

Standard deviation and concept of risk, the capital asset pricing model

[Finance](#)



Question One. Discuss the components of a stock's realized return. Explain the intuition behind using the average annual return as a measure of expected return.

📌 Write this equation:

$$\text{Realized Return} = \text{Realized Gain} / \text{Cost of investment} \times 100$$

Use to calculate the realized return as a percentage of your total investment.

Analyze stock investment. Write down its initial cost. This shows how much money an individual first invested. The realized return is the amount of money that (has been withdrawn), from the investment WITHOUT having dipped into its initial value.

Plug the numbers into the formula and calculate the answer. For example, the amount invested \$1, 000 dollars, then realized a gain of \$100 when the total investment had increased to \$1, 100, the formula would look like this:

$$\text{Realized Return} = \$100 / \$1000 \times 100 = 10 \text{ per cent.}$$

In this case, one has earned a 10 per cent realized return (Gitman, 2009).

Part two of question one.

The arithmetic mean is always greater than the geometric mean. With that stated, the expected return on this portfolio is halfway between the expected returns on the two individual securities; however, the standard deviation is less than halfway between the standard deviations on the two securities.

Therefore, unless the investor was very risk-averse, meaning he would look at this case, where he might choose to invest only in security A. However if he were not risk-averse he would invest in the portfolio rather than invest in

the two securities separately (Gitman, 2009).

Question three. Discuss the concept of the Capital Asset Pricing Model and its importance in finance.

The definition of (CAPM) or capital asset pricing model is the basic theory that links risk and returns for all assets. We describe this relationship between the required return, r . The non-diversifiable risk of the firm as it is measured by the beta coefficient b . This is important in finance because the model CAPM links non-diversifiable risk and return with all assets. Generally, there are five sections. The first deals with the beta coefficient, which is a measure of the non-diversifiable risk. The second section presents an equation of the model itself. The third section graphically describes the relationship between risk and return. The fourth section discusses the effects of changes in inflationary expectations and risk aversion on the relationship between risk and return and the fifth section offers some comments of the CAPM.

The CAPM model, in general, relies on historical data. The betas may or may not actually reflect the future viability of returns. The CAPM, developed to explain the behavior of security prices and provide a mechanism where investors could assess the impact of a proposed security investment on their personal portfolios; considering the overall risk and returns (Gitman, 2009).

Question four. Explain what drives expected return, and describe the security market line and its use.

Perhaps the biggest driver of expected return is that overzealous investors

buy a stock and expect it to earn more than what the investor originally invested expects. Sometimes it is better to use the concept of what drives value. Most experts seem to think that innovation, quality, customer care, management skill, alliances, research and product/service development, technology to streamline operations, brand value, employee relations, and environmental awareness, are necessary facets of the concept.

Security Market line is, therefore, defined as the depiction of the capital asset pricing model (CAPM) is a graph that reflects the required return in the marketplace for each level of non-diversifiable risk (beta) (Gitman, 2009).

Concluding that risk defined is a chance of financial loss. Return defined is how we are going to measure risk. The return is the total gain or loss experiences on an investment over a given period. Commonly measured, as the cash distributions during the period plus the change in value, and expressed as a percentage of the beginning-of-period investment value. The expression for calculating the rate of return earned on any asset over a period. or $T, r_{\text{little } t}$ (Gitman, 2009).