

EXAM 6 – UNITED STATES, FALL 2016

10. (4 points)

Given the following information from a commercial lines insurance company's 2014 and 2015 Annual Statements and Insurance Expense Exhibits (IEE) (all figures are in thousands of dollars):

	2014	2015
Net written premium	50,700	50,000
Net earned premium	49,500	48,600
Net unearned premium reserve	20,600	22,000
Net loss & LAE reserve	15,900	17,850
Ceded reinsurance premiums payable	200	1,200
Agents' balances	3,800	4,100
Policyholders' surplus	28,600	30,600
Net investment gain	6,275	5,025
Commissions & brokerage incurred	8,425	7,725
Taxes, licenses & fees incurred	1,000	960
Other acquisition expenses incurred	3,325	3,700
General expenses incurred	5,225	5,575

a. (1.75 points)

Calculate the net investment gain ratio for 2015.

b. (0.75 point)

Calculate the surplus ratio used to allocate surplus by line of business in the 2015 IEE.

c. (1.5 points)

Describe how a commercial lines insurance company's IEE might be used differently by each of the following stakeholders:

- i. Competitors
- ii. Rating Agencies
- iii. Policyholders

SAMPLE ANSWERS AND EXAMINER'S REPORT

QUESTION 10	
TOTAL POINT VALUE: 4	LEARNING OBJECTIVE: C1
SAMPLE ANSWERS	
Part a: 1.75 points	
<u>Sample Responses</u>	
$\text{IGR} = \frac{2015 \text{ Inv. Gain}}{\text{Mean [Loss Rx + UEP + Ceded Rein Payable + PHS - Agt's Bal.]}}$ $= \frac{5,025}{[21,300 + 16,785 + 700 + 29,600 - 3,950]} = .0779$	
Part b: 0.75 point	
<u>Sample Responses</u>	
$\text{Surplus Ratio} = \frac{\text{Mean PHS}}{[\text{Mean Loss Rx} + \text{Mean UEP} + 2015 \text{ EP}]}$ $= \frac{29,600}{[16,875 + 21,300 + 48,600]} = .341$	
Part c: 1.5 points	
<u>Sample Responses for sub-part (i)</u>	
<ul style="list-style-type: none"> • Benchmark expense ratios by LOB of competitors to see how efficiently their operations run. • Competitors might look to see in what LOB's the insurer is making a profit to decide if they want to expand in those lines in order to take advantage of some of the available profit. • Assess profitability and expense by LOB to determine how competitive rates are by LOB. 	
<u>Sample Responses for sub-part (ii)</u>	
<ul style="list-style-type: none"> • Rating Agencies can analyze this company's IEE by line of business to see if each line is profitable on a stand-alone basis and see if any line is subsidizing another. • RA's may look to see if a company is profitable in each LOB or only a couple to assess the overall strength of a company. • RA's can look at which segments (line) are profitable or not. If a company is focusing a lot of attention on a line with poor profits or high expenses the rating agency can discuss with management and investigate further. 	
<u>Sample Responses for sub-part (iii)</u>	
<ul style="list-style-type: none"> • Policyholders would prefer to be insured with companies with lower expenses so that they are getting lower rates. • Policyholders can see if the company is profitable in the LOB they are purchasing so they can identify solvency issues and if spotted may decide to change insurers. • Policyholders will use to see if insurer is earning excessive profits and justify complaints with DOI or identify financially strong insurers and place business with them 	
EXAMINER'S REPORT	

SAMPLE ANSWERS AND EXAMINER'S REPORT

The candidate was expected to demonstrate knowledge of the IEE, how the information contained within it is calculated, and how users of the IEE could use the IEE. Candidates found the calculation components easier than describing how different stakeholders use the IEE.

Part a

The candidates were expected to understand the concept of Investment Gain Ratio (IGR) is an integral part of the calculations used to prepare the IEE.

Common mistakes included:

- Omitting one of the items needed to correctly calculate the denominator.
- Including extraneous items in the calculation of the denominator.
- Using 2015 values for the items in the calculation instead of the mean value of 2014 and 2015.

Part b

The candidates were expected to calculate the surplus ratio used to allocate surplus in the IEE.

Common mistakes included:

- Providing all of the correct components (either by name or amount) that are associated with calculating the SR but not providing the actual ratio.
- Providing the process for calculating the amount of surplus that is allocated to each line of business, including the specific amounts, but not the actual Surplus Ratio.
- Using 2015 values where the mean value of 2014 and 2015 should have been used (or vice versa).

Part c

The candidates were expected to know what information is included in the IEE and how different stakeholders may use that information. This required candidates to understand the different interests and concerns for each stakeholder and how the IEE could be used to address those interests and concerns.

Common mistakes included:

- Reference to metrics that are not contained in the IEE (e.g. Policyholder Surplus, Capital)
- One or two word responses – the question asked the candidates to “Describe how a ...” and was graded accordingly.
- Not referring to a specific metric from the IEE