# Risk and return analysis 

Business

## ASSIGN B <br> USTER

[pic] [pic] Ethan Cromartie Risk \& Return Analysis BUS 505 Corporate Finance Certificate of Authorship: I certify that I am the author of this paper and that nay assistance received in its preparation is fully acknowledged and disclosed in the paper. I have also cited any source from which data, words, or ideas either quoted directly or paraphrased has been used.

I also certify that this paper was prepared by me specifically for this course Ethan Cromartie 11/30/11 Investments held individually. NikeInc., has a standard deviation of 8.2 , almost double that of the markets.

While Nike has been a consistently strong company its average rate of return for the past 10 years was $.77 \%$. This is significantly stronger that the markets return over the same 10 years. A standard deviation of 8.2 is a pretty strong deviation, and shows people that are willing to invest in the company that they are investing in a strong company that has shown the ability to grow, and create dividends for its stock holders consistently.

The beta of . 73 shows that Nike's returns are somewhat similar to that of the markets, but still not enough to be affected by the overall economic situation the market may face. The coefficient variation of 9.37 is not bad, but it does not paint the whole picture when looking at Nike as an individual stock. Merck\& Co.
, has a standard deviation of 7.87 , which is lower than Nike's so at first glance a person may think they have the more favorable stock. Merck has shown the ability to be very diverse company with strong management and strong people. This deviation is still slightly higher than the market deviation. Merck has a beta of .

67, this shows that current market will have less of an impact on Merck than others, in a weaker market Merck has the ability to stay strong. The average rate of return for Merck was -0. 37\%, which I found very interesting seeing that Merck has become a staple of strong managed and strong performing companies. Over the last 10 years our economic woes may have had a bigger effect on Merck than shown by the beta. Merck had a coefficient variation of -4.

71 this shows that their risk per unit of return is relatively small. The S\&P 500 had a standard deviation of 4. 72, relatively lower than that of the other stocks, I believe this is due to how the market has acted over the past 10 years. The market's average rate of return was . 05\%, which is very small, and I believe is due in large part to the state of economic uncertainty our country has continued to face in the recent years.

The coefficient variation for the $S$ is 1.13 which I believe to be unrealistic based on the uncertainty we have faced over the past decade. The 10-year Treasury note had a standard deviation of 8.07 , very close to Nike's and very similar to Merck's over the same time period. The beta of the T-Note is .

51, showing an almost negative correlation to that of the markets beta. The average rate of return for the T-Note was $-0.04 \%$ which shows that the current market has had a major impact on the rate of return for the T-note over the past decade. The diversifiable risk associated with Nike and Merck can be said to mimic the market somewhat closely, when we are in a down a economy their numbers will reflect that but not to the fullest. While both
stocks had a beta closer to the higher end of one, it still shows a negative correlation to what the market is doing.

Matching Nike or Merck with a company that has a beta above 1. would be the best bet to utilize strong past company performance, and design a portfolio that would have minimal risk. The non-diversifiable risk associated with these two stocks could be the world market, and economic uncertainties. Even with the current economic outlook Nike and Merck have both been able to steadily increase revenues over the past decade, which is what has made them two of the strongest companies in the market today. Correlation between investment vehicles: The correlation coefficient between Nike and Merck is -0.
045. This correlation does make sense due to the fact that Nike and Merck's standard deviations and beta's are very close together. Both of these companies act in a similar way depending on what the market gives them. The correlation coefficient between the S 500 and the 10-year Treasury note is . 298, which is not a reasonably strong correlation. Investments in a portfolio context: If these stocks were to be placed in a portfolio context it would probably unwise, by adding the T-note and S's beta to the portfolio it actually lowers Nike and Merck's beta's to .
2. While these are strong stable companies, they do not have an indirect correlation to one another so they would be of no help if the market were to move up or down quickly. The Annual Rate of return would be . $103 \%$ which is respectable but not as strong if there was a more diversified portfolio. By
diversifying the portfolio it should give us the ability to deal with the market risk, that we face with the fluctuation of everyday stock prices.

Also because Nike and Merck operate in a global market, we may be able to combat some of the foreign-exchange risk that they may face in a weaker world market versus a stronger one. " MRK Historical Prices | Merck \& Company, Inc. Common St Stock - Yahoo! Finance. " Yahoo! Finance Business Finance, Stock Market, Quotes, News. N. p.
n. d. Web. 30 Nov. 2011.
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