Property & Business Interruption- Underwriting & Claims

March 6, 2019

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Underwriting

The process of evaluating a risk, and using that information to decide about the acceptability, pricing and terms.

- Underwriter has a broader overall role to write a profitable portfol

- So why the need?

  Avoid attritional losses for our business

  To get a superior margin for our company

Underwriting Evaluation - COPE

COPE – construction

- Positive or negative impact on fire spread and fire load

Reinforced concrete or concrete protected steel
Concrete Slab, corrugated Asbestos, Non-Combustible Metal deck on heavy steel structure,

- Fire Resistant

- Light Fire Resistant

Tile, Metal on combustible frame, Concrete block, floor of wood, Steel Joists, Light Steel Beams, timber beams

- Combustible / Inferior

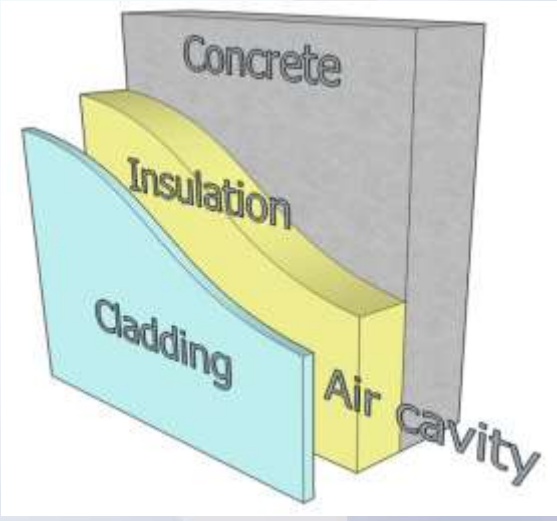
COPE – construction

Internal / External Composite Sandwich Panels or Exterior Insulated Finishing System

- Thermal insulation, Weather resistance & improve building appearance
- Often composite panels are built with combustible materials

Engineering input required:

- Fire resistant (mineral fibre) or not
- Percentage of floor or wall area
- Need for special fire sprinklers



Grenfell Tower Fire

- "The 24 story Grenfell Tower, located in West London, experienced a tragic fire on June 14, 2017, in which at least 80 people died. The 1974 building was renovated in 2016 and retrofitted with aluminium composite panel rain screen cladding to improve energy efficiency and visual appearance. However, the renovation did not include the addition of sprinklers. The cause of the fire is reported to be a refrigerator in a fourth-floor unit. There were no automatic fire sprinklers to control internal fire. The fire spread and reached the external openings. Once ignited, the highly combustible new building cladding allowed the fire to spread rapidly up and long and ultimately through, the entire building."

"Greenfell: The Perfect formula for Tragedy" - White Paper copyright FM Global

COPE - Occupancy

- Presence & Hazardousness of industrial processes or materials used
- Inception Hazard
  - Paper factory – smoking
  - Warehouses – large amount of combustible fuel
- If mixed occupancy, then higher hazard occupancy is assumed
- Higher hazard occupancy
  - Requirement for higher levels of Fire Protection
  - Higher frequency of large loss
  - Capacity – Insurers opt for lower exposure line
  - Pricing – higher pricing

COPE - Occupancy

Common Hazards

- Space Heating, Cut/welding, Open Flames
- Storage of Fuel, flammables, combustible items
- Storage & use of dangerous chemicals
- Poor Maintenance, Housekeeping, blocked fire exits
- Electrical Installations, Switchboard, transformer
- Spray painting
- Impact Damage: presence forklift, trucks on site
- Blocked Drains – exposure to water damage
- Use of multiple contractors

U/w consideration:

- *Common hazards can be mitigated by good management*
- *Shortcomings in management controls can be rectified relatively quickly & cheaply*
- *Risk Improvement Recommendations*

No progress shows poor management attitude - often a predictor of large losses Lack of progress could also be due to Moral hazard

COPE: Occupancy

Special Hazards - specific kind of industrial activities

- Explosion hazards in flour mills or starch milling
- Spontaneous Combustion risk
- Flammable Chemicals & materials
- Corrosive gas & vapor / collapse exposure
- Explosion risk in gas fired spray dryers used for making powdered milk
- Use of solvents in industrial processes
- Flammable dust & waste in textiles
- Molten Metal Spills in Foundries

