9.14/周六

1 Solution: B.

Investors will have different optimal portfolios depending on their indifference curves. The optimal portfolio for each investor is the one with highest utility; that is, where the CAL is tangent to the individual investor's highest possible indifference curve.

2 Solution: A.

A is correct. Statistical factor models use historical and cross-sectional return data to iden- tify factors that explain the variance or covariance in the observed returns of securities.

B is incorrect because macroeconomic factor models use economic factors that are correlated with security returns, such as economic growth, the interest rate, the inflation rate, productivity, etc.

C is incorrect because fundamental factor models use the relationships between security returns and firms' underlying fundamentals, such as earnings, earnings growth, cash flow generation, investment in research, etc.

3 Solution: A.

First: Calculate the beta of UG's stock

$$\beta = \frac{Cov(UG, M)}{\sigma_M^2} = \frac{0.035}{0.13^2} \approx 2.07$$

Then: Calculate the required rate of return of UG's stock

$E(R) = R_f + \beta(R_m - R_f)$ =3.5%+2.07×(8%-3.5%)=12.82%

The expected return of UG is 11%, which is less than the required return of 12.82%, so the UG's stock is overvalued.

4.1 Solution: B.

The definition of risk management includes both defining the level of risk desired and measuring the level of risk taken. Risk management means taking risks actively and in the best, most value-added way possible and is not about minimizing risks.

4.2 Solution: A.

Governance is the element of the risk management framework that is the top-level foundation for risk management. Although policies, procedures, and infrastructure are necessary to implement a risk management framework, it is governance that provides the overall context for an organization's risk management.

4.3 Solution: C.

Risk identification and measurement is the quantitative part of the process. It involves identifying the risks and summarizing their potential quantitative impact. Communication and risk governance are largely qualitative.

4.4 Solution: C.

Risk monitoring, mitigation, and management require recognizing and taking action when these (risk exposure and risk tolerance) are not in line, as shown in the middle of Exhibit 1. Risk governance involves setting the risk tolerance. Risk identification and measurement involves identifying and measuring the risk exposures.