Six Risks of Reinsurance

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From ‘Normal’ to ’New Normal’

- The “good old times” - Stable, predictable, manageable? ... A romanticizing view which probably never matched reality.

- The current business environment: Growing awareness of major changes ahead
  - New risks emerge
  - Climate risk looks more tangible
  - Insurability is expanding further
  - Insurance density is growing rapidly
  - Surging sums at risk and ,therefore, downside risk
  - Challenges to the notion of diversification

- Large losses have always characteristic of the global reinsurance industry. However, coping with these becomes more challenging in the “new normal”
  - Lack of economic growth in mature markets
  - Record-low interest rates

- The inexorable conclusion: Reinsurers need to further step up their risk assessment, risk measurement and risk mitigation capabilities to keep pace with accelerating growth of exposure and complexity

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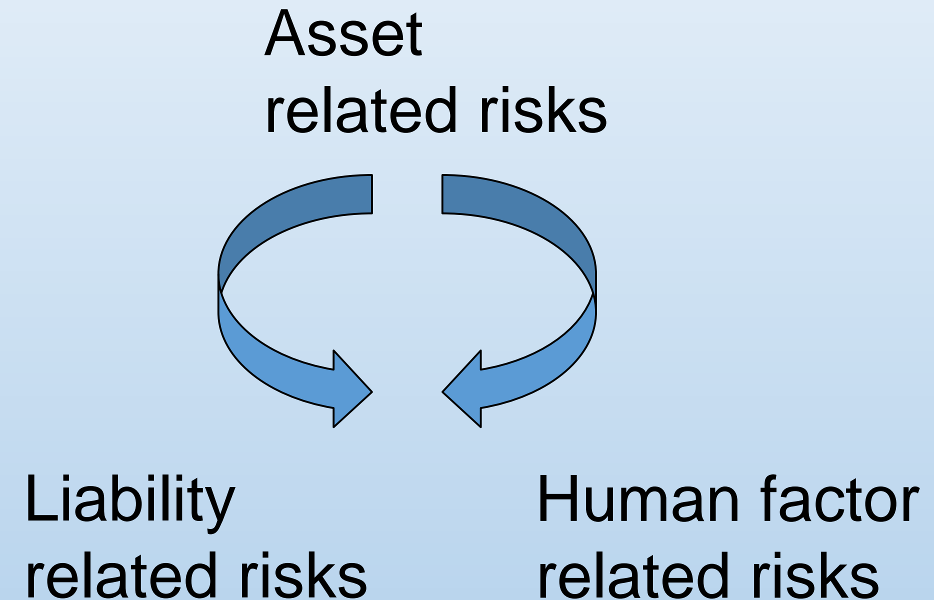
Six Risks Of Reinsurance – A Snapshot

- The Unknown
- Model failure
- Missing links
- New Underwriting risks
- The Myth of Diversification
- Globalization



There are many more relevant risks, but these six will be my focus for today

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The Unknown

- Black Swans are both inevitable and unpredictable – ‘the unknown unknowns’ – whereas Black Ducks are ‘known unknowns’ – still difficult but not impossible to manage.

- Managing Black Duck exposures require an underwriting environment where underwriters constantly challenge their risk understanding embedded in a no-blame risk culture.

- “In-the-box” thinking will limit the ability to anticipate ‘known unknowns’

- We need to promote “out-of-the-box” thinking by establishing an underwriting culture where
  - Analytics meet intuition
  - Soft facts go along with hard facts
  - Experience is enhanced through continuous learning

- Learning from losses is the pace maker for progressing our industry.

Model Failure

- The science of analytics and the art of harnessing this science has enabled a quantum leap in risk management capabilities.
- This blessing could turn into a curse if we ignore the evident limitations of any model:
  - Models are primarily based on an experience background (rear-mirror view)
  - Models do always simplify reality, i.e. reduce complexity, in order to be manageable
- Scenarios which have never been experienced before tend to be the ‘’blind spots’ of models: They are likely to fail on ‘known unknowns’ and will surely fail on ‘unknown unknowns’.
- Examples:
  - The first hurricane models needed another hurricane to improve
  - Japanese EQ models did not include many tsunami scenarios but will do so after the Tohoko EQ
- Models are systematically volatile in their predictions of extreme and rare situations.

Missing Links

- We do see a particular risk but misjudge its significance or, even worse, ignore it in our quest to reduce complexity in decision-making processes.
- This is likely to be the most human risk in our industry.
- Example: We know about the close link between interest rates and inflation but we continue pricing long-tail business as if the current ultra-low investment return and inflation environment would exist forever.

New Underwriting Risks

- This is the most ‘genuine’ risk for our industry.
- We constantly need to challenge the boundaries of our established risk appetite in order to grow and innovate the market.
- We also need to consider new risks as part of our commitment to offer risk mitigation tools to clients who permanently experience dynamic changes in their risk landscape.
- Examples: Ever more integrated global supply and manufacturing chains, cyber risks, environmental risks, nanotechnology.
- The challenge of anticipating and managing new underwriting risks is amplified by “Model failure” and “Missing links”.

The Myth of Diversification

- This is the foundation of our industry and almost 'sacrosanct'. It was developed when our industry was more focused on frequency risk and large single risk loss exposure. Nowadays our industry is much more severity risk driven and assumes significantly tail risk.

- There are two major challenges associated:
  - Tail risk events tend to show a correlation between risk elements which were deemed to be independent
    - Example: September 11th revealed unexpected correlations between individual LoBs on the one hand and the assets and liabilities side of the balance sheet on the other
  - A perfectly diversifying risk will destroy value when it is written at a insufficient risk charge
    - Example: Insufficiency of rates could be the result of competition or changing exposure patterns turning 'cold spots' into 'hot spots'.

- Diversification helps to enhance capital efficiency but does not mitigate the consequences of insufficient pricing.

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Globalization of the Risk Landscape

- This risk is often underestimated or even ignored, partially reflecting the traditional ‘insurance is a local business’ mantra.
- Globalisation has advanced dramatically over the past 20 years, with foreign trade and foreign direct investments outpacing underlying GDP growth: Global trends will hit local markets – the question is just when.
- Examples: Local economies are becoming more dependent on exports to and supplies from abroad; litigious behaviors spread to other mature and even emerging markets; social standards and behaviors appear to be subject to global cultural convergence.
- Global trend risks are amplified by “Model failure” and “Missing links”.

Summary

- The Unknown – Black Swans, Ducks & Co
- Model failure – The earth is not just flat because you can't look beyond the horizon
- Missing links – Just because it never happened before isn't any guarantee that it will never happen
- New underwriting risks – Constantly innovate while protecting your balance sheet
- The myth of diversification – Independence of risk isn't safe for tail risk events
- Global trends – Being local does not shield you from globalization

The bottom-line

- Keep your eyes wide open
- Combine intuition, underwriting knowledge/ experience with scientific and analytical/ actuarial perspectives in order to establish a more robust defense line