

Portfolio risk and return report examples

[Law](#), [Evidence](#)



Introduction

While selecting any specific portfolio it is extremely crucial that we assess the risk and return of the securities properly, to avoid facing any unfavorable scenarios in the future. For this, we need to have a thorough understanding and estimates of the risks and returns associated with a given portfolio. The expected return can be defined as the average weighted outcome of any given project and in this case, any given portfolio. In the case of a portfolio it includes all of the average weights of the expected returns associated with the individual stocks. To be more accurate, the return in this case refers to any percentage increase or decrease in the value of any investment, usually over a quarter, month or even a year. However, for the purpose of simplicity, we have taken the annual figures in this case. All the returns and risks shown here are on an annual basis only. Risk on the other hand can be defined as the scenario in which the projects deem to become unacceptable or more precisely there is an increased variability in the cash flows generated from the project. In the very basic definition, risk is the chances of incurring a financial loss and assets which have a probability of a greater amount of loss is deemed to be more risky.

BHP Billiton

Nestle

Return(%)

Risk(%)

Correlation coefficient is 0.60

In order to choose between the most optimum portfolios amongst the two, we need to assess the expected risk and return associated with the individual portfolios and choose the one that provides a relatively greater amount of profit and lower risks.

Required: -

1-What is the expected risk and return for an equally-weighted two-security portfolio?

In the case of a portfolio that has an equal percentage of weight, would mean that both BHP Billiton and Nestle would have 40% weight each. Using the table below, we can now find out the expected risk and return inherent from this portfolio:

BHP Billiton

Nestle

Return(%)

Risk(%)

Correlation Coefficient is 0.6

Expected Return:

Portfolio return: $E(\) = \)$

Portfolio risk

Two asset portfolio risk is:

Portfolio variance: $= + + 2$

As clearly evident from this calculation, we have to incur a risk of 17.3% if we intend to make a return of 20.93% from this portfolio.

Question 2:

A-What is the expected risk and return for a portfolio that is 70% BHP Billiton and 30% Nestle?

Portfolio Expected Return: $E () =)$

Portfolio Expected Risk:

Therefore, when we increase the share of BHP Billiton in the portfolio, the risks associated with the portfolio also increases but the amount of return does not increase by a significant amount. The return only increases by a mere 0.5% in the second portfolio.

B-What is the expected risk and return for a portfolio that has the minimum combined risk.

The minimum combined risk is $= (22.8+24)/2 = 23.4\%$

Using this risk we will now find the new portfolio risk and return:

Portfolio Expected Return: $E () =)$

Portfolio Expected Risk:

Even after using the minimum combined risk; the portfolio risk is greater than 21 percent.

3-Illustrate the optimal portfolio using a chart and provide a brief recommendation including any assumptions/limitations.

As evident from the graph, the outcomes of the risk and return for both the portfolios are quite similar. However, the risk of the second portfolio is relatively higher than that of the first portfolio. Since, the risk for the second portfolio is great than the first portfolio, the investor should try to invest in the first portfolio. However, with the second option the investor has the scope to increase their returns by 0.5% along with an increase in the risk of around 0.17%. This means the increase in the return is proportionately greater than the increase in the risks and therefore, if the investor wants to make more returns they may invest in the second portfolio as well. The quantitative data may not be sufficient to assess how lucrative a portfolio may be because it may be affected by other qualitative factors such as the reputation of the firm and other factors that may affect its operations.

1. PreMBA Finance, 2012. Risk and Return. [Online] Available at: [Accessed 11th May 2012]
2. Portfolio risk and return, 2012. Business Finance Online. [Online] Available at: < <http://www.zenwealth.com/BusinessFinanceOnline/RR/Portfolios.html> > [Accessed 12th May 2012]
3. McDonnell, P. J., 2008. Optimal Portfolio Modeling. 1st ed. Canada: John Wiley & Sons