

Question #1 of 16

A firm's economic capital is *most accurately* described as:

- A) capital needed to overcome severe losses in the business.
- B) fair value of plan assets less fair value of liabilities.
- C) Assets minus VaR.



Explanation

Economic capital is the capital needed for a firm to survive if severe losses are experienced based on the risk the business is exposed to.

(Study Session 16, Module 48.5, LOS 48.I)

Related Material

[SchweserNotes - Book 5](#)

Question #2 of 16

Sophia fund is a €200 million portfolio of euro zone equities. The expected daily return and standard deviation are 0.179% and 0.22% respectively. The 5% daily VaR is *closest* to:

- A) €82,000
- B) €37,400,000
- C) €368,000



Explanation

5% daily VaR = $[0.00179 - (1.65 \times 0.0022)] \times 200\text{million} = €368,000$

(Study Session 16, Module 48.1, LOS 48.c)

Related Material

[SchweserNotes - Book 5](#)

Question #3 of 16

A fixed income portfolio manager utilizes duration as a risk measure for the portfolio. The portfolio manager is *most likely*:

- A) using partial analysis.
- B) using scenario analysis.
- C) using sensitivity analysis.



Explanation

Sensitivity analysis evaluates changes in portfolio value due to changes in underlying risk factors. Duration is a risk-factor for a fixed income portfolio capturing the interest rate risk of the portfolio. As such, impact of changing interest rates would be captured by duration of the portfolio and such an analysis is sensitivity analysis.

(Study Session 16, Module 48.2, LOS 48.f)

Related Material

[SchweserNotes - Book 5](#)

Question #4 of 16

Which one of the following is NOT a limitation of VaR?

- A) VaR based risk limits may be inappropriate in trending markets
- B) Incorporates only right tail risk.
- C) VaR computed during periods of unusually low volatility may underestimate actual VaR.



Explanation

VaR computations only incorporate left tail risk (and ignores the returns in the right tail). VaR computed using too low of estimates of volatility will be too low and underestimates the downside risk based on true estimates of volatility. In downward trending markets, consistent negative returns may not breach daily or weekly VaR but nonetheless can lead to significant accumulation of losses.

(Study Session 16, Module 48.2, LOS 48.d)

Related Material

[SchweserNotes - Book 5](#)

Question #5 of 16

Which of the following risk measures are *most likely* to be used by a hedge fund?

A) Maximum drawdown.



B) Glidepath.



C) Surplus at risk.



Explanation

Maximum drawdown reflects the performance during the worst performing period (month or quarter) and is commonly used as a risk metric by hedge funds. Surplus at risk is used by pension plans. Glidepath is a tool used by pension plan to manage plan surplus/deficit and charts the planned move of the fund position from its current state to the target state.

(Study Session 16, Module 48.4, LOS 48.j)

Related Material

[SchweserNotes - Book 5](#)

Question #6 of 16

Which of the following risk measures are *most likely* to be used by a traditional asset manager?

A) Maximum drawdown



B) Surplus at risk



C) Active share.



Explanation

Traditional active managers are concerned about underperforming against their benchmark and hence use active share as a relative measure of risk. Surplus at risk is used by pension plans and maximum drawdown is most commonly used by hedge funds.




(Study Session 16, Module 48.4, LOS 48.j)

Related Material

[SchweserNotes - Book 5](#)

Question #7 of 16

With regards to convexity and gamma, which of the following statements are *most accurate*?

- A) Convexity is a first order effect while gamma is a second order effect arising from changes in underlying risk factors to the change in value of the asset. 
- B) Both are second order effects value arising from changes in underlying risk factors to the change in value of the asset. 
- C) Convexity is a second order effect while gamma is a first order effect arising from changes in underlying risk factors to the change in value of the asset. 

Explanation

Convexity is the second order effect of change in interest rate on bond prices while gamma is the second order effect of change in stock price on option prices.




(Study Session 16, Module 48.2, LOS 48.g)

Related Material

[SchweserNotes - Book 5](#)

Question #8 of 16

Which of the following is a limitation of scenario analysis?

- A) The relationship between portfolio value and the risk factors used may not be static. 
- B) Scenario analysis does not account for "fat tail" problem of the return distribution. 
- C) Scenario analysis does not provide the probability of a specific scenario occurring. 

Explanation

While scenario analysis can be used to measure the impact of a scenario, it can't provide the probability of the scenario actually occurring. Since scenario analysis does not assume a normal (or any other) distribution of asset returns, the question of fat tails does not arise. Assumption of static relationship between individual risk factors and portfolio value is a limitation of sensitivity analysis.




