27. (2 points)

   a. (0.5 point)

     Describe the "10-10" rule used as a benchmark for assessing risk transfer.

   b. (0.5 point)

     Describe the Expected Reinsurer Deficit (ERD) method for assessing risk transfer.

   c. (0.5 point)

     Describe one advantage of using the ERD method over the "10-10" rule for assessing risk transfer.

   d. (0.5 point)

     Identify whether the reinsurer's expenses should be included in an ERD calculation, and briefly explain the rationale.

Candidates were expected to understand how the commutation impacts the paid loss and loss reserves.

Common errors included:
- Stating that no impact on the reinsurer
- Stating that the paid loss will decrease for the reinsurer due to discounting of the loss reserves in the commutation price
- Stating the reason for reinsurer's paid loss increase is the reinsurer is paying future losses

Part c

Candidates were expected to identify the section of the Annual Statement to disclose the commutation and the items need to be disclosed.

Common errors included:
- Stating the disclosure has to be made in an incorrect statement
- Listing the following as required items for disclosure: effective date of the commutation, accident year, coverage (or line of business), reason for commutation.
- Stating the reinsurer has to make the disclosure.
- Simply stating that the commutation amount needs to be disclosed without specifying what the amounts are related to such as loss reserves, alae reserves or consideration paid.

Part d

Candidates were expected to demonstrate understanding for the disclosure of commutation and describe the resulting distortion in the annual statement.

Common errors included:
- Stating the annual statement will be adjusted by the commutation instead of distorted.
- Simply stating the annual statement will be distorted without explaining the distortion mislead the user.
- Simply stating that it could be misleading without naming specific exhibits that will be distorted such as net paid, net incurred triangles etc.

FALL 2019 EXAM 6U, QUESTION 27	
TOTAL POINT VALUE: 2	**LEARNING OBJECTIVE: E1**
SAMPLE ANSWERS	

Part a: 0.5 point

Sample 1
A transaction qualifies as having risk transfer under the "10-10" rule if there is at least a 10% chance of the reinsurer experiencing a loss of 10% or greater.

Sample 2
Rules that risk transfer exists if there is at least a 10% chance for the reinsurer to realize a >= 10% underwriting loss from the contract.

Sample 3
Probability[((Ceded loss - Ceded Premium) / Ceded Premium) >= 10%] >= 10%

Part b: 0.5 point
Sample 1   ERD Method is: Probability(NPV Underwriting Loss) x Avg Severity of an Underwriting Loss   If ERD / Premium > 1%, passes risk transfer test   *Sample 2*   The ERD method multiplies the probability of a net present value underwriting loss to the reinsurer by the average severity (NPV) of that loss, given that there was a loss. This is then divided by the NPV of premium and compared to a benchmark (typically 1%). If it is greater than that benchmark, then it exhibits risk transfer.   *Sample 3*   ERD compares Probability(PV of UW loss) x Average Loss Size and compares it to a selected threshold

Part c: 0.5 point
Sample 1   ERD takes into account a small chance of a large loss to the reinsurer happening whereas the 10-10 rule requires the probability of the event happening is > 10%. ERD will correctly identify risk transfer when there is a small chance of catastrophic loss.   *Sample 2*   There may be a very low % chance of sustaining a loss but enormous loss potential (in dollars) on the slim chance there is a loss. For example, some cat risks might have a 1% chance of incurring a loss, but billions of dollars of potential loss if one occurs. 10-10 won't say this passes risk transfer since it requires > 10% chance of a loss, whereas ERD would likely say it does pass, which in this case it likely should.   *Sample 3*   ERD considers the time value of money in its calculations. This will result in a more accurate assessment of the value of future cash flows, since some payments could be many years in the future.   *Sample 4*   More parameters built into the method makes it a more sophisticated tool. ERD can consider interest rates and payment patterns, for example.

Part d: 0.5 point
Sample 1   No, do not include reinsurer expenses. These are not a cash flow between the cedant and the reinsurer, so they are not transferring risk between parties. Thus, should not be included.   *Sample 2*   Reinsurer expenses should not be included in the calculation since these are not a cash flow between the insurer and the reinsurer.

EXAMINER'S REPORT
Candidates were expected to demonstrate familiarity with the 10-10 and ERD methods used to identify risk transfer, distinctions between the methods, and a more in-depth understanding of what is considered in a risk transfer assessment. Most candidates did very well on this problem.

Part a
Candidates were expected to know there needed to be at least a 10% chance of a 10% loss to the reinsurer. While the meaning of this is 10% underwriting loss relative to ceded reinsurance premium, simply stating "10% loss" was given full credit. Common errors include: • Not showing knowledge of the 10-10 rule • Identifying only half of the 10-10 rule (i.e. only 10% loss or only 10% chance) but not both • Relating 10% loss to something other than reinsurance or ceded premium

Part b
Candidates were expected to identify how ERD is calculated and that it must be greater than some threshold to qualify for risk transfer. Candidates needed to accurately describe the probability and the severity components of the calculation: (Probability of the reinsurer realizing a NPV Underwriting loss) * (Severity of NPV Underwriting Loss). The candidates did not need to identify 1% as the threshold as long as they mentioned a reasonable threshold for comparison. Common errors include: • Incorrectly describing the calculation of ERD • Identifying how to calculate the ERD without mentioning a threshold • Stating that the ERD ratio must be less than the threshold, instead of greater than

Part c
Candidates were expected to correctly identify one advantage of the ERD rule over the 10-10 rule and provide detail on why it's an advantage. Common errors include: • Not stating an accurate advantage of ERD over 10-10 • Stating something is an advantage of ERD over 10-10 only because ERD considers it and 10-10 does not • Stating an advantage of ERD over 10-10, but not supporting the statement

Part d
Candidates were expected to correctly identify that reinsurer expenses should not be included in an ERD calculation and give a valid explanation as to why. Common errors include: • Incorrectly stating that reinsurer expenses should be included • Correctly identifying reinsurer expenses should be excluded but not giving a valid reason as to why