

## INSURANCE REGULATORY AND DEVELOPMENT AUTHORITY

### NOTIFICATION

New Delhi, the 14th July, 2000

#### Insurance Regulatory and Development Authority (Assets, Liabilities, and Solvency Margin of Insurers) Regulations, 2000.

##### **F.No. IRDA/Reg/7/2000.—**

*In exercise of the powers conferred by clauses (y), (z) and (za) of sub-section (2) of section 114A of the Insurance Act, 1938, (4 of 1938), read with section 26 of the Insurance Regulatory and Development Authority Act, 1999 (41 of 1999), the Authority, in consultation with the Insurance Advisory Committee, hereby makes the following regulations, namely:—*

**1. Short title and commencement.**—(1) These regulations may be called the Insurance Regulatory and Development Authority (Assets, Liabilities, and Solvency Margin of Insurers) Regulations, 2000.

(2) They shall come into force from the date of their publication in the Official Gazette.

**2. Definitions.**—(1) In these regulations, unless the context otherwise requires ----

(a) "Act" means the Insurance Act, 1938 (4 of 1938);

(b) "Authority" means the Insurance Regulatory and Development Authority established under sub-section (1) of section 3 of the Insurance Regulatory and Development Authority Act, 1999 (41 of 1999);

(2) All words and expressions used herein and not defined but defined in the Insurance Act, 1938 (4 of 1938), or in the Insurance Regulatory and Development Authority Act, 1999 (41 of 1999), or in any Rules or Regulations made thereunder, shall have the meanings respectively assigned to them in those Acts or Rules or Regulations.

**3. Valuation of Assets.**—Every insurer shall prepare a statement of the value of assets in Form IRDA- Assets- AA in accordance with Schedule I.

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**4. Determination of Amount of Liabilities.**—Every insurer shall prepare a statement of the amount of liabilities in accordance with Schedule II-A, in respect of life insurance business, and in Form HG in accordance with Schedule II-B, in respect of general insurance business, as the case may be.

**5. Determination of Solvency Margin.**—Every insurer shall prepare a statement of solvency margin in accordance with Schedule III-A, in respect of life insurance business, and in Form KG in accordance with Schedule III-B, in respect of general insurance business, as the case may be.

**6. Health Insurance Business.** — Where the insurer transacts health insurance business, providing health covers, the amount of liabilities shall be determined in accordance with the principles specified under these Regulations.

**7. Business outside India.**— Where the insurer transacts insurance business in a country outside India, and submits statements or returns or any such particulars to a public authority of that country, he shall enclose the same along with the Forms specified in accordance with these Regulations and the Insurance Regulatory and Development Authority (Actuarial Report and Abstract) Regulations, 2000.

Provided that if the appointed actuary is of the opinion that it is necessary to set additional reserves over and above the reserves shown in the statements or returns or any such particulars submitted to the public authority of a country outside India, he may set such additional reserves.

**8. Furnishing of Forms.**— The Forms, namely, Form IRDA- Assets- AA , Form HG, and Form KG, shall be furnished separately for Business within India and Total Business transacted by the insurer.

**9. Personal visit of appointed actuary to the Authority.**— The Authority may, if considered necessary and expedient, ask the appointed actuary to make a personal visit to the office of the Authority to elicit from him any further information.

## Schedule I

## VALUATION OF ASSETS

(see Regulation 3)

- 1. Interpretation.** In this Schedule, unless the context otherwise requires, 'non-mandated investments' means those investments that are neither approved securities nor approved investments.
- 2. Values of Assets.**—(1) The following assets should be placed with value zero,—
- (a) Agent's balances and outstanding premiums in India, to the extent they are not realised within a period of thirty days;
  - (b) Agents' balances and outstanding premiums outside India, to the extent they are not realisable ;
  - (c) Sundry debts, to the extent they are not realisable;
  - (d) Advances of an unrealisable character;
  - (e) Furniture, fixtures, dead stock and stationery;
  - (f) Deferred expenses;
  - (g) Profit and loss appropriation account balance and any fictitious assets other than pre-paid expenses;
  - (h) Reinsurer's balances outstanding for more than three months;
  - (i) Preliminary expenses in the formation of the company;
- (2) The value of computer equipment including software shall be computed as under:—
- (i) seventy five per cent. of its cost in the year of purchase;
  - (ii) fifty per cent. of its cost in the second year;
  - (iii) twenty-five per cent. of its cost in the third year; and
  - (iv) zero per cent. thereafter.
- (3) All other assets of an insurer have to be valued in accordance with the Insurance Regulatory and Development Authority (Preparation of Financial Statements and Auditor's Report of Insurance Companies) Regulations, 2000.
- 3. Statement of Assets.**—Every insurer shall prepare a statement of assets in Form IRDA-Assets- AA.





