



A COMPREHENSIVE STUDY ON FMCG STOCKS IN INDIA

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Abstract: This paper offers a thorough examination of Indian Fast-Moving Consumer Goods (FMCG) stocks, an important industry with consistent demand and room to grow. The research provides a comprehensive picture of the FMCG market by looking at both qualitative and quantitative performance indicators, such as brand strength and consumer behaviour, in addition to financial performance measures like revenue growth, profit margins, and return on equity. It also takes into account how the industry is impacted by macroeconomic variables like consumer spending and inflation. The study determines the main factors and hazards influencing the performance of FMCG stocks through an examination of past data and forecasts for the future. The results demonstrate that although FMCG equities in India provide appealing investment prospects, they encounter obstacles such as shifting customer preferences and regulatory modifications. Investing strategy recommendations are provided at the study's conclusion.

Index Terms - FMCG Industry India, Indian Stock Market, FMCG Stocks Analysis, Consumer Goods Sector, Indian FMCG Companies, Market Trends FMCG, FMCG Stock Performance, Leading FMCG Brands India, Investment in FMCG Stocks, Financial Metrics FMCG, Growth Drivers FMC, FMCG Market Share India, Competitive Landscape FMCG, Revenue Analysis FMCG, Profitability FMCG Stocks, Dividend Yields FMCG, Stock Valuation FMCG, Risk Factors FMCG, FMCG Sector Outlook

INTRODUCTION

The Fast-Moving Consumer Goods (FMCG) sector stands as a cornerstone of the Indian economy, playing a pivotal role in meeting the daily necessities and preferences of consumers across the nation. FMCG companies encompass a diverse range of products, including household essentials, personal care items, packaged foods, beverages, and more. Their ubiquitous presence in the market, coupled with the essential nature of their offerings, renders FMCG stocks a significant component of India's stock market landscape. This research paper seeks to delve into the performance dynamics of FMCG stocks in India, offering a comprehensive analysis of their financial and market performance over a specified period. By examining key indicators such as stock returns, volatility, trading volumes, and market capitalization, the study aims to provide insights into the factors influencing the performance of FMCG stocks and their impact on the broader stock market. The FMCG sector in India operates within a dynamic and competitive environment characterized by evolving consumer preferences, regulatory frameworks, and economic conditions. As such, understanding the performance trends and drivers of FMCG stocks holds immense relevance for investors, policymakers, industry stakeholders, and market analysts alike. Through empirical analysis and statistical techniques, this research aims to uncover patterns, trends, and relationships within the FMCG sector, shedding light on the factors driving stock performance and the implications for investment decisions. By elucidating the performance dynamics of FMCG stocks, this study endeavors to contribute valuable insights to the understanding of India's stock market landscape and the broader FMCG sector's role in driving economic growth and consumer welfare.

NEED OF THE STUDY

The FMCG sector in India plays a crucial role in the country's economic framework, meeting the diverse and essential needs of its vast population. With rapid shifts in urbanization, consumer behaviors, and technological advancements, the FMCG industry is experiencing significant growth and transformation. Consequently, there is an urgent requirement to thoroughly comprehend the performance intricacies of FMCG stocks in India, and their implications for various stakeholders including investors, policymakers, and industry participants.

I. OBJECTIVES OF THE STUDY

1. To study the performance of FMCG stocks.
2. To study analyse the Return & Risk of the Equity Stocks in order to give returns to their customers (investors).
3. To understand the Impact of the FMCG shares on the share market.
4. To analyse the growth of FMCG sectors.

II. SCOPE OF THE STUDY

This comprehensive study on FMCG stocks in India encompasses a detailed examination of several critical aspects to provide a holistic understanding of the sector's performance and its implications for investors and the broader market.

III. RESEARCH DESIGN

The Research which will be carried out by me is descriptive and analytical research.

DATA SOURCES:

Primary data

The primary data information is gathered from BSE

Secondary data:

Sources have been used for the collection of the data used in the research.

1. Collecting data from NSE, SEBI & Investopedia websites etc.
2. Collecting Information from books.
3. Collecting data from Magazines.

Sample Size:

5 years of data is collected.

Sampling Technique:

Yearly dividend pay-out of 5 FMCG companies.

Descriptive analytics framework

1. Data Collection

- **Historical Financial Data:** Collect data on revenue, profit margins, earnings per share (EPS), return on equity (ROE), and other relevant financial metrics for FMCG companies listed on Indian stock exchanges.
- **Market Data:** Gather data on stock prices, trading volumes, market capitalization, and dividend yields of FMCG stocks.
- **Economic Indicators:** Include macroeconomic factors such as inflation rates, GDP growth, consumer spending patterns, and interest rates.
- **Sector-Specific Data:** Collect information on market share, product categories, brand strength, and consumer preferences within the FMCG sector.

2. Data Cleaning and Preprocessing

- **Data Validation:** Ensure accuracy and consistency of collected data by cross-verifying with multiple sources.
- **Handling Missing Values:** Impute or remove missing data points to maintain dataset integrity.

- Normalization: Standardize financial metrics and stock prices to enable meaningful comparisons across companies and time periods.
3. Descriptive Statistics
 - Summary Statistics: Calculate mean, median, standard deviation, and range for key financial metrics and stock performance indicators.
 - Distribution Analysis: Examine the distribution of returns, profit margins, and other financial metrics to identify patterns and anomalies.
 - Correlation Analysis: Analyze correlations between FMCG stock returns and macroeconomic indicators, as well as between different financial metrics.
 4. Trend Analysis
 - Historical Trends: Identify and visualize historical trends in revenue growth, stock prices, profit margins, and other key metrics.
 - Seasonality: Detect seasonal patterns in stock performance and sales data, particularly in relation to festive seasons and economic cycles.
 5. Comparative Analysis
 - Peer Comparison: Compare financial performance and stock returns of FMCG companies against each other and against sector averages.
 - Sector vs. Market: Contrast the performance of FMCG stocks with broader market indices (e.g., Nifty 50, Sensex) to assess relative performance.
 6. Risk and Return Analysis
 - Volatility Measures: Calculate standard deviation and beta to assess the volatility and market risk of FMCG stocks.
 - Risk-Adjusted Returns: Compute Sharpe ratio, Treynor ratio, and other risk-adjusted return metrics to evaluate investment performance.
 7. Impact Analysis
 - Regulatory Impact: Assess the influence of regulatory changes, government policies, and economic reforms on the FMCG sector.
 - Consumer Behavior: Analyze how shifts in consumer preferences and spending behavior affect FMCG stock performance and sales growth.
 8. Visualization
 - Time Series Plots: Create line charts to depict trends in stock prices, revenue, and other financial metrics over time.
 - Bar and Pie Charts: Visualize market share, product category contributions, and other categorical data.
 - Heatmaps: Display correlation matrices and risk-return profiles for quick visual interpretation.
 9. Reporting
 - Executive Summary: Provide a concise summary of key findings and insights.
 - Detailed Reports: Offer in-depth analysis and interpretation of data for stakeholders.
 - Dashboards: Develop interactive dashboards for real-time data visualization and monitoring.

10. Recommendations

- **Investment Strategies:** Suggest portfolio optimization strategies based on the analysis of risk and return.
- **Market Opportunities:** Highlight potential growth areas and investment opportunities within the FMCG sector.
- **Risk Mitigation:** Provide recommendations for managing risks associated with FMCG stock investments.

IV. THEORITICAL FRAMEWORK

1. Impact of Coronavirus pandemic on fast moving consumer goods (FMCG) sector in India by Dr Yogesh D Mahajan

The study reveals that the FMCG industry has been severely affected by the pandemic, leading to disruptions in employment as laborers have relocated to their native areas as a result of the crisis. Companies have responded to this challenge by implementing various measures such as enhanced protective protocols, sanitation procedures, revised sourcing strategies, engagement with new suppliers, product portfolio optimization, and a thorough review of supply chain resilience and emergency management plans. These proactive steps are essential for the FMCG sector to navigate through the challenges posed by the coronavirus pandemic effectively.

2. A Study of Risk-Return Analysis of FMCG Sector with Special Reference to Selected Companies Listed on NSE India by Vijay Kumar

This study seeks to raise awareness among investors regarding stock investments within the FMCG sector, emphasizing the fundamental concept of risk-return relationship. Understanding this relationship is essential not only in financial analysis but also in all facets of life. It is imperative for individuals and institutions to carefully assess the combined impact of risk and return when making investment decisions. Risk and return analysis is a critical aspect of decision-making for individuals across various spheres. Investors typically aim to mitigate risk while maximizing returns. Generally, there exists a direct correlation between risk and return; higher returns are typically associated with higher levels of risk, while lower risk investments yield lower returns.

3. "A STUDY OF MARKETING STRATEGIES ADOPTED FOR MARKETING OF CONSUMER PRODUCTS IN RURAL AREA OF PUNE DISTRICT WITH SPECIAL REFERENCE TO HINDUSTAN UNILEVER LTD by HOSSEIN ESMAEIL KHORSAND

This study investigates the marketing strategies employed for promoting consumer products in rural areas of Pune district, with a specific focus on Hindustan Unilever Ltd (HUL). As rural markets present unique challenges and opportunities compared to urban counterparts, understanding the strategies adopted by companies like HUL is essential for effective market penetration and brand positioning. The research delves into the various marketing tactics utilized by HUL to target rural consumers, considering factors such as product adaptation, distribution channels, pricing strategies, promotional activities, and consumer behavior analysis. Through a comprehensive analysis of primary and secondary data, including interviews, surveys, and literature reviews, this study aims to provide insights into the effectiveness and impact of HUL's marketing strategies in rural Pune. Additionally, the research aims to offer recommendations for enhancing marketing effectiveness and driving sustainable growth in rural consumer markets.

