BS2551   Money Banking and Finance

Seminar 4 Solutions

Given the following information derive the expected return on company j using the Capital Asset Pricing Model (CAPM).

Return on Treasury Bills = 10%,
Expected Return on the Market Portfolio = 16%.
The Beta for stock j is equal to 1.50.

$E(j) = 0.1 + (0.16-0.1) * 1.50 = 19\%$.

This result suggest that you obtain a risk premium of 9% by investing in the risky asset instead of investment your wealth in the risk free asset. The stock yields an expected return that is almost double the return on the risk free asset. Therefore the stock is very high risk, reflected by the high Beta coefficient of 1.5 (Beta > 1, aggressive investment).

b) . $E(j) = 0.1 + (0.18-0.1) * 1.50 = 22\%$.

Eventhough the market portfolio increases by 2% the expected return of company j increases by 3%, because the high risk stock yields a higher expected return then the increase in the market portfolio.

Market portfolio increase of 2%, Company j increase expected return = (2*1.5) = 3%.