



SINGAPORE
ACTUARIAL
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6th SAS General Insurance Conference:
Staying ahead of the Game

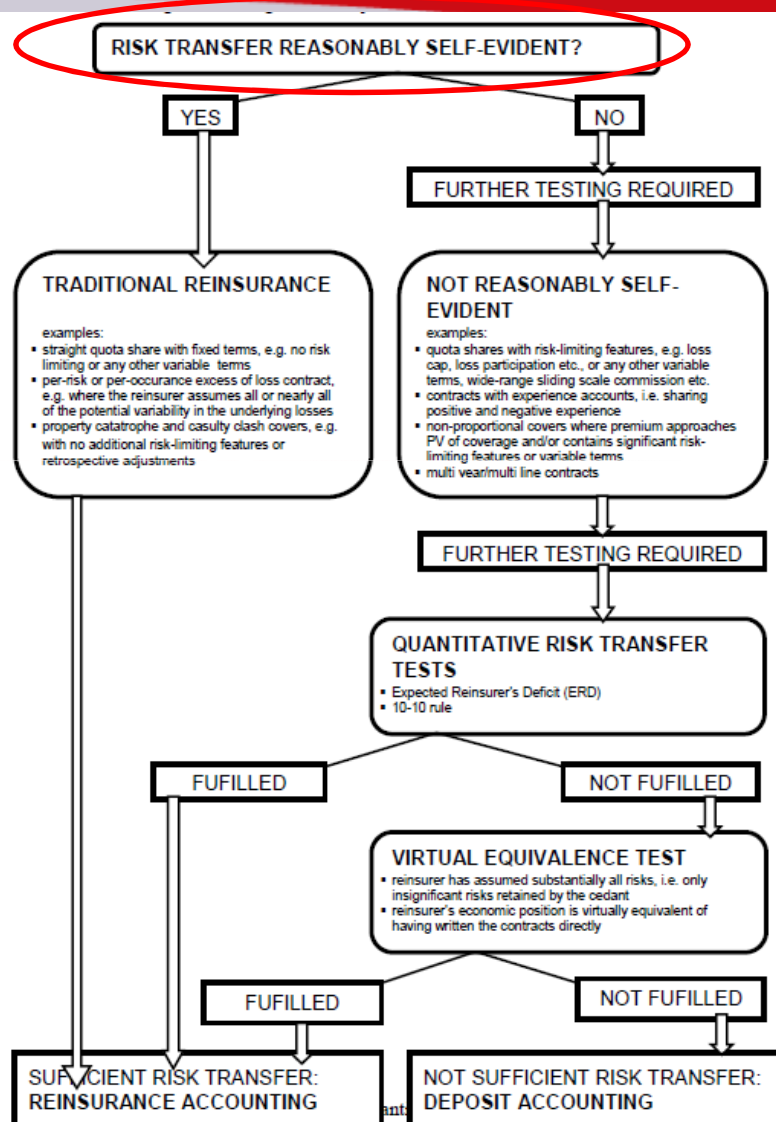
Topic presented: Risk Transfer
(SAS Working Party)

29th / 30th May 2014
Resorts World Sentosa, Singapore

Risk Transfer ? What and Why ?

- What is Risk Transfer ?
- Extract of “ Insurance Act (CHAPTER 142) – Arrangement of regulations – Monetary Authority of Singapore – April 2013 “:
*... valuing the liabilities of the insurer... the actuary shall verify, for ... reinsurance arrangement ..., whether the arrangement involves **significant insurance risk transfer**...*
- GIC of SAS has launched a working party end of 2013, the target being to draft up a technical note giving guidance when Actuaries are assessing **significant insurance risk transfer** for GI business.

Risk Transfer decision flow chart (from World Bank)



