

Home wrok 2

Finance



Finance and accounting a. b. i. comparing Sharpe ratios since both assets have unsystematic risk present therefore Treynor would be inappropriate hence would select stock A

ii when there is a market index portfolio as the base and optimal diversification has been achieved, stocks are mispriced. Since unsystematic risk are diversified. The only important aspect to evaluate which one to add is Alpha. Therefore, stock B will be included in portfolio since B has higher alpha than A.

iii Both will be included in the actively managed portfolio depending on the number of stocks that are needed to achieve full diversification.

2. a. calculation of the Treynor measure

This measure relates the rate of return earned above the risk free rate to the portfolio beta during the period under consideration

$T_i =$

Where R_i is the average return rate for portfolio during a given period of time

R_s is the average return on free risk investment during a given period of time

B_i is beta of portfolio I in a given point in time

Performance in relation to market(S&P500)

$T = = 6.7\%$ this is outer performed

Security Market line (S&P 500)

$T_m = = 6\%$

Treynor measures portfolio performance in relation to security market line (SLM). Because the portfolio plot above the SLM, it outer performed in relation to S&P 500 index. T was greater than T_m s 6.7% versus 6%

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respectively.

Sharpe measure

Measures return rate earned above the risk free rate to the general risk of portfolio by including standard deviation

$S = \frac{r_i - r_f}{\sigma}$ where r_i is the average return rate for the portfolio in a given period of time, r_f is the average return rate on a risk free investment and σ is the standard deviation of rate of return on a portfolio.

Performance in relation to the market (S&P 500)

$S = -0.222$ this shows an underperformance

Capital Market line (S&P 500)

$SM = 0.462\%$

Sharpe measure compares the portfolio with the capital market line (CML).

The portfolio plots below the CML, which indicates that indeed it underperformed in the market. This is because the SM 0. 222% against 0. 462% respectively, the portfolio really underperformed in the market.

b. Treynor measures appropriate risk for a portfolio and its systematic risk or beta. It assumes that a portfolio is fully diversified. The Sharpe is similar to the Treynor except that the return of portfolio is divided by the standard deviation. In a poorly performed portfolio, Treynor is used but lower performance relative to the market if Sharpe measure is used.

3. The return on the market is 8% the forecast monthly return for GM IS 0. 1% = $(1.1 \times 8) \% = 8.9\%$. The GM's real return was 7% so that the calculation of abnormal return comes to -1. 9%

4. The investor should buy a three year bond because it offers a 9% holding - period return over the next year. This is greater return than any other kind of bond (Baaquie, 2010).

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References

Baaquie, B. E. (2010). Interest rates and coupon bonds in quantum finance (3rd ed.). Cambridge, UK: Cambridge University Press.