

# 40th India Fellowship Webinar

Date: 14th December 2023

## Navigating Reinsurance Challenges

**Guide : NA**

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# Agenda

- Case Study Background
- Cross Border Reinsurer
- Reasons for Credit Rating downgrade
- Data Challenges in Reinsurance Review
- Impact of downgrade on various aspects of Reinsurance Review
- Remedial Actions
- Impact on Solvency

# Case Study - Background



- XYZ insurance Company Ltd :
  - is a large sized, multi-line General Insurer
  - operates in India only
  - has been growing market share in personal lines insurance product
  - started writing Crop line of business last year
  - conducts review of reinsurance adequacy and performance every 2 years

# Case Study - Background

Reinsurance coverage purchased from 4 different RI companies:

- 2 Indian reinsurers,
- IIO (Branch Office of foreign insurer)
- Cross Border Reinsurer (CBR).

As on September 2023 RI Review is required on the following aspects:

- Reinsurance requirement for the FY24-25
- Review of performance of current year reinsurance program
- CAT cover required and adequacy of current reinsurance
- Impact on reinsurance arrangement by running stress scenarios

# Case Study - Background

What happened:

- Our CBR has been recently downgraded to a BB+ from A+

The consequences are:

- The credit downgrade of the CBR leads to the breach of Reinsurance Regulations, 2018 and its amendments as issued and stipulated by IRDAI.

Impact on the following lines as the CBR is a participant:

- Fire Insurance - Surplus Treaty
- Motor and Personal Accident Insurances - Risk XL Treaty
- All lines of business - CAT XL

# Case Study



CEO has asked Appointed Actuary's opinion on:

- Possible reasons of credit rating downgrade of a CBR
- Data challenges while performing the reinsurance review
- Impact on the 4 aspects of reinsurance review undertaken
- How can the company remedy this situation
- Impact on solvency

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# Cross Border Reinsurer



**Cross Border Reinsurer (CBR)** means a foreign reinsurer, whose place of business is established outside India and which is supervised by its home country regulator. Cross Border Reinsurer are usually:

- Parent or Group Companies of FRBs
- Parent or Group Companies of IIOs



# Regulation around CBR

- CBR is required to fulfill the following criteria if an Indian insurer wants to place its reinsurance business with the CBR:
  - Authorized by the regulator of their Home Country
  - Maintain a Credit rating of at least BBB+ from S&P or equivalent
  - Have Minimum Solvency Margin as specified by home country regulator
  - Satisfactory past claims performance
  - Home country of CBR has signed Double Taxation Avoidance Agreement with India

# Regulation around CBR



Reinsurance placements with CBRs is subject to following cession limits during a financial year:

<b>Rating of CBR as per S&amp;P or equivalent</b>	<b>Maximum overall cession limits allowed per CBR*</b>
Greater than A+	20%
Greater than BBB+ and upto and including A+	15%
BBB & BBB+	10%

\*percentage of total reinsurance premium ceded out-side India

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# Factors affecting Credit Rating (1/2)



- Underwriting Experience
  - Adverse claim experience
  - Deterioration in underwriting performance
- Financial Instability
  - Increased liability
  - Poor investment performance
- Economic Conditions
  - Economic disruptions in CBR's home country
  - Shifts in Global Reinsurance Market
  - Changes in regulation
  - Legislative changes

# Factors affecting Credit Rating (2/2)



- Changes in Investment/Financial Structure
  - Investment in risky assets
  - High leverage / debt equity ratio
- Operational concerns
  - Changes in management
  - Governance issues
  - Legal disputes
- Catastrophe events
- Counterparty default
- Impact of Rating downgrade of parent company

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# Data Challenges



- Data may be of poor quality
  - Raw claims and policy data may be of poor quality in small Lobs or for older duration
  - Granularity of data may be poor across rating factors
- Data may be Incomplete
  - Maybe incomplete or inconsistent for a new class of business
  - Easy customer onboarding solutions leading to scanty data points
- Data may be Inaccurate
  - Operational Error in feeding data into systems
  - ETL errors in transforming data
- Data may be Inaccessible
  - Limitation in data collection and storage
  - Access to data maybe slow or difficult

# Data Challenges

- Data may be Inconsistent
  - Change in data recording practices
  - Change in data recording due to Acquisition and merger in past
  - Change of data systems
- Data Integration
  - Data may be captured in diverse systems and databases
- Historic data availability
  - There may be a change in data storage protocols
  - Data Volume at extreme events
- Data formats
  - Gross/Net of Reinsurance
  - Ground up losses data
- Third Party Data
  - TPA for claim handling data
  - Brokers and agent for policy related data



