

15. (3 points)

A primary insurer is reinsured by authorized Reinsurer A and unauthorized Reinsurer B.

- Reinsurer A has provided a \$6.1 million letter of credit.
- Reinsurer B has provided a \$10.2 million letter of credit.

As of December 31, 2017, the primary insurer has the following reinsurance recoverables from 2017 (all figures are in millions of dollars):

Name of Reinsurer	Due Date for Reinsurer's Payment	Status of Reinsurer's Payment	Amount of Recoverable
A	February 14	In Dispute	5
A	March 17	Paid	4
A	September 1	Unpaid	6
A	October 30	Paid	7
A	December 25	Unpaid	9
B	April 1	Unpaid	8
B	July 4	In Dispute	15
B	October 31	Unpaid	10
B	December 24	Unpaid	12

a. (2.5 points)

Calculate the primary insurer's 2017 provision for reinsurance.

b. (0.5 point)

Briefly explain two ways in which this primary insurer could reduce its provision for reinsurance while continuing to cede a portion of its losses.

SAMPLE ANSWERS AND EXAMINER'S REPORT

FALL 2018 EXAM 6US, QUESTION 15	
TOTAL POINT VALUE: 3	LEARNING OBJECTIVE: C1
SAMPLE ANSWERS	
Part a: 2.5 points	
<p>Reinsurer A slow-paying ratio = [unpaid paid recoverables > 90 OD (not in dispute)]/(unpaid recoverables not in dispute + amounts paid w/in last 90 days) Reinsurer A slow-paying ratio = $6 / ((6 + 9) + 7) = 0.273$ (>0.2 so Reinsurer A is slow-paying)</p> <p>Reinsurer A provision for reinsurance = $0.2 * \max(\text{Total unpaid recoverables} - \min(\text{total unpaid recoverables, security}), \text{amounts 90 days overdue including amounts in dispute})$ Reinsurer A provision for reinsurance = $.2 * \max([5 + 6 + 9 - \min(5+6+9, 6.1)], 6+5) = .2 * 13.9 = 2.78\text{m}$</p> <p>Reinsurer B provision for reinsurance = $\min(\text{total recoverables, unsecured recoverables} + \min(\text{security, } 0.2 * (90 \text{ day overdue not in dispute})) + \min(\text{security, } 0.2 * (\text{amounts in dispute})))$ Reinsurer B provision for reinsurance = $\min(45, 45 - 10.2 + \min(10.2, 0.2(8))) + \min(10.2, 0.2(15)) = 39.4\text{m}$</p> <p>Total provision = $2.78\text{m} + 39.4\text{m} = 42.18\text{m}$</p>	
Part b: 0.5 point	
<ul style="list-style-type: none"> • Require more collateral from reinsurers • Only cede losses to authorized reinsurers • Cede less losses to reinsurers • Require reinsurers to pay within 90 days • More aggressively seek out overdue payments • Cede more losses to authorized Reinsurer A and less to unauthorized Reinsurer B 	
EXAMINER'S REPORT	
<p>Candidates were expected to demonstrate their ability to calculate an insurer's provision for reinsurance. This required knowledge of the different formulas for unauthorized and authorized reinsurers. The question also required the candidate to demonstrate his/her knowledge of ways that the insurer could influence the value of this provision.</p>	
Part a	
<p>Candidates were expected to calculate the primary insurer's provision for reinsurance. As part of the solution candidates were required to determine whether reinsurer A was a slow-paying reinsurer in order to calculate the provision correctly.</p> <p>Common errors include:</p> <ul style="list-style-type: none"> • Not providing a slow pay calculation. 	

SAMPLE ANSWERS AND EXAMINER'S REPORT

- Identifying the reinsurer as slow paying without stating the reason (i.e. the ratio is >20%).
- Correctly determining that reinsurer A is slow paying, but incorrectly using the non-slow pay formula to determine the provision for reinsurance.
- Calculating the slow pay ratio incorrectly by including total recoverable amounts (both paid and unpaid) rather than just the unpaid recoverables in the denominator.
- Not including amounts in dispute in the Reinsurer A provision calculation.
- Incorrectly multiplying the unsecured recoverables in the reinsurer B provision calculation by 0.2.

Part b

Candidates were expected to briefly explain two ways in which the primary insurer could reduce its provision for reinsurance while continuing to cede a portion of its losses.

Common errors include:

- Stating that the insurer should write more reinsurance with authorized reinsurers without stating that the insurer should make a change to its existing reinsurance arrangements (i.e. writing more reinsurance or ceding more of its book will not lower the provision).
- Changing overdue threshold from 90 days to some other number of days. This is incorrect since the provision is the result of a mandated formula.
- Stating that the insurer should change the due date rather than stating that the insurer adjust the reinsurance contract to require payment within a certain window of time after the due date (e.g. 60 days) to prevent a slow-paying designation.
- Stating that Reinsurer B should become certified or authorized. However, the question asked what actions the primary insurer could take to reduce its provision.

FALL 2018 EXAM 6US, QUESTION 16

TOTAL POINT VALUE: 3.75

LEARNING OBJECTIVE: C1, C2

SAMPLE ANSWERS

Sample 1:

EP:	402
Inc Loss:	-154
DCC Inc:	-35
A&O Inc:	<u>-26</u>
UW Gains:	187
 	
Comm+Brok:	113
TLF:	+54
Other Acq:	+45
Gen Exp:	<u>+66</u>
Other Exp:	278