Our Purpose

We aim to provide data analytic tools for investors in financial securities.

We think the primary goal of investment is to receive a desired return with an acceptable risk. We use returns instead of prices, because we think price fluctuations between the purchase and sale of an investment, do not matter. We also think risk is associated with the likelihood (or probability) of not receiving the desired return, rather than the volatility of returns.

Our tools allow an investor to analyze a security in several dimensions:
1. Frequency distributions. They show the relative frequencies of returns of a given investment period (one year, five years, etc.)
2. Time series. They show returns over time so one can look for cycles and trends.
3. Comparisons. One can compare one security with different investment periods, multiple securities of the same period, and multiple portfolios.
4. Portfolios. One can evaluate a portfolio of securities. We also provide an optimizer in the modern portfolio theory that finds the portfolio with the minimum volatility for a target return.

In this website, we also provide examples of analyses.

Our Belief

Here are what we believe in:
A) Long term investment
B) Evaluation based on complete profiles of returns and risks

A. Long term investment

We believe that for most people the best approach to build financial security is to stay invested for sustained periods of time, say at least one year. So when selecting securities for investment, we think you should evaluate their performance for six months and beyond. For example, for investments that need to provide current income, we think you should evaluate them over six months, or one year. For retirement investments we think you should evaluate

them over five years, or longer, spans.

B. Return/risk profiles

1. Individual securities

For each security of interest, we will calculate returns (annualized) of all possible investments of the same holding horizon. For example, we calculate the returns for all possible one-year investments within the available data. Or, all possible five-year returns, etc.

From the return data, we offer a complete profile with summary statistics, time graphs, and distribution graphs.
- Summary statistics of returns include averages, medians, standard deviations, percentiles, and maximum and minimum.
- Time series of returns.
- Cumulative frequency distribution shows the likelihood (empirical probability) of earning each return.

2. Multiple securities

We can compare different securities with both summary statistics and return/risk profiles. For example, compare a chosen security with a market index such as S&P 500.
We can also compare two securities based on their performances on the same day. For example, we can compare their one year returns, day by day, and show the results in time graphs or summary statistics.

3. Portfolio

For a given portfolio (a set of securities with relative weights), we can analyze it exactly the same way as an individual security and offer similar profiles.

4. Portfolio optimization

An investor may be interested in finding a so-called "efficient" portfolio. It is a portfolio with the minimum volatility for a given target return. We offer an optimizer based on the Markowitz model of the modern portfolio theory, so one can try to form the "efficiency frontier".

About us

We are a team of operation researchers with interest in offering ideas about data analysis.

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