

14. (2.5 points)

Below are excerpts from the 2018 Schedule P for an insurance company which began operations in 2015 and writes exclusively Homeowners insurance:

**Part 5A, Section 1 Cumulative Number of Claims Closed with Loss Payment Direct and Assumed at Year End**

	2015	2016	2017	2018
2015	135	143	154	160
2016	-	139	147	156
2017	-	-	159	168
2018	-	-	-	181

**Part 5A, Section 2 Number of Claims Outstanding Direct and Assumed**

	2015	2016	2017	2018
2015	25	15	8	4
2016	-	29	15	8
2017	-	-	35	17
2018	-	-	-	44

**Part 5A, Section 3 Cumulative Number of Claims Reported Direct and Assumed**

	2015	2016	2017	2018
2015	175	182	194	200
2016	-	180	187	195
2017	-	-	212	215
2018	-	-	-	245

a. (1.25 points)

Calculate the claim closure rates at 12 months for accident years 2015-2018, identify one trend, and briefly describe two possible explanations for this trend.

b. (0.5 point)

Describe how to compute the triangle of average case outstanding severity using Schedule P.

c. (0.25 point)

Briefly explain why the triangle of average case outstanding severity may be important to an actuary reviewing the adequacy of reserves.

d. (0.5 point)

Briefly describe two reasons why data from Schedule P, Part 5 should be used with caution when comparing companies.

## SAMPLE ANSWERS AND EXAMINER'S REPORT

- Not identifying that net income = net underwriting gain plus net investment gain.
- Underwriting gain will increase because premium will be earned immediately but losses won't materialize until later without an explanation why.

### Part b

Candidates were expected to discuss how the income statement components would be impacted by reinsurance, given a specific business situation.

Common errors included:

- Stating that reinsurance would result in only ceded premium or only ceded losses.
- Stating that there would be no impact on investment gain.
- Stating that ceding commission would increase the amount of investable assets without further explanation (ceding commission offset the loss of assets from paying for reinsurance but doesn't produce a net increase in assets).
- Providing no explanation for the provided direction (gain/loss).

### FALL 2019 EXAM 6U, QUESTION 14

TOTAL POINT VALUE: 2.5

LEARNING OBJECTIVE: C1

### SAMPLE ANSWERS

Part a: 1.25 points

Calculate claim closure rate

$$2014: (175 - 25) / 175 = 85.7\%$$

$$2015: (180 - 29) / 180 = 83.9\%$$

$$2016: (212 - 35) / 212 = 83.5\%$$

$$2017: (245 - 44) / 245 = 82.0\%$$

Or using closed with pay

$$2014: 135 / 175 = 77.1\%$$

$$2015: 139 / 180 = 77.2\%$$

$$2016: 159 / 212 = 75.0\%$$

$$2017: 181 / 245 = 73.9\%$$

Identify trend

The closure rate is decreasing

Any two of the following explanations for the trend:

- Reduction in staffing levels
- Growth in book without a commensurate increase in staff
- Influx of claims resulting from the occurrence of a catastrophe
- Increasing claim reported count or frequency
- Change in focus to settling large or complex claims
- Change in claims methodology or process that slowed closure

Part b: 0.5 point

## SAMPLE ANSWERS AND EXAMINER'S REPORT

### Sample 1

(Part 2 – Part 3 – Part 4) / Part 5.2

### Sample 2

(Incurred – Paid – Bulk/IBNR) / Outstanding claim count

#### **Part c:** 0.25 point

Any of the following responses:

- Identify trends in the cost of insurance claims which could impact reserve levels or projected ultimates
- Changes in case reserve levels may be sign that the company has strengthened or weakened its case reserves
- Identifying change in claims handling practices or reserving methodologies

#### **Part d:** 0.5 point

Any two of the following responses:

- Some companies record claims on a per-claim basis vs a per-claimant basis
- Management may have explanations for changes that aren't obvious from the data
- Rate change information isn't given and so changes in pricing can distort frequency ratios
- Changes or differences in mix of business, policy limits, reinsurance attachment points can affect trends in claims
- Part 5 doesn't take into account reinsurance. If claims are 100% ceded the comparison between companies can be distorted, especially if leveraging other parts of Sched P in conjunction with Part 5
- Different claims procedures across companies can distort, particularly because claims are undeveloped
- There is some judgment in the data preparation of Schedule P
- Different treatment of reopened claims
- Only includes 10 years so might not be appropriate for very long tailed lines
- Definition of closed claim can vary
- Commutations can distort the triangle

#### **EXAMINER'S REPORT**

Candidates were expected to understand the triangles of Schedule P to create various metrics, identify trends within those metrics, provide explanations for those trends and reasons for caution in their analysis.

#### **Part a**

Candidates were expected to calculate the claim closure rate, either using closed with pay or total closed as the numerator and reported claims as the denominator as of 12 months. They were expected to identify the trend in the closure rate and give explanations for it.

Common errors include:

- Identification of a trend that was inconsistent with the calculated closure rates
- Misinterpreting the closure rate trend

## SAMPLE ANSWERS AND EXAMINER'S REPORT

<ul style="list-style-type: none"> <li>• Not explicitly stating the trend</li> </ul>
<p><b>Part b</b></p> <p>Candidates were expected to calculate the average case reserve outstanding from Schedule P. To receive full credit they must identify the components of the numerator and denominator either by number or description.</p> <p>Common errors include:</p> <ul style="list-style-type: none"> <li>• Excluding Part 4 (Bulk / IBNR)</li> <li>• Not specifying the correct Part 5 triangle</li> </ul>
<p><b>Part c</b></p> <p>Candidates were expected to provide and substantiate a reason why the triangle of case outstanding may be important.</p> <p>Common errors include:</p> <ul style="list-style-type: none"> <li>• Stating a trend that was inconsistent with the description of the trend's impact on ultimate</li> </ul>
<p><b>Part d</b></p> <p>Candidates were expected to provide 2 valid reasons why data from Schedule Part 5 should be used with caution.</p> <p>Common errors include:</p> <ul style="list-style-type: none"> <li>• Generalizing the answer to all parts of Schedule P and not specifically focusing on Part 5</li> <li>• Stating that the triangles are net of reinsurance and only providing 1 reason</li> </ul>

<b>FALL 2019 EXAM 6U, QUESTION 15</b>	
<b>TOTAL POINT VALUE: 3.75</b>	<b>LEARNING OBJECTIVE: C1</b>
<b>SAMPLE ANSWERS</b>	
<b>Part a: 2.25 points</b>	
<p><u>Sample 1</u></p> $\text{Slow-paying test: } \frac{\overset{90+\text{overdue exclude dispute}}{200+25}}{\underset{\text{unpaid excluding dispute}}{200+25+80+300} + \underset{\text{paid in last 90}}{75+50}} = .308 > .2 \rightarrow \text{slow paying}$ $\text{Total recoverable} = \overset{\text{case+IBNR recoverable}}{800 + 750} + \overset{\text{total paid recoverable including dispute}}{2,000 + 200 + 25 + 80 + 30 + 40} = 4,195$ <p>Total unsecured recoverable = 4,195 – 100 = 4,095</p>	