## Schedule II-A

## Valuation of Liabilities - Life Insurance

(See Regulation 4)

**1. Interpretation.**--In this Schedule, --

- (a) "valuation date", in relation to an actuarial investigation, means the date to which the investigation relates.
- (b) "universal life contracts" means those contracts that are presented in an unbundled form. The contracts where policyholders have an option to invest in units of insurer's segregated fund(s) shall be treated as "linked business"; and others shall be treated as "non-linked business".
- (c) "segregated funds" means funds earmarked in respect of linked business.

**2. Method of Determination of Mathematical Reserves.**—(1) Mathematical Reserves shall be determined separately for each contract by a prospective method of valuation in accordance with sub-para (2) to (4)..

- (2) The valuation method shall take into account all prospective contingencies under which any premiums (by the policyholder) or benefits (to the policyholder/beneficiary) may be payable under the policy, as determined by the policy conditions. The level of benefits shall take into account the reasonable expectations of policyholders (with regard to bonuses, including terminal bonuses, if any) and any established practices of an insurer for payment of benefits.
- (3) The valuation method shall take into account the cost of any options that may be available to the policyholder under the terms of the contract.
- (4) The determination of the amount of liability under each policy shall be based on prudent assumptions of all relevant parameters. The value of each such parameter shall be based on the insurer's expected experience and shall include an appropriate margin for adverse deviations (hereinafter referred to as MAD) that may result in an increase in the amount of mathematical reserves.
- (5) (i) The amount of mathematical reserve in respect of a policy, determined in accordance with sub-para (4), may be negative (called "negative reserves") or less than the guaranteed surrender value available (called "guaranteed surrender value deficiency reserves") at the valuation date.  
 (ii) The appointed actuary shall, for the purpose of section 35 of the Act, use the amount of such mathematical reserves without any modification.  
 (iii) The appointed actuary shall, for the purpose of sections 13, 49, 64V and 64VA of the Act, set the amount of such mathematical reserve to zero, in case of such negative reserve, or to the guaranteed surrender value, in case of such guaranteed surrender value deficiency reserves, as the case may be.
- (6) The valuation method shall be called "Gross Premium Method".
- (7) If in the opinion of the appointed actuary, a method of valuation other than the Gross Premium Method of valuation is to be adopted, then, other approximations (e.g. retrospective method) may be used.

Provided that the amount of calculated reserve is expected to be atleast equal to the amount that shall be produced by the application of Gross Premium Method.

- (8) The method of calculation of the amount of liabilities and the assumptions for the valuation parameters shall not be subject to arbitrary discontinuities from one year to the next.

- (9) The determination of the amount of mathematical reserves shall take into account the nature and term of the assets representing those liabilities and the value placed upon them and shall include prudent provision against the effects of possible future changes in the value of assets on the ability of the insurer to meet its obligations arising under policies as they arise.

**3. Policy Cash Flows.**— The gross premium method of valuation shall discount the following future policy cash flows at an appropriate rate of interest,---

- (a) premiums payable, if any, benefits payable, if any, on death; benefits payable, if any, on survival; benefits payable, if any, on voluntary termination of contract, and the following, if any, :-
- (i) basic benefits,
  - (ii) rider benefits,
  - (iii) bonuses that have already been vested as at the valuation date,
  - (iv) bonuses as a result of the valuation at the valuation date, and
  - (v) future bonuses (one year after valuation date) including terminal bonuses (consistent with the valuation rate of interest);
- (b) commission and remuneration payable, if any, in respect of a policy (This shall be based on the current practice of the insurer). No allowance shall be made for non-payment of commissions in respect of the orphaned policies;
- (c) policy maintenance expenses, if any, in respect of a policy, as provided under sub-para (4) of para 5;
- (d) allocation of profit to shareholders, if any, where there is a specified relationship between profits attributable to shareholders and the bonus rates declared for policyholders.

