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# Risk Transfer Analysis

CLRS 2009 Seminar

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# Risk Transfer

- Principle based
  
- No bright-line indicator
  - 10/10 Rule
  - ERD at 1.0%
  
- It is an accounting decision
  - CEO and CFO attest to the risk transfer in contracts

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# Key Risk Transfer Documents

## ■ FASB 113/SSAP 62

- Define risk transfer:
  - Reinsurer assumes significant **insurance** risk.
  - **Reasonably possible** that the reinsurer may realize a **significant** loss.
  
- Exempt for FASB 113 and SSAP 62 are treaties that assume **substantially all** of the insurance risk related to the underlying insurance contracts.

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# Key Risk Transfer Documents

- **Reinsurance Attestation (Statutory Requirement)**
  - CEO and CFO attestation that reinsurance treaties have been accounted for corrected,
    - No separate written or oral side agreements,
    - Documentation for every contract exists for which risk transfer is not **reasonably self-evident** that details the economic intent and that documentation evidencing risk transfer is available for review.
    - Reporting entity complies with SSAP 62
    - Appropriate controls are in place to monitor the use of reinsurance

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# First Type of Contract

- **Exempt – “Substantially All”**

- Typically Quota Share with no/very limited loss restriction
  - Reasonable ceding commission
  - High loss ratio cap
- Reinsurance Attestation adds:
  - Contracts with no amounts recoverable,
  - Contracts entered into, renewed or amended before Jan. 1, 1994.

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# Second Type of Contract

- **Reasonably Self-Evident**

- Catastrophe Excess of Loss
- Casualty Excess of Loss
- Defining characteristics:
  - The potential loss to the reinsurer is much larger than the premium
  - The contractual terms and conditions of coverage are standardized for contract type
  - Contract does not include provisions that enable the reinsurer to recover a significant portion of covered loss

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# Third Type of Contract

## ■ Not Reasonably Self-Evident

- Defining characteristics:
  - Premium approaches present value of coverage provided
  - Contract is “manuscripted” using contractual terms and conditions of coverage that are not standardized for contract type
  - Contract includes provisions that enable the reinsurer to recover a significant portion of covered loss

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# Risk Transfer – Common Pitfalls

- Profit Commissions
- Reinsurers Expense
- Interest Rates and Discount Factors
- Premiums
- Evaluation Date
- Commutations and Timing Payments



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# Risk Transfer – Common Pitfalls

## ■ Profit Commissions

- True profit commission does not affect risk transfer.
  - Paid if and only if the reinsurer is in a profit position.
  - Note: It impacts potential profitability of the contract but not risk transfer.
  - This is not a swing rate.
  
- Important to understand how experience based cash flows are triggered and when they are due.
  - Carries forward on multi-year contracts.

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# Risk Transfer – Common Pitfalls

## ■ Reinsurer Expenses

### □ SSAP 62 states:

- “The evaluation is based on the present value of all cash flows between the ceding and assuming enterprises under reasonably possible outcomes.”

### □ Reinsurer expense are not considered.

- Only cash flows between ceding and assuming enterprises are considered.
- All cash flows between ceding and assuming enterprises are considered.

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# Risk Transfer – Common Pitfalls

- Interest Rates and Discount Factors
  - SSAP 62 states:
    - “Generally reflect the expected timing of payments to the reinsurer and the duration over which those cash flows are expected to be invested by the reinsurer.”
  - Risk free rate – generally the lower the rate used the easier it is to demonstrate risk transfer
  - Must be constant
  - Needs to be “reasonable and appropriate” this means the rate can be selected

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# Risk Transfer – Common Pitfalls

## ■ Premium

### □ SSAP 62 states:

- Q: “...should the reasonably possible loss be compared to gross or net premiums?”

A: “Gross Premium should be used.”

### □ What does this mean in practice?

- Deposit premium
- Expected premium
- Actual premiums developed from each scenario (should be used)

- Remember to include all cash flows no matter what they are called.

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# Risk Transfer – Common Pitfalls

## ■ Evaluation Date

### □ SSAP 62 states:

- Risk Transfer assessments are made “at the inception date based on facts and circumstances known at the time.”

- Interest rates
- Loss development patterns
- Other factors

- It is not necessary to retest the contract at renewal unless there are significant amendments to the contract.

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# Risk Transfer – Common Pitfalls

- Commutations and Timing of Payments
  - Timing risk is important aspect of risk transfer
    - No fixed loss payment schedule
    - “Timely reimbursement payments”
    - Any commutation fees need to be incorporated in the analysis (similar to a premium)
- Incorporate commutation clause using economically rational decision-making

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# Risk Transfer – Practical Considerations

- Parameter Selection
- Interest Rate
- Payment Pattern
- Loss Distribution
- Parameter Risk
- Use of Pricing Assumptions
- Commutation Clauses

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# Risk Transfer – Practical Considerations

## ■ Parameter Selection

- Interest rate
- Payment pattern
- Loss distribution
  - Frequency/Severity – typically for excess of loss
  - Loss Ratio – typically for quota share
- Company specific vs. industry data



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# Risk Transfer – Practical Considerations

## ■ Interest Rate

- Interest rate risk is not considered in risk transfer analysis
  
- Alternative rates
  - Reinsurer's return on invested assets
    - Different reinsurers have different return
  - Yield curve
    - Not a constant rate as required by SSAP and FASB
  - Risk free rate or some approximation
    - Most reasonable

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# Risk Transfer – Practical Considerations

## ■ Loss Distribution

- Tail of the loss distribution is most important
  - Variance
  
- This is difficult to quantify based upon company data especially for
  - Quota share contracts
  - High layer excess of loss contracts
  
- Pricing assumptions (more on this later)

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# Risk Transfer – Practical Considerations

## ■ Parameter Risk

- ❑ Loss distribution
- ❑ Payment patterns
- ❑ Size of the company (including captive insurers)
- ❑ Type of company (Start-up vs. established)
- ❑ Industry benchmark vs. individual company

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# Risk Transfer – Practical Considerations

## ■ Pricing Assumptions

- Need expected loss and variance
- Premiums charged can be helpful but you need to be cautious since:
  - Premium can be market driven
  - May include risk loads, expenses or other variables not easily recognized.
- Pricing vs. Risk Transfer
  - Pricing is more concerned with the expected loss
  - Risk transfer is concerned with the right tail of the distribution.

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# Risk Transfer – Practical Considerations

## ■ Commutation Clauses

- There is a need to understand the commutation clauses in any contract.
- Commutation clause may reduce the risk being transferred, especially if commutation dates and terms are predefined.

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# Questions

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