

**EXAM 6 – CANADA, SPRING 2016**

21. (2.75 points)

You are given the following information with respect to the DCAT projections of a Canadian property and casualty insurance company. All amounts are in thousands of dollars (\$000s).

<b>Scenario 1</b>	<b>Latest Year</b>	<b>Projection Year 1</b>	<b>Projection Year 2</b>	<b>Projection Year 3</b>	<b>Projection Year 4</b>
Net Earned Premiums	10,000	10,400	10,800	11,200	11,600
Net Incurred Claims	6,500	6,240	6,480	6,720	6,960
Operating Expenses	2,500	2,600	2,700	2,800	2,900
Investment Income Net of Expenses	2,500	1,000	1,100	1,200	1,300
Income Taxes	875	640	680	720	760

<b>Scenario 2</b>	<b>Latest Year</b>	<b>Projection Year 1</b>	<b>Projection Year 2</b>	<b>Projection Year 3</b>	<b>Projection Year 4</b>
Net Earned Premiums	10,000	10,400	11,400	13,100	15,050
Net Incurred Claims	6,500	6,240	7,980	9,170	10,535
Operating Expenses	2,500	2,600	3,135	3,603	4,139
Investment Income Net of Expenses	2,500	1,000	1,150	1,300	1,450
Income Taxes	875	640	359	407	457

a. (0.25 point)

Briefly describe which of the above scenarios is more likely to be a base scenario.

b. (0.5 point)

Describe an event which can lead to the results shown in the adverse scenario.

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c. (1.5 points)

Identify and briefly describe three impacts on the MCT in the adverse scenario identified in part b. above.

d. (0.5 point)

Identify two possible corrective management actions for the adverse scenario identified in part b. above.

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## SAMPLE ANSWERS AND EXAMINER'S REPORT

<b>QUESTION 21</b>	
<b>TOTAL POINT VALUE: 2.75</b>	<b>LEARNING OBJECTIVE: C2</b>
<b>SAMPLE ANSWERS</b>	
<b>Part a:</b> 0.25 point	
Scenario 1 is more likely to be the base scenario because financial results flow logically from one year to the next. There is continuity from the actual results of the most recent year.	
<b>Part b:</b> 0.5 point	
Increase in premium volume. We see that the premium volume is significantly higher than under the base scenario. Rapid growth leads to increase in loss ratio and expenses due to ripple effects.	
<b>Part c:</b> 1.5 point	
Any three of the following:	
<ul style="list-style-type: none"> <li>• Lower capital available: since net income is lower and therefore equity will also be lower under the adverse scenario</li> <li>• Premium liabilities: higher premium volume translates into higher unearned premiums and higher premium liabilities</li> <li>• Claim liabilities: higher earned premiums and higher loss ratios are likely to be associated with higher unpaid claims</li> <li>• Operational risk margin: higher written premiums translate into a higher margin. Also an increase in insurance risk will lead to an increase in the operational risk margin.</li> <li>• Reinsurance recoverable: if the company purchases reinsurance, higher ceded unearned premiums and unpaid claims may attract higher capital required;</li> <li>• Invested assets: higher premiums received and unpaid claims may translate into higher invested assets, which will attract more capital charges.</li> </ul>	
<b>Part d:</b> 0.5 point	
Any two of the following:	
<ul style="list-style-type: none"> <li>• Implement rate changes</li> <li>• Underwriting actions – restrictions on new business, withdrawal from unprofitable markets</li> <li>• Reviewing distribution channels</li> <li>• Reducing certain types of expenses (for example, advertising costs)</li> <li>• Using reinsurance to mitigate capital strain</li> <li>• Capital injection</li> </ul>	
<b>EXAMINER'S REPORT (BY PART, AS APPLICABLE)</b>	
Candidates generally scored very well on this question and many candidates received full credit. Most point deductions were in part (c).	
<b>Part a</b>	
<ul style="list-style-type: none"> <li>• Candidates were expected to identify the base scenario with rationale.</li> <li>• Candidates performed very well on this part</li> <li>• Common errors made by candidates: <ul style="list-style-type: none"> <li>○ Identified scenario #2 as base scenario</li> <li>○ Rationale for scenario #1 as base scenario being higher income/surplus</li> </ul> </li> </ul>	
<b>Part b</b>	
<ul style="list-style-type: none"> <li>• The candidates were expected to know:</li> </ul>	

## SAMPLE ANSWERS AND EXAMINER'S REPORT

- the characteristics of the adverse scenario on the income statement
- Candidates needed to be able to identify the cause of the adverse scenario and justify using observations from the question.
- Candidates performed very well on this part
- Common errors made by candidates:
  - No justification provided
  - Incorrect scenario identified (large loss, catastrophic event)

### Part c

- The candidates were expected to know:
  - The components of MCT affected
  - The direction in which the MCT component will move given the projection results
- Candidates performed well on this part
- If the incorrect event was identified in part b, full marks were given in part c if the correct impact on MCT for that event were identified
- Common errors made by candidates:
  - Conclude credit risk, catastrophe risk, or other components of MCT would be affected with no assumption stated regarding unregistered reinsurer, etc.
  - Assume operational risk would increase as a result of higher operating expenses
  - No justification provided as to why the component would change

### Part d

- The candidates were expected to identify the management actions
- Candidates performed very well on this part
- If the incorrect event was identified in part b, full marks were given in part d if the correct management actions for that event were identified
- Common errors made by candidates:
  - Identified management actions from other adverse scenarios