# Data Challenges

## RI requirement for FY24-25 based on Business plan

- Business plan figures may not be available at granular level:
  - Expected Exposure
  - Geography wise mix
  - Expected growth as per expansion plan
- Current year claims experience may not be expected leading to data challenges to estimate :
  - Cost of Reinsurance
  - Capacity to retain new business

## Review of current year RI performance

- Claims System may show RI recoveries in Notional terms
- Reliance on RI Team for Data on Actual Recoveries made
- Data errors as the working is Manual or system is not upgraded
- As at 30<sup>th</sup> September
  - Actual RI recoveries may not updated
  - Profit commission is yet to be finalized
- CAT XoL performance cannot be measured empirically

# Data Challenges



## Catastrophe cover required and adequacy of current reinsurance

- Company's own experience to run any model
- Exposure details at granular level
- Company's net retained exposure after inuring reinsurance
- Significant variations in results of various models e.g. RMS/ AIR

## Impact on reinsurance arrangement by running stress scenarios

- Company may not have indicative Stress to be applied on scenarios
- Extreme event have scanty data for any estimation
- Human error in designing adequate scenarios due to lack of data
- Communicating the results and incorporating outputs into decision making

# Data Challenges - Example

*CAT XL review  
for PA*

SI BAND	Exposure	Average SI (in Lakh)	Maximum number of lives in one city	% Lives Impacted	No. of lives Impacted	Claimed Amount (Cr)	Net Impact after other RI treaty (Cr)
upto 5L	1,00,000	2.1	5,000	1%	50	1	1
5L - 10L	80,000	7.9	4,000	1%	40	3	3
10-20L	65,000	14	5,000	1%	50	7	6
20-30L	50,000	27	2,500	1%	25	7	6
30-40L	40,000	33	2,000	1%	20	7	6
40-50L	30,000	46	1,500	1%	15	7	6
50-75L	25,000	64	2,000	1%	20	13	12
75L-1Cr	20,000	83	1,500	1%	15	12	11
1-2Cr	15,000	130	500	1%	5	7	6
2-3Cr	10,000	260	500	1%	5	13	12
3Cr+	10,000	434	1,000	1%	10	43	39
<b>Total</b>	<b><u>4,45,000</u></b>		<b><u>25,500</u></b>	<b><u>1%</u></b>	<b><u>255</u></b>	<b><u>120</u></b>	<b><u>108</u></b>

*CAT XL upper limit  
- 110Cr*

- Assumption on exposure mix around SI bands may vary YoY
- Average Sum Insured may vary YoY for each band
- Maximum number of lives in a city may vary YoY
- Assumption on %lives impacted may not be backed by any model or past experience due to low frequency events
- Net impact of RI other treaty may be difficult to compute since other treaties are also under review
- Does not factor into any credit event or counter party default

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# Impact on aspects of Reinsurance Review



## RI requirement as per expansion plan

- Assess expansion plan - especially in personal lines business
- Need to Calibrate expansion plan in different cohorts (Geography/LoB) to the modified RI standings after rating downgrade
- Regulatory requirements
- Impact on business plans for the current year

## Review of current year RI performance

- More frequent reviews
- Profitability and solvency review
- Claim Handling of the CBR and other reinsurers
- To be looked at in 3 scenarios - With CBR, Without CBR, recoveries from CBR are discounted for default probabilities
- Review of underwriting quality and claims' experience

# Impact on aspects of Reinsurance Review



## Catastrophe cover required and adequacy of current reinsurance

- Need to explore alternative solutions like catastrophe bonds
- Impact of Rating downgrade on next 6 months of CAT cover
- Exposure Assessment to CAT Events
- Catastrophe Modelling

## Impact on reinsurance arrangement by running stress scenarios

- Identify scenarios
- Impact Assessment
- Sensitivity Analysis
- Risk Mitigation Strategies
- Explore risk management option based on outcomes of stress testing

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# Remedial Actions

## Considerations:

- Quantum of risk placed with CBR across LoBs
- Terms & Conditions in treaty of existing contracts
- Impact on XYZ's financial position
- Reasons for downgrade
- Action plans of the Reinsurer
- Industry's exposure and suggested plan of action by committee like GI Council or any major player
- Regulator's view



# Remedial Actions

- Legal review- contractual obligations, potential liabilities and legal avenues.
- Inform the regulator and seek guidance
- Seek Regulatory exception and roadmap for convergence to regulation
- Asking reinsurer to post collateral to secure company's recoverable
- Terminate the reinsurance contract and seek a new reinsurer
- Diversify the reinsurance portfolio with new reinsurers
- Increase in business ceded with other existing reinsurers
- Increase the Company's own retention
- Explore alternate forms of reinsurance, e.g. CAT Bonds
- Reassess the expansion plans or introduce new capital