Provided that allowance must be made for tax, if any.

**4. Policy Options.**—Where a policy provides built-in options, that may be exercised by the policyholder, such as conversion or addition of coverage at future date(s) without any evidence of good health, annuity rate guarantees at maturity of contract, etc., the costs of such options shall be estimated and treated as special cash flows in calculating the mathematical reserves.

**5. Valuation Parameters.**—(1) The valuation parameters shall constitute the bases on which the future policy cash flows shall be computed and discounted. Each parameter shall have to be appropriate to the block of business to be valued. An appointed actuary shall take into consideration the following,—

(a) The value(s) of the parameter shall be based on the insurer's experience study, where available. If reliable experience study is not available, the value(s) can be based on the industry study, if available and appropriate. If neither is available, the values may be based on the bases used for pricing the product. In establishing the expected level of any parameter, any likely deterioration in the experience shall be taken into account;

(b) The expected level, as determined in clause (a) of this sub-para, shall be adjusted by an appropriate Margin for Adverse Deviations (MAD), the level of MAD being dependent on the degree of confidence in the expected level, and such MAD in each parameter shall be based on the Guidance Notes issued by the Actuarial Society of India, with the concurrence of the Authority

(c) The values used for the various valuation parameters should be consistent among themselves.

(2) **Mortality rates** to be used shall be by reference to a published table, unless the insurer has constructed a separate table based on his own experience:

Provided that such published table shall be made available to the insurance industry by the Actuarial Society of India, with the concurrence of the Authority.

Provided further that such rates determined by reference to a published table shall not be less than hundred per cent. of that published table.



Provided further that such rates determined by reference to a published table may be less than hundred per cent. of that published table if the appointed actuary can justify a lower per cent.

(3) **Morbidity rates** to be used shall be by reference to a published table, unless the insurer has constructed a separate table based on his own experience:

Provided that such published table shall be made available to the insurance industry by the Actuarial Society of India, with the concurrence of the Authority:

Provided further that such rates determined by reference to a published table shall not be less than hundred per cent. of that published table.

Provided further that such rates determined by reference to a published table may be less than hundred per cent. of that published table if the appointed actuary can justify a lower per cent.

(4) **Policy maintenance expenses** shall depend on the manner, in which they are analysed by the insurer, viz., fixed expenses and variable expenses. The variable expenses shall be related to sum assured or premiums or benefits. The fixed expenses may be related to sum assured or premiums or benefits or per policy expenses. All expenses shall be increased in future years for inflation, the rate of inflation assumed should be consistent with the valuation rate of interest.

(5) **Valuation rates of interest**, to be used by appointed actuary -

(a) shall be not higher than the rates of interest, for the calculation of the present value of policy cash flows referred to in para 4, determined from prudent assessment of the yields from existing assets attributable to blocks of life insurance business, and the yields which the insurer is expected to obtain from the sums invested in the future, and such assessment shall take into account ---

(i) the composition of assets supporting the liabilities, expected cash flows from the investments on hand, the cash flows from the block of policies to be valued, the likely future investment conditions and the reinvestment and disinvestment strategy to be employed in dealing with the future net cash flows;

(ii) the risks associated with investment in regard to receipt of income on such investment or repayment of principal;

(iii) the expenses associated with the investment functions of the insurer;

(b) shall not be higher than, for the calculation of present value of policy cash flows in respect of a particular category of contracts, the yields on assets maintained for the purpose of such category of contracts;

(c) in respect of non-participating business, shall recognise the risk of decline in the future interest rates;

(d) in respect of participating business, shall be based on the assumption (with regard to future investment conditions), that the scale of future bonuses used in the valuation is consistent with the valuation rate of interest, and

(e) in respect of single premium business, shall take into account the effect of changes in the risk-free interest rates,

(6) **Other parameters**, may be taken into account, depending on the type of policy. In establishing the values of such parameters, the considerations set out in this Schedule shall be taken into account.