4. Performance Analysis of FMCG Sector in India Rosy Dhingra*, Kapil Dev**, Madhuri Gupta

This study conducts a performance analysis of the Fast Moving Consumer Goods (FMCG) industry by assessing the discriminatory power of financial ratios through Wilks' lambda and Multiple Discriminant Function Analysis. The sample consists of eighteen FMCG companies listed on the Bombay Stock Exchange, selected based on market capitalization. Data spanning twelve years, from April 1, 2006, to March 31, 2017, is collected for analysis. To facilitate discriminant analysis, average stock market returns are computed from annual stock prices and classified into three groups: 'Market Under-Performers,' 'Market Average-Performers,' and 'Market Out-Performers.'

The study identifies revenue from operations per share as the most influential ratio for evaluating a company's market performance. Additionally, the debt-equity ratio and inventory turnover ratio are found to have a moderate impact on assessing a company's stock market performance, while the dividend payout ratio exhibits lesser impact in this regard.

5. An Appraisal of Financial Performance of the Fast Moving Consumer Goods (FMCG) Industry in India by Prof. S. M. Imamul Haque, Mohd Atif Afzal

The Fast Moving Consumer Goods (FMCG) industry ranks as the fourth largest sector within the Indian economy, contributing significantly to the nation's GDP. Known for its competitiveness, this industry plays a vital role in shaping economic growth. Financial performance serves as a critical indicator of a business's overall health and success under management. While numerous studies have examined the financial performance of FMCG firms in India, this research takes a fresh perspective by focusing on the past five years. Utilizing secondary data, the study assesses the financial performance of FMCG firms from the fiscal years 2011-2012 to 2015-2016. Notably, the study not only evaluates financial performance but also explores the relationships between sales and liquidity, as well as solvency and profitability within these firms. To test hypotheses, the study employs statistical tools such as simple regression analysis and correlation computations using SPSS.

6. Financial appraisal of the Fast Moving Consumer Goods (FMCG) industry of India By: Solmaz Husain

The FMCG industry holds significant importance globally, with India's FMCG sector ranking as the fourth largest industry within the country. This sector employs over four million individuals in downstream activities and encompasses key components such as Household care, Personal care, and Food and Beverages, contributing to a total market value exceeding Rs. 200,000 Crore. With a current double-digit growth rate, the FMCG industry is poised to sustain high growth levels. Financial performance serves as a crucial indicator of a business's overall health, reflecting the extent to which financial objectives have been achieved. In essence, it measures the outcomes of a firm's policies and operations in monetary terms, providing insights into its overall financial well-being over a specific period. This study undertakes a comprehensive analysis of the financial performance of selected FMCG companies in India, employing Ratio Analysis and various statistical techniques. By offering a fresh perspective on the financial performance of the FMCG sector, the study aims to assist prospective investors in making informed investment decisions and identifying growth opportunities. It is important to note that the study's scope is limited to secondary data sourced from financial statements and reports published by the companies.

7. Fundamental Analysis of selected FMCG stocks in India by R. Amsaweni and S. Gomathi

Investment decisions are integral to our economic activities, undertaken in various contexts. These decisions are typically approached systematically through two main methods: technical and fundamental analysis. This study focuses on conducting fundamental analysis of six BSE-listed FMCG companies in India from 2006-07 to 2011-12. The study's objectives include performing fundamental analysis on these companies and conducting a SWOT analysis of the FMCG industry.

The economic analysis reveals positive growth rates in Gross National Product, inflation, interest rates, exchange rates, foreign exchange reserves, agricultural production, and government receipts and expenditure during the study period. Conversely, Gross Domestic Product, Gross Domestic Capital Formation, Gross Domestic Savings, and Balance of Payments experienced negative growth rates.

In terms of industry analysis, India's FMCG sector ranked as the 4th largest with a market size of US\$13 billion in 2012, projected to grow to US\$33.1 billion by 2015. This sector exhibits significant potential in both rural and urban markets, offering substantial employment opportunities.

8. A Study on Technical Analysis of Indian FMCG Sector by Rithvik Kammili

This study aims to scrutinize the Indian FMCG sector using technical analysis methodologies to discern patterns, trends, and potential investment prospects. Employing a quantitative approach, the research utilizes various technical indicators and chart patterns to evaluate price and volume movements of FMCG sector stocks listed on Indian stock exchanges. Historical price data and trading volumes spanning from 26/04/2021 to 02/06/2021 are collected and analyzed to identify recurring patterns and trends beneficial for investors' decision-making. The study incorporates technical analysis tools such as moving averages convergence and divergence (MACD), relative strength index (RSI), on-balance volume (OBV), and trendlines to uncover potential buying and selling signals, support and resistance levels, and price targets within the Indian FMCG sector. Furthermore, the research explores how market trends, economic factors, and industry-specific events influence the sector's performance. The study's findings contribute to the body of knowledge in technical analysis, offering valuable insights for investors and traders interested in the Indian FMCG sector. These insights enhance understanding of the sector's price dynamics, volatility, and investment opportunities, empowering market participants to formulate effective trading strategies and risk management approaches. It is essential to acknowledge that this study exclusively focuses on technical analysis and does not consider fundamental analysis or qualitative factors affecting investment decisions.

9. Financial Performance of FMCG companies-Post COVID-19 by MOHMAD MUSHTAQ KHAN

The global COVID-19 pandemic had widespread effects across various sectors, including the FMCG industry in India. Like many other businesses, FMCG companies faced challenges during this period. To assess the impact of COVID-19 on the financial health of the FMCG sector, this study focuses on evaluating the performance of the top nine FMCG companies listed on the Bombay Stock Exchange (BSE). Financial performance is typically measured through indicators such as liquidity, profitability, efficiency, and leverage ratios. The study aims to analyze how these metrics were influenced by the pandemic. The findings reveal that COVID-19 had noticeable effects on the liquidity, profitability, and efficiency of the FMCG sector.

10. A Comparative Study on Financial Analysis with Special Reference to FMCG Sector by Akansh Garg and Anshu Tyagi

This study aims to analyze the financial performance of select FMCG companies operating in India. Specifically, three prominent FMCG companies, namely Indian Tobacco Company Ltd. (ITC), Hindustan Unilever Limited (HUL), and Dabur Ltd., have been chosen for examination. The study period spans from 2020 to 2021. Through empirical analysis, the paper seeks to evaluate and compare the financial performance of these selected companies, focusing particularly on aspects of liquidity and profitability. Ratio analysis, a critical component of financial statements, is employed to assess various dimensions of the FMCG companies' operational and financial performance, including efficiency, liquidity, and profitability. In India, the FMCG sector holds the position of being the fourth largest, contributing to the employment of approximately three million individuals, which accounts for about five percent of the total factory employment in the nation. Projections suggest that India's FMCG market is poised for significant growth, with expectations for it to more than double to \$104 billion by 2020 from its current level of \$49 billion.

These theoretical frameworks can be used to analyze the dividend policies of the selected FMCG companies and their impact on firm value, cost of capital, and investor preferences. Additionally, factors such as firm characteristics, industry dynamics, and macroeconomic conditions can be incorporated into the analysis to provide a comprehensive understanding of dividend policy dynamics.

V. INDUSTRY PROFILE

The Fast Moving Consumer Goods (FMCG) sector is the key contributor of the Indian economy. This fourth largest sector of Indian economy provides employment to around 3 million people which accounts for approximately 5% of the total factory employment in the country. These products are daily consumed by each and every strata of the society irrespective of social class, income group, age group etc. FMCG sector is more lucrative because of low penetration levels, well established distribution network, low operating cost, lower per capita consumption, large consumer base and simple manufacturing processes for most of products resulting in fairly low capital investments.

The industry is highly competitive due to presence of multi-national companies, domestic companies and unorganized sector. A major portion of the market is captured by unorganized players selling unbranded and unpackaged products. More than 50 per cent of the total revenues of FMCG companies come from products worth Rs.10 or less. This has made the proliferation of localized brands which are offered in loose form in small towns and rural part where brand awareness is low. Fast-moving consumer goods (FMCG) sector is India's fourth-largest sector with household and personal care accounting for 50% of FMCG sales in India. Growing awareness, easier access and changing lifestyles have been the key growth drivers for the sector. The urban segment (accounts for a revenue share of around 55%) is the largest contributor to the overall revenue generated by the FMCG sector in India. However, in the last few years, the FMCG market has grown at a faster pace in rural India compared to urban India. Semi-urban and rural segments are growing at a rapid pace and FMCG products account for 50% of the total rural spending.

PRESENT SCENARIO OF THE INDUSTRY

The covid 19 epidemic is often regarded as one of humanity's worst calamities, impacting many countries' economic cycles. On a more predictable note. The Indian economy was severely harmed because it was already moving at a much slower pace. The rate of growth of the Gross Domestic Product was also slowing, and it was predicted to slow even more due to the impact of Covid 19. Due to import limitations, the pandemic has halted the growth of several industries. Out of the sectors that were affected by the outbreak, the FMCG industry stood out as having a more consistent performance and showing signs of improvement. To be noted, this sector was experiencing a slowdown in consumer demand when this pandemic hit the world all of a sudden. As a result of the increased demand for consumer goods, this lockdown has had a favourable influence on the FMCG sector. It reveals that during the early stages of the shutdown, in the months of April and May, the sector was oscillating. While the NSE was performing as expected, the FMCG sector, particularly Britannia Industries Limited, had fared admirably. This simply means that consumer goods demand is relatively higher. As a result, we can see that the industry grew not only during the first pandemic, but also in the months that followed. Thus, even if the economy goes downward, whenever there arises an unprecedented scenario, the humankind will always try to safeguard itself and in turn that will certainly cause a high demand in the FMCG sector.

