



Risk Management &
Subject: Investment
Management II

Chapter: Unit 1

Category: Practice Questions

1. What is VAR?
2. What is relative risk? Why is it important for investment managers?
3. A fund manager is considering two types of assets to add to the existing portfolio. The two assets are predicted to have the same expected return. How can the manager use VAR analysis to decide on the best investment?
4. A portfolio manager takes active positions relative to the benchmark. The manager considers changing one of the positions by a fixed amount. To reduce risk, should the manager focus on individual VAR or marginal VAR?
5. What is Risk Budgeting?
6. Define the following:
 - i. Absolute/Asset Risk
 - ii. Relative Risk
 - iii. Marginal VaR
 - iv. Diversified VaR
 - v. Incremental VaR
7. What is Portfolio? How can it be managed using VaR?
8. Distinguish between Policy Mix and Active Risk.
9. List some investment guidelines.
10. How should top management tackle an increase in overall risk of a portfolio? What questions should they ask?
11. Briefly explain the risk budgeting process.
12. Consider \$10 million invested in a stock. The annual standard deviation of the rate of returns is 25 percent, which translates into a standard deviation of 1.57 percent per day. Assuming that returns are normally distributed, what is the 99 percent 1-day VAR?
13. All else equal, will portfolio risk decrease or increase under the following scenarios?
 - (a) Correlations increase.

- (b) The number of assets increases.
 - (c) Volatilities increase.
 - (d) Assets move more closely together.
14. An investor holds a position that includes \$100,000 invested in a 10-year Canadian government bond futures contract (CGB) and \$100,000 invested in a Canadian stock index futures contract (SXF). Their annual volatility is 5 and 20 percent, respectively, with a correlation of -0.50 . Assume that returns are normally distributed. VAR should be measured over 1 year at the 95 percent confidence level using the 1.645 quantile. Answer the following questions:
- (a) What are the diversified VAR and undiversified VAR?
 - (b) What is the marginal and component VAR of CGB and SXF, respectively?
 - (c) What is the incremental VAR from setting CGB to zero?
15. An investment fund allocates \$50 million each to two active stock managers. Both managers have volatility of 17 percent and correlation of 0.7. Assuming normal distributions, compute the 99 percent VAR of the combined allocation.