COPE: Occupancy

Need for Engineering Review

UW considerations for specific hazards

- Special protection systems – inert gas fire suppression
- Space separate
- Physical barriers eg. Bund wall
- Build & Plant Modification e.g explosion vents
- Risk Management options

May require:

- Safe plant design, building layout or physical protection systems

COPE: Protections

- Applies to all Perils
- Burglary & Theft, Explosion, Windstorm, Flood, EQ, Vehicle Impact
- Fire Protection:
  - Active – Used actively or deployed automatically
  - Passive – Components built into structures, Fire walls/doors, heat venting

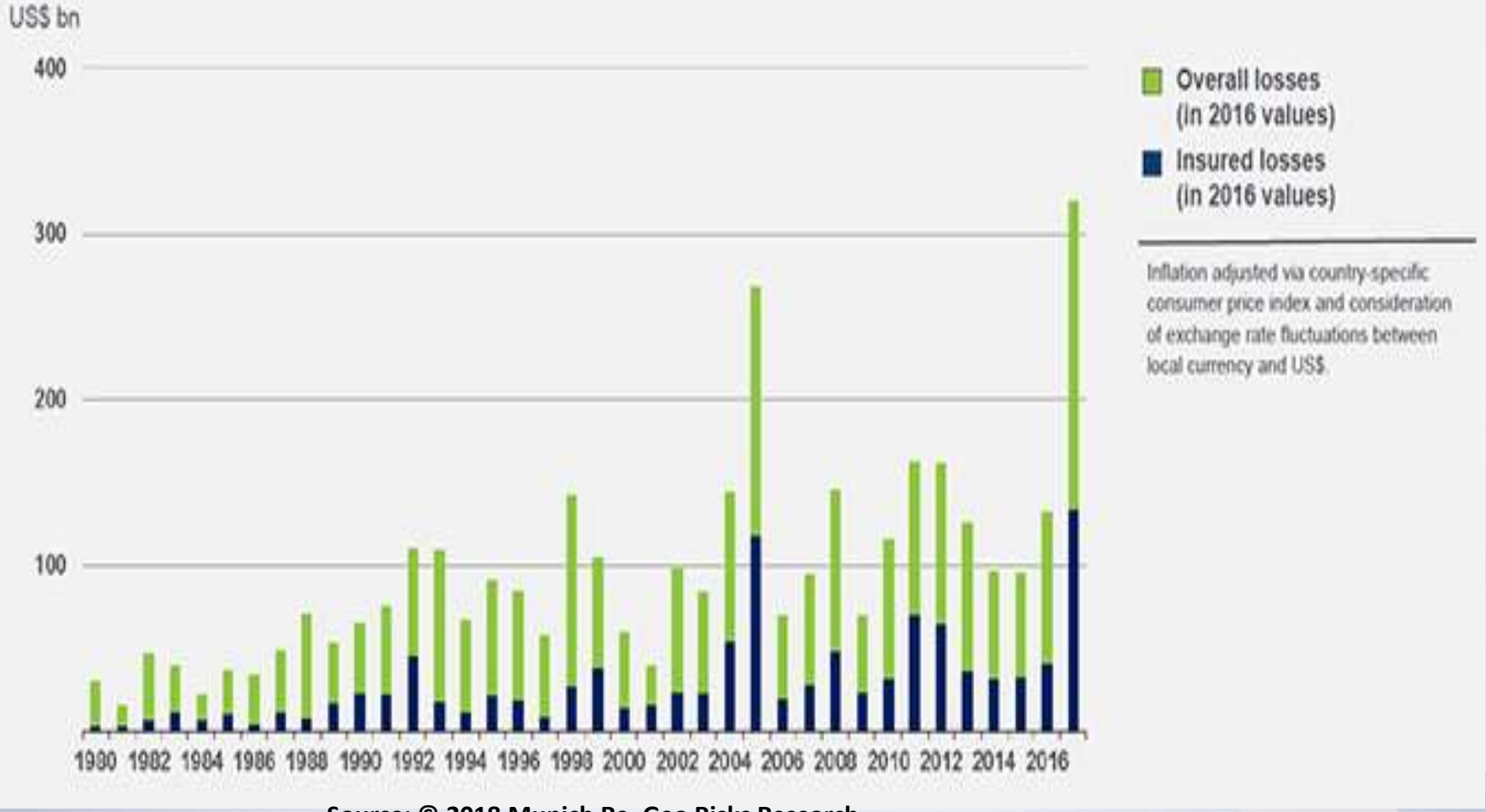
Occupancies with higher inception hazards / lower fire resistance – require higher levels of protection to be deemed acceptable

