

EXAM 6 – UNITED STATES, FALL 2013

28. (2.25 points)

An actuary is testing whether a reinsurance contract qualifies for risk transfer. The Expected Reinsurer Deficit (ERD) for the contract is 0.9%.

a. (0.25 point)

Given a 1% threshold for ERD, briefly describe whether the contract passes risk transfer.

b. (0.5 point)

Given the conclusion reached in part a. above, describe the accounting impact of this contract on the ceding company's statutory balance sheet.

c. (1.5 points)

Identify and briefly describe three practical considerations when calculating ERD.

- Some candidates failed to mention the *lesser* of those two conditions (or include an either/or statement since this implies lesser and is therefore acceptable).
- Statement on premium or reserves <\$1M is not appropriate for this question, this is geared towards the small company exclusion.
- Some candidates swapped the 1% / 3% figures, or included incorrect amounts.

d.

- Answers similar to “Deviation Standard” implies amount and is acceptable.
- There were many variations for this answer. Any answers with the correct ideas were accepted.

## 28. Sample Answers

a.

Sample 1. The contract does not pass the threshold since  $0.9\% < 1.0\%$

Sample 2. No, since  $ERD = 0.9\% < 1\%$

Sample 3. It does not pass as it does not exceed the 1% threshold. Not enough risk is transferred.

b.

Sample 1. Cannot use reinsurance accounting

-reserves cannot be shown net of reinsurance

-will have to account for as a deposit

Sample 2. This contract is recorded as a deposit with the reinsurer and loss reserves are not shown net of this contract.

Sample 3. The insurer accounts for this contract as a deposit, whereby the reserves are not reduced by the recoverable amount.

Sample 4. This will receive deposit accounting, and will not receive the surplus benefits of reinsurance accounting

c. Candidates could provide any three of the following answers:

- Reinsurer expenses should not be included because only transactions between insurer and reinsurer should be considered.
- Profit commission should not be considered as there will be no commission in a loss scenario.
- Assumptions from pricing analyses should be used with extreme caution, as pricing analyses focus on the expected value of losses under all scenarios. ERD/risk transfer analyses only focus on the tail of the distribution.
- Parameter Risk: can be accounted for explicitly (distribution around parameter) or implicitly (higher expected loss and standard deviation).
- Selection of Payment Patterns: Select the ceding company’s payment pattern carefully because this affects the tail of the distribution.
- Loss distribution needs to be considered, especially for reasonable results in the tail.
- Interest rate should be reasonable and the same for premiums and losses. Interest rate risk should not be a factor to consider.
- Parameter Selection: the model will be sensitive to the loss distribution parameters that we select. So be diligent in the study of those parameters.
- Commutation Clause: If commutation clause exists, how does this impact reinsurer’s potential loss.
- Loss sensitive business: appropriately reflect structure of contracts when evaluating, especially those factors that would limit a reinsurer’s loss.

- Premium Amounts (if change with contract provisions) could use:
  - a. Initial – can be manipulated easily
  - b. Expected – overstates risk transfer if not adjusted up with losses
  - c. Actual – from simulation. Most difficult and best

## 28. Examiner's Report

This is a straightforward question asking candidates to recall basic elements of risk transfer.

- a. Common errors included:
  - Only answering that it failed the risk transfer test without briefly describing why.
  - Stating that the contract passed the threshold test.
- b. The most common error was answering the question with deposit accounting, but failing to describe the accounting impact on the ceding company's statutory balance sheet.
- c. Common errors included:
  - Candidate listed practical considerations but did not briefly describe them.
  - Candidate listed considerations relating to the ERD threshold. The question asked the candidate to identify and briefly describe practical considerations when calculating the ERD, not the threshold.
  - Candidate listed general considerations but was not specific in the description of those considerations (i.e. commissions, assumptions, etc.)
  - Candidate listed the same consideration multiple times with different explanations.

## 29. Sample Answers

- a. Any one of the following:
  - A process where all future obligations are current valued, taking into account financial and non-financial aspects, to speed up run off and pay out
  - A contract where future obligations of one party is current valued, taking into consideration financial, legal, administration and taxes to accelerate payment and close claims
  - Commutation is where an insurer accepts payment from reinsurer to be responsible for the entire reserve amount and development on those reserves for a payment (usually ambivalence point). Effectively ends the reinsurance agreement/contract
- b. Any two of the following:
  - Reinsurer wants to accelerate settlement
  - End relationship with insurer not paying premium or reporting on time
  - The reinsurer values "perceived" wealth when considering financial & non-financial aspects
  - Reinsurer may lack attractive investment opportunities in the funds held, so it's better off paying off the obligation
  - Concerned about future legislative changes that could increase costs of WC claims
  - Reinsurer is willing to pay extra to avoid the uncertainty of how the losses will develop in the future
  - Reinsurer may save loss adjustment expenses due to the sale of the contract
  - ALAE and ULAE savings
  - Reduce admin cost