6. **Applicability to Reinsurance.**—(1) This Schedule shall also apply to the valuation of business in the books of reinsurers.

- (2) As regards the business ceded by insurers, this Schedule shall be applicable to the net sums at risk retained by the insurer.
- (3) Reinsurance arrangement with an element of borrowing in the form of deposit or credit of any kind from insurer's reinsurers without the prior approval of the Authority shall not be treated as credit for reinsurance for the purpose of determination of required solvency margin.
7. **Additional Requirements for Linked Business.**—(1) Reserves in respect of linked business shall consist of two components, namely, unit reserves and general fund reserves.
- (2) Unit reserves shall be calculated in respect of the units allocated to the policies in force at the valuation date using unit values at the valuation date.
- (3) General fund reserves (non-unit reserves) shall be determined using a prospective valuation method set out in this Schedule, which shall take into account of the following, namely:-
- (a) premiums, if any, payable in future;
  - (b) death benefits, if any, provided by the general fund (over and above the value of units);
  - (c) management charges paid to the general fund;
  - (d) guarantees, if any, relating to surrender values or minimum death and maturity benefits;
  - (e) fund growth rates and management charges. (The values of these parameters, along with others, shall be determined in accordance with para 5);
  - (f) negative reserves, if any, shall be dealt with in accordance with sub-para (5) of para 2
8. **Additional Requirements for Provisions.**— The appointed actuary shall make aggregate provisions in respect of the following, where it is not possible to calculate mathematical reserves for each policy, in the determination of mathematical reserves:-
- (a) Policies in respect of which extra premiums have been charged on account of underwriting of under-average lives that are subject to extra risks such as occupation hazard, over-weight, under-weight, smoking history, health, climatic or geographical conditions;
  - (b) Lapses policies not included in the valuation but under which a liability exists or may arise;
  - (c) Options available under individual and group insurance policies;
  - (d) Guarantees available to individual and group insurance policies;
  - (e) The rates of exchange at which benefits in respect of policies issued in foreign currencies have been converted into Indian Rupees and what provision has been made for possible increase of mathematical reserves arising from future variations in rates of exchange;
  - (f) Other, if any.
9. **Statement of Liabilities**— An insurer shall furnish a statement of liabilities in accordance with the Insurance Regulatory and Development Authority (Actuarial Report and Abstract) Regulations, 2000.



**Schedule II-B**

(See Regulation 4)

**Valuation of Liabilities (General Insurance)****1. Interpretation.**—In this schedule,---

- (a) "Reserve for claims incurred but not reported (IBNR)" means the reserve for claims incurred but not reported on the balance sheet date, and includes reserve for claims which may be inadequately reserved;
- (b) "Reserve for outstanding claims" means the reserve for outstanding claims as mentioned in para 2(1)(b)(iii) of this Schedule;

**2. Determination of Liabilities.**—(1) An insurer shall ---

(i) place a proper value in respect of the following items, namely:-

- (I) provision for bad and doubtful debts,
- (II) reserve for dividends declared or recommended, and outstanding dividends in full,
- (III) amount due to insurance companies carrying on insurance business, in full,
- (IV) amount due to sundry creditors, in full,
- (V) provision for taxation, in full, and
- (VI) foreign exchange reserve.

(ii) determine the amount of following reserves, in the manner specified herein below for each reserve:-

(a) reserve for unexpired risks, shall be, in respect of,---

- (I) Fire business, 50 per cent,
- (II) Miscellaneous business, 50 per cent,
- (III) Marine business other than marine hull business, 50 per cent; and
- (IV) Marine hull business, 100 per cent,

of the premium, net of re-insurances, received or receivable during the preceding twelve months;

(b) reserve for outstanding claims shall be determined in the following manner:-

- (I) where the amounts of outstanding claims of the insurers are known, the amount is to be provided in full;
- (II) where the amounts of outstanding claims can be reasonably estimated according to the insurer, he may follow the 'case by case method' after taking into account the explicit allowance for changes in the settlement pattern or average claim amounts, expenses and inflation;

(c) reserve for claims incurred but not reported (IBNR) shall be determined using actuarial principles. In such determination, the appointed actuary shall follow the Guidance Notes issued by the Actuarial Society of India, with the concurrence of the Authority, and any directions issued by the Authority, in this behalf.