PESTEL ANALYSIS

Political

- Tax Structure: Complicated tax structure, high in direct tax and changing tax policies are challenges for this sector.
- Infrastructure Issues: Performance of FMCG sector is very much dependent on government spending on Agricultural, Power, and Transportation Infrastructure.
- Regulatory Constraints: Multiplicity permits and licenses for various states, prevailing outdated labor laws, cumbersome and lengthy export procedures are major constraints.
- Policy framework: FDI into Retail sector (single-brand & multi-brand retail), License rules in setting up of Industry, Changes in Statutory Minimum Price of commodities are barriers for growth of this sector.

Economic

The lifting of trade restrictions and import duties actually provided customers with greater number of products to choose from and enhanced competition which led to lower prices, hence decrease in inflation and improvement in quality of products provided to gain greater market share this also helped in pushing up productivity and thus increase in exports.

Domestic market was protected through tariffs as all the import duties were not lifted; it was lifted from items where market was already established, however where market was still developing duties were still levied upon. This will also enable foreign companies present in India to import stuff from abroad and sell it in India and make more efficient use of their extensive distribution network on the other hand it also provides opportunities to local suppliers and distributors to offer their services to companies who do not exist in India but want to sell their products here. Now that companies could import from anywhere, there will be more options for them to look for suppliers in the world and source the best amongst them in terms of price and quality.

Social

- Change in consumer Profile: Rapid urbanization, increased literacy, increase in nuclear families and rising per capita income, have all caused rapid growth and change in demand patterns, leading to an explosion of new opportunities. Around 45 per cent of the population in India is below 20 years of age and the young population is set to rise further.
- Change in Lifestyle: In past decade changes are taking place in consumption pattern of Indian consumer with more spending on discretionary (52%) than necessities (e.g. food, clothing). In last decade the apparel, footwear and healthcare segments have registered highest growth whereas essentials such as cereals, edible oil, fruits and vegetables shown decline.
- Rural focus: As market is getting saturated, companies are focusing on rural area for penetration by providing consumers with small sized or single-use packs such as sachets.

Technological

The technology part comes easy to this sector as the manufacturing setup required for these kinds of products is not as high tech as other industries plus it can be outsourced through a third party contract which is very common in this industry. Initial setup cost is a little high that's why not all the starters can think of entering in this market plus it is owned by giants like Unilever and P&G who make it difficult for other companies to survive through their strategic moves. The distribution setup is difficult to establish with reliable links and this is where new entrants fail most. They make the product but cannot make it available to all the markets at the same time.

ENVIRONMENTAL

These FMCG manufacture products from raw materials that are grown in the fields and are result of agricultural activities in the region, therefore they are careful in protecting and preserving the environment. Some of the efforts include setting up of green houses, use of herbal waste, supporting rag pickers, establishing green buildings and procedures that are green, minimize consumption of clean and fresh water. The constraint on energy is reduced by using alternative sources of energy like herbal waste. Government also has made some anti-dumping laws which prohibits manufacturing facilities to contaminate any clean source of water flow.

Legal / Law

Government replaced various indirect taxes imposed on FMCG with a more direct approach, i.e. GST. This will help in lowering prices as all the taxes imposed increase the cost of production and producer passes it on to consumer. They cannot underpay agricultural sector for profit maximization, also they cannot fool customers in any way by claiming something for their product which it is incapable of doing in actual. The law also forbids FMCG industry to artificially increase prices by making a product scarce. The law for marketing products states that one company cannot mock product of another company by explicitly taking its name or showing its picture. But the most important law that authorities miss is consumer privacy protection rights. These firms tend to find out contact details of their consumers and potential ones and then spam them through every channel.

VI. COMPANY PROFILE

HINDUSTAN UNILEVER

Hindustan Unilever Limited, often abbreviated as HUL, stands as a prominent player in the Indian consumer goods sector. Offering an extensive array of products spanning household and personal care categories, HUL has cemented its position as a frontrunner in the market. Recognized for its innovative approaches, product excellence, and expansive distribution channels, HUL remains a trusted and widely recognized brand in India, catering to the diverse needs of consumers.

HISTORY

The origins of Hindustan Unilever Limited (HUL) trace back to the late 1800s when Lever Brothers, a British soap enterprise, established its presence in India. The company's Indian operations commenced with the introduction of Sunlight soap during the 1880s. Lever Brothers India Limited officially formed in 1931, formalizing its business in the Indian market. Over time, Lever Brothers broadened its product offerings and geographical reach across the nation.

In 1956, Lever Brothers India Limited merged with Hindustan Vanaspati Manufacturing Company, leading to the creation of Hindustan Lever Limited (HLL). This amalgamation diversified HLL's product portfolio beyond soap and detergents into food and other consumer goods.

In 2007, HLL underwent a name change to Hindustan Unilever Limited to align with its status as a subsidiary of Unilever, a global consumer goods conglomerate. Today, HUL stands as one of India's foremost FMCG companies, offering an extensive array of products spanning home care, personal care, foods, and beverages. Its history reflects a tradition of innovation, expansion, and dedication to meeting the evolving demands of Indian consumers.

HUL offers a wide range of products and services across various categories, catering to the diverse needs and preferences of consumers. These include:

1. Home Care Products:

- Laundry detergents (e.g., Surf Excel, Rin, Wheel)
- Fabric conditioners (e.g., Comfort)
- Household cleaners (e.g., Domex, Vim)
- Air fresheners and room fresheners (e.g., Ambi Pur)

2. Personal Care Products:

- Skin care products (e.g., Fair & Lovely, Dove, Ponds)
- Hair care products (e.g., Clinic Plus, Sunsilk, Tresemmé)
- Oral care products (e.g., Closeup, Pepsodent)
- Deodorants and perfumes (e.g., Axe, Rexona)
- Bathing soaps and shower gels (e.g., Lux, Lifebuoy)

3. Foods and Beverages:

- Tea (e.g., Brooke Bond, Lipton)
- Coffee (e.g., Bru)
- Packaged foods (e.g., Knorr, Kissan)
- Ice creams (e.g., Kwality Wall's)
- Nutrition and health products (e.g., Horlicks, Boost)

4. Water Purification:

- Water purifiers (e.g., Pureit)

5. Health and Hygiene Products:

- Hand sanitizers (e.g., Lifebuoy)
- Sanitary napkins (e.g., Whisper)
- Baby care products (e.g., Johnson's Baby)

6. Beauty and Cosmetics:

- Cosmetics and makeup products (e.g., Lakme, Elle 18)

7. Home Care Services:

- Customer support and assistance
- Product maintenance and repair services

NESTLE

Nestlé, a well-known multinational corporation in the food and beverage sector, stands out for its extensive global presence and diverse product offerings. Established in 1866 by Henri Nestlé, the company has evolved into one of the largest and most varied food enterprises worldwide. Nestlé operates in over 180 nations and employs around 290,000 individuals, with its headquarters located in Vevey, Switzerland.

The company's success is deeply rooted in its dedication to delivering nutritious and high-quality food and beverage items to consumers. Nestlé's broad product range covers numerous categories, including baby food, bottled water, cereals, chocolate, coffee, dairy, drinks, ice cream, and pet care. This wide array of offerings caters to the diverse preferences of consumers across different regions and demographics.

Additionally, Nestlé places a strong emphasis on innovation and research, constantly striving to develop new products and enhance existing ones. Sustainability and environmental responsibility are also key priorities for the company, as it seeks to minimize its ecological footprint and make positive contributions to the communities where it operates.

HISTORY

Nestlé, a renowned multinational food and beverage corporation, boasts a lengthy and illustrious history originating from its establishment in 1866 by Henri Nestlé, a Swiss entrepreneur. Initially, Nestlé commenced operations as a modest enterprise focused on producing infant formula, aiming to combat the prevalent issue of high infant mortality rates in Europe during that era.

Henri Nestlé's pivotal breakthrough came with the creation of Farine Lactée, a nutritious concoction comprising cow's milk, wheat flour, and sugar. This product proved instrumental in saving the lives of infants unable to breastfeed, laying a solid groundwork for Nestlé's subsequent expansion into global markets.

During the late 19th and early 20th centuries, Nestlé remained committed to innovation and product diversification. It introduced a range of new offerings, including condensed milk, chocolate, and coffee, thereby establishing itself as a prominent figure in the worldwide food industry. Nestlé's steadfast dedication to quality, ingenuity, and customer satisfaction propelled its swift ascent and prosperity.

Throughout the 20th century, Nestlé continued its trajectory of growth through strategic acquisitions, collaborations, and the exploration of new product categories. Its foray into diverse markets and offerings, such as pet care, bottled water, and frozen foods, further solidified its stature as a global force.

In recent years, Nestlé has prioritized adapting to evolving consumer preferences and societal shifts while upholding its foundational principles of quality, nutrition, and sustainability. Embracing digitalization and technological advancements, Nestlé has sought to enhance its operations and cater to the changing demands of consumers in today's dynamic market environment.

Presently, Nestlé stands as one of the preeminent players in the food and beverage sector, boasting a broad portfolio of renowned brands and products. Operating across nearly every corner of the globe, Nestlé remains dedicated to innovation and evolution, ensuring it continues to meet the diverse needs of consumers in the modern era.