Reasonable Self Evidence of Risk Transfer

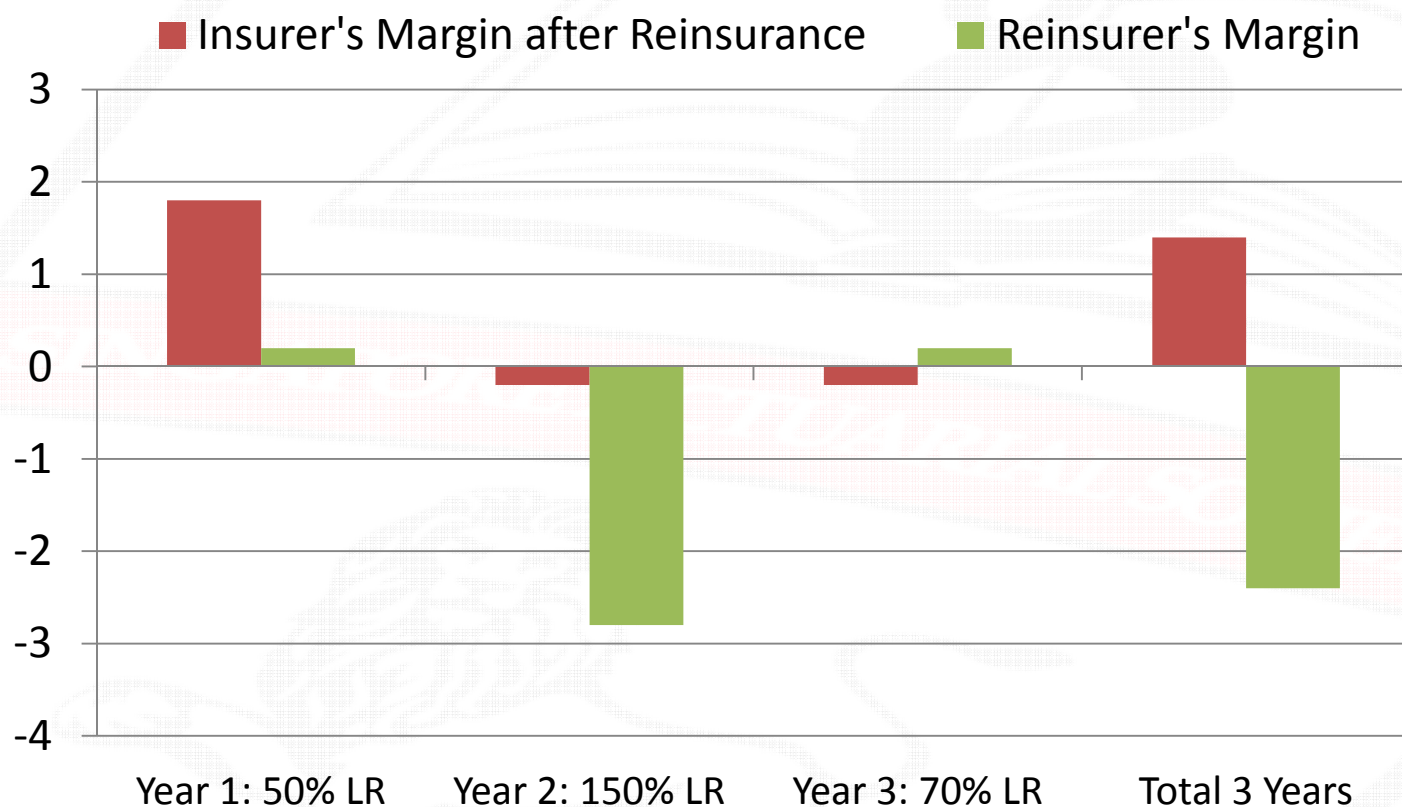
Under certain conditions, risk transfer is deemed to be “reasonable self-evident”:

=> a simple and reasonable scenario generates a significant loss for the reinsurer.

