Week 3

Non-Proportional Contracts
XL/R, XL/E & Stop Loss

Excess-of-Loss Treaty (*Non-Proportional)*

Proportional treaties relate *sums insured* to the division of premiums and losses.

Excess-of-Loss RE focuses on the *loss*.

- Direct insurer pays all losses up to deductible.
- Reinsurer pays entire loss in excess of this amount.

2

Excess-of-Loss Treaty (*Non-Proportional)*

- NP reinsurance based on the amount of loss and the cover.
  - Contract sets out:
    - One or more classes of business from which losses are reinsured;
    - A fixed limit – the 'deductible';
    - A limit of cover – the 'layer'
- It is used as a method of cutting probable claim peaks.
- In this instance: the distribution of claims and the distribution of liabilities in an insurance porfolio differ.

3

Excess-of-Loss Treaty (*Non-Proportional)*

- XL per risk
  - Each loss regarded separately per risk.
- WXL/R
  - Cover is triggered by a loss on a single risk and is therefore exposed per risk.
- WXL/E
  - Provided with claims settlement irrespective of the number of possible risks affected by a loss.

Excess-of-Loss Treaty (*Non-Proportional)*

- After application of all proportional reinsurance covers, a direct insurer's retention is 8 million. To further protect his retention from major loss, he then buys *WXL/R cover of 6m xs 2m*. As additional protection from catastrophic events he also buys *Cat XL of 9m xs 4m*.
- ***Loss event 1:*** *A fire leaves the direct insurer with a loss of 1 million for his own account.*

Excess-of-Loss Treaty (*Non-Proportional)*

- After application of all proportional reinsurance covers, a direct insurer's retention is 8 million. To further protect his retention from major loss, he then buys *WXL/R cover of 6m xs 2m*. As additional protection from catastrophic events he also buys *Cat XL of 9m xs 4m*.
- ***Loss event 2:*** *A major fire leaves the direct insurer with a loss of 7 million for his own account.*

Excess-of-Loss Treaty (*Non-Proportional)*

- After application of all proportional reinsurance covers, a direct insurer's retention is 8 million. To further protect his retention from major loss, he then buys *WXL/R cover of 6m xs 2m*. As additional protection from catastrophic events he also buys *Cat XL of 9m xs 4m*.
- ***Loss event 3:*** *An earthquake leaves the direct insurer with losses for his own account as follows:*

Risk A	Risk B	Risk C	Risk D	Risk E	Total
1 million	1 million	1 million	2 million	4 million	9 million

Excess-of-Loss Treaty (*Non-Proportional)*

Risk A	Risk B	Risk C	Risk D	Risk E	Total
1 million	1 million	1 million	2 million	4 million	9 million

Non-proportional rating methods

- <u>Experience Rating</u>

  Method based on past loss events.

- <u>Exposure Rating</u>

  Method uses a similar portfolio with a sufficient loss experience. Expected loss experience calculated by quantifying the differences in the portfolio he is rating and the one being used for comparison.

Stop Loss Reinsurance

- Designed for DIs who are seeking comprehensive protection against fluctuations in their annual loss experience in a given class of business.
- The RI is obliged to cover any part of the total annual loss burden that exceeds the agreed deductible: usually this deductible is defined as a percentage of annual premium income.
- It is irrelevant whether this deductible is exceeded by one single large loss or an accumulation of small and medium-sized losses.

Stop Loss Reinsurance

The RI requires the DI to incur a technical loss (i.e. losses + costs > premiums) before the SL agreement is triggered.

Example:

The DIs annual premium income is	50 m
DI's costs	15 000 000 (= 30%)
SL treaty	50% xs 100%

In this case the reinsurance cover amounts to 50% of the DI's annual premium income, provide his losses exceed 100% of that figure.

This means the DI must take an underwriting loss of 30% before payments start under the stop-loss treaty.

Stop Loss Reinsurance

- The RI requires the DI to incur a technical loss (i.e. losses + costs > premiums) before the SL agreement is triggered.
- Example:

		Distribution of losses	
Year	**Total annual loss**	**Direct Insurer**	**Reinsurers**
Year X	55 m		
Year Y	45 m		
Year Z	90 m		

Stop Loss Reinsurance

- Points to note:
  - A large amount of risk is transferred,
  - The RI loses premium volume, and hence influence,
  - Composition of most portfolios is becoming less transparent.

The LMX Spiral
'London Market Excess of Loss'

- Series of loss events 1987 – 1990
- Abnormally high level of losses associated with XL 'spirals'
- Elements in a 'spiral'
  - The subscription (or co-insurance) method of placing large risks;
  - XL reinsurance as a means of laying off risks;
  - The practice of purchasing XL reinsurance in 'layers';
  - The necessity for underwriters to estimate their PML.

The LMX Spiral
'London Market Excess of Loss'

- Example: A risk is placed by subscription method
  1. Each primary insurer retains 50% of the cover granted as a deductible..
  2. ..and reinsures the other 50% on an excess of loss basis
  3. ..and each reinsurer does likewise.

Treaty Exclusions & Special Exceptions

- **Treaty Exclusions**
  - Uninsurable risks
  - Risks belonging to other classes
  - Non-homogenous risks
  - Highly volatile risks
  - Risks which might cause excessive accumulations

16

Treaty Exclusions & Special Exceptions

- **Special Exceptions**

  ….an agreement to extend the scope of a reinsurance contract to an individual risk which does not qualify for automatic cession to the contract.

17