COPE: Exposure

Perils from beyond the premises

- Neighboring Property: Exposure in congested in Industrial Towns and Urban centers, hazardous neighboring risk
- Public Infrastructure & Social Factors: high crime locality, spontaneous riots ~ concern for Retail Sector, Public buildings, Warehouses
- Natural Perils

World natural catastrophes, 1980-2017



Source: © 2018 Munich Re, Geo Risks Research, NatCatSERVICE. As of January 2018.

Global Catastrophes, 2017

Event	Number of incidents	Deaths	Insured loss ($ millio
Storms	82	1,642	$111,
Drought, bush fires, heat waves	14	435	14,
Hail	8	0	7,
Floods	55	3,515	2,
Earthquakes	12	1,184	1,
Cold, frost	5	153	1,
Other natural catastrophes	7	1,541	
Total natural catastrophes	183	8,470	$138,
Man-made disasters	118	2,934	$6,
All catastrophes (1)	301	11,404	$144,

Based on events classified by Swiss Re as a catastrophe. The threshold is $20.3 million in insured losses for maritime disasters, $40.7 million for a and $50.5 million for other losses or $101.0 million in total economic losses; or at least 20 dead or missing, 50 injured or 2,000 made ho

(1) Source: Insurance Information Institute (www.iii.org)

COPE: Exposure – NATCAT

- Modelled: to estimate insured losses for particular portfolio based on simulated catastrophes
- Probabilistic – average expected loss arising from an event of a given probability (1 in 100 = 1%, 1 in 250 = 0.04%)
- Models are not reliable predictors for loss at a single location
- Common Components of a Model
  - Account Module
  - Location Module
  - Reinsurance

COPE: Exposure – CATASTROPHE

- Resort Hotels
- Seaports Container Terminals
- Saw Mills Paper
- Warehouses
- Ski Resorts
- Historic or Heritage Buildings
- Public Utilities
- Auto Assemblers

MB Exposure

- Low: Office, shops, Telecoms
- Medium: Certain Manufacturing
- High: Cement Plants, Power-gen, Petrochemicals

- Ideally never stand alone basis
- Adequate Deductibles
- Standard exclusions: wear & tear, corrosion, rust, oxidation, consumable, refractory lining, damage covered under warranty etc

Role of Engineers

- Risk Identification
  - Maintenance Programs
  - Moral Factor & Physical Factors
- Risk Appraisal
  - Physical Damage
  - Working Conditions
  - Consequential Loss
- Risk Control
- Claims Investigation

Pricing

Aim – expect to cover cost with a adequate margin

Pricing Adequacy computation for a Portfolio

Pricing improvement only by differentiated approach accounting for COPE, Deductibles and loss history, coverage terms for individual risks

Ideal Pricing:

- 10 to 20 year of Loss Experience for Homogenous Risk
- Adjusted for future trends & IBNR
- Acquisition, RI cost, UW Expenses, and Profit Margin
- Portfolio premium apportioned to each risk

Differentiated Approach

- Risk Selection characteristics
- Rate Adequacy targets
- FLEXA plus loading for additional coverages
- Various rating tools
- NATCAT guidance

Underwriting Risk Review

- **Back ground:** Source, history, new or renewal
- **Ownership:** Comment on ownership, new acquisition, experienced, plant in early years of operation following construction, or plant up for sale, loss history
- **BI/PD ratio:** High, Medium, Low ---- (UW action: Time Excess, Rate, FAC, XOL)
- **Location: r**elated to location i.e. NAT CAT Exposure, SRCC exposure, Neighboring exposure
- **Engineering Feedback on:**
  - Comments on COPE
  - Technology and Design configuration
  - Owner Experience / Versus O&M Contractor
  - Adequacy, values, conclusions / findings from survey / Recs
  - Other issues / comments on MB, BI, Contingent Business Interruption etc
  - Probably Maximum Loss
- **UW Comments & Proposal**
  - Summarizing for Risk Analysis
  - Mitigations
  - Rate Adequacy
  - UW Aspects / concerns
  - Proposal

