

## ICICI Prudential Life Insurance Company Ltd.

### L-42- Valuation Basis

#### Data

Policy data is maintained on two administration systems, one for individual business and one for group business.

The key considerations from the statutory valuation perspective are to ensure the completeness and accuracy of data.

There are a series of validation checks based on product rules built into the administration systems that are applied before a policy is issued. Until last year, we have relied on these checks. This year (2006-07), we have built our own product rules validations to identify deviations.

#### Treatment of Valuation Parameters

For the purpose of valuation, policy data was downloaded from LifeAsia (for individual policies) and Ashima (for group policies), which is our policy administration system, after new business processing was completed for the year ended March 31, 2007 and all the movements were updated for the year ending March 31, 2007.

The liability valuation calculations have been carried out using actuarial software called "Prophet". The assumptions for each plan are fed manually into a spreadsheet. This is independently checked. After this verification, a DCS (Data Conversion System) Program is used to make a "Prophet" readable table from the spreadsheet. Uploading of assumption into "Prophet" is therefore automated. Monthly cashflows are then projected by Prophet to determine the reserves using the specific characteristics of each policy such as age at entry, sum assured, term, etc. The calculations are exact and no approximations are made.

The valuation parameters were calculated as mentioned below.

- Age at Entry was taken as age nearer birthday at the commencement of date of policy. This extracted from LifeAsia.
- Valuation Age was calculated by summing Age nearer birthday at entry with curtate duration, i.e. the age would change only on policy anniversaries.

- Premium Paying Term under the plan is extracted from Life Asia.
- Maturity Date is obtained by summing up the date of commencement and policy term extracted from LifeAsia.
- Period from Valuation date to maturity is calculated in prophet as the difference between the maturity date and the valuation date

### **Treatment of Future Premiums**

#### **Incident of premiums income**

The premiums are assumed to be received when due.

For linked business, premium income is recognised when the associated units are allocated. Fees on linked policies are recognised when due. For the purpose of projections in the actuarial models, future premiums are assumed to be received when due.

#### **Premiums payable otherwise than annually**

As premiums are taken to be received when due, no adjustment is required for non-annual plans.

### **Valuation Method – Non Linked Business**

The valuation methods are described below.

#### **Methods adopted in the determination of mathematical reserves**

The reserves are calculated on an individual policy basis using the prescribed method of valuation, namely the Gross Premium Valuation Method, with no allowance for lapses. No policy is treated as an asset and accordingly the minimum value of reserves is the Guaranteed Surrender Value if applicable or zero.

For participating plans, the liability includes a provision for future bonuses at a rate consistent with the valuation rate of interest along with a provision for associated tax and transfer to shareholders. These bonus rates are set keeping in mind the PRE. The table below summarises the specific methods used to value liabilities under each type of product. Further details are given below.

### Non Participating Business

Contract Status	Category	Applicability	Method
In Force	Individual Products	Base Plan	Gross Premium Reserve
		Riders – Excluding Accident Benefit Riders and Including Health	Higher of Gross Premium Reserve and Unearned Premium Reserve
	Group Products	Riders – Accident Benefit Riders All group risk products and riders	Unearned Premium Reserve Unearned Premium Reserve
Reduced Paid up	Individual Products	Base Plan	Gross Premium Reserve on reduced benefit with no future premiums payable
Lapsed / Reduced Paid up	Individual Products	Lapse Reinstatement Reserve	Probability of reinstatement applied to the difference between the reserve assuming contract is In Force and the outstanding premiums

### Participating Business

For participating business, the methods applicable are the same as above but with allowance for future bonus and associated tax and transfers to shareholders funds.

### Bonus Rate

The future bonus assumption used in the valuation of liabilities is set as the sustainable bonus consistent with the statutory valuation basis and PRE. Consideration is also given to the ability of the company to change bonus rates keeping in mind the smoothing philosophy articulated. Given this, no separate MAD for the bonus rate is provided. The Board of Directors had declared an interim compound reversionary bonus rate of 3.50% at its meeting on January 22, 2007 and a final reversionary bonus of 3.25% was declared for all policies that have passed their guaranteed additions period at its meeting held on

April 24, 2007. In setting the assumption for bonus rates, we have allowed for this rate of 3.25% to scale down to the supportable bonus over 2 years as follows.

Financial Year	Assumed Rate
2006-07	3.25%

For participating plans, the liability is set to prospective Bonus Reserve Valuation (BRV). But the BRV is equated to the Asset Share by solving for supportable bonus. The guaranteed part of the reserve is increased to exhaust the asset share. Thus the reserve includes a provision for future bonuses at a rate consistent with the valuation rate of interest along with a provision for associated tax and transfer to shareholders. These bonus rates are set keeping in mind the PRE.

### **Policyholder Reasonable Expectations (PRE)**

Due consideration must be given to the reasonable expectations of policyholders when making a distribution of surplus. "Reasonable" is not explicitly defined in the regulations and is left to the interpretation of the Appointed Actuary. Our interpretation of "Reasonable" refers to a well-informed, financially literate policyholder.

