

L-42- Valuation Basis (Life Insurance)

- a. How the policy data needed for valuation is accessed:** The IT department provides the data required for performing the valuation. IT extracts the data from the Policy Administration System by means of a query. Fields that are necessary for the purpose of valuation are extracted. Validation checks are performed on the data received from the Policy administration system. The download contains details of both base policies and riders. The data is then converted in to the requisite format, used for valuation purpose, using a Data Conversion System (DCS) package. The actuarial valuation process is done by means of the actuarial software – Prophet
- b. How the valuation bases are supplied to the system:** The valuation parameters are classified as:  
 Global: These are common across businesses and do not vary according to product, e.g., tax on surplus, inflation, etc.  
 Input: These are product-specific, e.g., expenses, commission, etc.  
 The non-variants are classified as constants and the individual modal points are generated from the policy download after validation checks. These inputs are fed into the Prophet System for generating the valuation output.

|  |  | Jun-16  |         | Sep-16  |         | Dec-16  |         | Mar-17  |         |
|--|--|---------|---------|---------|---------|---------|---------|---------|---------|
|  |  | Min     | Max     | Min     | Max     | Min     | Max     | Min     | Max     |
| <b>The Valuation Bases:</b>  |  |         |         |         |         |         |         |         |         |
| <b>i. Individual Business</b>  |  |         |         |         |         |         |         |         |         |
| 1.   | Life- Participating policies           | 6.50%   | 6.50%   | 6.50%   | 6.50%   | 6.50%   | 6.50%   | 6.50%   | 6.50%   |
| 2.   | Life- Non-participating Policies       | 6.00%   | 6.75%   | 6.00%   | 6.75%   | 6.00%   | 6.75%   | 6.00%   | 6.75%   |
| 3.   | Annuities- Participating policies      |         |         |         |         |         |         |         |         |
| 4.   | Annuities – Non-participating policies | 6.00%   | 6.00%   | 6.00%   | 6.00%   | 6.00%   | 6.00%   | 6.00%   | 6.00%   |
| 5.   | Annuities- Individual Pension Plan     | 4.50%   | 6.75%   | 4.50%   | 6.75%   | 4.50%   | 6.75%   | 4.50%   | 6.75%   |
| 6.   | Unit Linked                            | 4.50%   | 4.50%   | 4.50%   | 4.50%   | 4.50%   | 4.50%   | 4.50%   | 4.50%   |
| 7.   | Health Insurance                       | 6.00%   | 6.00%   | 6.00%   | 6.00%   | 6.00%   | 6.00%   | 6.00%   | 6.00%   |
| <b>ii. Group Business</b>  |  |         |         |         |         |         |         |         |         |
| Mortality Rates : the mortality rates used for each segment <sup>1</sup> |  |         |         |         |         |         |         |         |         |
| 1.   | Life- Participating policies           | 100.00% | 148.50% | 100.00% | 148.50% | 100.00% | 148.50% | 100.00% | 148.50% |
| 2.   | Life- Non-participating Policies       | 100.00% | 148.50% | 100.00% | 148.50% | 100.00% | 148.50% | 100.00% | 148.50% |
| 3.   | Annuities- Participating policies      |         |         |         |         |         |         |         |         |
| 4.   | Annuities – Non-participating policies | 55.00%  | 75.00%  | 55.00%  | 75.00%  | 55.00%  | 75.00%  | 55.00%  | 75.00%  |
| 5.   | Annuities- Individual Pension Plan     | 70.00%  | 80.00%  | 70.00%  | 80.00%  | 70.00%  | 80.00%  | 70.00%  | 80.00%  |
| 6.   | Unit Linked                            | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |
| 7.   | Health Insurance <sup>2</sup>          | 60.80%  | 100.00% | 60.80%  | 100.00% | 60.80%  | 100.00% | 60.80%  | 100.00% |
| <b>Expense : (all are per policy unless otherwise mentioned)</b>         |  |         |         |         |         |         |         |         |         |
| 1.   | Life- Participating policies           | 469.83  | 719.46  | 474.46  | 726.55  | 479.14  | 733.71  | 483.86  | 740.94  |
| 2.   | Life- Non-participating Policies       | 372.42  | 719.46  | 376.09  | 726.55  | 379.80  | 733.71  | 383.54  | 740.94  |
| 3.   | Annuities- Participating policies      |         |         |         |         |         |         |         |         |
| 4.   | Annuities – Non-participating policies | 332.07  | 332.07  | 335.34  | 335.34  | 338.64  | 338.64  | 341.98  | 341.98  |
| 5.   | Annuities- Individual Pension Plan     | 719.46  | 719.46  | 726.55  | 726.55  | 733.71  | 733.71  | 740.94  | 740.94  |
| 6.   | Unit Linked <sup>3</sup>               | 692.39  | 692.39  | 699.21  | 699.21  | 706.10  | 706.10  | 713.06  | 713.06  |
| 7.   | Health Insurance                       | 719.46  | 719.46  | 726.55  | 726.55  | 733.71  | 733.71  | 740.94  | 740.94  |
| <b>ii. Group Business (Term Assurance)</b>                               |  |         |         |         |         |         |         |         |         |
|  |  | 21.19   | 72.83   | 21.40   | 73.54   | 21.61   | 74.27   | 21.82   | 75.00   |