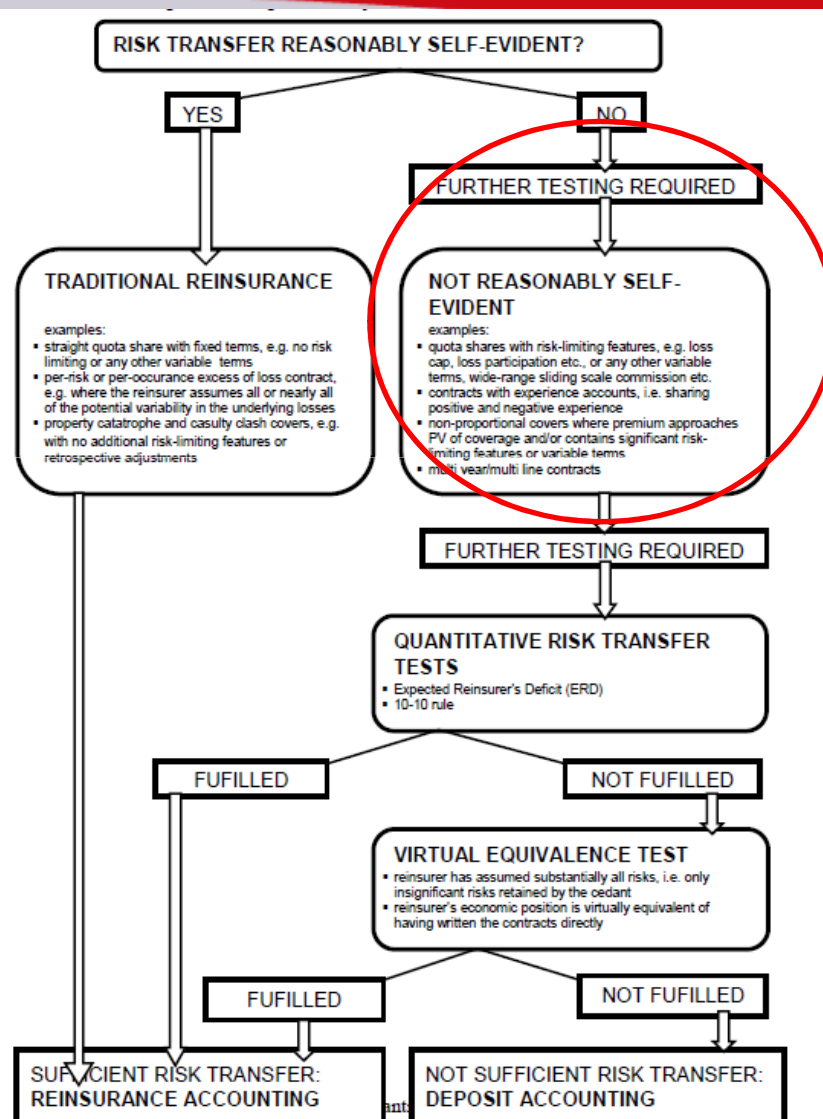
It is saving time and unnecessary expense where a detailed probabilistic cash-flow analysis does not add any further value in assessing the quantum of risk transfer.

- Example 1 next slide: Catastrophe XL

Example 1: Significant Risk Transfer



Risk Transfer decision flow chart (from World Bank)



What can influence Risk Transfer in a contract ?

