

Economics 252 – Financial Markets

Spring 2011

Lecture 2: Risk and Financial Crises

January 14, 2011

Multiple Choice Questions

Question 2.1

What does correlation measure?

- (a) It is a measure of the central tendency of a random variable.
- (b) It measures the return of a financial asset.
- (c) It is a scaled measure of how much two variables move together.
- (d) It is a measure of the dispersion of a random variable.

Question 2.2

How does a failure of the independence assumption influence Value at Risk measures during financial crises?

- (a) Imposing the independence assumption leads to an underestimation of risk, as measured by Value at Risk, relative to the degree of risk that actually materializes during financial crises.
- (b) The independence assumption rules out outliers that occur during financial crises, which leads to Value at Risk measures being biased downward.
- (c) Under the independence assumption, the expected return of the stock market is biased upward, which causes measures of risk, like Value at Risk, to decrease.
- (d) The independence assumption does not have any impact on Value at Risk.

Question 2.3

The regression line in the scatter plot of Apple's return and the return on the S&P 500 has a slope of 1.45. What does this imply about the response of Apple to movements in the stock market?

- (a) Apple shows a diminished response to the stock market.
- (b) Apple shows no response to the stock market.
- (c) Apple and the stock market move in perfect lockstep.
- (d) Apple shows a magnified response to the stock market.

Question 2.4

Why does the behavior of the S&P Composite Index since 1928 cast doubt on the normal distribution assumption for stock returns?

- (a) The mean of the historical distribution of stock returns does not coincide with the mean of a centered normally distributed random variable.
- (b) Extreme events, like the returns around October 29, 1929, and on October 19, 1987, occur too frequently to be compatible with the normal distribution.
- (c) The positive slope of the regression line in the scatter plot of Apple and the S&P Composite Index provides evidence that stock returns cannot be normally distributed.
- (d) The fact that the percentage change in the S&P Composite Index is between 0% and 1% approximately 9,000 times and between -1% and 0% at around the same frequency is not compatible with the normal distribution assumption.

Question 2.5

What is a 2-for-1 stock split and what happens to the stock price after such a split?

- (a) A company declares that half of its shares become worthless and the stock price for the remaining half stays the same.
- (b) All the shares are split into two shares and the stock price is half of the price before the split.
- (c) All the shares are split into two shares and the stock price is double the price before the split.
- (d) All the shares are split into four shares and the stock price remains the same.

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Correct Answers

2.1: (c)

2.2: (a)

2.3: (d)

2.4: (b)

2.5: (b)