

The capital asset pricing model case study

[Business](#), [Company](#)



Whenever investors want to make a good buy, they always look at a number of parameters including earnings per share, earning growth rate, and debt-to-profit ratio. These parameters are very important to an investor because they ensure that investors identify the best companies for investment.

However, there are other parameters that enhance an investor's returns. A company's beta value is one of the most important parameters that enhance returns. This is because investors can use it to analyze the tradeoff between risk and return. Understanding Apple's beta value is an important factor in stock research for any investor. Using the company's beta value, an investor will understand how much he or she should expect in return for the stock (Elton, Gruber, & Brown, 2009).

According to Yahoo! Finance, the beta value for Apple Inc. is 0.91. This beta value means that the beta value for the new portfolio will shift towards 1 because Apple's beta is very close to 1. It is very important that an investment considers the investment in Apple Inc. relative to the total portfolio. This ensures that the investor understands the amount of risk the Apple Inc. stock brings to the portfolio. It is very simple to interpret the beta value. The 0.91 beta value is very close to 1 indicating that Apple's stock is moving along with the market movement (Giovanni, 2010). Since beta also represents a risk factor, then Apple's stock has moderate risk. This means that investors should expect moderate returns from their investments in the company. Apple's growth opportunities are a very critical determinant of the 0.9 beta value. In most cases, companies with numerous growth opportunities tend to have very high beta values. This is because investors associate expected growth with risk and uncertainty. In the case of Apple

Inc., the company has moderate growth opportunities which account for the average beta value.

According to the CAPM approach, the cost of equity equals a sum of the risk free rate and the beta equity. Additionally, investors should multiply the beta equity with the difference between the average market return and risk free rate. In simple terms, cost of equity = risk free rate + beta equity (average market return - risk free rate). Cost of equity = 4.5% + 6.5%*0.91 = 10.415%. Therefore, the cost of equity for Apple Inc. is 10.415 percent. This implies that the cost of funding projects at Apple Inc. using its equity is 10.415 percent. The cost of equity is synonymous to the rate of interest that banks charge on their loans. Currently, investors should expect to get a return of 10.415 percent per annum in the long run. This is compensation for the risk they undertake by investing in the company (Elton, Gruber, & Brown, 2009).

In order to create a portfolio of three stocks, I chose two other companies. These companies include Berkshire Hathaway and Wal-Mart Inc. According to Google Finance, Wal-Mart Inc. has a beta value of 0.46 while Berkshire Hathaway has a beta value of 0.55. The beta value of the portfolio equals investment times the beta value for individual stocks. Since I would like to invest a third of my money on the three stocks, the portfolio beta is equal to 0.63 ($1/3*0.91 + 1/3*0.55 + 1/3*0.46$). Using the portfolio beta, the rate of return is equal to 8.595 percent ($4.5\% + 6.5\%*0.63$). This portfolio presents sufficient diversification because its beta value is very close to 1. Therefore, there is very little risk that can be diversified away (Armitage, 2005).

References

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Giovanni, E. (2010). *Application of Capital Asset Pricing (CAPM) and Arbitrage Pricing Theory (APT) Models in Athens Exchange Stock Market*. New York: GRIN Verlag.