PRODUCTS AND SERVICES OFFERED

- 1. Dairy Products:** Nestle produces a variety of dairy-based items, including milk, yogurt, cheese, and ice cream. These products are available in various flavors and formulations to cater to different tastes and nutritional requirements.
- 2. Coffee:** Nestle is renowned for its coffee brands such as Nescafe and Nespresso, offering a wide range of coffee products including instant coffee, ground coffee, and coffee capsules. These products cater to coffee enthusiasts seeking convenience, quality, and a rich coffee experience.
- 3. Bottled Water:** Nestle Waters is a prominent player in the bottled water industry, offering a diverse range of brands such as Pure Life, Perrier, and S.Pellegrino. These brands provide consumers with purified, mineral, and sparkling water options, catering to hydration needs and preferences.
- 4. Confectionery:** Nestle's confectionery division produces a variety of chocolate and candy products under well-known brands like KitKat, Aero, Smarties, and Milkybar. These products are enjoyed by consumers of all ages as indulgent treats and snacks.
- 5. Infant Nutrition:** Nestle Nutrition specializes in providing nutritionally balanced products for infants and young children, including infant formula, baby food, and toddler snacks. These products are formulated to support healthy growth and development during the crucial early years of life.
- 6. Nutritional Supplements:** Nestle Health Science offers a range of nutritional supplements and therapeutic products designed to address specific dietary needs and health conditions. These products cater to individuals seeking targeted nutritional support for various health concerns.

7. Professional Food Services: Nestle Professional provides food and beverage solutions for businesses in the hospitality, healthcare, and foodservice industries. These offerings include culinary ingredients, beverage systems, and menu optimization services tailored to the unique requirements of commercial clients.

Nestle offers a wide range of products and services designed to meet the diverse needs and preferences of consumers. Their product lineup includes dairy items like milk, yogurt, cheese, and ice cream, as well as coffee products such as Nescafe and Nespresso. Nestle Waters provides bottled water options like Pure Life and Perrier, while their confectionery division produces popular treats like KitKat and Aero. Additionally, Nestle offers infant nutrition products, nutritional supplements, and professional food services. Overall, Nestle's offerings span various food and beverage categories, catering to consumers' tastes and nutritional requirements.

MARICO

Marico, a consumer goods company based in India, has established itself as a significant player in the health, beauty, and wellness sectors. With a presence in several countries, including Bangladesh, South East Asia, Middle East, Egypt, and South Africa, Marico offers a range of products under various brands, such as Parachute, Saffola, Livon, Mediker, and Nihar Naturals. The company's portfolio includes hair care, skin care, edible oils, and nutraceuticals, among others.

Marico's growth has been marked by a series of innovations and strategic moves. In the 1990s, the company repositioned its non-sticky hair oil as a market leader, expanded its distribution network, and entered the international market. Marico has since acquired several companies, including Mediker, and established manufacturing facilities overseas. The company has also launched new brands and products, such as Saffola breakfast, Masala Oats, Parachute Advanced Body Lotion, SetWet, and Saffola Active Slimming Nutri-shake, among others.

Marico's success can be attributed to its strong brand portfolio, innovative product launches, and strategic expansion into new markets. The company's vision is to provide consumers with high-quality products and services, and its mission is to empower its members, pursue excellence, create wealth, and foster innovation. Marico's values include integrity, transparency, and respect for people, and its code of conduct emphasizes ethical business practices and responsible citizenship.

HISTORY

Marico is a prominent Indian multinational consumer goods company that has been providing health, beauty, and wellness products and services for over 30 years. The company's origins trace back to the 1970s when Bombay Oil Industries Limited (BOIL) was established, which later became Marico. Marico's flagship brand is Parachute, a coconut-based hair oil. The company has a significant presence in several countries, including Bangladesh, South East Asia, Middle East, Egypt, and South Africa.

Marico's growth has been characterized by a series of innovations and strategic moves. In the 1990s, the company repositioned its non-sticky hair oil as the market leader and expanded its distribution network. In 1994, Marico set up its first overseas office in Dubai and entered the international market. The company also launched Revive cold water starch and listed on the Indian Stock Exchanges in 1996. In 1999, Marico expanded its operations by acquiring Mediker and setting up its first overseas manufacturing facility in Bangladesh. In 2003, Marico Innovation Foundation was formed to execute the company's corporate social responsibility, and the company set up copra collection centres to procure directly from farmers, increasing their margins.

Marico has continued to innovate and expand its product portfolio, launching new brands and entering new markets. In 2010, the company launched Saffola breakfast, Masala Oats in India, and in 2011, it entered the skin-care category with the launch of Parachute Advanced Body Lotion. In 2012, Marico launched its male grooming brand, SetWet, and in 2015, its market cap topped ₹25,000 crore. In 2017, the company acquired South Africa's leading hair styling business, Isoplus, and launched Saffola Active Slimming Nutri-shake, marking its entry into the nutraceuticals category. In 2018, Marico invested in Revolutionary Fitness and launched a new brand, True Roots, that delays hair greying.

Marico's success can be attributed to its strong brand portfolio, innovative product launches, and strategic expansion into new markets. The company's vision is to offer top-notch products and services to consumers, and its mission is to empower its members, pursue excellence, create wealth, and foster innovation. Marico's

values include integrity, transparency, and respect for people, and its code of conduct emphasizes ethical business practices and responsible citizenship.

PRODUCTS AND SERVICES

Marico offers a diverse range of products and services in the areas of health, beauty, and wellness. Some of the key products and brands offered by Marico include:

- Hair Care:
 - Parachute Coconut Oil
 - Parachute Advansed
 - Nihar Naturals
 - Hair & Care
 - Hair Code
 - Livon
 - Set Wet
- Edible Oils:
 - Saffola Edible Oil
- Skin Care:
 - Kaya Skin Clinics
 - Sundari range of Spa skin care products
- *Health Foods:
 - Masala Oats
- Male Grooming:
 - Set Wet
- Fabric Care:
 - Revive Cold Water Starch

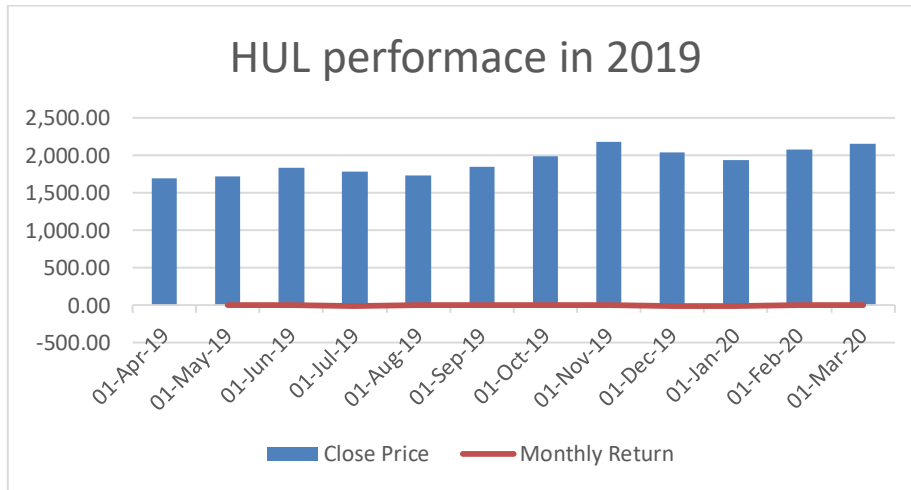
VII. DATA INTERPRETATION

HINDUSTAN UNILEVER

2019

Date	Close Price	Monthly Return
01-Apr-19	1,690.00	
02-May-19	1,723.55	1.952
03-Jun-19	1,839.70	6.732
01-Jul-19	1,780.20	-3.208
01-Aug-19	1,731.30	-2.752
03-Sep-19	1,841.85	6.296
01-Oct-19	1,990.30	8.093
01-Nov-19	2,179.35	9.497
02-Dec-19	2,043.20	-6.241
01-Jan-20	1,936.55	-5.237
01-Feb-20	2,074.90	7.128
02-Mar-20	2,159.45	4.098

Minimum	1,690.00
Maximum	2,179.35
Range	489.35
Mean	1915.8625
Variance	29816.4896
Risk	172.6745193



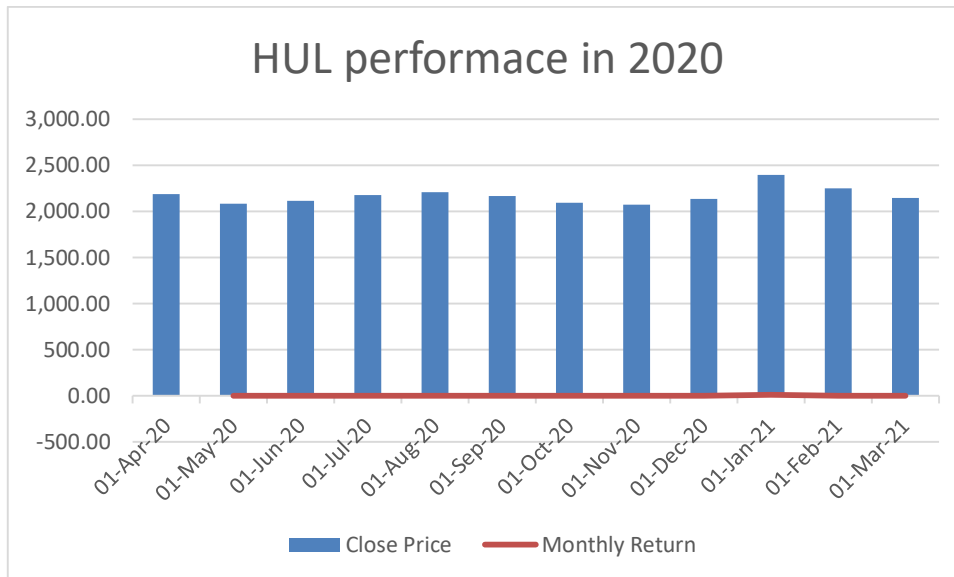
INTERPRETATION

1. The dataset covers a time period from April 2019 to March 2020.
2. The closing prices of the asset range from a minimum of 1,690.00 on April 1, 2019, to a maximum of 2,179.35 on November 1, 2019.
3. The range of closing prices over the period is 489.35.
4. The mean (average) closing price over the period is approximately 1915.86.
5. The variance of the closing prices is approximately 29816.49, indicating the degree of dispersion of the data points from the mean.
6. The standard deviation (square root of variance), often interpreted as risk in finance, is approximately 172.67. This measures the volatility of the asset's prices over the period.
7. Monthly returns vary widely, ranging from a minimum of -6.241% in December 2019 to a maximum of 9.497% in November 2019.