PRE can be formed with respect to many areas including the following.

- Nature of Bonus
- Reversionary (added each year) vs. Terminal (added only on claim)
- Type of Reversionary bonus
- Simple vs. compound vs. super compound
- Level of bonus
- Level of guarantees implicit in the declaration

The main drivers of PRE are currently our point of sale material, the level of guaranteed addition rates, the bonus rates declared last year and past communication with policyholders. We interpret our point of sale material as having created the expectation that bonuses would be compound reversionary.

PRE ultimately needs to be set to the principle that each customer should receive a fair return on the premiums he has paid, allowing for the insurance protection and guarantees provided over the duration of his policy. The basic reference point for this, and therefore PRE, will be the asset share under the policy.

Policyholders enjoy the benefits and protection of both guarantees and smoothing for which they may be charged appropriately. However, the Company will not seek to make any systematic profit through these charges over generations of policies.

PRE will be shaped and actively managed through appropriate communication to the policyholder. The tools that will be used for this purpose are Sales Brochures, Policy Illustrations and annual communications of bonus rates.

Early duration surrender benefits will be established at a level that enables the Company to recover the cost of acquisition and capital support provided subject to the minimum surrender values written into the contracts.

## Tax Rate

Tax is provided on surplus emerging under participating products. The current rate of tax is 14.1625%, which is a base rate of 12.50%, a surcharge of 10% and education cess of 3%.

## Valuation Method – Linked Business

The valuation methods are described below.

### Methods adopted in the determination of mathematical reserves

For linked business, unit liabilities are fully matched. A non-unit reserve is also held which includes provision for the cost of any guarantee.

A non unit reserve is also held for Unearned Risk Benefit charges and for the excess, if any, of cash outflow over income.

Further details are mentioned below.

### Non Participating Unit Linked Business

Contract Status	Category	Applicability	Method
In Force	Unit Reserves	Unit Fund	The unit reserve is number of units held by the policyholder multiplied by the NAV at the valuation date.
	Non-unit Reserves	Life Cover and Rider Benefits	Unearned risk benefit charges
		Adequacy of charges to cover expenses	Projected cash flows under all contracts
Reduced Paid up / Lapsed / Premium Holiday	Unit Reserves	Unit Fund	Paid up / Surrender Value to the credit of the policyholders
	Non-unit Reserves	Lapse Reinstatement reserve	Probability of reinstatement applied to the difference between the full unit value and the paid up / surrender value.
		Life Cover and Rider Benefits	Unearned risk benefit charges where benefit continues by cancellation of units
		Adequacy of charges to cover expenses	Projected cash flows under all contracts

## Valuation Assumptions

### Interest Rate

The valuation rate has been increased to reflect current market yields. The MADs across various lines of business have been aligned at 1.50%. The MAD for non par annuity business (being single premium business) is set at 1.25% due to a relatively lower reinvestment risk.

The valuation rate of interest has been set with reference to the YTM on the current investment portfolio under the relevant fund as well as the expected new money rate derived by weighting various asset class returns according to the strategic asset allocation of each fund.

### Inflation

The assumption has been set at 5.5% to be consistent with the valuation rate of interest. This compares with the 5% used last year (2005-06).

### Valuation Interest Rate by product

Plan	2006-07 Rate	2005-06 Rate
<b>Participating Life</b> Save 'n' Protect I & II CashBak I & II SmartKid I & II Save 'n' Protect I & II	7.65%	7.25%
<b>Participating Pension</b> ForeverLife I, II, III & IV ForeverLife – SP	7.55%	7.25%
<b>Non Participating Life and Health</b> LifeGuard I (ROP) LifeGuard II (ROP) LifeGuard I (WOP) LifeGuard II (WOP) LifeGuard I (SP) LifeGuard II (SP) Easy Life (DM) (WOP) Home Assure (SP) Mitr Suraksha (RP) Suraksha (SP)	6.40%	5.75%
Suraksha Kavach (SP) Health Assure Plus Diabetes Care Plus		

		2006-07	2005-06
Health Assure Diabetes Care Cancer Care Suraksha Kavach (group)			
		Unearned Premium Reserve	
<b>Non Participating Annuity</b> Immediate Annuity		7.25%	6.25%
<b>Non Participating Investment</b>			
Plan	Term		
Assure Invest I	5	7.95%	7.95%
	7	8.50%	8.50%
	10	9.00%	9.00%
Assure Invest II	5	7.35%	7.35%
	7	7.60%	7.60%
	10	7.85%	7.85%

Plan	Term		
Assure Invest III	5	6.45%	6.45%
	7	6.80%	6.80%
	10	6.90%	6.90%
Assure Invest IV	5	5.55%	5.55%
	7	5.85%	5.85%
	10	6.05%	6.05%
Assure Invest V	5	5.15%	5.15%
	7	5.40%	5.40%
	10	5.65%	5.65%
Assure Invest VI	5	4.70%	4.70%
	7	4.80%	4.80%
	10	5.00%	5.00%
ReAssure I	5	7.95%	7.95%
	7	8.50%	8.50%
	10	9.00%	9.00%
ReAssure II	5	7.35%	7.35%
	7	7.60%	7.60%
	10	7.85%	7.85%
ReAssure III	5	6.45%	6.45%
	7	6.80%	6.80%
	10	6.90%	6.90%
ReAssure IV	5	5.70%	5.70%
	7	6.00%	6.00%
	10	6.00%	6.00%
ReAssure V	5	5.20%	5.20%
	7	5.30%	5.30%
	10	5.25%	5.25%

