| 58 | 5,174 | 2,89,96,707 | 29,04,01,707 |
| TOTAL | 20,06,811 | 7,15,71,66,881 | 47,43,04,28,384 |

EPS VALUATION 31.03.2008

Appendix -B

Age wise distribution of Number, salary and salary weighted by Service
Projected from sample data available for actual valuation

| Age | Number | Salary | Salary x Service |
|--------------|--------------------|------------------------|--------------------------|
| 18 | 13,287 | 1,07,54,060 | - |
| 19 | 2,72,519 | 23,10,79,996 | 12,24,18,282 |
| 20 | 5,94,405 | 51,92,70,501 | 48,83,49,753 |
| 21 | 7,93,976 | 75,74,37,501 | 90,95,25,159 |
| 22 | 9,98,543 | 1,10,24,83,497 | 1,55,55,64,374 |
| 23 | 12,04,889 | 1,49,10,68,172 | 2,37,81,45,893 |
| 24 | 13,26,253 | 1,87,75,48,842 | 3,41,64,01,441 |
| 25 | 13,80,433 | 2,16,42,85,194 | 4,41,09,97,313 |
| 26 | 14,55,020 | 2,37,76,16,255 | 5,25,27,18,542 |
| 27 | 14,17,464 | 2,45,43,01,176 | 6,19,99,36,311 |
| 28 | 15,48,718 | 2,68,05,96,426 | 7,81,29,28,525 |
| 29 | 14,30,832 | 2,65,70,53,156 | 8,77,77,11,743 |
| 30 | 14,63,615 | 2,73,60,14,753 | 10,29,46,16,104 |
| 31 | 15,02,627 | 2,86,74,06,518 | 13,03,36,93,150 |
| 32 | 15,24,712 | 3,03,30,67,983 | 15,03,68,94,783 |
| 33 | 15,29,707 | 3,03,56,01,247 | 16,17,87,86,136 |
| 34 | 14,28,041 | 2,90,27,42,082 | 16,72,49,76,593 |
| 35 | 13,77,400 | 2,85,17,79,620 | 17,51,81,78,660 |
| 36 | 14,43,168 | 2,89,67,54,912 | 18,83,72,94,885 |
| 37 | 13,44,455 | 2,76,58,92,165 | 19,30,52,44,262 |
| 38 | 14,31,641 | 2,86,45,62,827 | 20,76,73,66,935 |
| 39 | 12,68,736 | 2,74,12,56,949 | 20,58,80,44,869 |
| 40 | 12,40,867 | 2,70,52,77,080 | 21,24,70,22,142 |
| 41 | 11,80,458 | 2,55,75,79,524 | 20,83,00,30,581 |
| 42 | 10,86,113 | 2,44,09,87,477 | 20,73,99,96,001 |
| 43 | 11,20,615 | 2,49,70,96,331 | 21,71,40,73,473 |
| 44 | 9,99,291 | 2,38,91,20,942 | 21,46,63,10,757 |
| 45 | 9,11,802 | 2,24,77,90,105 | 20,53,07,60,915 |
| 46 | 8,82,821 | 2,24,26,91,293 | 20,84,77,24,318 |
| 47 | 7,99,457 | 2,08,51,38,976 | 19,84,02,93,774 |
| 48 | 8,45,446 | 2,14,22,65,083 | 20,53,86,28,292 |
| 49 | 7,13,970 | 2,01,89,49,434 | 19,86,99,97,530 |
| 50 | 6,44,601 | 1,92,04,87,509 | 19,11,36,34,808 |
| 51 | 5,72,523 | 1,77,95,87,195 | 17,88,25,01,630 |
| 52 | 5,64,696 | 1,83,60,49,574 | 18,94,47,07,228 |
| 53 | 5,33,895 | 1,78,63,71,624 | 18,53,12,54,048 |
| 54 | 4,69,845 | 1,59,71,35,375 | 16,76,59,07,128 |
| 55 | 4,27,981 | 1,54,97,43,780 | 16,50,44,14,279 |
| 56 | 4,12,692 | 1,56,92,56,570 | 16,63,82,60,214 |
| 57 | 3,23,706 | 1,02,86,83,153 | 10,01,02,54,691 |
| 58 | 1,04,639 | 33,93,15,143 | 3,39,82,37,488 |
| TOTAL | 4,05,85,860 | 83,75,21,00,000 | 5,55,02,38,03,009 |