Risk Review – Case Study

- Slip

- Information available to Underwriters

- Discussion sheet

- Our Comments

Manuscript Wordings

UW considerations:

- Operative Clause should be for ‘Physical Loss, destruction or Damage’
- Basis of settlement should be clearly defined and on indemnity principle
- Clear basis of Valuation
- Occurrence clause ~ 72 hours for application of natural perils coverage & deductibles
- Average Clause
- Standard Exclusions including mandatory Treaty Exclusions
- Standard conditions: Claims notification, Arbitration, Cancellation, Jurisdiction

Design Exclusions - **The London Engineering Group**

LEG1/ 96 - "Outright" Defects Exclusion

"The Insurer(s) shall not be liable for: **Loss or damage due to defects** of material workmanship design plan or specification"

LEG2/ 96 - "Consequences" Defects Wording

"The Insurer(s) shall not be liable for: All costs rendered necessary by defects of material workmanship design plan or specification and should damage occur to any portion of the Insured Property containing any of the said defects the cost of replacement or rectification which is hereby **excluded is that cost which would have been incurred if replacement or rectification of the Insured Property had been put in hand immediately prior to the said damage.**

For the purpose of this policy and not merely this exclusion it is understood and agreed that any portion of the Insured Property shall not be regarded as damaged solely by virtue of the existence of any defect of material workmanship design plan or specification "

LEG3/ 96 – "Improvement" Defects Wording

"The Insurer(s) shall not be liable for: All costs rendered necessary by defects of material workmanship design plan or specification and should damage occur to any portion of the Insured Property containing any of the said defects the cost of replacement or rectification which is hereby **excluded is that cost incurred to improve the original material workmanship design plan or specification.**

For the purpose of the policy and not merely this exclusion it is understood and agreed that any portion of the Insured Property shall not be regarded as damaged solely by virtue of the existence of any defect of material workmanship design plan or specification"

Design Exclusion

LEG 1 (outright exclusion) Example:

- For a flooding to loss to a new modern designed complex, even though this was a fortuitous loss, Insurers were able to successfully argue the loss resulted from Design defect of the guttering layout.
- Although caused proximately by Storm, the exclusion still applied as due to defect

LEG 2 (Consequences Defect wordings) Example:

- Consequential damage to property is covered, **however what is excluded is cost that would have incurred to rectify the said defect immediately prior to the loss.**
- Clearer than LEG 3
- The consequent loss to the building complex would be covered.

LEG 3 (Improvements wordings)

- Damage due to the defect is covered **what is excluded is the cost incurred related to improvement to the original defective design** (so as to avoid the loss occurring again)

Other Practical Issues

Practical Challenges

- Information
- Values
- Poor response to risk improvements
- Tendering (yearly)
- Timely reporting of claims
- Pricing sacrificing quality
- Lack of relationships

Information

- Crucial to conduct an accurate risk assessment
- Should include Values break by locations and items
- COPE information:
- BI Values calculation
- Engineering data
- O&M details, Key Equipment data, LTSA, OEM details, Lead times, plant operational data

Values – a conversation

Insured: Reported value is PKR 5 billion (5% above expiring)

Underwriter: OK, so is there a break up of values available? Interesting how no changes in this figure over last many years of your business (5% for currency depreciation estimate)

Insured: Well my finance manager has calculated after accounting for reducing prices for machines/equipment each year

Underwriter: OK, so your Finance Manage over all these years is also a valuation expert

