

## **L-42- Valuation Basis (Life Insurance)**

A chapter on Valuation basis covering the following minimum criteria should also be displayed on the web-site of the Insurers.

### **Data**

The company maintains the Policy data in the policy administration system called Life Asia. The system captures all the information required for the purpose of the statutory valuation.

The data for the purpose of annual statutory valuation is obtained after the business closure for the financial year.

A series of validation checks is performed to ensure the accuracy and completeness of the data.

### **Valuation Method**

The policy liability for individual line of business is calculated using the actuarial software called PROPHET.

The assumptions (valuation bases) are fed into the PROPHET system manually in the format as prescribed/appropriate for the system to perform the calculation.

The actuarial liabilities of the company have been calculated in accordance with the requirements of Insurance Act, 1938, Insurance Regulatory and Development Authority (Assets, Liabilities, and Solvency Margin of Insurers) Regulations, 2000 and other regulations, Guidance Notes issued by Institute of Actuaries of India and generally established actuarial practices.

**Individual Linked Business:** Reserves consist of two components, namely unit reserves and non-unit reserves. The following methods have been used to determine these reserves:

#### **Unit Reserve:**

Under linked life insurance contracts, unit reserves are calculated in respect of the units, under various funds, allocated to the policies in force at the valuation date using unit values at the valuation date.

#### **Non Unit Reserve:**

The non-unit liabilities in respect of the linked contracts are determined using a prospective gross premium method under which future net cash flows are discounted back to the date of valuation on policy-by policy basis.

In addition to the above, a separate provision is made for the following:

- i) **Lapsed policies:** I have kept the full unit reserves in respect of lapsed policies which, based on valuation assumptions, are likely to be revived. The reserves kept under the lapsed policies which are not likely to be revived have been calculated in a manner to ensure that the amount of such reserve is not less than the surrender value payable in respect of such policies, if any. I have also determined the total unit reserve in respect of all lapsed policies within the reinstatement period and the excess of the total unit reserve over and above the mathematical reserve kept under the lapsed policies is set aside as fund for future appropriation.
- ii) **Unearned mortality charges:** One month's mortality charges based on mortality charges deducted in the month June 2011 in respect of all in-force policies have been kept as unearned mortality reserve.
- iii) **Free Look Reserves:** The free look ratio for the company based on the past experience is applied to the total premium received in the month of June 2011 is kept as free look reserve.
- iv) **Incurred but not reported claims:** Two months' mortality charges based on mortality charges deducted in the last month in respect of all in-force policies have been kept as unearned reserve.
- v) **As lives subject to extra mortality and morbidity risk pay higher mortality charges,** extra reserve in respect of them has been implicitly allowed for in unearned mortality charge calculation.

#### **Individual Non-Linked Business:**

As on valuation date the company had only term assurance policy under non-linked category. The reserve is determined using gross premium method. The reserve under this method is excess of discounted value of future benefit outgo and expenses including commission over discounted value of future office premium. For regular premium policies this method may give rise to negative reserve which is zeroised and the reserve is topped up by the unearned premium for the policy year. For single premium policies where policy is eligible for surrender value the mathematical reserve is the higher of gross premium reserve calculated above and the surrender value.

#### **Group Linked Business**

Reserves consist of two components, namely unit reserves and non-unit reserves. The following methods have been used to determine these reserves:

##### **Unit Reserve:**

The reserve held under the group unit-linked plan is unit reserve which is calculated in respect of the units, under various funds, allocated to the policies in force at the valuation date using unit values at the valuation date.

##### **Non-Unit Reserve:**

Taking into consideration the nature of the business, the non-unit reserve is set as zero.

## **Group Non-Linked Business**

The method adopted for group yearly renewable term is unearned premium reserve (UPR) method. For group credit life, Gross Premium method was adopted.

For group yearly renewable term IBNR reserve of two months of premium is kept in addition to UPR.