2020

Date	Close Price	Monthly Return
01-Apr-20	2,179.65	
04-May-20	2,082.65	-4.451
01-Jun-20	2,108.55	1.248
01-Jul-20	2,170.40	2.941
03-Aug-20	2,204.50	1.566
01-Sep-20	2,161.65	-1.95
01-Oct-20	2,095.00	-3.192
02-Nov-20	2,072.00	-1.097
01-Dec-20	2,133.05	2.944
01-Jan-21	2,387.55	11.908
01-Feb-21	2,248.60	-5.571
01-Mar-21	2,143.40	-4.67

Minimum	2,072.00
Maximum	2,387.55
Range	315.55
Mean	2165.58333
Variance	7575.73833
Risk	87.0387174



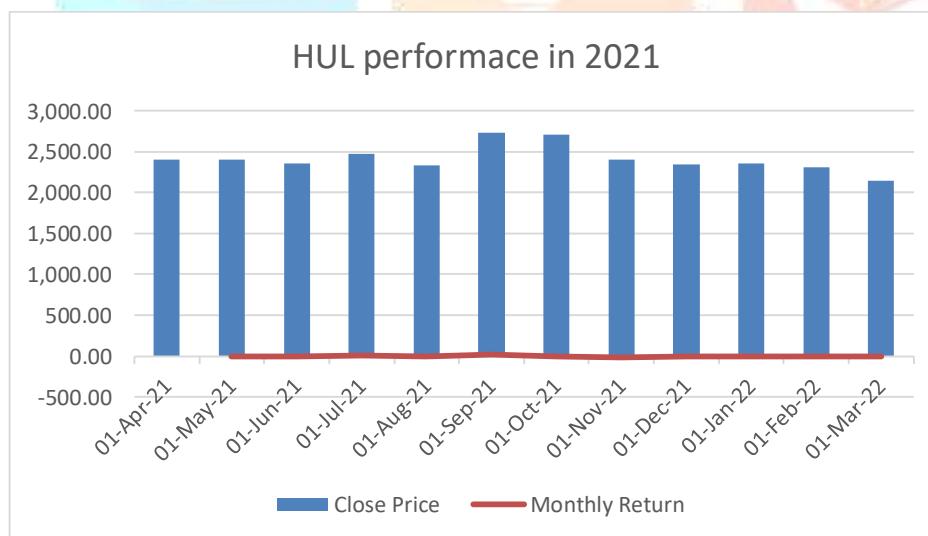
INTERPRETATION

1. The dataset covers a time period from April 2020 to March 2021.
2. The closing prices of the asset range from a minimum of 2,072.00 on November 2, 2020, to a maximum of 2,387.55 on January 1, 2021.
3. The range of closing prices over the period is 315.55.
4. The mean (average) closing price over the period is approximately 2165.58.
5. The variance of the closing prices is approximately 7575.74, indicating the degree of dispersion of the data points from the mean.
6. The standard deviation (square root of variance), often interpreted as risk in finance, is approximately 87.04. This measures the volatility of the asset's prices over the period.
7. Monthly returns vary widely, ranging from a minimum of -5.571% in February 2021 to a maximum of 11.908% in January 2021.

2021

Date	Close Price	Monthly Return
01-Apr-21	2,399.10	
03-May-21	2,408.00	0.3751
01-Jun-21	2,358.30	-2.0764
01-Jul-21	2,478.00	5.089
02-Aug-21	2,332.80	-5.891
01-Sep-21	2,732.90	17.15
01-Oct-21	2,704.05	-1.024
01-Nov-21	2,407.10	-10.983
01-Dec-21	2,344.85	-2.617
03-Jan-22	2,361.30	0.853
01-Feb-22	2,305.65	-2.371
02-Mar-22	2,149.10	-6.767

Minimum	2,149.10
Maximum	2,732.90
Range	583.80
Mean	2415.095833
Variance	26307.28157
Risk	162.1951959

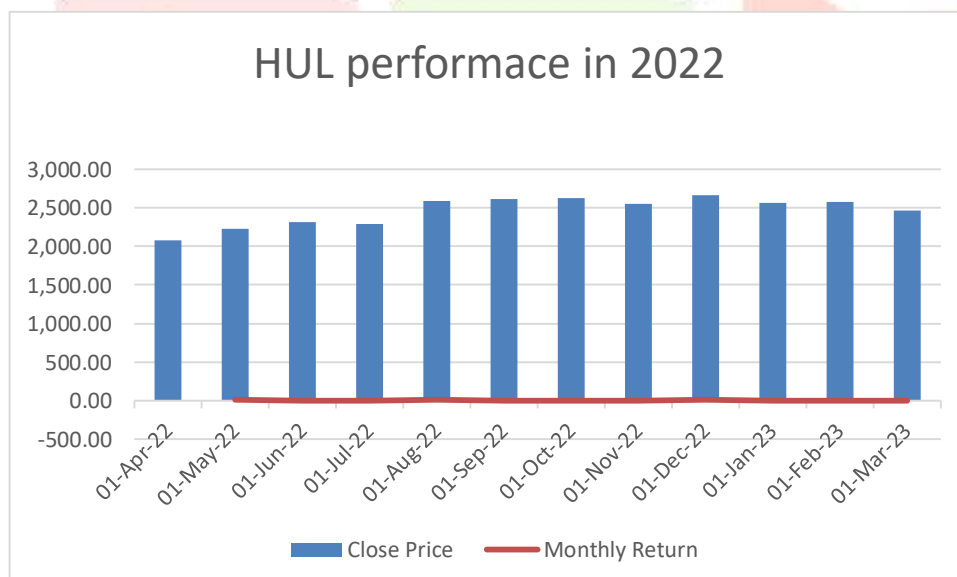


1. The dataset covers a time period from April 2021 to March 2022.
2. The closing prices of the asset range from a minimum of 2,149.10 on October 1, 2021, to a maximum of 2,732.90 on September 1, 2021.
3. The range of closing prices over the period is 583.80.
4. The mean (average) closing price over the period is approximately 2415.10.
5. The variance of the closing prices is approximately 26307.28, indicating the degree of dispersion of the data points from the mean.
6. The standard deviation (square root of variance), often interpreted as risk in finance, is approximately 162.20. This measures the volatility of the asset's prices over the period.
7. Monthly returns vary widely, ranging from a minimum of -10.983% in November 2021 to a maximum of 17.15% in September 2021.

2022

Date	Close Price	Monthly Return
01-Apr-22	2,078.15	
02-May-22	2,230.50	7.314
01-Jun-22	2,308.45	3.497
01-Jul-22	2,282.35	-1.126
01-Aug-22	2,593.00	13.62
01-Sep-22	2,606.00	0.501
03-Oct-22	2,622.50	0.613
01-Nov-22	2,551.80	-2.667
01-Dec-22	2,662.85	4.351
02-Jan-23	2,558.40	-3.906
01-Feb-23	2,574.25	0.625
01-Mar-23	2,466.25	-4.195

Minimum	2,078.15
Maximum	2,662.85
Range	584.70
Mean	2461.208
Variance	35522.76
Risk	188.4748



INTERPRETATION

1. The dataset covers a time period from April 2022 to March 2023.
2. The closing prices of the asset range from a minimum of 2,078.15 on April 1, 2022, to a maximum of 2,662.85 on December 1, 2022.
3. The range of closing prices over the period is 584.70.
4. The mean (average) closing price over the period is approximately 2461.21.
5. The variance of the closing prices is approximately 35522.76, indicating the degree of dispersion of the data points from the mean.

