

17. (2.25 points)

The following information is from an insurance company’s 2013 Annual Statement (all figures are in millions of dollars):

**Liabilities, Surplus and Other Funds**

Policyholders’ Surplus	80
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**Underwriting and Investment Exhibit**

Direct Written Premium	700
Net Written Premium	200
Reinsurance Assumed – Affiliates	15
Reinsurance Assumed - Non-Affiliates	18

Prior Year Net Written Premium	350
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a. (0.75 point)

Calculate IRIS ratios 1, 2, and 3 using the information above.

b. (0.5 point)

A consideration for analyzing IRIS ratio 1 is to review with IRIS ratio 2 to make sure the disparity between the ratios are not too large. Briefly describe two other considerations.

c. (0.5 point)

A consideration for analyzing IRIS ratio 2 is to look at IRIS ratio 2 on a consolidated basis if the insurance company is an affiliate. Briefly describe two other considerations.

d. (0.5 point)

A consideration for analyzing IRIS ratio 3 is to look at IRIS ratio 9 to determine whether the insurer’s assets are properly valued and sufficient liquidity is available to meet cash demands. Briefly describe two other considerations.

**SAMPLE ANSWERS AND EXAMINER'S REPORT**

<b>QUESTION 17</b>	
<b>TOTAL POINT VALUE: 2.25</b>	<b>LEARNING OBJECTIVE: C2</b>
<b>SAMPLE ANSWERS</b>	
<b>Part a: 0.75 point</b>	
<p>Sample 1:</p> <p>IRIS #1: <math>GWP/PHS = (700+15+18)/80 = 9.1625</math></p> <p>IRIS #2: <math>NWP/PHS = 200/80 = 2.5</math></p> <p>IRIS #3: <math>\text{Change in NWP/Prior NWP} = (200-350)/350 = -42.9\%</math></p> <p>Sample 2:</p> <p>IRIS #1: <math>GWP/PHS = (700+15+18)/80 = 916.25\%</math></p> <p>IRIS #2: <math>NWP/PHS = 200/80 = 250\%</math></p> <p>IRIS #3: <math>\text{Change in NWP/Prior NWP} = (200-350)/350 = -42.86\%</math></p> <p>Sample 3:</p> <p>1) <math>(700+15+18)/80 = 916\%</math></p> <p>2) <math>200/80 = 250\%</math></p> <p>3) <math>(200-350)/350 = -43\%</math></p>	
<b>Part b: 0.5 point</b>	
<p>Sample 1:</p> <ul style="list-style-type: none"> <li>-Profitability: Review IRIS ratio 5 to see if insurer is profitable, unlikely to be as much a concern</li> <li>-Portfolio Mix: Look at lines written (long-tail vs short-tail) and and/or catastrophe prone lines. Higher IRIS ratios on short-tail lines and non-catastrophe lines might be more acceptable.</li> </ul> <p>Sample 2:</p> <ul style="list-style-type: none"> <li>-The amount of direct vs assumed business – more control over direct</li> <li>-Check IRIS ratios 11-13 to check insurer's reserve adequacy and look into whether the insurer is using cash flow underwriting to cover prior liabilities.</li> </ul> <p>Sample 3:</p> <ul style="list-style-type: none"> <li>-Review IRIS 2 to make sure disparity between ratios not too small (Lack of Reinsurance)</li> <li>-Review IRIS 4 ratio (Surplus Aid) to see if IRIS 1 needs to be recalculated adjusting for excessive surplus aid.</li> </ul>	
<b>Part c: 0.5 point</b>	
<p>Sample 1:</p> <ul style="list-style-type: none"> <li>-Reserve Adequacy – If reserves are adequate, not as concerned</li> <li>-Profitability – If insurer is profitable, not as concerned</li> </ul> <p>Sample 2:</p> <ul style="list-style-type: none"> <li>-Check to make sure reinsurance is adequate and collectible.</li> <li>-To check insurer's surplus and determine whether it relies too heavily on surplus relief.</li> </ul> <p>Sample 3:</p> <ul style="list-style-type: none"> <li>-Look at the mix of business for the company. If have long tailed lines, should keep a lower ratio since harder to predict and reserve for.</li> <li>-The amount of direct vs assumed business – more control over direct.</li> </ul>	
<b>Part d: 0.5 point</b>	
<p>Sample 1:</p> <ul style="list-style-type: none"> <li>-Look at IRIS 2. Large growth or change in NWP may not be a concern if ratio to PHS is in</li> </ul>	

## SAMPLE ANSWERS AND EXAMINER'S REPORT

line.

-Also look at reserve adequacy to make sure reserves are currently adequate. i.e., ratios 11-13

Sample 2:

-Look at the profitability of the company, if the company is profitable may be able to sustain a higher ratio.

-Look for a stable mix of business for the company. If have long tailed lines, should keep a lower ratio since harder to predict and reserve for.

Sample 3:

-To check insurer's surplus and determine whether it relies too heavily on surplus relief.

-Did insurer recently enter/exit new LOB or territory? Would cause an abrupt premium change and may not be a cause for concern.

Sample 4:

-Is there a drastic change caused by new reinsurance agreements?

-Does the company have prior experience in this line? Where are they growing? Prior experience = less likely to experience solvency issues.

Sample 5:

-Could compare to the change in PHS ratio to see if surplus is changing in same or opposite direction as NWP. Premium growth with surplus drops is a bad sign.

-Are there adequate pricing terms/conditions?

### EXAMINER'S REPORT

#### Part a

Most candidates were able to calculate IRIS ratios 1-3, given the relevant financial information. The most common error was excluding Reinsurance Assumed from the calculation of IRIS ratio 1.

#### Part b

Most candidates were able to briefly describe two other considerations when reviewing IRIS ratio 1. The most common error was stating the threshold values for the ratio as an additional consideration.

#### Part c

Most candidates were able to briefly describe two other considerations when reviewing IRIS ratio 2. The most common error was stating the threshold values for the ratio as an additional consideration.

#### Part d

Most candidates were able to briefly describe two other considerations when reviewing IRIS ratio 3. The most common error was stating the threshold values for the ratio as an additional consideration.