

**19th Current Issues in Life Assurance
Mumbai
9th & 10th January, 2024**

**Move towards Indian Risk Based Capital Framework
An Overview**

**Mr. C. Srinivasa Kumar
General Manager, IRDAI**



Objectives of IRBCF



- Ensure capital adequacy commensurate with the risks that the insurer is exposed to;
- Study the impact of the proposed framework & assess the level of preparedness of the Indian insurance industry;
- Taking into consideration the views of various stakeholders, refinement of framework for subsequent QIS, if any, and establishment of RBC in India

The IRBCF intends to cover:

- Assets & Liabilities to be valued on Market Value basis
- Capital Requirements & Solvency

General Principles



- Standard Model:
 - Prescriptions of risks, methodologies, stresses, correlation matrix for the industry (Life, Non-Life, Reinsurer and FRBs)
- Estimation of capital requirements through actuarial/statistical techniques:
 - Quantification of various risks faced by the insurer;
 - Allowance for Diversification benefits through correlation matrix.
- The capital is estimated such that the risk of insolvency over next 1 year time horizon will arise only in 1 in 200 (with 99.5% confidence interval)

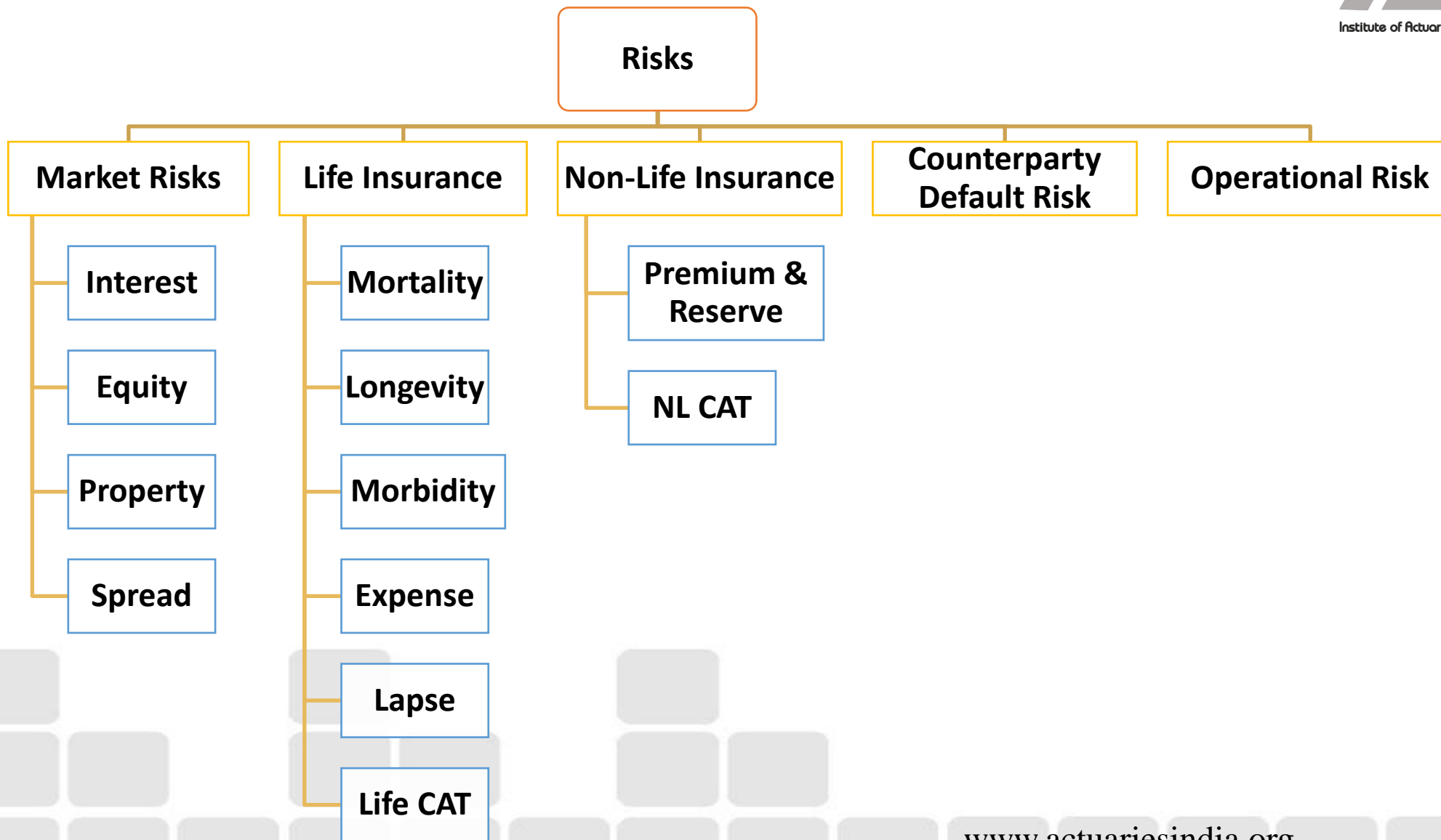
General Principles



General Principles



Risk Matrix



Valuation of Assets



- All assets measured at Fair Value (IndAS 113) unless otherwise prescribed
- Goodwill, Intangible Assets - zero value
- Policy Loan as per statutory provisions
- Investment in Subsidiaries and Associates - Equity Method
- Contingent Liabilities to be considered
- Reinsurance Assets / Liabilities

