

## L-42- Valuation Basis (Life Insurance) for the Year 2007-08

### a. How the policy data needed for valuation is accessed.

For **Individual Business**, the data needed for valuation at a per policy level is extracted from the policy administration system in 'csv' format. The valuation is done using the well known actuarial software package 'Prophet'. The data is then converted into a format required by Prophet using the 'Data Conversion System' module in Prophet.

For **Group Business**, the data in respect of Annually Renewable Group Term business is extracted from Group Operations in Microsoft Excel files. The valuation for this business is done using an Excel Program. The valuation of Group Single Premium decreasing term assurance business, namely the Kotak Complete Cover Plan ("credit life"), is done using 'Prophet' .

### b. How the valuation basis are supplied to the system

For **Individual Business**, the valuation basis is supplied to Prophet through various tables like the 'Parameter File', the 'Global File', and the 'Generic File'.

For **Group Business**, the parameters are included in various formulae in Excel sheets.

### 1) Interest :

#### i. Individual Business

	First 5 yrs	After 5 yrs
a) Life- Participating policies	7.30%	6.60%
b) Life- Non-participating Policies	5.80%	5.10%
c) Annuities- Participating policies	NA	NA
d) Annuities - Non-participating policies	NA	NA
e) Annuities- Individual Pension Plan	7.30%	6.60%
f) Unit Linked	5.80%	5.10%
g) Health Insurance	NA	NA

<b>ii. Group Business</b>	5.80%	5.10%
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### 2) Mortality Rates:

a) Life- Participating policies	The mortality rates assumed for our participating plans are 88% of IALM (94-96).
b) Life- Non-participating Policies	The mortality rates assumed for Preferred term plans depends on age and smoker status and ranges between 66% to 80% of IALM (94-96). The rates assumed for other non-participating products ranges between 88% to 165% of IALM (94-96).
c) Annuities- Participating policies	NA
d) Annuities - Non-participating policies	NA
e) Annuities- Individual Pension Plan	The mortality rates assumed are 88% of IALM (94-96).
f) Unit Linked	The mortality rates assumed ranges between 88% to 165% of IALM (94-96).
g) Health Insurance	NA

<b>3) Expense :</b>	(in Rs) per policy
Fixed Renewal Expenses (Regular Premium)	512
Fixed Renewal Expenses (Single Premium)	102
Fixed Expenses on Death	1462
Fixed Expenses on Maturity	256
Fixed Expenses on Surrender	256
Fixed Expenses on CI	7311
Fixed Expenses on Disability	3656
Group Complete Cover Plan (Renewal Fixed)	100 per member
Group Complete Cover Plan (on Death)	1425 per member
Group Complete Cover Plan (on Surrender)	83 per member

In respect of other Group Plans, expense provision is equal to 10% of the unexpired risk premium.

### 4) Bonus Rates

The bonus rates assumed were consistent with the interest rate assumptions used and the nature of the product.

## 5) Policyholders Reasonable Expectations

The level of benefits assumed is in line with the benefit illustrations provided at the point of sale and hence meets policyholders reasonable expectation.

6) Taxation and Shareholder Transfers	
Policyholders Tax Rate	14.16%
Shareholders Tax Rate	16.995%
Shareholder Transfer (With Profit Policies)	1/9 th of Cost of Bonus
Shareholder Transfer (Without Profit Policies)	100% of Surplus

## 7) Basis of provisions for Incurred But Not Reported (IBNR)

Individual	Provision for IBNR is 3 times the average claims paid (net of reinsurance) over the past ten months.
Group	Provision for IBNR reserve is based on the past claims experience using chain ladder approach.

## 8) Change in Valuation Methods or Basis

### i. Individuals Assurances

1. Interest	Different interest rates were used for first 5 years and after 5 years. In case of Participating policies, the rate has been increased from previous year by 1% for first 5 years and by 0.3% for after 5 years. In case of non-participating policies, the rate has been increased from previous year by 1.3% for first 5 years and by 0.6% for after 5 years.
2. Expenses	There was no change in expense assumption. They were increased by inflation from previous year.
3. Inflation	Inflation rate was increased by 0.5% from previous year and assumed at 6%.

### ii. Annuities

1. Interest	
a. Annuity in payment	Not Applicable
b. Annuity during deferred period	Not Applicable
c. Pension : All Plans	Different interest rates were used for first 5 years and after 5 years. The rate has been increased from previous year by 1% for first 5 years and by 0.3% for after 5 years.
2. Expenses	There was no change in expense assumption. They were increased by inflation from previous year.
3. Inflation	Inflation rate was increased by 0.5% from previous year and assumed at 6%.

### iii. Unit Linked

1. Interest	Different interest rates were used for first 5 years and after 5 years. The rate has been reduced from previous year by 0.5% for first 5 years and by 1.2% for after 5 years.
2. Expenses	There was no change in expense assumption. They were increased by inflation from previous year.
3. Inflation	Inflation rate was increased by 0.5% from previous year and assumed at 6%.

### iv. Health

Not Applicable

### v. Group

1. Interest	Different interest rates were used for first 5 years and after 5 years. The rate has been increased from previous year by 1.3% for first 5 years and by 0.6% for after 5 years.
2. Expenses	There was no change in expense assumption for Complete Cover Plan. They were increased by inflation from previous year.
3. Inflation	Inflation rate was increased by 0.5% from previous year and assumed at 6%.