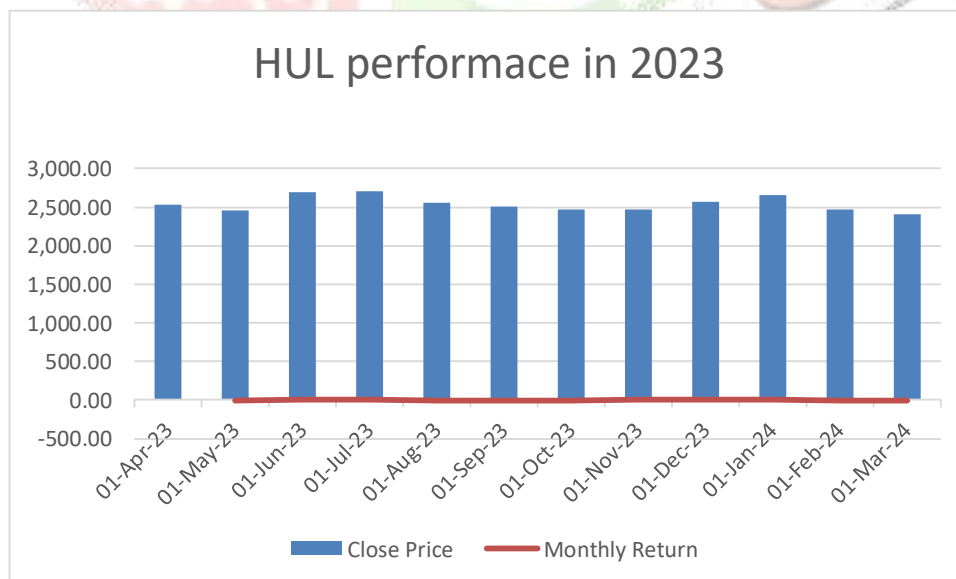
6. The standard deviation (square root of variance), often interpreted as risk in finance, is approximately 188.47. This measures the volatility of the asset's prices over the period.

7. Monthly returns vary, with positive returns in some months and negative returns in others. The monthly returns range from a minimum of -4.195% in March 2023 to a maximum of 13.62% in August 2022.

2023

Date	Close Price	Monthly Return
03-Apr-23	2,536.10	
02-May-23	2,451.70	-3.351
01-Jun-23	2,697.90	10.03
03-Jul-23	2,701.05	0.148
01-Aug-23	2,551.10	-5.553
01-Sep-23	2,504.80	-1.842
03-Oct-23	2,468.90	-1.437
01-Nov-23	2,472.25	0.162
01-Dec-23	2,563.65	3.681
01-Jan-24	2,654.75	3.55
01-Feb-24	2,473.60	-6.819
01-Mar-24	2,409.70	-2.587

Minimum	2,409.70
Maximum	2,701.05
Range	291.35
Mean	2540.458
Variance	9527.323
Risk	97.60801



INTERPRETATION

1. The dataset covers a time period from April 2023 to March 2024.
2. The closing prices of the asset range from a minimum of 2,409.70 on March 1, 2024, to a maximum of 2,701.05 on July 3, 2023.
3. The range of closing prices over the period is 291.35.

4. The mean (average) closing price over the period is approximately 2540.46.

5. The variance of the closing prices is approximately 9527.32, indicating the degree of dispersion of the data points from the mean.

6. The standard deviation (square root of variance), often interpreted as risk in finance, is approximately 97.61. This measures the volatility of the asset's prices over the period.

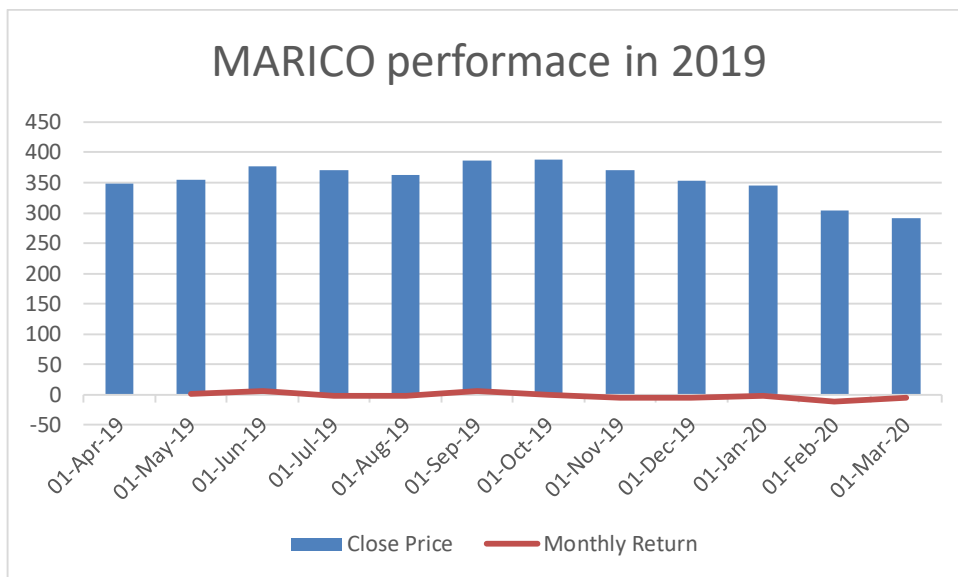
7. Monthly returns vary, with positive returns in some months and negative returns in others. The monthly returns range from a minimum of -6.819% in February 2024 to a maximum of 10.03% in June 2023.

MARICO

2019

Date	Close Price	Monthly Return
01-Apr-19	348	
02-May-19	355.2	2.011
03-Jun-19	377.45	6.197
01-Jul-19	370.25	-1.856
01-Aug-19	362.6	-2.162
03-Sep-19	385.9	6.353
01-Oct-19	387.8	0.519
01-Nov-19	370.4	-4.392
02-Dec-19	353.85	-4.594
01-Jan-20	345.75	-2.266
01-Feb-20	304.65	-11.88
02-Mar-20	291.25	-4.27

Minimum	291.25
Maximum	387.80
Range	96.55
Mean	354.425
Variance	890.298
Risk	29.83786



INTERPRETATION

1. The dataset covers a time period from April 2019 to March 2020.
2. The closing prices of the asset range from a minimum of 291.25 on October 1, 2019, to a maximum of 387.80 on October 1, 2019.
3. The range of closing prices over the period is 96.55.
4. The mean (average) closing price over the period is approximately 354.43.
5. The variance of the closing prices is approximately 890.30, indicating the degree of dispersion of the data points from the mean.
6. The standard deviation (square root of variance), often interpreted as risk in finance, is approximately 29.84. This measures the volatility of the asset's prices over the period.
7. Monthly returns vary, with positive returns in some months and negative returns in others. The monthly returns range from a minimum of -11.88% in February 2020 to a maximum of 6.353% in September 2019.

2020

Date	Close Price	Monthly Return
01-Apr-20	265.5	
04-May-20	284.35	7.169
01-Jun-20	338.45	19.01
01-Jul-20	351.3	3.846
03-Aug-20	362.9	3.133
01-Sep-20	378.9	4.419
01-Oct-20	361.9	-4.497
02-Nov-20	366.85	1.385
01-Dec-20	373.8	1.91
01-Jan-21	406.1	8.847
01-Feb-21	416.95	2.463
01-Mar-21	401.8	-3.605

Minimum	265.50
Maximum	416.95
Range	151.45
Mean	359.066667
Variance	2082.28697
Risk	45.6320827



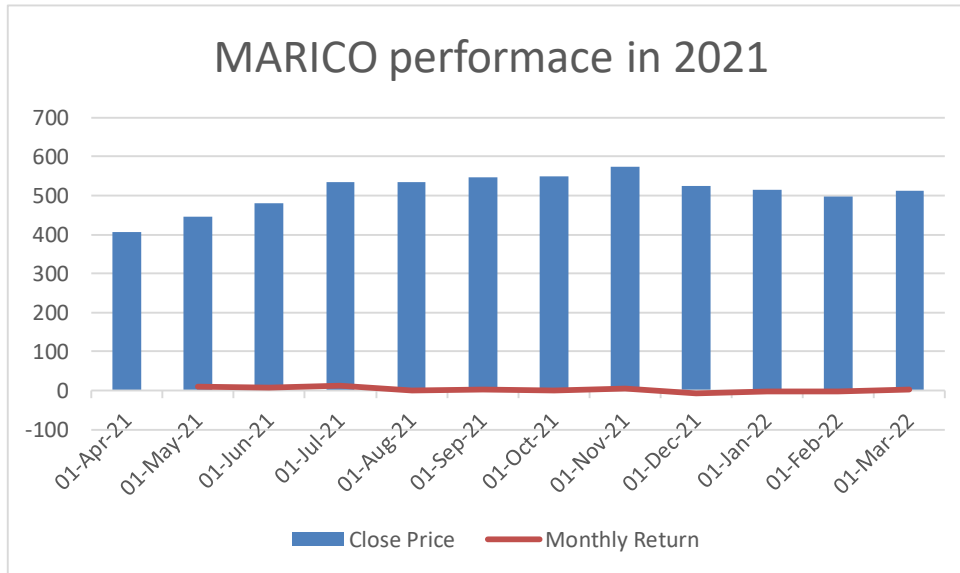
INTERPRETATION

1. The dataset covers a time period from April 2020 to March 2021.
2. The closing prices of the asset range from a minimum of 265.50 on April 1, 2020, to a maximum of 416.95 on February 1, 2021.
3. The range of closing prices over the period is 151.45.
4. The mean (average) closing price over the period is approximately 359.07.
5. The variance of the closing prices is approximately 2082.29, indicating the degree of dispersion of the data points from the mean.
6. The standard deviation (square root of variance), often interpreted as risk in finance, is approximately 45.63. This measures the volatility of the asset's prices over the period.
7. Monthly returns vary, with positive returns in most months and negative returns in others. The monthly returns range from a minimum of -4.497% in October 2020 to a maximum of 19.01% in June 2020.