**3. Statement of Liability.**—Every general insurer shall prepare a statement of liabilities in Form HG, certified by an auditor approved by the Authority in accordance with Section 64V of the Act, and also certified by its appointed actuary in respect of IBNR reserves. The statement shall be furnished to the Authority along with the returns mentioned in section 15 of the Act.

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## Form HG

(See Regulation 4)

Insurance Regulatory and Development Authority (Assets, Liabilities and Solvency Margin) Regulation, 2000.

TABLE I- STATEMENT OF LIABILITIES as at 31<sup>st</sup> March, 20

<div style="float: right; text-align: right; margin-right: 20px;"> <b>Form Code:</b> [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]         </div> <div style="clear: both;"></div>		
Name of Insurer:	Registration Number:	Date of registration: _____
Classification: Business Within India/ Total Business		

Item No.	Description	Reserves for unexpired risks	Reserve for Outstanding Claims	IBNR Reserves	Total Reserves
(1)	(2)	(3)	(4)	(5)	(6)
01	<b>Fire</b>				
02	<b>Marine</b> <i>Sub class:</i> Marine Cargo Marine Hull				
03	<b>Miscellaneous</b> <i>Sub class:</i> Motor Engineering Aviation Liabilities Rural insurance Others				
04	<b>Health Insurance</b>				
05	<b>Total Liabilities</b>				

**Certification from Auditor (approved by the Authority)**

I certify that the above statement represents the liabilities of the insurer which have been determined in the manner prescribed in the Insurance Regulatory and Development Authority (Assets, Liabilities and Solvency Margin of Insurers) Regulations, 2000 and the amounts of such liabilities are fair and reasonable. I also further certify that the above statement includes the IBNR reserves which have been determined by the appointed actuary and his certificate is furnished herein below.

Qualifications, if any (in regard to the determination of liabilities):

Place:

Date: \_\_\_\_\_

Name and Signature of the Auditor.

### Certification from the Appointed Actuary

I certify that the IBNR reserves in the statement above represent, in my opinion, true and fair amount.

Qualifications, if any (in regard to the determination of IBNR reserves):

Place:

Date:

Name and Signature of the Appointed Actuary.

**Schedule III-A***(See Regulation 5)***DETERMINATION OF SOLVENCY MARGINS—LIFE INSURERS****1. Interpretation.**—In this Schedule—

- (a) 'Available Solvency Margin' means the excess of value of assets (furnished in IRDA- Form- AA) over the value of life insurance liabilities (furnished in Form H as specified in Regulation 4 of Insurance Regulatory and Development Authority (Actuarial Report and Abstract) Regulations, 2000) and other liabilities of policyholders' fund and shareholders' funds;
- (b) "Solvency Ratio" means the ratio of the amount of Available Solvency Margin to the amount of Required Solvency Margin.

**2. Determination of Solvency Margin.**—Every insurer shall determine the required solvency margin, the available solvency margin, and the solvency ratio in Form K as specified under Insurance Regulatory and Development Authority (Actuarial Report and Abstract), Regulations, 2000.

**Schedule III-B***(See Section 5)***DETERMINATION OF SOLVENCY MARGINS—GENERAL INSURERS****1. Interpretation.**—In this Schedule—

- (a) "Available Solvency Margin" means the excess of value of assets (furnished in Form IRDA-Assets- AA) over the value of liabilities (furnished in Form HG), with further adjustments as shown in Table III of Form KG.
- (b) "Solvency Ratio" means the ratio of the amount of Available Solvency Margin to the amount of Required Solvency Margin.

**2. Determination of Solvency Margin.**—Every insurer shall determine the required solvency margin, the available solvency margin, and the solvency ratio in Form KG.