		2006-07	2005-06
Single Premium Bond	5	9.75%	9.75%
	10	10.00%	10.00%
Save 'n' Protect (SP)	< 10	8.75%	8.75%
	≥ 10	9.00%	9.00%
<b>Riders</b>			
Accident and Disability Benefit		Unearned Premium Reserve	
Accident Benefit		Unearned Premium Reserve	
Critical Illness (Accelerated)		Unearned Premium Reserve	
Income Benefit		6.40%	5.75%
Major Surgical Assistance		6.40%	5.75%
Level Term		6.40%	5.75%
Critical Illness (Standalone)		6.40%	5.75%
Waiver of Premium		6.40%	5.75%

### Mortality rate by product

Plan	Rate	As a % of LIC 94-96 for ages	Male / Female
Participating Life			
Save 'n' Protect I & II	90%	All Ages	+1 year male /-1 year female
CashBak I & II			
SmartKid I & II			
Save 'n' Protect I & II			
Participating Pension			
ForeverLife I, II, III & IV	90%	All Ages	+1 year male /-1 year female
ForeverLife – SP			
Non Participating Protection (Urban)			
LifeGuard I (ROP)	90%	All Ages	+1 year male /-1 year female
LifeGuard II (ROP)	90%	Upto Age 35	0 year male /-2 year female
	86%	Upto Age 45	
	81%	Upto Age 99	
LifeGuard I (SP)	90%	All Ages	+1 year male /-1 year female
LifeGuard II (SP)	81%	Upto Age 35	0 year male /-2 year female
	77%	Upto Age 45	
	72%	Upto to Age 99	

Plan	Rate	As a % of LIC 94-96 for ages	Male / Female
LifeGuard I (WOP)	90%	Upto Age 40	0 year male /-2 year female
	77%	Upto Age 99	
LifeGuard II (WOP)	81%	upto Age 35	0 year male /-2 year female
	77%	Upto Age 45	
	72%	Upto Age 99	
Home Assure	80%	All (calculated at Age last Birthday)	
Easy Life (DM) (WOP)	113%	Upto Age 40	
	90%	Upto Age 99	
Non-Par Health			
Health Assure Plus	99%	All Ages	+1 year male /-1 year female
Diabetes Care Plus	350%	All Ages	+1 year male /-1 year female
Diabetes Care Plus	375%	All Ages	+1 year male /-1 year female
Non-Par Prod (Rural)			
Mitr	195%	Upto age 31	
	195%	LIC +5 years upto age 99	
Suraksha (RP)	195%	Upto age 31	
	195%	LIC +5 years upto age 99	
Suraksha Kavach (SP)		Male	Female
	200%	18-20	18-20
	225%	21-25	21-25
	215%	26-30	26-30
	200%	31-35	31-35
	160%	36-40	36-40
	130%	41-45	41-45
	125%	46-50	46-50
	125%	51-55	51-55
	115%	56-60	56-60
Non-Par Investment			
Assure Invest I, II, III, IV, V & VI	90%	All Ages	+3 years male /female
ReAssure I, II, III, IV & V	90%	All Ages	

Plan	Rate	As a % of LIC 94-96 for ages	Male / Female
Single Premium Bond	90%	All Ages	
Save 'n' Protect (SP) Health	90%	All Ages	
Health Assure	94%	All Ages	
Cancer Care	85%	All Ages	
Diabetes Care	230%	All Ages	
Riders			
Accident Disability Benefit		Unearned Premium Basis	
Accident Benefit			
Critical Illness (Accelerated)			
Income Benefit	90%	All Ages	+1 year male /-1 year female
Major Surgical Assistance	90%	All Ages	+1 year male /-1 year female
Level Term	90%	All Ages	+1 year male /-1 year female
Critical Illness (Standalone)	90%	All Ages	+1 year male /-1 year female
Diabetes Benefit Rider	85%	All Ages	

## Expense

The per policy renewal expense assumptions being used for the current year are set out below.

Product Category (Rs. p.a.)	Assumption
Health Assure	365
Health Assure Plus	410
Cancer Care	365
Diabetes care & Diabetes Care Plus	550
Other Regular Premium products (Urban)	290
Single Premium products (Urban)	165
Rural Products (RP & SP)	65
Accidental & Diabetes Riders	0
Other riders	30

The expenses for annuity business are as follows.

Mode	Renewal Expense	Subject to minimum of
Annual	180 + 2% of Annual Annuity	480
Half-yearly	200 + 2% of Annual Annuity	480
Quarterly	240 + 2% of Annual Annuity	540
Monthly	300 + 2% of Annual Annuity	720