22. (2.75 points)

a. (0.75 point)

Briefly describe three reasons why insurers maintain credit ratings with rating agencies.

b. (0.5 point)

Briefly describe two measures taken by rating agencies to ensure consistent ratings across insurance companies.

c. (1.5 points)

Describe how the following approaches are used by rating agencies to determine economic capital:

i. Expected policyholder deficit
ii. Stochastic cash flow capital models
iii. Principles-based systems

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SAMPLE ANSWERS AND EXAMINER'S REPORT

QUESTION 22	
TOTAL POINT VALUE: 2.75	**LEARNING OBJECTIVE: C2**
SAMPLE ANSWERS	
Part a: 0.75 point	
1. Agents are wary of unrated insurers, since they might be financially distressed. It is less expensive to pay for a rating than to demonstrate financial strength individually to various stakeholders. 2. Reliance by consumers and third parties: independent agents use ratings to select insurers, insurers use ratings to select reinsurers, and investors use ratings to select companies to invest in. 3. Rating agencies are efficient at assessing financial strength.	
Part b: 0.5 point	
Any two of the following • Relate ratings to economic capital measures • Issue ratings by committees independent from the ratings analyst • Review ratings periodically • Collect consistent information from companies and follow consistent guidelines in assessing the information Some candidates answered "Rating agencies do not change ratings too quickly because they look over longer time periods to ensure ratings are due to true downgrades and not driven by short term volatility". Although this approach is intended to promote accuracy, we considered it also as a measure to ensure consistency across insurance companies because this approach is applied to all companies.	
Part c: 1.5 point	

Two elements expected for each subpart:
• Expected policyholder deficit:
    o AM Best evaluates risks such as reserving risk, capital losses on stocks, bond defaults, interest rate risk and new business losses on a stochastic basis.
    o The EPD represents the average loss for the worst 1% of outcomes (i.e. TVAR at 99%).
    o The EPD for each risk depends on the volatility and size of the risk.
    o EPD is the pure premium for the unlimited aggregate excess of loss reinsurance contract, where the attachment point is chosen such that EPD equals to 1% of the market value of the reserves. The attachment point represents the capital charge for the risk.
 	
• Stochastic cash flow capital models:
    o The models are based on the distributions of each risk and simulate repeatedly from them
    o Cash flows are projected until all current liabilities are settled
    o Required capital is set by a value at risk or tail value at risk measure for the aggregate loss distribution
 	
• Principles-based systems:	

- S&P focuses on evaluating insurers' ERM systems and internal capital models.
- It bases capital requirements on a weighted average of its own formula and the client's economic capital model.
- S&P reasons that well-managed insurers evaluate their capital needs more accurately than a rating agency can.

EXAMINER'S REPORT

Candidates generally scored well on part (a) and (b) of this question. For part (c), candidates were expected to demonstrate an understanding of the approaches and the differences between them, but candidates often identified the rating agency instead.

Part a

- Candidates were expected to briefly describe three reasons why insurers maintain credit ratings with rating agencies.
- Candidates performed very well on this part
- Common errors made by candidates:
  - Assume regulators use credit rating to assess insurers
  - Repeating the same argument in different words, partial credit was given in this case

Part b

- Candidates were expected to briefly identify measures or processes used by rating agencies to promote consistency among ratings.
- Most candidates received partial or full marks on this part
- Common error included:
  - Not describing two measures
  - Incomplete description

Part c

- Candidates were expected to describe each method by providing at least two elements of description for each method.
- Common errors made by candidates:
  - Description not detailed enough
  - Named the rating agency instead of providing description around the approach
  - Unable to provide the correct description