

## **Session 10: Corporate Risk and Value at Risk**

1. A fund manager announces that the fund's 1-month 95% VaR is 6% of the size of the portfolio being managed. You have an investment of \$100,000 in the fund. How do you interpret the portfolio manager's announcement?
2. Suppose that the change in the value of a portfolio over a 1-day time period is normal with a mean of zero and a standard deviation of \$2 million, What is (a) the 1-day 97.5% VaR, (b) the 5-day 97.5% VaR, and (c) the 5-day 99% VaR?
3. What is *market risk*? How does this risk affect the operating performance of financial institutions? What actions can be taken by an FI's management to minimize the effects of this risk?
4. What is *credit risk*? Which types of FIs are more susceptible to this type of risk? Why?
5. What is the difference between *firm-specific credit risk* and *systematic credit risk*? How can an FI alleviate firm-specific credit risk?
6. What is the nature of an off-balance-sheet activity? How does an FI benefit from such activities? Identify the various risks that these activities generate for an FI, and explain how these risks can create varying degrees of financial stress for the FI at a later time.
7. What is the difference between technology risk and *operational risk*? How does internationalizing the payments system among banks increase operational risk?
8. Characterize the risk exposure(s) of the following FI transactions by choosing one or more of the risk types listed below:
  - a) Interest rate risk
  - b) Credit risk
  - c) Off-balance-sheet risk
  - d) Technology risk
  - e) Foreign exchange risk
  - (1) A bank finances a \$10 million, six-year fixed-rate commercial loan by selling one-year certificates of deposit.
  - (2) An insurance company invests its policy premiums in a long-term municipal bond portfolio.
  - (3) A French bank sells two-year fixed-rate notes to finance a two-year fixed-rate loan to a British entrepreneur.
  - (4) A Japanese bank acquires an Austrian bank to facilitate clearing operations.
  - (5) A mutual fund completely hedges its interest rate risk exposure by using forward contingent contracts.
  - (6) A bond dealer uses his own equity to buy Mexican debt on the less developed country (LDC) bond market.
  - (7) A securities firm sells a package of mortgage loans as mortgage-backed securities.