Practical (Re)Insurance Company
Utilization of Multi-line Clash Scenarios

*Integrating multi-line stress scenarios in capital model development, underwriting control, and portfolio management*

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Case Study: Grenfell Fire

Lines of Business Exposed
- Property
  - Building Owner
- Casualty (Bodily Injury / Property Damage)
  - Building Owners
  - Product Manufacturers (cladding and components)
- Professional Liability
  - Architects and Engineers
  - Contractors

Broader Liability Implications
- Cladding and Insulation manufacturers
  - Inspections / removing cladding
  - Relocation and business interruption
- A&E Professionals
  - A&Es who oversaw faulty materials / building design
- Non-Cladding related construction claims
  - Potential for additional construction liability claims for faulty design discovered during inspection of cladding / insulation of other buildings
Major Clash Scenario Themes

- Casualty Litigation – Opioids
- Liability Regimes – Class action and third party funding
- Competitive Business Environments – Chinese drywall; Mortgage crisis
- Technology – Internet of things / systemic cyber
- Geopolitical – Arabic country instability
- Societal – European migrant crisis

Major clash scenario themes can focus on systemic risks that spread across many insureds within an industry, or large single events that expose many lines of business.

Large single events, e.g. Grenfell, are not always considered drivers of capital need in the same way as systemic events, but they have a significant impact on earnings.

How should these scenarios be managed?
Use of clash aggregation management tools (scenario development and modelling) allow for effective risk management in providing underwriting rules and guidance.

- Clash scenarios can be used as a proactive measure to address potential “blind spots” before they occur through:
  - Underwriting controls
  - Improved information to management on the risk
  - Providing a means of quantifying and managing aggregation concerns of the business via modeling & portfolio management

- Actual clash scenarios can also be used retroactively (measures taken as a result of Deepwater Horizon)
  - Reduce max limits on businesses that expose us to offshore drilling aggregation
  - Single “point of contact” to manage upstream energy aggregation of limits (max gross accumulation between casualty and marine operations)
  - Reinforce joint venture clause UW strategies
Capital Model Development

Capital models should accurately reflect all risks if they are to be used in risk management and decision making processes.

**No Use of Clash Aggregation Techniques**

- Risk distributions may not accurately reflect correlations in the tail
- No method to determine what clash or casualty ‘perils’ are drivers of capital need
- Inaccurate picture of business unit profitability and capital allocation
- Reinsurance strategy is limited by (lack of) internal analyses

**Use of Clash Aggregation Techniques**

- Risk distributions highlight lines of business exposed in extreme clash scenarios
- Clear story to management on the clash scenarios that drive capital need
- Better capital management and allocation to businesses, leading to improved understanding or risk adjusted returns
- Capital model can be used as an effective tool to drive reinsurance strategy

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Portfolio Management

The goal of portfolio management should be to optimize a portfolio’s risk / reward ratios in accordance to management’s risk appetite. Incorporating scenarios and event modelling can assist in optimization.

No Use of Clash Aggregation Techniques

- Lacking the complete picture of clash and casualty risk
- Suboptimal portfolio management both at:
  - The corporate level
  - Individual business portfolio level
- No method to manage aggregate event exposures

Use of Clash Aggregation Techniques

- Able to accurately calculate risk / reward ratios
- Optimized and balanced portfolios
- Achieve management’s risk tolerance and risk appetite goals; understand full spectrum and magnitude of potential risk scenarios
Opportunities and Challenges

Opportunities

• There is an opportunity for the industry to improve its quantification of Clash and Casualty risk, which will improve risk management in the way NatCat models have:
  • Improved deployment UW capacity and strategy
  • Increase accuracy in quantification of capital needs
  • More efficient portfolio management and optimization

Challenges

• Industry consensus
  • What scenarios are most relevant?
  • Consistent and accurate quantification of risk

• Executive management and board education
  • Demonstrating to management the ability to quantify the risk

• Underwriter buy-in
  • Need to show underwriters the benefit of Clash or Casualty catastrophe models in improving underwriting strategy and profitability

• Can we really understand the correlations between insureds and products?
  • Particularly in casualty clash scenarios
QUESTIONS?