(Study Session 16, Module 48.3, LOS 48.i)

Related Material

[SchweserNotes - Book 5](#)

Question #9 of 16

Assuming that the returns distribution of a portfolio is normal, using the parametric method of estimation of VaR needs which of the following inputs:

- A) mean, standard deviation and size of the lookback period. 
- B) mean and standard deviation. 
- C) mean, standard deviation, and kurtosis. 

Explanation

If we assume that the returns distribution is normal, under the parametric method of estimation of VaR, we only need the mean and standard deviation of the distribution.


(Study Session 16, Module 48.1, LOS 48.b)

Related Material

[SchweserNotes - Book 5](#)

Question #10 of 16

A portfolio has a 5% monthly VaR of \$2.5 million dollar. Which of the following is *most* accurate?

- A) There is a 5% chance of loss in portfolio value of at least \$2.5 million in a month. 
- B) There is a 95% chance of losing \$2.5 million in 5% of the months 
- C) There is a 5% chance of losing \$2.5 million every month. 

Explanation

5% monthly VaR indicates the 5% likelihood of a *minimum* loss in a month.

(Study Session 16, Module 48.1, LOS 48.a)

Related Material

[SchweserNotes - Book 5](#)

Question #11 of 16

Delphia fund is a €100 million portfolio of euro zone equities. The expected daily return and standard deviation are 0.116% and 0.38% respectively. The 5% daily VaR is €511,000. Assuming 21 trading days per month, The 5% monthly VaR is *closest* to:

- A) €829,446
- B) €435,000
- C) €3,801,000

**Explanation**

Monthly return = $0.00116 \times 21 = 0.02436$.

Monthly standard deviation = $0.0038 \times (21)^{0.5} = 0.0174$

5% Monthly VaR = [Expected monthly return (1.65 x Monthly standard deviation)] x Portfolio value = $[0.02436 - (1.65 \times 0.0174)] \times 100\text{million} = €435,000$

(Study Session 16, Module 48.1, LOS 48.c)

Related Material

[SchweserNotes - Book 5](#)

Question #12 of 16

Which of the following is *most likely* an example of a stop loss limit?

- A) Liquidate the portfolio if the portfolio value falls below \$100 million.
- B) Maximum tracking error of 3%.
- C) Maximum daily VaR of \$1.5 million.

**Explanation**

Stop loss limits specify liquidation of a portfolio or a reduction in its size if a loss of a specific magnitude occurs. Maximum daily VaR and tracking errors are examples of risk budgets.




(Study Session 16, Module 48.5, LOS 48.k)

Related Material

[SchweserNotes - Book 5](#)

Question #13 of 16

Marginal Var is *least likely* to be

- A) conceptually similar to incremental VaR 
- B) change in VaR due to very small change in asset position. 
- C) change in VaR due to change in probability. 

Explanation

Marginal Var, conceptually similar to incremental VaR, captures the change in VaR for very small changes in asset position.




(Study Session 16, Module 48.2, LOS 48.e)

Related Material

[SchweserNotes - Book 5](#)

Question #14 of 16

Which of the following is most accurately a limitation of the historical simulation method?

- A) Estimates of mean and standard deviation may be inaccurate. 
- B) The behavior of returns over the lookback period may not accurately capture the future behavior. 
- C) The size of the lookback period may be too small. 

Explanation

A drawback of the historical simulation method is that the past (i.e., the lookback period) may not be indicative of the future.

(Study Session 16, Module 48.1, LOS 48.b)

Related Material

[SchweserNotes - Book 5](#)

Question #15 of 16

Which of the following approaches to conducting scenario analysis on a portfolio of stock options is *most accurate*?

- A) Evaluate the impact on the portfolio owing to changes in volatility. 

B) Value the portfolio based on the parameters identified in the scenario.



C) Evaluate the impact on the portfolio owing to changes in delta.



Explanation

Scenario analysis involves fully repricing the asset based on the values of the risk factors in the identified scenario. Evaluating the effect on portfolio value due to changes in a single risk factor is done for sensitivity analysis and not scenario analysis.

(Study Session 16, Module 48.3, LOS 48.h)

Related Material

[SchweserNotes - Book 5](#)

Question #16 of 16

Conditional VaR is *most accurately* measured as:

A) Average VaR in the tails of the return distribution.



B) Average VaR in the tails of the value distribution.



C) Average VaR given that losses to the extent of VaR has occurred.



Explanation

Conditional VaR is the average loss conditional on exceeding the VaR cutoff. It is the average Var in the *left* tail of the return distribution.

(Study Session 16, Module 48.2, LOS 48.e)

Related Material

[SchweserNotes - Book 5](#)