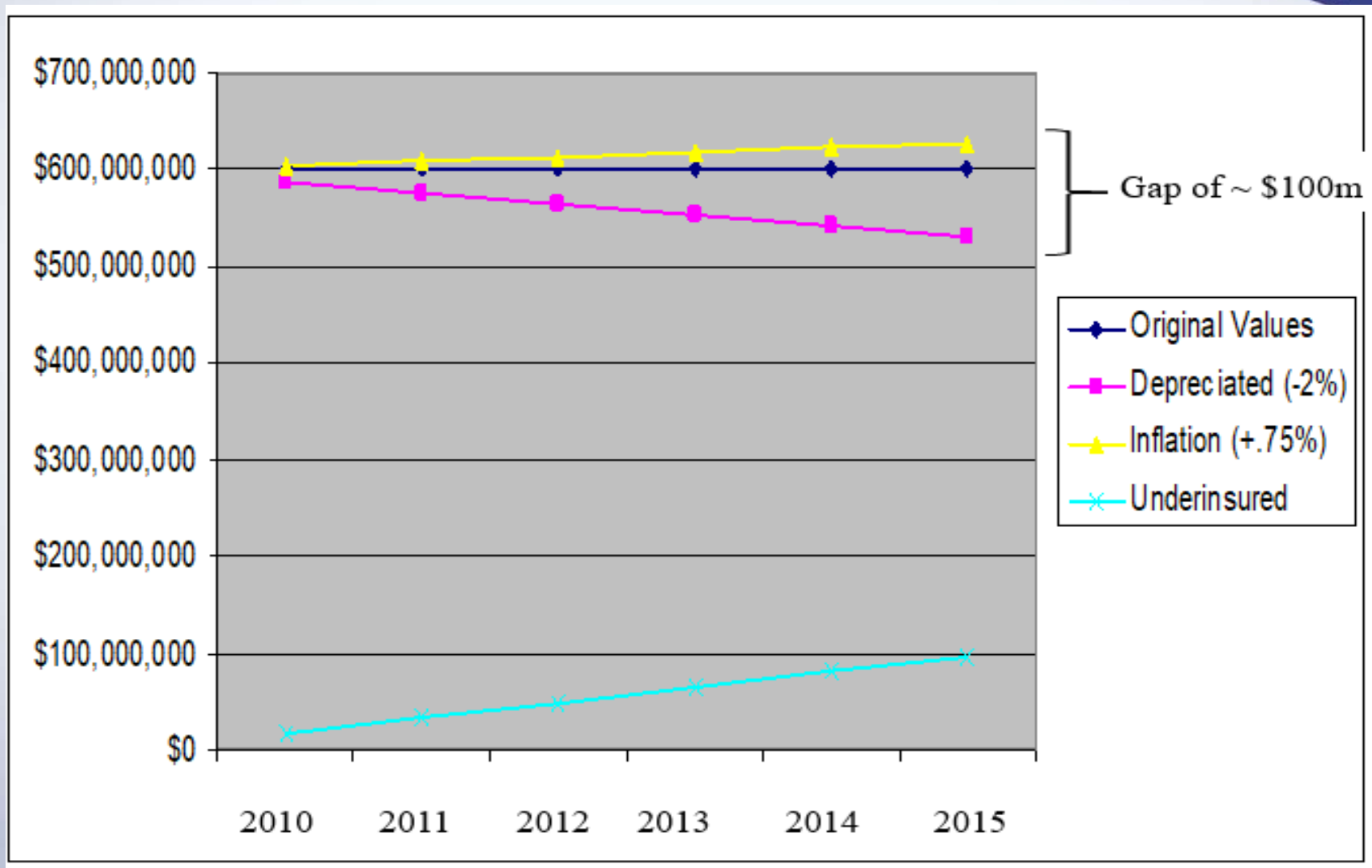
Insured: When this was built it cost us much more but now depreciation has also been factored in.

Underwriter: So the inflation never happened? Cost of Labour, materials and taxes have remained unchanged over last 5- 8 years

Insured: If we do not depreciate then our premiums will go up

Underwriter: not necessary as underwriter will typically aim to price for exposure plus you will remain exposed to risk of being underinsured (via average clause)

Values Trending



Values

- Could lead to underpricing of risk
- Leads to larger price / rate increase – swing in pricing
- Risk of average application
- Lead to disagreements over claims adjustments

Responsibility rests on insured on setting New Replacement Values

Underwriters do question and review the adequacy of these based on trending and experience.

Tendering

- Yearly tendering reduces quality
- Leads to short term poor relationships
- Damaging to long term interests of both Insured and Insurer
- More exposed to market conditions (hard & soft)
- Underwriters will be reluctant to spend on additional services given only one year on risk

Other issues

- Lack of response on Risk Improvements
- Timely reporting of Claims
- Pricing Sacrificing Quality / client's need to do own due diligence

Relationship

- Such practical issues impact relationship between companies

Steady and open relationship lead to:

- Smooth renewals
- Reaction to larger claims likely to be better
- Better service (claims + engineering)
- Market fluctuations are smoother

Ignorance towards such issues can impact

Thank you