Portfolio Management Annual Report, 2024/2025

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Introduction to the Project

The primary objective of this project is to introduce and provide hands-on experience in evaluation and portfolio management mechanisms, as well as to test various theories and methodologies learned during our education at Bocconi. This portfolio will be limited to equity stocks and will not include any other asset types. In accordance with Bocconi University's regulations for student societies, we will operate with a virtual portfolio, which means we will not use actual cash or generate profits from this activity.

From an initial list of 300 internally proposed stocks, the team members selected 46 stocks on which they decided whether to take a long or short position. Some of these stocks were chosen based on presentations made by the Equity Division of our society. Before voting on which stocks to include and what positions to take, the team conducted extensive research on each stock. In the next step, we determined the weight that each particular stock should have in the portfolio, following the methodology outlined in the next section. The entire process can be tracked here.

We have formed a team of five individuals who are highly motivated to experiment with financial methodologies and eager to learn. We envision this project as a pilot initiative for those who are most passionate about portfolio management, with plans for expansion in the future. After a two-round selection process, the board chose Timotej Oršula, Carlo Iannarelli, Julien Dietrich, and Stefano Bartocci to join the team, which will be led by Emre Oktav, the Head of our newly created Portfolio Management Division.

Our objective in this project is not only to gain essential knowledge for evaluating stocks and their respective weights in a portfolio but also to assess the portfolio's performance over time and draw valuable conclusions through practical experiments. Additionally, the team will discuss which type of broker is most suitable for managing this type of portfolio in the real world and which virtual portfolio to use for the project.

The entire team is responsible for the following tasks:

- Manage the portfolio by coordinating a shared trading schedule, enabling timely responses to changes in stock prices and values.
- Follow the market and remain available during trading hours to make necessary adjustments to the portfolio in extreme cases, including adjusting the volume of stocks held in accordance with our strategy if extremely necessary.
- Select and recommend promising stocks to be added to the portfolio while delisting underperforming stocks. Determine the appropriate weight of each stock within the portfolio.
- Write and publish a strategy document at the beginning of our operations and provide regular updates on the portfolio's status.

Methodological Overview

During the process, team members presented their selected stocks along with relevant data, including EPS, P/E, P/B, ROE, the Debt-to-Equity ratio, Dividend Yield, and current macroeconomic and market conditions. The team analyzed the financial statements of these companies to assess trends in their profitability and conducted further research on the future market potential of their products. These factors were thoroughly discussed within the team.

In an effort to mitigate risk through diversification, the portfolio was primarily constructed by prioritizing stocks outside the S&P 500. However, 20 of the 47 selected equities are members of the S&P 500, reflecting a balanced approach to leverage both broad market exposure and diversification benefits. Sector allocations are evenly distributed, ensuring no industry holds a disproportionate share.

Since we aimed to build an abstract portfolio with no fees or real gains, we utilized the FactSet platform, which enabled us to monitor various stocks and access key data and indicators. For this purpose, we utilized the Watchlist function.

Our methodology for this experiment was based on the Treynor-Black model, focusing on the standard deviations and alphas of stocks to determine the weight allocations within our portfolio.

We needed to calculate both alpha and standard deviation. While calculating the standard deviation is straightforward with a single Excel function, provided we have the necessary historical data over an adequate time period, calculating alpha proved to be more complex.

To determine the weights of the individual stocks, we calculated alpha and standard deviation using the following formula for alpha:

$$\alpha = R_i - [R_f + \beta_i \cdot (R_m - R_f)]$$

Where:

- α = Alpha (excess return above expected return)
- R_i = Average daily return of the stock
- R_f = Risk-free rate (Interest Rate of Country, daily)
- β_i = Beta of the stock
- R_m = Market return (Index Return, daily)

The Average Daily Return was calculated by averaging all percentage changes in returns obtained from FactSet. The interest rate was set at 4%, while the beta value was sourced from the FactSet database. The Index Return was established at 10.9%, which was then divided by 365 to determine its daily rate of return. For the standard deviation, we utilized the STDEV function in Excel to analyze all percentage changes in returns. In the final step, we determined the weight of each stock in the portfolio using the Treynor-Black Model, as follows:

$$w_i = \alpha_i \times (\sigma_i)^{-2} \times (\sum w_j) \times (\sum \sigma_j)^{-2}$$

We provide the final results of our calculations for the period January - June 2025 here. During this period, our portfolio was up 11.25%, unexpectedly beating the S&P 500 (6.27%).

Risk Analysis: Major factors that can affect the portfolio in the future

The discussions for selecting stocks took place in October and November 2024, prior to the U.S. election and before Donald Trump took office in January 2025. Currently, there are more risks than when the project began. The significant risks we are considering include:

- **Changes in inflation and interest rates,** which can impact consumer spending, borrowing costs, and growth stocks, such as those in the technology industry. We have noticed a rapid appreciation of the Euro alongside a significant depreciation of the Dollar against a global basket of currencies.

- **Increased recession risks,** particularly affecting cruise lines, retail, and industrial sectors, as predicted by Goldman Sachs and Point72. However, both of these predictions have recently declined; for example, Goldman Sachs adjusted its recession probability from 35% to 30%.

- **Uncertainty in the stock market due to trade tariffs,** the potential for a trade war, and unclear business relationships between the U.S. and the rest of the world. Even 90 days after the "liberation day," the international market remains volatile, making it difficult to predict its behaviour.

From a portfolio management perspective, this period presents a valuable learning opportunity, as there is no actual risk involved—this portfolio will remain virtual, allowing us to monitor these changes periodically.

Next Steps: Plan for the following academic year 2025/26

This academic year, our primary focus has been on building the portfolio. We started by concentrating solely on stocks. In the next academic year, if we determine that our system is robust, we will consider expanding our focus to include options and commodities. We will continue to closely monitor the performance of the selected stocks and adjust their weights in the portfolio as necessary.