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Sterling Ratio Pitch (Part 1)

The Sterling ratio is a risk-adjusted performance metric that is used to evaluate the performance of an investment portfolio or fund. It is a useful tool for investors who are looking to evaluate the riskiness of a portfolio or fund and to compare it with other investment options. This ratio is calculated by dividing the excess return of an investment portfolio or fund over the risk-free rate by the downside risk of the portfolio or fund. The downside risk is measured as the standard deviation of the negative returns of the portfolio or fund.

The purpose of it is to provide a more accurate measure of risk-adjusted performance than other traditional metrics, such as the Sharpe ratio. Unlike the Sharpe ratio, which uses total volatility to calculate the risk of an investment, the Sterling ratio focuses on the downside risk of an investment, which is more relevant to investors who are more concerned about the downside. The reasoning behind this is based on the idea that investors are more concerned with the downside risk of their investments than the upside potential. It assumes that negative returns have a greater impact on investor's wealth and uses this assumption to calculate the downside risk of a portfolio or fund.

The pros of using the Sterling ratio include its ability to provide a more accurate measure of risk-adjusted performance, its focus on downside risk, and its ability to compare portfolios or funds with different risk profiles. It can be particularly useful for investors who are risk-averse or who are looking to evaluate the riskiness of a portfolio or fund in a volatile market. Unfortunately, the Sterling ratio include its reliance on historical data and its sensitivity to changes in market conditions. As with any performance metric, the Sterling ratio should be used in conjunction with other measures of risk and performance to get a complete picture of the investment.

Evaluate Metric Correlations (Part 3)

When it came to tracking the two metrics, the Sharpe and Sterling ratios, I had to use some sort of common reference to compare them. In this case, the reference given, is historical data. I calculated the annualized sharpe and sterling ratios across the dataset. I then took the first 20 or so values from each dataset which I used in my columns for the dataframe.

The correlation coefficient between the two ratios is around 0.24 which is very low indicating the two metrics arent correlated at all. It is clearly that both ratios have their distinct trends. The reason both metrics are so different is the sharp ratio uses the full range of volatility of the stock to calculate the risk of an investment. Unlike max drawdown, which uses the maximum drawdown when considering risk, the Sterling ratio bases its risk off the average drawdown which would cause it to be far less influenced by any upwards volatility. Because of this fundamental difference between both ratios, it is no suprise that the correlation coefficient was low.