

EXAM 6 – UNITED STATES, SPRING 2018

11. (3.5 points)

An insurance company formed in 2012 writes only Commercial Auto Liability. The following are excerpts from the company's 2016 Schedule P (all figures are in thousands of dollars).

| Year | Loss and Loss Expense Payments | | | | | | Salvage and Subrogation Received |
|------|--------------------------------|-------|---------------------------------------|-------|------------------------------|-------|----------------------------------|
| | Loss Payments | | Defense and Cost Containment Payments | | Adjusting and Other Payments | | |
| | Direct and Assumed | Ceded | Direct and Assumed | Ceded | Direct and Assumed | Ceded | |
| 2016 | 11,822 | 426 | 387 | 15 | 900 | 14 | 244 |

| Year | Losses Unpaid | | | | Defense and Cost Containment Unpaid | | | |
|------|--------------------|-------|--------------------|-------|-------------------------------------|-------|--------------------|-------|
| | Case Basis | | Bulk + IBNR | | Case Basis | | Bulk + IBNR | |
| | Direct and Assumed | Ceded | Direct and Assumed | Ceded | Direct and Assumed | Ceded | Direct and Assumed | Ceded |
| 2016 | 4,821 | 512 | 5,840 | 374 | 491 | 7 | 1,148 | 54 |

| Year | Adjusting and Other Unpaid | | Salvage and Subrogation Anticipated |
|------|----------------------------|-------|-------------------------------------|
| | Direct and Assumed | Ceded | |
| 2016 | 446 | 0 | 532 |

| Year | Cumulative Premiums Earned Direct and Assumed at Year End | | | Cumulative Premiums Earned Ceded at Year End | | |
|-------|---|--------|--------|--|-------|-------|
| | 2014 | 2015 | 2016 | 2014 | 2015 | 2016 |
| Prior | 0 | 0 | 0 | 0 | 0 | 0 |
| 2012 | 24,927 | 21,745 | 21,745 | 3,739 | 3,262 | 3,262 |
| 2013 | 20,927 | 22,580 | 21,626 | 2,930 | 3,161 | 3,028 |
| 2014 | 22,696 | 25,433 | 28,952 | 3,177 | 3,561 | 4,053 |
| 2015 | | 29,181 | 29,777 | | 4,085 | 4,169 |
| 2016 | | | 28,789 | | | 4,030 |

Calculate the net loss and loss expense ratio that would appear in the company's 2016 Schedule P, Part 1.

SAMPLE ANSWERS AND EXAMINER'S REPORT

| | |
|---|--------------------------------|
| QUESTION: SPRING 2018 EXAM 6U, QUESTION 11 | |
| TOTAL POINT VALUE: 3.5 | LEARNING OBJECTIVES: C1 |
| SAMPLE ANSWERS | |
| (Net loss + NET LAE) / (Net Earned Premium) | |
| Net = Direct – Ceded | |
| 2016 Direct Earned Premium $31,950 = 28,789 + (29,777 - 29,181) + (28,952 - 25,433) + (21,626 - 22,580)$ | |
| 2016 Ceded Earned Premium $4,473 = 4,030 + (4,169 - 4,085) + (4,053 - 3,561) + (3,028 - 3,161)$ | |
| 2016 Net Earned Premium $27,477 = 31,950 - 4,473$ | |
| 2016 Direct Loss & LAE Payments $13,109 = 11,822 + 387 + 900$ | |
| 2016 Ceded Loss & LAE Payments $455 = 426 + 15 + 14$ | |
| 2016 Net Loss & LAE Payments $12,654 = 13,109 - 455$ | |
| 2016 Direct Loss & LAE Unpaid $12,746 = 4,821 + 5,840 + 491 + 1,148 + 446$ | |
| 2016 Ceded Loss & LAE Unpaid $947 = 512 + 374 + 7 + 54 + 0$ | |
| 2016 Net Loss & LAE Unpaid $11,799 = 12,746 - 947$ | |
| 2016 Net Total Loss & LAE Incurred $24,453 = 12,654 + 11,799$ | |
| 2016 Net Loss & LAE Percentage $89.0 = 24,453 / 27,477 * 100$ | |
| EXAMINER'S REPORT | |
| The candidates were expected to know how to use Schedule P data to calculate a net loss & LAE ratio. In order to do this knowledge required included: | |
| <ul style="list-style-type: none">• Net is Direct – Ceded | |

SAMPLE ANSWERS AND EXAMINER'S REPORT

- Premium in Schedule P Part 1 is calendar year
- Loss & LAE includes: Paid, Case Basis Unpaid, Bulk & IBNR for Loss, DCC, A&O
- Schedule P data is presented net of paid (and possibly unpaid S&S) so S&S is not used in the ratio calculation process

Common errors included:

- Not including prior accident year premium earned during calendar year 2016
- Adding and subtracting S&S from paid and/or unpaid loss
- Not including A&O
- Not including paid amounts in the loss ratio

QUESTION: SPRING 2018 EXAM 6U, QUESTION 12

TOTAL POINT VALUE: 2.5

LEARNING OBJECTIVES: C1

SAMPLE ANSWERS

Part a: 1 point

Sample 1

$$\text{Equity in UEPR} = 150 \times 25\% = 37.5$$

$$\text{Equity in Undiscounted loss reserve} = 400 \times (1-80\%) = 80$$

$$\text{Total} = 37.5 + 80 + 200 = 292.5$$

$$\text{Invested Capital} = 317.5 - 25 = 292.5$$

Sample 2

$$\text{Surplus} + \text{UEPR (acq cost \%)} + \text{rsv (discount factor)} - \text{DTA}$$

$$200 + 150(.25) + 400(1-.8) - 25 = 292.5 \text{ Million}$$

Sample 3

$$\text{UEPR equity} = .25 \times 150 = 37.5$$

$$\text{Un Disc Rx equity} = 400 - .8 \times 400 = 80$$

$$\text{PHS} = 200$$

$$\text{DTA} = 25$$

$$\text{Invested capital} = 37.5 + 80 + 200 - 25 = 292.5$$

Sample 4

Figures in \$M

$$1 - \text{Equity from UEPR} \rightarrow 150(.25) = 37.5$$

$$2 - \text{Equity from reserve discount} \rightarrow 400(1-.8) = 80$$

$$3 - \text{DTA} \rightarrow 25$$

$$4 - \text{Surplus} \rightarrow 200$$

$$\text{Invested Capital} = 1 + 2 - 3 + 4 = 292.5.$$

Sample 5

$$\text{Invested capital} = 200 + 25\% * 150 + 400*(1-80\%) - 25 = 292.5$$