

## 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.

# Open Yale courses

© Yale University 2012. Most of the lectures and course material within Open Yale Courses are licensed under a Creative Commons Attribution-Noncommercial-Share Alike 3.0 license. Unless explicitly set forth in the applicable Credits section of a lecture, third-party content is not covered under the Creative Commons license. Please consult the Open Yale Courses Terms of Use for limitations and further explanations on the application of the Creative Commons license.

## **Correct Answers**

2.1: (c)

2.2: (a)

2.3: (d)

2.4: (b)

2.5: (b)