2021

Date	Close Price	Monthly Return
01-Apr-21	407.25	
03-May-21	445.15	9.336
01-Jun-21	480.7	7.865
01-Jul-21	534.9	11.25
02-Aug-21	535.5	0.187
01-Sep-21	547.3	2.242
01-Oct-21	549.55	0.365
01-Nov-21	574.75	4.553
01-Dec-21	525.05	-8.536
03-Jan-22	514.1	-2.095
01-Feb-22	497.65	-3.307
02-Mar-22	512.55	3.018

Minimum	407.25
Maximum	574.75
Range	167.50
Mean	510.3708333
Variance	2221.870663
Risk	47.13672308



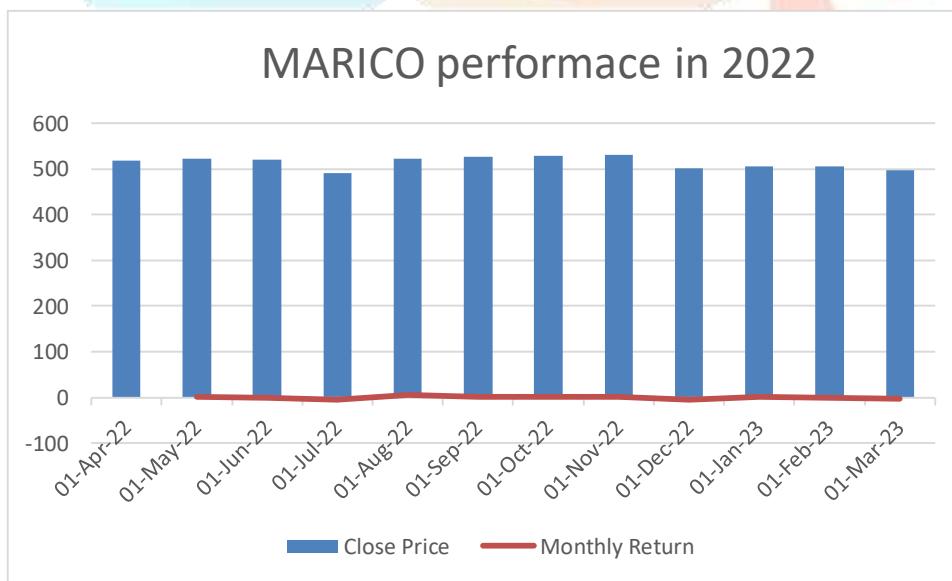
INTERPRETATION

1. The dataset covers a time period from April 2021 to March 2022.
2. The closing prices of the asset range from a minimum of 407.25 on April 1, 2021, to a maximum of 574.75 on November 1, 2021.
3. The range of closing prices over the period is 167.50.
4. The mean (average) closing price over the period is approximately 510.37.
5. The variance of the closing prices is approximately 2221.87, indicating the degree of dispersion of the data points from the mean.
6. The standard deviation (square root of variance), often interpreted as risk in finance, is approximately 47.14. This measures the volatility of the asset's prices over the period.
7. Monthly returns vary, with positive returns in some months and negative returns in others. The monthly returns range from a minimum of -8.536% in December 2021 to a maximum of 11.25% in July 2021.

2022

Date	Close Price	Monthly Return
01-Apr-22	518.25	
02-May-22	522.9	0.772
01-Jun-22	520.25	-0.383
01-Jul-22	491.2	-5.576
01-Aug-22	523.1	6.517
01-Sep-22	526.6	0.573
03-Oct-22	529.5	0.57
01-Nov-22	531.4	0.378
01-Dec-22	501.5	-5.649
02-Jan-23	506.25	0.998
01-Feb-23	505.35	-0.197
01-Mar-23	495.95	-1.98

Minimum	491.20
Maximum	531.40
Range	40.20
Mean	514.3541667
Variance	186.9261174
Risk	13.67209265



INTERPRETATION

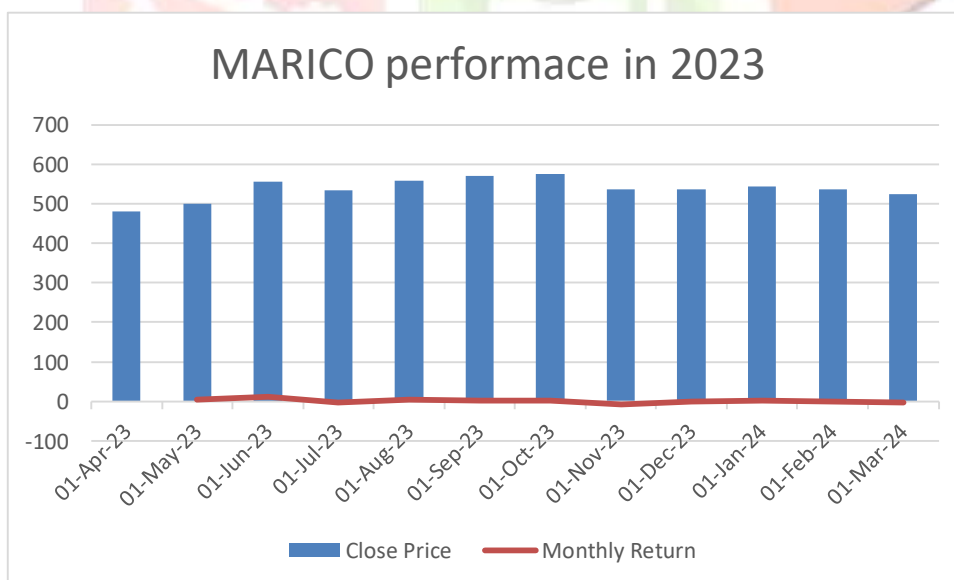
1. The dataset covers a time period from April 2022 to March 2023.
2. The closing prices of the asset range from a minimum of 491.20 on July 1, 2022, to a maximum of 531.40 on November 1, 2022.
3. The range of closing prices over the period is 40.20.
4. The mean (average) closing price over the period is approximately 514.35.
5. The variance of the closing prices is approximately 186.93, indicating the degree of dispersion of the data points from the mean.
6. The standard deviation (square root of variance), often interpreted as risk in finance, is approximately 13.67. This measures the volatility of the asset's prices over the period.

7. Monthly returns vary, with positive returns in some months and negative returns in others. The monthly returns range from a minimum of -5.649% in December 2022 to a maximum of 6.517% in August 2022.

2023

Date	Close Price	Monthly Return
03-Apr-23	479.7	
02-May-23	499.85	4.17
01-Jun-23	556.3	11.422
03-Jul-23	533.25	-4.13
01-Aug-23	557.7	4.5
01-Sep-23	569.35	2.15
03-Oct-23	575.7	1.05
01-Nov-23	535.05	-6.95
01-Dec-23	536.9	0.18
01-Jan-24	542.25	1.11
01-Feb-24	536	-1.107
01-Mar-24	524.25	-2.23

Minimum	479.70
Maximum	575.70
Range	96.00
Mean	537.1916667
Variance	747.0149242
Risk	27.33157376



1. The dataset covers a time period from April 2023 to March 2024.
2. The closing prices of the asset range from a minimum of 479.70 on April 3, 2023, to a maximum of 575.70 on October 3, 2023.
3. The range of closing prices over the period is 96.00.
4. The mean (average) closing price over the period is approximately 537.19.

5. The variance of the closing prices is approximately 747.01, indicating the degree of dispersion of the data points from the mean.

6. The standard deviation (square root of variance), often interpreted as risk in finance, is approximately 27.33. This measures the volatility of the asset's prices over the period.

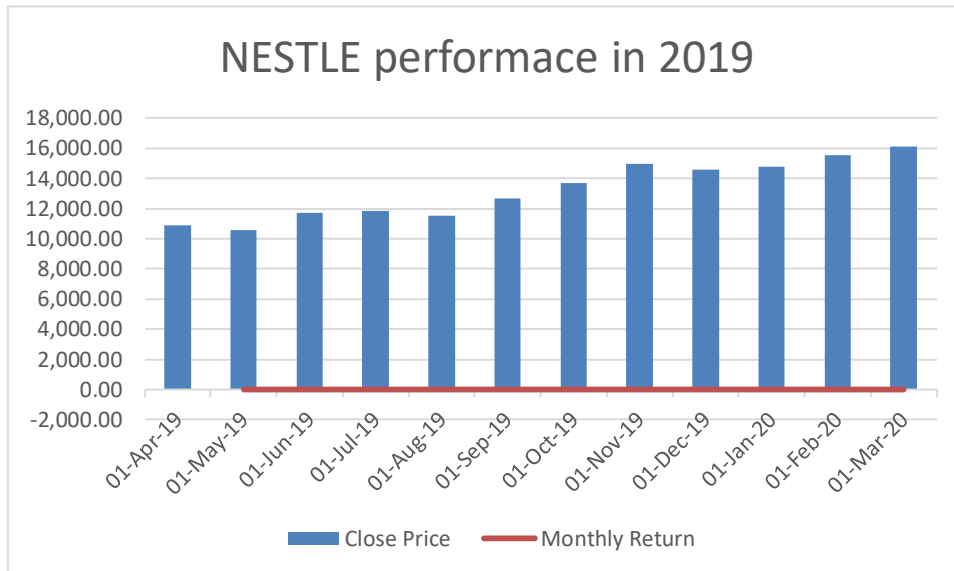
7. Monthly returns vary, with positive returns in some months and negative returns in others. The monthly returns range from a minimum of -6.95% in November 2023 to a maximum of 11.422% in June 2023.