| EPS '95 VALUATION - 31st March 2008 | | | | | | | | Appendix-C | |
|---|---------------|---------------|---------------|---------------|---------------|---------------|--------------|---------------|----------------|
| Primary pensioners | | | | | | | | | |
| Distributions by age and pension amount (valued data) | | | | | | | | | |
| Monthly Pension amount | | | | | | | | | |
| age | <400 | 401-500 | 501-600 | 601-700 | 701-800 | 801-900 | 901-1000 | >1000 | Total |
| 50 | 950 | 113 | 2061 | 1335 | 527 | 1438 | 1949 | 2769 | 11142 |
| 51 | 2075 | 550 | 1017 | 4154 | 2176 | 8109 | 6622 | 8729 | 33432 |
| 52 | 3008 | 4231 | 11006 | 4904 | 5645 | 9193 | 7729 | 10994 | 56710 |
| 53 | 5283 | 9327 | 8320 | 6967 | 7661 | 9140 | 6957 | 8217 | 61872 |
| 54 | 8570 | 8003 | 8735 | 7718 | 9708 | 7774 | 6027 | 7832 | 64367 |
| 55 | 9561 | 8501 | 8954 | 9916 | 8466 | 8546 | 5471 | 7644 | 67059 |
| 56 | 11379 | 9207 | 10554 | 10071 | 9502 | 8749 | 4558 | 8686 | 72706 |
| 57 | 11949 | 9898 | 11238 | 11320 | 10306 | 8317 | 5299 | 8151 | 76478 |
| 58 | 13450 | 9959 | 12024 | 11672 | 9554 | 9159 | 6778 | 27674 | 100270 |
| 59 | 11830 | 9396 | 13556 | 11870 | 10932 | 13036 | 11706 | 49694 | 132020 |
| 60 | 11571 | 10147 | 14351 | 13391 | 11613 | 13785 | 8855 | 41309 | 125022 |
| 61 | 13471 | 12656 | 12127 | 16754 | 12768 | 8297 | 6275 | 27162 | 109510 |
| 62 | 12526 | 12064 | 12691 | 16427 | 10573 | 6184 | 7242 | 15024 | 92731 |
| 63 | 13338 | 11339 | 12204 | 15272 | 9550 | 7296 | 7108 | 2480 | 78587 |
| 64 | 17587 | 11563 | 7861 | 12100 | 9671 | 4123 | 1620 | 216 | 64741 |
| 65 | 20377 | 10029 | 6653 | 12830 | 5114 | 86 | 35 | 104 | 55228 |
| 66 | 25900 | 4233 | 16040 | 3237 | 46 | 43 | 12 | 43 | 49554 |
| 67 | 20007 | 3976 | 14053 | 1618 | 28 | 22 | 21 | 14 | 39739 |
| 68 | 18438 | 6270 | 13230 | 1648 | 10 | 2 | 8 | 5 | 39611 |
| 69 | 13493 | 6492 | 7742 | 3356 | 2 | 2 | 9 | 1 | 31097 |
| 70 | 11071 | 5679 | 7225 | 1476 | 9 | 1 | 2 | 2 | 25465 |
| 71 | 8321 | 4406 | 5188 | 13 | 0 | 2 | 0 | 1 | 17931 |
| 72 | 6535 | 3316 | 3577 | 11 | 0 | 1 | 0 | 1 | 13441 |
| 73 | 4517 | 2213 | 1843 | 2 | 0 | 0 | 0 | 0 | 8575 |
| 74 | 2235 | 1028 | 791 | 3 | 0 | 0 | 0 | 0 | 4057 |
| 75+ | 1107 | 546 | 249 | 1 | 0 | 0 | 0 | 0 | 1903 |
| Total | 278549 | 175142 | 223290 | 178066 | 133861 | 123305 | 94283 | 226752 | 1433248 |

Distribution of Members in salary and service bands (valued data only)

(A) EPS SERVICE

| Service Years | Average Salary Rs | | | | | TOTAL |
|---------------|-------------------|-----------|-----------|-----------|--------|---------|
| | 1001-2000 | 2001-3000 | 3001-4000 | 4001-5000 | >5000 | |
| 0 | 21175 | 81819 | 19232 | --- | ---- | 122226 |
| 1- 5 | 118520 | 268410 | 581665 | 42903 | 2478 | 1013976 |
| 6 -10 | 15479 | 74975 | 203853 | 38755 | 1844 | 334906 |
| 11 | 2755 | 11935 | 39680 | 6245 | 1197 | 61812 |
| 12 | ---- | 1307 | 100599 | 157159 | 214826 | 473891 |

Total

2006811