**Form KG**  
(See Regulation 5)

Insurance Regulatory and Development Authority (Assets, Liabilities and Solvency Margin) Regulation, 2000.

TABLE I- STATEMENT OF SOLVENCY MARGIN: (General Insurers)  
as at 31<sup>st</sup> March, 20 \_\_\_\_.

		<b>Form Code:</b> [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	
Name of Insurer:	Registration Number:	Date of registration: _____	
Classification: Business Within India/ Total Business		Classification Code:[ ]	

TABLE I- REQUIRED SOLVENCY MARGIN BASED ON NET PREMIUM AND NET INCURRED CLAIMS (IN RS. LAKHS)

CLAIMS (IN RS. LAKHS)								
Item No	Description (Class of business)	Gross Premiums	Net Premiums	Gross Incurred claims	Net Incurred Claims	RSM-1	RSM-2	RSM
(1)	(2)	(3)	(4)	(6)	(7)	(8)	(9)	(10)
01	<b>Fire</b>							
02	<b>Marine:</b> Marine Cargo							
03	Marine Hull:							
04	<b>Miscellaneous:</b> Motor							
05	Engineering							
06	Aviation							
07	Liability							
08	Rural Insurance							
09	Others							
10	<b>Health Insurance:</b>							
12	<b>TOTAL</b>							

**Notes:** (1) RSM-1 in the above table means Required Solvency Margin based on net premiums, and shall be determined as twenty per cent. of the amount which is the higher of the Gross Premiums multiplied by a Factor A as specified below and the Net Premiums.

(2) RSM-2 in the above table means Required Solvency Margin based on net incurred claims, and shall be determined as thirty per cent. of the amount which is the higher of the Gross Net Incurred Claims multiplied by a Factor B as specified below and the Net Incurred Claims.:

Item No	Description (Class of business)	A	B
(1)	(2)	(3)	(4)
01	<b>Fire</b>	0.5	0.5
	<b>Marine:</b>		
02	Marine Cargo	0.7	0.7
03	Marine Hull:	0.5	0.5
	<b>Miscellaneous:</b>		
04	Motor	0.85	0.85
05	Engineering	0.5	0.5
06	Aviation	0.9	0.9
07	Liability	0.85	0.85
08	Rural Insurance	0.5	0.5
09	Others	0.7	0.7
10	Health	0.85	0.85

(3) RSM means Required Solvency Margin and shall be the higher of the amounts of RSM-1 and RSM-2.

TABLE II- AVAILABLE SOLVENCY MARGIN AND SOLVENCY RATIO

Item (1)	Description (2)	Notes No... (3)	Amount (4)
01	Available Assets in Policyholders' Funds:		
02	Deduct: Liabilities		
03	Other Liabilities		
04	Excess in Policyholders' funds (01 - 02 - 03)		
05	Available Assets in Shareholders Funds:		
06	Deduct: Other Liabilities		
07	Excess in Shareholders' funds: (05 -06)		
08	Total ASM (04)+(07)		
09	Total RSM		
10	Solvency Ratio (Total ASM/ Total RSM)		

**Certification:**

I, \_\_\_\_\_, the Auditor, certify that the above statements have been prepared in accordance with the Section 64VA of the Insurance Act, 1938, and the amounts mentioned therein are true to the best of my knowledge.

Place

Name and Signature of the Auditor

Date:

Countersignature:

Principal Officer:

**Notes**

1. Item No. 01 shall be the amount of the Adjusted Value of Assets in respect of policyholders' funds as mentioned in Form IRDA-Assets-AA.
2. Item No. 02 shall be the amount of Total Liabilities as mentioned in Form HG.
3. Item No. 03 shall be the amount of other liabilities arising in respect of policyholders' funds and as mentioned in the Balance Sheet
4. Items No. 05 shall be the amount of the Total Assets in respect of shareholders' funds as mentioned in Form IRDA-Assets-AA.
5. Item Nos. 06 shall be the amount of other liabilities arising in respect of shareholders' funds and as mentioned in the Balance Sheet;

N. RANGACHARY, Chairperson

[No. ADVT.-3/4/Exty/161/2000]