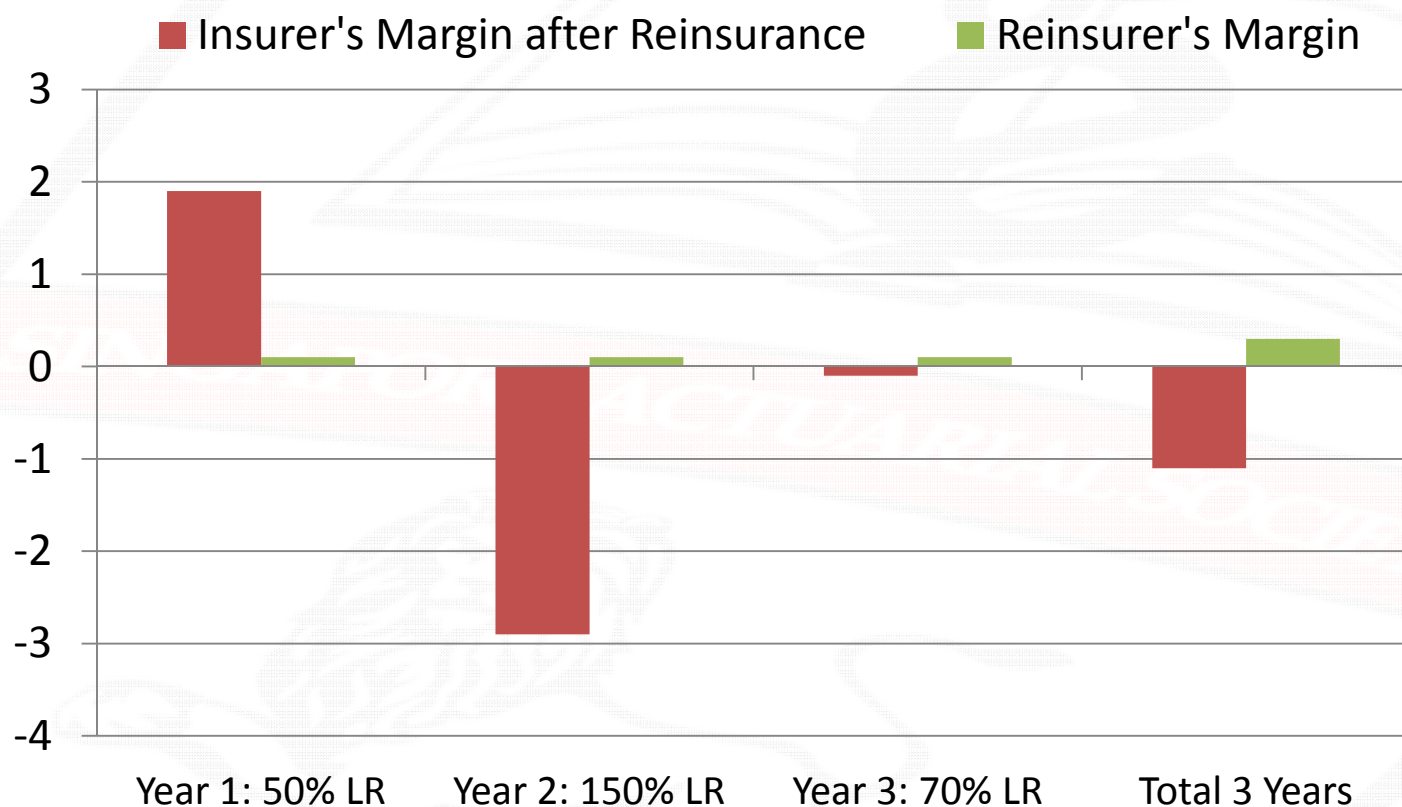
A) Risk Limitation features

The Reinsurance arrangement contains variable features depending on the loss activity with upside (profit sharing) or/and downside (additional premium, loss participation) of the reinsurance arrangement.

In equivalent, Premium or Commission depend on loss activity, losses can be capped too.

- Example 2 next slide: Quote Share with Profit Participation and Loss Cap

Example 2: **NO** Significant Risk Transfer



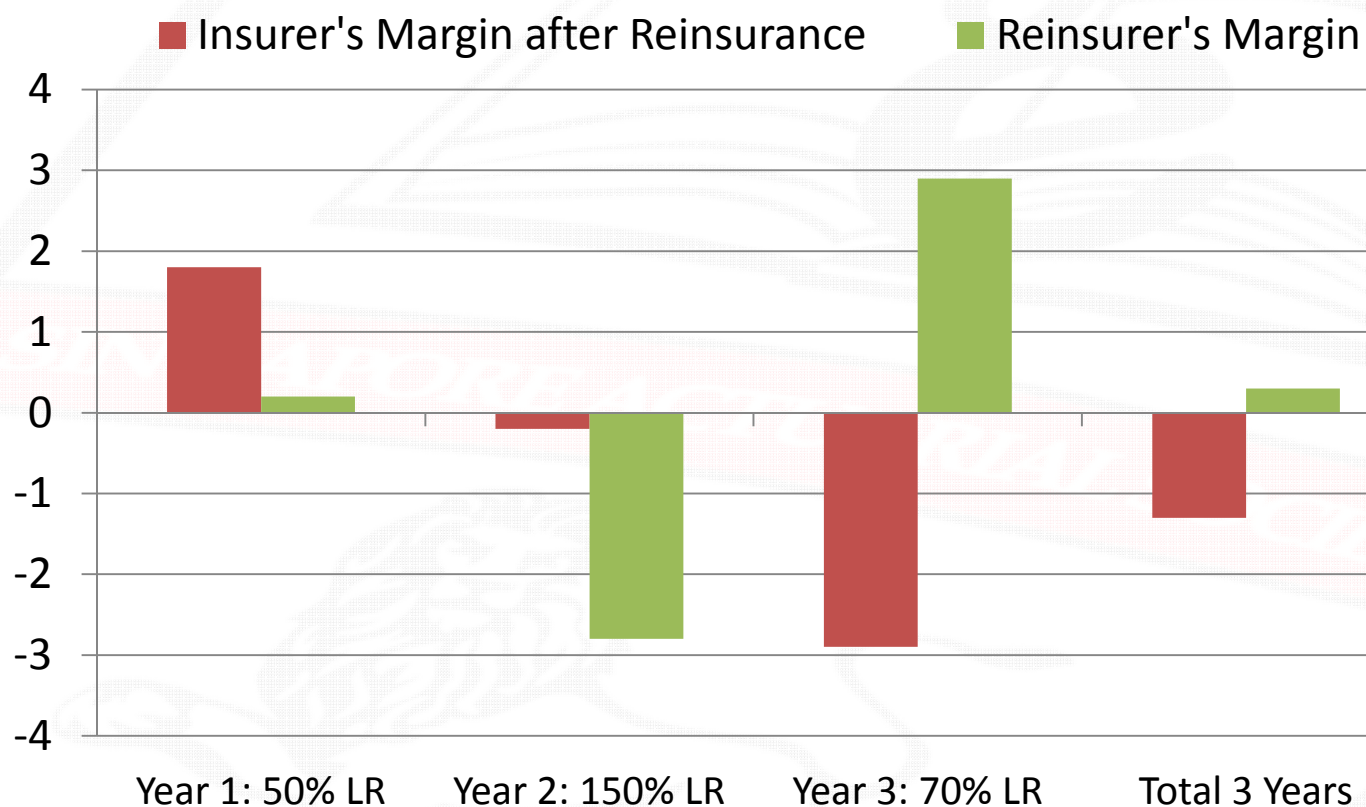
What can influence Risk Transfer in a contract ?

