

CA FINAL

RISK MANAGEMENT

IN-HOUSE

CASE STUDY SERIES

-By Sanjay Saraf Sir

Case Study 7 Question

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CASE STUDY

Sameer Arora, chief risk officer at Eastern Regional Bank, and Ravi Awasthi, assistant risk officer, are currently assessing Eastern Regional's overall risk exposure.

Value at Risk: The Index Plus Fund has a one-day 95% value at risk (VaR) of \$6.5 million. Arora asks Awasthi to write a brief summary of the portfolio VaR for the report he is preparing on the fund's risk position.

Combined Bank Risk Exposures

The bank has adopted a new risk policy, which requires forward-looking risk assessments in addition to the measures that look at historical risk characteristics. Management has also become very focused on tail risk since the subprime crisis and is evaluating the bank's capital allocation to certain higher-risk lines of business. Arora must determine what additional risk metrics to include in his risk reporting to address the new policy. He asks Awasthi to draft a section of the risk report that will address the risk measures' adequacy for capital allocation decisions.

Multiple Choice Questions

- 1. Which of the following statements regarding the VaR of the Index Plus Fund is correct?**
 - A. The expected maximum loss for the portfolio is \$6.5 million.
 - B. Five percent of the time, the portfolio can be expected to experience a loss of at least \$6.5 million.
 - C. Ninety- five percent of the time, the portfolio can be expected to experience a one- day loss of no more than \$6.5 million.

- 2. To comply with the new bank policy on risk assessment, which of the following is the best set of risk measures to add to the chief risk officer's risk reporting?**
 - A. Conditional VaR, stress test, and scenario analysis
 - B. Beta, Standard deviation and stress test
 - C. Parametric VaR, marginal VaR, and scenario analysis

- 3. Which of the following statements should not be included in Awasthi's report to management regarding the use of risk measures in capital allocation decisions?**
 - A. VaR measures capture the increased liquidity risk during stress periods.
 - B. Stress tests and scenario analysis can be used to evaluate the effect of outlier events on each line of business.
 - C. VaR approaches that can accommodate a non- normal distribution are critical to understand relative risk across lines of business.

- 4. Which of the following statements comparing VaR with expected shortfall is true?**
- A. Expected shortfall is sub-additive while VaR is not.
 - B. Both VaR and expected shortfall measure the amount of capital an investor can expect to lose over a given time period and are, therefore, interchangeable as risk measures.
 - C. Both VaR and expected shortfall depend on the assumption of a normal distribution of returns.
 - D. VaR can vary according to the confidence level selected, but expected shortfall will not.
- 5. A firm has determined that the value at risk (VaR) of its investment portfolio is \$18 million for one day at a 95% confidence level. Which of the following statements regarding this VaR measure is correct?**
- A. There is a 95% probability that the portfolio will lose \$18 million on a given day.
 - B. There is a 95% probability that the portfolio will lose no more than \$18 million on a given day.
 - C. There is a 5% probability that the portfolio will lose \$18 million on a given day.
 - D. There is a 5% probability that the portfolio will lose no more than \$18 million on a given day.

- 6. One of the objectives of stress testing is to prevent or minimize financial losses within a bank. In that regard and based on the outcome of the recent financial crisis, which of the following statements would least likely promote the success of stress testing from a risk governance perspective?**
- A.** Stress tests that identify correlated exposures across the bank.
 - B.** Sufficient investment in information technology to develop stress testing scenarios.
 - C.** Involvement of the board and senior management in the stress testing process.
 - D.** Detailed stress testing done by separate units concentrating on a risk function or business line.