- 1) The percentages shown above refer to the adjustments made to the base tables. The base table used For Non-participating annuity products was "Mortality for Annuitants - LIC (a) (1996-98) Ultimate Rates" and for all other assurance products both Indian Assured Lives Mortality (2006 -2008) (modified) Ult.
- 2) The morbidity assumption used in valuation varies from 110% to 192.5% of CIBT 93 rates and 100% of K<sub>a</sub> factor (proportion of Post-CI deaths out of total deaths at age x in any year).
- 3) In addition to this in respect of Unit Linked policies, additional expenses varying from 0.3% to 0.8% to unit balance based on type of fund was also allowed. In respect of traditional paid up policies, expenses @40% of that of inforce policy expense was allowed for in the valuation as at 31 March 2017. In case of Individual Pension Plan where premium discontinued beyond a year, expense @ 75% of inforce policy expense has been used for valuation as on 31 March 2017.
- 4) Bonus Rates : Each year bonus rates are declared on 31st of March post annual actuarial valuation in accordance with section 49 of Insurance Act,1938 and IRDA ( Distribution of Surplus) Regulations, 2002.
- 5) Policyholders Reasonable Expectations Bonus rates declared were in line with with the bonus rates illustrated at the time of sale based on rates prescribed by the Life Council/IRDA Regulations.
- 6) Taxation and Shareholder Transfers Both allowed for in the valuation of participating business. Taxes charged were at **12.5% Base Rate + applicable Surcharge + Education Cess**
- 7) Basis of provisions for Incurred But Not Reported (IBNR) Set up assumed 2 - 3 month reporting delay in respect of death claims based on Line of Business
- 8) Change in Valuation Methods or Bases (comparison to valuation bases as at 31 December 2016)

**i. Individuals Assurances**

|                                   |  | Dec-16  |           |
|-----------------------------------|--|---|-----------|
|                                   |  | Min   | Max       |
| <b>1. Interest</b>                |  |   |           |
| Participating                     |  | No Change   | No Change |
| Non participating                 |  | No Change   | No Change |
| <b>2. Expenses</b>                |  |   |           |
| 3. Inflation                      |  | No change other than allowing for implied inflation |           |
|                                   |  | No Change   | No Change |
| <b>ii. Annuities</b>              |  |   |           |
| <b>1. Interest</b>                |  |   |           |
| a. Annuity in payment             |  | No Change   | No Change |
| b. Annuity during deferred period |  | No Change   | No Change |
| c. Pension : All Plans            |  | No Change   | No Change |
| <b>2. Expenses</b>                |  |   |           |
| 3. Inflation                      |  | No change other than allowing for implied inflation |           |
|                                   |  | No Change   | No Change |
| <b>iii. Unit Linked</b>           |  |   |           |
| 1. Interest                       |  | No Change   | No Change |
| 2. Expenses                       |  | No change other than allowing for implied inflation |           |
| 3. Inflation                      |  | No Change   | No Change |
| <b>iv. Health</b>                 |  |   |           |
| 1. Interest                       |  | No Change   | No Change |
| 2. Expenses                       |  | No change other than allowing for implied inflation |           |
| 3. Inflation                      |  | No Change   | No Change |
| <b>v. Group</b>                   |  |   |           |
| 1. Interest                       |  | No Change   | No Change |
| 2. Expenses                       |  | No change other than allowing for implied inflation |           |
| 3. Inflation                      |  | No Change   | No Change |