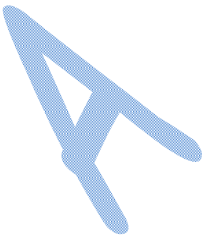
SEMESTER SPRING 2012

MGT411 (Money and Banking)

Assignment No. 2



Required:

Keeping in view the given scenario, you are required to help Mr. Graduate in calculating the following:

a. Expected value

b. Variance.

c. Standard deviation.

Question No. 2 (Marks: 10)

Topic: *Valuing Stock*

Learning Objectives

The objective of this assignment is to enable the students to value a stock in which they are going to make investment so that they may be able to determine the just price they should pay for a stock.

Learning Outcomes

Students will be able to determine the just prices of the stocks being traded in the stock market. They will be able to determine whether a stock in overvalued or undervalued and can take investment decision accordingly.

The Case:

Assume that you are going to purchase the stock of a company ABC. After careful analysis you have forecasted that firm's dividends should grow at 8% on average in the foreseeable future. The last divided the company paid was Rs.4.

Required:

Keeping in view the above data, you are required to compute the current price of the stock assuming the required return is 18%.

Question No. 1 **(Marks:8+8+4)**

The Case:

Mr. Graduate is planning to make investment in the Karachi Stock Exchange after graduating from Business University. After a careful analysis of various stocks, he selected a stock of the company ABC in which he is willing to invest. The current market price of ABC stock is Rs.200. As this investment is very risky, so he contacted various experts in the market in order to take their suggestion. Based on predictions of financial experts, there are following three scenarios relating to his investment after two months:

1. In case of high growth in the economy, there are 30% chances that the price of the stock will increase and will be at Rs.350.
2. In case of normal growth in the economy, there are 60% chances that the price of the stock will remain at Rs.250.
3. In case of recession, there are 10% chances that the prices of the stock will decrease to Rs.150.

He is unable to further calculate expected value, variance and standard deviation in order to assess the risk ssociated with this investment.

Required:

Keeping in view the given scenario, you are required to help Mr. Graduate in calculating the following:

a. Expected value

b. Variance.

c. Standard deviation.

Question No. 2 **(Marks:10)**

The Case:

Assume that you are going to purchase the stock of a company ABC. After careful analysis you have forecasted that firm's dividends should grow at 8% on average in the foreseeable future. The last divided the company paid was Rs.4.

Required:

Keeping in view the above data, you are required to compute the current price of the

stock assuming the required return is 18%.

Solution

Question # 1:

Ans (a): 1st we find out the **" Expected Value "**

X	P (x)	X . P (x)
350	0.3	350 x 0.3 = 105
250	0.6	250 x 0.6 = 150
150	0.1	150 x 0.1 = 15
		∑ X. P(x) = 270

Expected Value: 270 [Req. (a)]

Ans (b): 2nd we find out the **"Variance"**

X	P (x)	X_2	X_2.P (x)
350	0.3	122500	36750
250	0.6	62500	37500
150	0.1	22500	2250
			∑ X_2. P(x) = 76500

Variance : ∑ X_2. P(x) – (270)2

= 76500 – 72900

= 3600

Ans (c): 3rd we find out the **"Standard Deviation"**

√3600 = **60**

Solution

Question # 2:

Ans:

Dividend = 4

R = 18 % => 0.18

G = 8% => 0.08

Current Price/ Present Price (PV) =?

As we know :

PV = Dividend. / r - g

= 4/ 0.18 – 0.08

= 4/0.1

= **40 Current Price**