## **Valuation Assumptions**

### **Individual Unit- Linked Products**

#### **Interest Rate**

The interest rate assumption is derived based on the current redemption yield and in accordance with the IRDA Regulations 2000 and Guidance Notes issued by Institute of Actuaries of India.

The interest rate used for the purpose of non-unit unit reserve calculation 5.95% p.a for next five years and 5.15% p.a thereafter.

#### **Fund Growth Rate**

For the purpose of the projection an assumption is made for future fund growth for various funds. This is arrived based on the current yield on various instruments like G-sec, Money Market etc and the proportion of these instruments in each of the fund the company offer for its unit-linked policy-holder.

<b>Fund Name</b>	<b>Next 5 Years</b>	<b>Beyond 5 years</b>
<b>Equity</b>	<b>8.45%</b>	<b>7.65%</b>
<b>Debt</b>	<b>5.70%</b>	<b>4.90%</b>
<b>Balanced</b>	<b>7.45%</b>	<b>6.65%</b>
<b>Liquid</b>	<b>4.95%</b>	<b>4.15%</b>
<b>Value Fund</b>	<b>8.20%</b>	<b>7.40%</b>
<b>Index Fund</b>	<b>8.20%</b>	<b>7.40%</b>

#### **Inflation Rate**

The inflation rate used of the purpose of valuation is 4.16%.

#### **Mortality**

The mortality assumption used is 88% of IALM 1994 -96 Ultimate for some products and 110% of IALM 1994-96 for some products.

## Expense

The renewal expense per policy for the purpose of valuation is Rs.289 for the single premium and Rs.462 for regular premium for the products IndiaFirst Savings Plan, IndiaFirst Education Plan and IndiaFirst Future Plan.

The renewal expense per policy assumed is 1.76% of the annual premium for regular premium and 0.55% of single premium for single premium mode for the products IndiaFirst Smart Saving Plan and IndiaFirst Young India Plan.

The expense is assumed to increase at inflation rate mentioned above.

The fund management expense is 0.39% of the unit-reserve with respect to IndiaFirst Savings Plan, IndiaFirst Education Plan and IndiaFirst Future Plan and 0.275% with respect to IndiaFirst Smart Saving Plan and IndiaFirst Young India Plan.

## Tax Rate

This is not relevant of unit-linked products for the purpose of valuation.

## Individual Non- Linked Products

### Mortality

The mortality assumption used is 60.5% of IALM 1994 -96 Ultimate IndiaFirst Life Plan and 55% of IALM 1994 -96 Ultimate IndiaFirst Anytime Plan and 110% of IALM 1994 - 96 for IndiaFirst Secure Save Plan.

### Expense

The renewal expense of IndiaFirst Anytime Plan and IndiaFirst Life Plan is Rs.132 p.a for RP and Rs.66 p.a for SP. Claim expense of 1.1% of death benefit subject to maximum of Rs.10000

The renewal expense of IndiaFirst Secure Save Plan is 2.2% of annual premium.

### Interest Rate

The interest rate assumed for IndiaFirst Secure Save (with-profit) is 6.45% for next five years and 5.65% thereafter. The interest rate assumed for other products is 5.95% for next five years and 5.15% thereafter.

### **One Year Group Term**

The reserve with respect to this product is UPR and it based on the received premium less commission.

### **Group Credit Life Plan**

#### **Mortality**

Housing Loan: 1 - 3 times of Base Mortality rates.  
Car Loan: 1.25 - 3 times of Base Mortality rates.  
Personal loan: 1.5 - 3 times of Base Mortality rates.  
Base Mortality: 60.5% of Indian Assured Lives Mortality (1994-96) (modified)  
Ultimate

#### **Expense**

The renewal expense is Rs.55 increasing with inflation. Claim expense of 1.1% of death benefit subject to maximum of Rs.10000

#### **Interest Rate**

The interest rate used is 5.95% for next five years and 5.15% thereafter.