B) Timing features

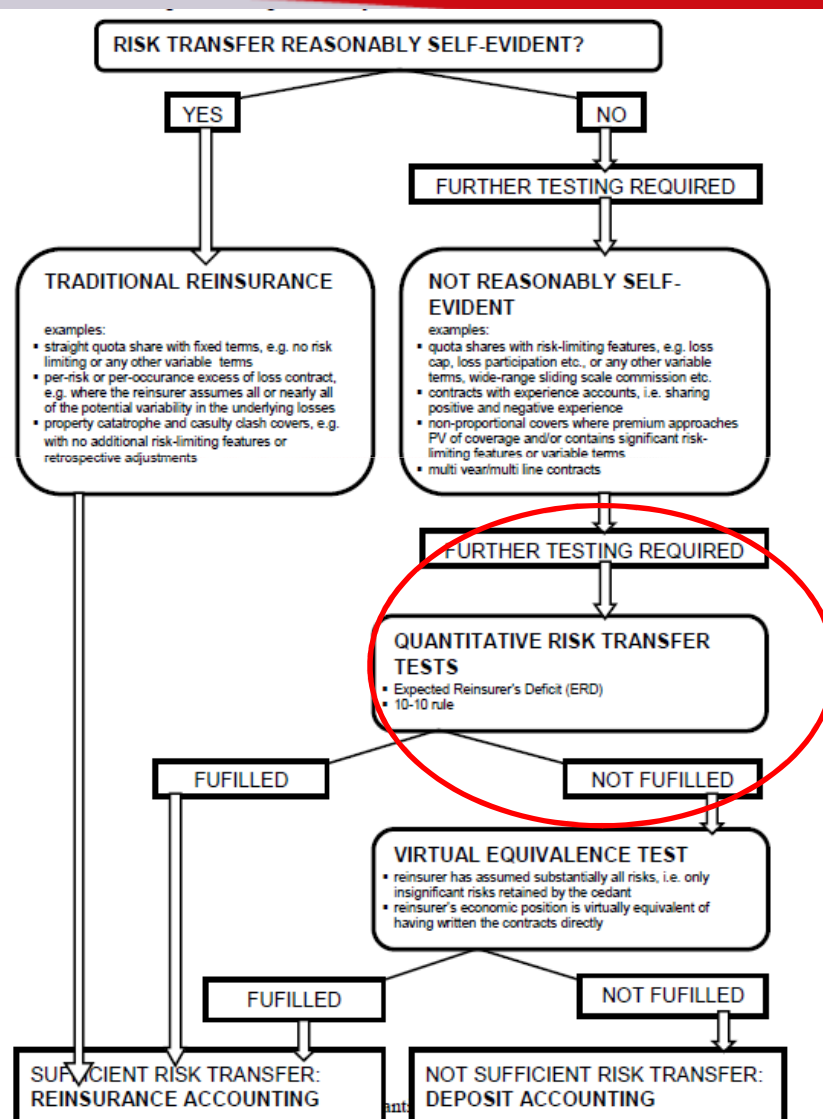
Multi-years arrangement or other timing mechanisms impacting accounting statements.

- Example 3 next slide: Finite treaty

Example 3: **No** Significant Risk Transfer



Risk Transfer decision flow chart (from World Bank)



Measurement of evidence in risk transfer

Quantitative approaches in the literature:

1. 10-10 : more than 10% chance to have a deficit of at least 10% of the premium
2. ERD: Expected Reinsurer's Deficit
3. RCR: Risk Coverage Ratio
4. RTD: Right Tail distribution

1 to 4: from the worse to the best formula (theoretically speaking)

1 to 4: from the best to the worse formula (practically speaking)