



Evaluating Long-Term Investment Potential in Soda Beverages

By Tin Hang

Investment Report: Analysis of KO, PEP, and DPS

Introduction: This investment report aims to analyze the long-term viability of investing in three leading soda companies: The Coca-Cola Company (KO), PepsiCo Inc. (PEP), and Dr Pepper Snapple Group Inc. (DPS). The analysis involves a comprehensive examination of historical data spanning five years, performance calculations, back-testing, forecasting, and the application of financial models such as the Capital Asset Pricing Model (CAPM). Additionally, this report explores the utilization of advanced analytical tools including Microsoft Azure Machine Learning Studio and the Fourier Cycle method to enhance investment decision-making processes. Moreover, traditional accounting methods, such as income statements, balance sheets, and cash flow analyses, are employed to provide a holistic view of the financial health of each company.

Methodology:

1. **Historical Data Analysis:** Historical performance data of KO, PEP, and DPS over the past five years is thoroughly examined to identify trends, patterns, and key performance indicators.
2. **Performance Measurements:** Various performance metrics including return on investment (ROI), earnings per share (EPS), and revenue growth are calculated to evaluate the financial performance of each company.
3. **Back-testing and Forecasting:** Back-testing is conducted to assess the effectiveness of different trading strategies. Additionally, forecasting models are employed to predict future stock performance based on historical data and market trends.
4. **Capital Asset Pricing Model (CAPM):** The CAPM framework is utilized to determine the expected return on each stock based on its risk profile and market conditions.
5. **Advanced Analytical Tools:** Microsoft Azure Machine Learning Studio is leveraged to develop predictive models for long-term stock investment. Furthermore, the Fourier Cycle method is applied to analyze stock price cycles and identify potential investment opportunities.
6. **Financial Statement Analysis:** Income statements, balance sheets, and cash flow statements are analyzed to evaluate the financial strength, profitability, and liquidity of KO, PEP, and DPS.

Tools Utilized:

1. Microsoft Excel: Used for data manipulation, analysis, and visualization.
2. Python: Employed for advanced statistical analysis and model development.
3. Power BI: Utilized for creating interactive dashboards and visual representations of key financial metrics.
4. Microsoft Azure Machine Learning Studio: Integrated for developing and deploying predictive models for long-term investment analysis.

Conclusion: Through a comprehensive analysis incorporating historical data, financial models, and advanced analytical tools, the investment potential of KO, PEP, and DPS has been thoroughly evaluated. The findings of this report will aid investors in making informed decisions regarding long-term investments in the soda industry. Furthermore, the utilization of innovative techniques such as machine learning and Fourier Cycle analysis demonstrates a commitment to leveraging cutting-edge methodologies for enhancing investment strategies.