## EXAM 6 - CANADA, SPRING 2015

# 17. (2.5 points)

# a. (0.5 point)

In recent years, increased frequency and severity of catastrophic events have been observed by insurers and reinsurers. Briefly describe one major driver for increased frequency and one major driver for increased severity.

# b. (1.5 points)

Identify and briefly describe three factors that will impact the tolerance level on the stressed A.M. Best Capital Adequacy Ratio (BCAR) catastrophe analysis.

## c. (0.5 point)

Compare and contrast the approach used to test catastrophe risk under BCAR and Dynamic Capital Adequacy Test.

#### **EXAM 6C SPRING 2015 SAMPLE ANSWERS AND EXAMINER'S REPORT**

QUESTION 17	
TOTAL POINT VALUE: 2.5	EARNING OBJECTIVE: C1

# SAMPLE ANSWERS

#### Part a: 0.5 point

Candidates received full credit for one of the following for frequency plus one of the following for severity:

- Frequency: Global warming is contributing to the unprecedented number of severe events occurring worldwide in recent years, contributing to higher frequency.
- Severity: Population growth becomes more concentrated in urban and suburban settings, and supply chains increase in complexity. As a result, insurable values are rising rapidly and leading to increased severity.
- Frequency: other solutions accepted include changes in weather patterns, climate change.
- Severity: other solutions accepted include higher insured values, higher replacement costs.

## Part b: 1.5 point

The optimal solution based on the readings is the following:

- Financial flexibility: companies that are able and willing to replace lost capital immediately following an event will be afforded greater leeway with regard to the disparity in the standard BCAR and the stressed BCAR.
- Assessment of historical volatility: in terms of both the balance sheet and operating performance.
- Exposure to frequency: those with exposure to more frequent severe events will be afforded less tolerance in the application of the stress test.

### Part c: 0.5 point

One similarity and one difference were required to receive full credit. Sample responses include:

- Similarity: testing multiple events
- Difference: different severity threshold/different probability level/different confidence level; BCAR tests second event

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

The candidate was expected to know one driver of increased frequency and severity of cat events, the three factors that impact the tolerance level on the stressed BCAR catastrophe analysis and the difference/similarities between BCAR and DCAT with respect to testing catastrophe risk.

Overall, candidates did reasonably well on parts a & c and poorly on part b.

#### Part a

The candidate was expected to know one driver of increased frequency and severity of cat events. Overall, candidates did very well on this question. The most common mistake was identifying the driver of increased frequency as the driver for increased severity and vice versa. Some candidates did not identify what the driver impacted in terms of frequency or severity.

### **EXAM 6C SPRING 2015 SAMPLE ANSWERS AND EXAMINER'S REPORT**

## Part b

The candidate was expected to know the three factors that impact the tolerance level on the stressed BCAR catastrophe analysis.

Most candidates scored very poorly on this question. Some candidates were able to identify but not describe the three factors. Some candidates provided three Keys to Strong Catastrophe Risk Management instead of the factors that impact the tolerance level.

## Part c

This part was very well answered by most candidates.