13. (3.75 points)

Using the following complete reinsurance information for an insurance company as of December 31, 2015 (all figures are in thousands of dollars):

	Reinsurance Recoverable on Paid Losses and Paid Loss Adjustment Expenses					
Name of Reinsurer	Current	1 to 29 Days	30 to 90 Days	91 to 120 Days	Over 120 Days	Total
Authorized - Other – U.S. Unaffiliated Insurers						
Reinsurer A	62	6	2	16	4	90
Unauthorized - Other – U.S. Insurers						
Reinsurer B	105	19	0	7	3	135

Name of Reinsurer	Total Recoverables	Letters of Credit	Amounts Received Prior 90 Days	Amounts in Dispute (included in Total)
Reinsurer A	115	65	15	0
Reinsurer B	140	40	20	8

- No amounts in dispute are greater than 90 days overdue.

a. (2.75 points)

Calculate the insurance company's Schedule F provision for reinsurance.

b. (1 point)

Describe two criticisms of using Schedule F to monitor the solvency of an insurance company.

CONTINUED ON NEXT PAGE

SAMPLE ANSWERS AND EXAMINER'S REPORT

QUESTION 13	
TOTAL POINT VALUE: 3.75	**LEARNING OBJECTIVE: C1**
SAMPLE ANSWERS	
Part a: 2.75 points	

Sample 1

Reinsurer A:

Authorized, so determine if slow paying or not:

Test Ratio = (Recoverable on Paid > 90 days overdue) / (Total Recoverable on Paid + Amounts Received Prior 90 days)

= (16+4)/(90+15) = 19% < 20%, therefore Reinsurer B is not slow-paying.

Provision = 20% * (Recoverable on Paid > 90 days overdue) = 20%*(20) = 4

Check that result is less than total recoverable: 4 < 115 OK

Reinsurer B:

Unauthorized provision:

Provision = (Unsecured Recoverable) + Min(Offsets, 20%*Recov > 90 days overdue) + Min(Offsets, 20%*Amounts in Dispute)

= (140-40) + Min(40, 20%*(7+3)) + Min(40, 20%*8)

= 100+2+1.6 = 103.6

Check that result is less than total recoverable: 103.6 < 140 OK

Total Provision for Reinsurance = 4 + 103.6 = 107.6

Sample 2

Slightly different formula for Unauthorized Reinsurer that matches the latest Schedule F. Resulting answer is the same.

Reinsurer B:

Unauthorized provision:

Provision = (Unsecured Recoverable) + 20%*(Recoverable on Paid > 90 days overdue exclude disputes) + 20%*(Amounts in Dispute)

= (140-40) + 20%*(7+3) + 20%*8 = 100+2+1.6 = 103.6

Check that result is less than total recoverable: 103.6 < 140 OK

Part b: 1 point
Any two of the following • The provision for reinsurance is strictly formulaic, potentially masking the true estimate of uncollectible reinsurance by company management. • The provision for reinsurance formula has no statistical, historical, or actuarial basis and so its application may not adequately represent collectability risk. • Unauthorized reinsurance may provide more and/or higher quality reinsurance at a lower price than a competing authorized reinsurer, but the high provision for unauthorized reinsurance could discourage purchasing it. • Slow payers who are financially strong may be more likely to pay than a reinsurer who is current in its payments but may not be able to withstand a stress scenario to its financials. Hence, the charge may be over-stated for slow payers and under-stated for non-slow payers. • There are numerous calculations involved in determining the provision for reinsurance, which can lead to a false level of precision in the collectability risk. • The costs associated with the collateral requirements may be passed down to the primary policy, thereby costing the policyholder more for insurance. • The high penalty for unauthorized reinsurers can limit competition to the U.S. market. • There is no discussion of the adequacy of the reinsurance coverage purchased to protect the insurance company in the event of an adverse scenario such as a weather catastrophe event. • It is a retrospective measure; does not consider the collectability of reinsurance recoverables on a prospective basis. • The 20% threshold for slow paying authorized reinsurer is arbitrary. There is not a significant difference in collectability from an authorized reinsurer with a 19.9% ratio and one with a 20.0% ratio, but has a sizable impact on the provision. • Actual historical experience in terms of uncollectable reinsurance is not here. If the insurer has a history of write-offs with the reinsurer, they are more likely not to pay in the future. • The slow pay ratio threshold of 20% may motivate disputes between ceding insurer and reinsurer because disputes are excluded from that formula. • The risk in the line of business reinsured is not considered in the provision formula. Thus it is possible that the authorized reinsurer reinsures a highly volatile exposure which could lead to a higher likelihood of insolvency of the reinsurer, which affects the solvency of the insured. • Subject to manipulation. The insurer could be aggressive with booking paid recoverables to make a reinsurer not "slow paying" thus lowering the provision.

SAMPLE ANSWERS AND EXAMINER'S REPORT

EXAMINER'S REPORT
The candidates were expected to calculate the provision for reinsurance and describe two criticisms of schedule F.
Part a

The candidates were expected to calculate the provision of reinsurance for an authorized and unauthorized reinsurer.
 	
Common mistakes included:
• Reinsurer A's Provision
    • Using total recoverables (115) instead of total paid recoverables (90) in the slow paying ratio
• Reinsurer B's Provision
    • After calculating reinsurer B's provision taking the minimum of that value and total unsecured recoverables min(140 – 40, 103.6) = 100
    • Subtracting disputed values from total unsecured recoverables (140 – 40 – 8) = 92
    • Not adding 20% of disputed values for the provision
    • Did not utilize assumptions stating in the question around disputed amounts

Part b
The candidates were expected to identify issues with Schedule F and describe the impact of those issues. Most candidates could identify issues with schedule F, but would often lack the impact of those issues. Common mistakes included: • Giving the issues without stating the impact on schedule F / provision / solvency • Discussing solvency issues without direct ties to schedule F