



Advance Risk Management

The sample questions are related to the AIBP core subject “Advance Risk Management”. The students are advised to thoroughly read the exam guidelines and the course syllabus for this course before start studying for the paper. The questions are shared to give an idea to the student about the paper format and types of questions. For further information visit the IBP website www.ibp.org.pk

Multiple Choice Questions

Each MCQ carry one mark.

Q1. Risk management goals of an entity must address all of the following issues, EXCEPT

- A. evaluating and maximizing gains.
- B. conserving personnel and resources.
- C. identifying, controlling and documenting opportunities. (Answer)
- D. pursuing balanced strategies to enhance management’s identity.

Q2. Assume that an asset price variance increases linearly with time. Suppose the expected asset price volatility for the next two months is 15% (annualized), and for the one month that follows, the expected volatility is 35% (annualized). What is the average expected volatility over the next three months?

- A. 22%
- B. 24% (Answer)
- C. 25%
- D. 35%

Q3. Capital Division of the bank manages a portfolio of stock. In order to enhance its profitability, it actively trades. The Bank is most obviously exposed to _____.

- A. Market Risk (Answer)
- B. Operational Risk
- C. Insolvency Risk
- D. Country Risk



Constructed Response Question

Each CRQ carry five marks.

Question:

A. Briefly discuss the risk based internal-audit system.

2 Marks

B. Elaborate THREE objectives of Risk based Internal-Audit System which a bank should establish while formulating its risk based audit policy?

3 Marks

Answer:

Part-A

The banks are now gradually moving to risk based internal audit system to bring effectiveness in credit risk management and control system with a view to achieve more meticulous regulatory compliance. Currently internal audit system has been concentrating on transaction testing, ensuring accuracy and reliability of accounting records and timely submission of control returns. However, in the changing scenario, the banks shall have to widen and redirect the scope of their internal audit so that it helps in evaluating the adequacy and effectiveness of risk management policies and procedures and internal control systems.

Part-B

The main objective of credit risk audit would be to

1. Examine and keep a track on the quality of credit portfolio
2. Suggest measures for its improvement including reduction of credit concentration in certain sectors
3. Analyze the credit portfolio to the levels as indicated in banks loan policy document.

To achieve these objectives, the banks should formulate risk based audit policy and establish a proper set up clearly indicating their role/responsibility and communication channels between risk based internal audit staff and top management.



Extended Response Question

Each ERQ carry ten marks.

Question:

Consider a portfolio consisting of stocks & bonds. The Annual expected return on stock is 12%, and Annual standard deviation is 22%. The Annual expected return on bond is 5%, and Annual standard deviation is 7%. The correlation between the two asset classes is 0.15. The portfolio's market value is \$150 million and is allocated 65 percent to stocks and 35 percent to bonds.

Calculate the following:

- A. Portfolio Annual Return and Portfolio Standard Deviation (use analytical method for calculating VaR) **2 Marks**
- B. Loss of Portfolio for 5% yearly VaR. Analyze the result and state your comments on the Portfolio. **4 Marks**
- C. Loss of Portfolio for 1% yearly VAR. Analyze the result and state your comments on the Portfolio. **4 Marks**

Answer:

Part-A

First, we must calculate the annual portfolio expected return and standard deviation. Using S to indicate stocks and B to indicate bonds, we have

$$\text{Portfolio Annual Return} = WS S + WB B = 0.65(0.12) + 0.35(0.05) = 0.0955$$

$$\text{Portfolio Variance} = (0.65)^2 (0.22)^2 + (0.35)^2 (0.07)^2 + 2(0.15) (0.65) (0.35) (0.22) (0.07) = 0.0221$$

$$\text{Portfolio Standard Deviation} = \sqrt{0.0221} = 0.1487$$

Part-B

For a 5% Yearly VAR we have:

$$\text{Portfolio Annual Return} - 1.65(\text{Portfolio Annual Standard Deviation})$$

$$= 0.0955 - 1.65(0.1487) = -0.1499 \quad 150,000,000 \times 0.1499 = 22.485 \text{ Million}$$

Comments: There is 5% chance that minimum loss of the Portfolio will be 22.485 Million in a Year OR There is 95% chance that maximum loss of the Portfolio will be 22.485 Million in a Year.



Part-C

For a 1% Yearly VAR we have:

Portfolio Annual Return-1.65(Portfolio Annual Standard Deviation)

$$=0.0955-2.33(0.1487) = -0.251 \ 150,000,000 \times 0.251 = 37.65 \text{ Million}$$

Comments: There is 1% chance that minimum loss of the Portfolio will be 37.65 Million in a Year OR There is 99% chance that maximum loss of the Portfolio will be 37.65 Million in a Year.