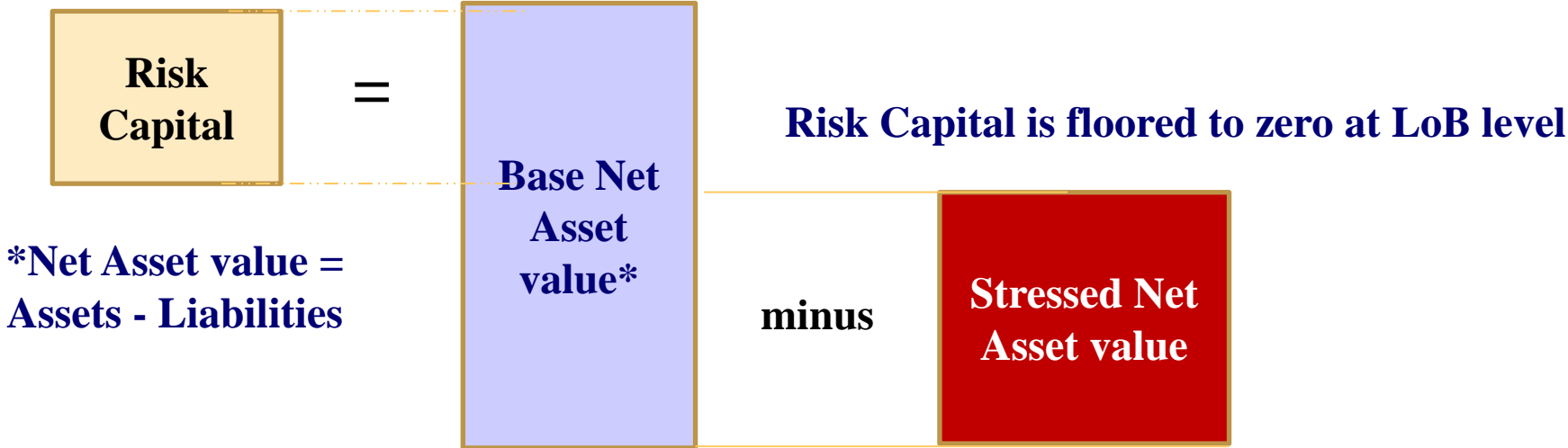
Life Insurance Liability



Estimation of Capital Requirements



Stress Based



Factor Based

$$\text{Risk Capital} = \text{Capital Charge factor} * \text{Volume measure}$$

Market Risk

Risk	Scope	Basis
Equity	Unexpected changes in the level or volatility of market prices of equities	Stress
Interest Rate	Unexpected changes in the level or volatility of interest rates	Stress
Property	Unexpected changes in the level or volatility of market prices of properties or from the amount and timing of cash flows from investments in real estate	Stress
Spread	Unexpected changes in the level or volatility of spreads over the risk-free interest rate term structure	Factor

Aggregation

Between
sub-risks

- Allowance for diversification benefit between sub-risks of Market Risk based on correlation matrix

Life Insurance Risk



Risk	Scope	Stress/Factor based
Mortality	Unexpected changes in the level, trend or volatility of mortality rates	Stress
Longevity	Unexpected changes in the level, trend or volatility of mortality rates	Stress
Morbidity	Unexpected changes in the level, trend or volatility of disability, sickness and morbidity rates	Stress
Expenses	Unexpected changes in liability cash-flows due to the incidence of expenses incurred	Stress
Lapse	Unexpected changes in the level or volatility of rates of policy lapses, terminations, renewals and surrenders.	Stress
Life Cat	Unexpected changes in the occurrence of low frequency and high severity events	Stress

Aggregation

Between sub-risks

- Allowance for diversification benefit between sub-risks of Life Insurance Risk based on correlation matrix

Counterparty Default Risk



Scope

Aggregation

- Allowance for diversification benefit between diversified Market Risk, diversified Insurance Risk and Counterparty Default Risk based on correlation matrix

Between
Market,
Insurance
and CPD
Risks

Operational Risk



Capital Requirements

Aggregated Capital Requirements

Capital Requirement under each sub-risk of Market and Insurance Risks

Capital Requirement under each risk i.e. Market, Insurance and Counterparty Default (i.e., after aggregating the sub-risk)

Risk Aggregated Capital Requirements – Based on Correlation Matrix

$$\text{Capital}_{\text{Total}} = \text{Capital}_{\text{MID}} + \text{Capital}_{\text{Op}}$$

Solvency Position

Total Capital Requirements is the sum of diversified Market, Insurance, Counterparty Default Risk and undiversified Operational Risk



Available Capital Resources is the difference between all assets and all liabilities calculated on a market consistent basis as at the valuation date.



Solvency Position = Available Capital Resources / Total Capital Requirements

Thank You!