# Remedial Actions

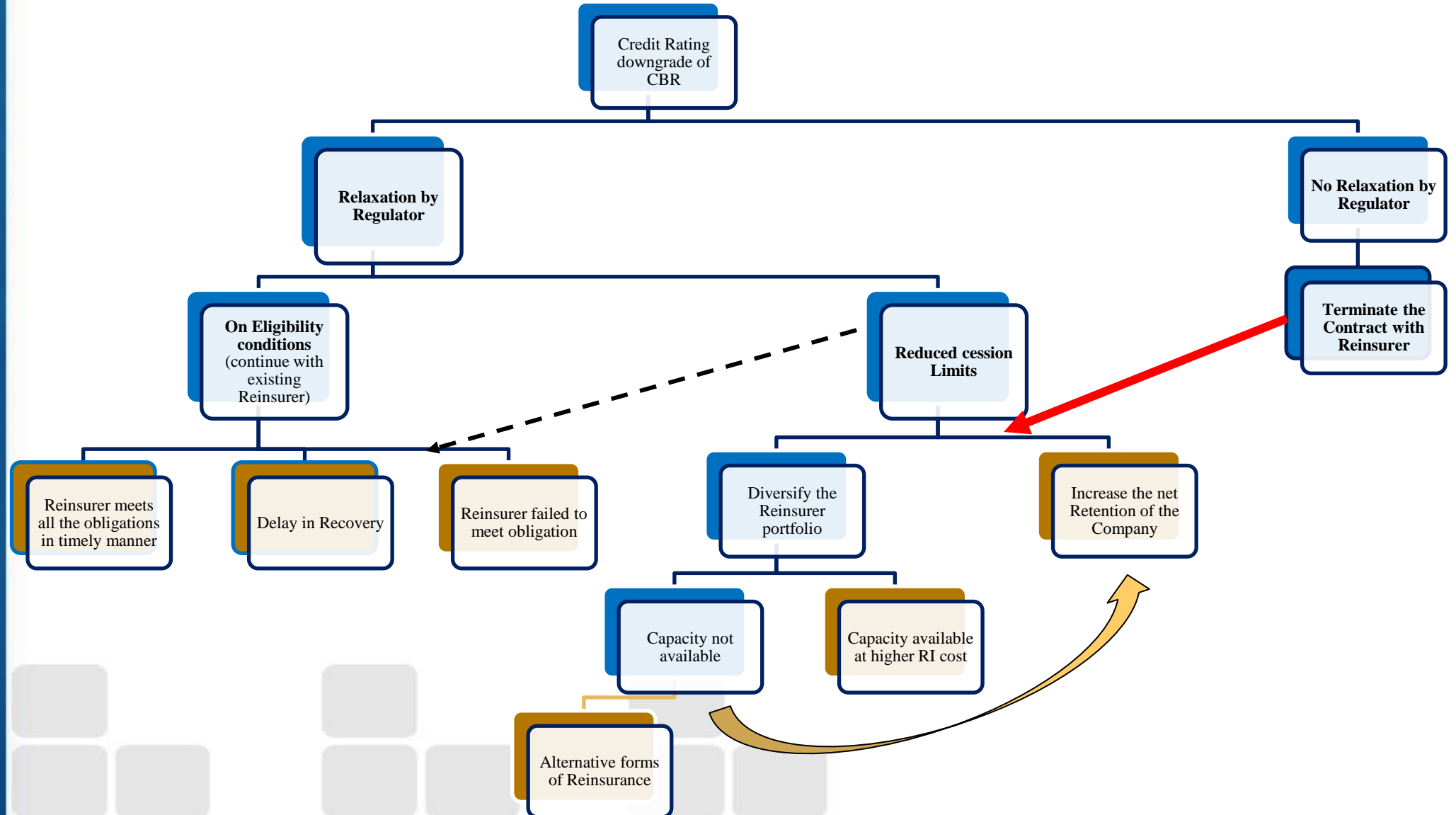
CAT XL - All lines of business



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# Impact on Solvency



# Impact on Solvency

- Reinsurer meets all its obligations in timely manner
  - No impact on solvency
- Delay in recovery:
  - Increase in inadmissible assets
  - Decrease in ASM → Downgrade in solvency position
- Reinsurer failed to meet its obligations:
  - Writing off reinsurance receivables (& recoverable)
  - Decrease in ASM → Downgrade the solvency position
- Capacity/Alternative not available:
  - Increase in net retention → Increased RSM
  - Downgrade in solvency position

# Impact on Solvency

- Replacement at higher cost/ Alternative forms of reinsurance:
  - Reduced profits
  - Downgrade in solvency position
- Cascading Impact:
  - Liquidity position
  - Any impact on other reinsurers
- RBC framework:
  - Increased Capital required for
    - Counterparty Default Risk
    - Insurance Risk
    - Operational Risk
  - Decrease in Reinsurance Assets

Thank You!



# Q&A