NESTLE

2019

Date	Close Price	Monthly Return
01-Apr-19	10,915.15	
02-May-19	10,589.70	-0.029
03-Jun-19	11,686.45	10.359
01-Jul-19	11,868.75	1.557
01-Aug-19	11,547.00	-2.704
03-Sep-19	12,690.95	9.898
01-Oct-19	13,681.55	7.809
01-Nov-19	14,959.80	9.341
02-Dec-19	14,557.65	-2.754
01-Jan-20	14,779.05	1.525
01-Feb-20	15,524.75	5.04
02-Mar-20	16,109.95	3.768

Minimum	10,589.70
Maximum	16,109.95
Range	5,520.25
Mean	13242.5625
Variance	3691339.85
Risk	1921.28599



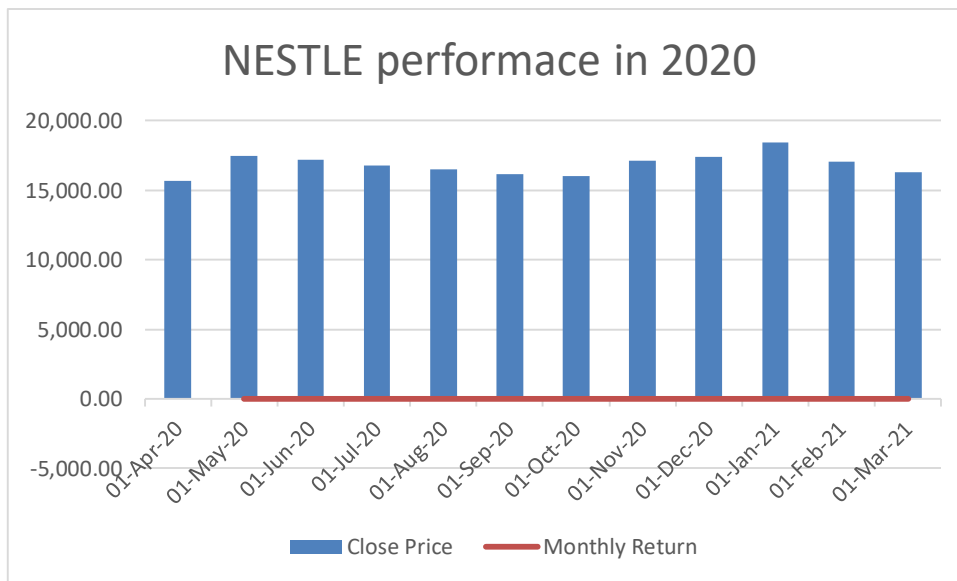
INTERPRETATION

1. The dataset covers a time period from April 2019 to March 2020.
2. The closing prices of the asset range from a minimum of 10,589.70 on May 2, 2019, to a maximum of 16,109.95 on March 2, 2020.
3. The range of closing prices over the period is 5,520.25.
4. The mean (average) closing price over the period is approximately 13,242.56.
5. The variance of the closing prices is approximately 3,691,339.85, indicating the degree of dispersion of the data points from the mean.
6. The standard deviation (square root of variance), often interpreted as risk in finance, is approximately 1921.29. This measures the volatility of the asset's prices over the period.
7. Monthly returns vary, with positive returns in most months and negative returns in some. The monthly returns range from a minimum of -2.754% in December 2019 to a maximum of 10.359% in June 2019.

2020

Date	Close Price	Monthly Return
01-Apr-20	15,654.55	
04-May-20	17,456.45	11.5111
01-Jun-20	17,183.45	-1.563
01-Jul-20	16,798.85	-2.24
03-Aug-20	16,524.80	-1.631
01-Sep-20	16,196.90	-1.984
01-Oct-20	16,000.50	-1.21
02-Nov-20	17,114.95	6.962
01-Dec-20	17,418.15	1.776
01-Jan-21	18,450.70	5.924
01-Feb-21	17,087.70	-7.387
01-Mar-21	16,292.45	-4.652

Minimum	15,654.55
Maximum	18,450.70
Range	2,796.15
Mean	16848.2875
Variance	589744.9041
Risk	767.9485036



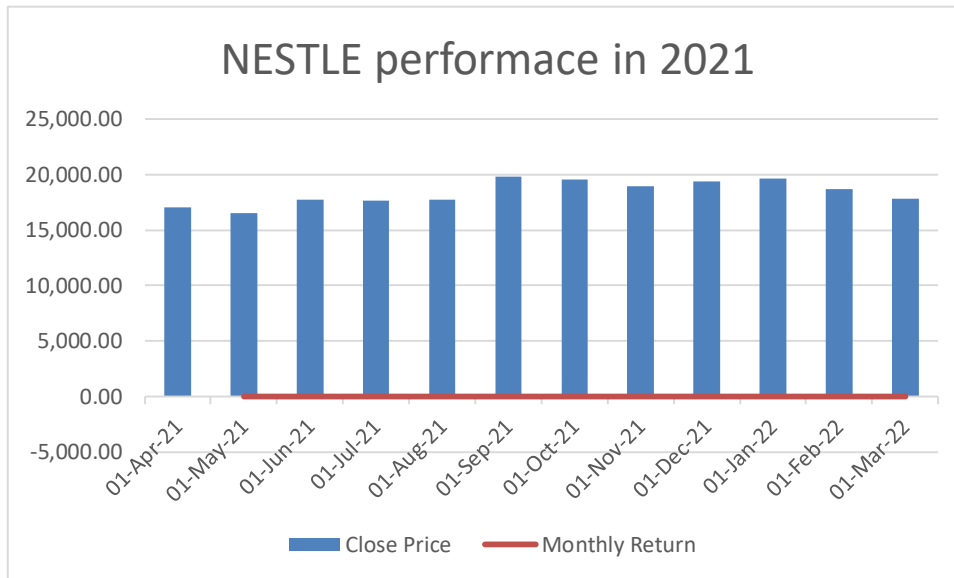
INTERPRETATION

1. The dataset covers a time period from April 2020 to March 2021.
2. The closing prices of the asset range from a minimum of 15,654.55 on April 1, 2020, to a maximum of 18,450.70 on January 1, 2021.
3. The range of closing prices over the period is 2,796.15.
4. The mean (average) closing price over the period is approximately 16,848.29.
5. The variance of the closing prices is approximately 589,744.90, indicating the degree of dispersion of the data points from the mean.
6. The standard deviation (square root of variance), often interpreted as risk in finance, is approximately 767.95. This measures the volatility of the asset's prices over the period.
7. Monthly returns vary, with positive returns in some months and negative returns in others. The monthly returns range from a minimum of -7.387% in February 2021 to a maximum of 11.511% in May 2020.

2021

Date	Close Price	Monthly Return
01-Apr-21	17,083.15	
03-May-21	16,506.75	-3.377
01-Jun-21	17,758.50	7.585
01-Jul-21	17,646.20	-0.6307
02-Aug-21	17,714.65	0.385
01-Sep-21	19,826.85	11.922
01-Oct-21	19,549.95	-1.397
01-Nov-21	18,939.60	-3.12
01-Dec-21	19,397.80	2.418
03-Jan-22	19,677.95	1.443
01-Feb-22	18,671.70	-5.112
02-Mar-22	17,844.60	-4.429

Minimum	16,506.75
Maximum	19,826.85
Range	3,320.10
Mean	18384.80833
Variance	1220515.139
Risk	1104.76927



INTERPRETATION

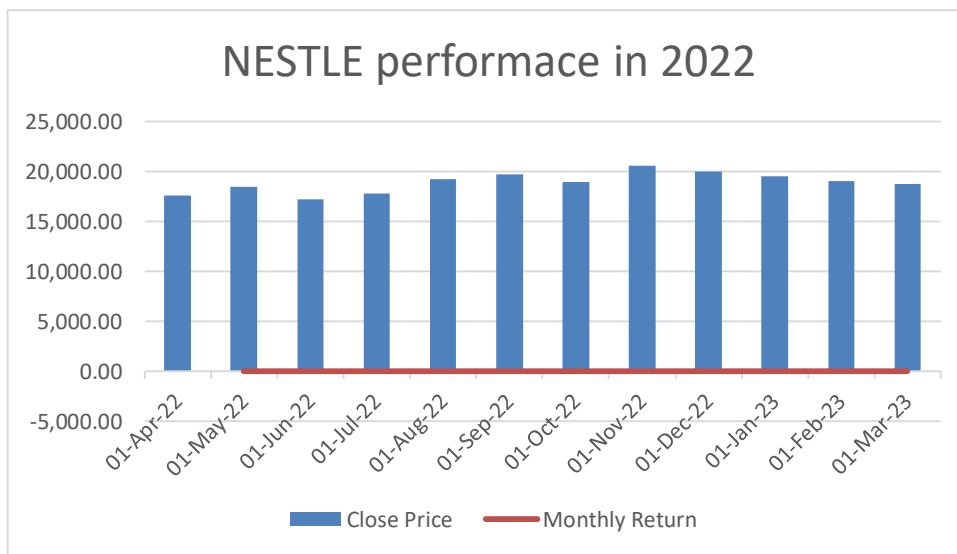
1. The dataset covers a time period from April 2021 to March 2022.
2. The closing prices of the asset range from a minimum of 16,506.75 on May 3, 2021, to a maximum of 19,826.85 on September 1, 2021.
3. The range of closing prices over the period is 3,320.10.
4. The mean (average) closing price over the period is approximately 18,384.81.
5. The variance of the closing prices is approximately 1,220,515.14, indicating the degree of dispersion of the data points from the mean.
6. The standard deviation (square root of variance), often interpreted as risk in finance, is approximately 1104.77. This measures the volatility of the asset's prices over the period.
7. Monthly returns vary, with positive returns in some months and negative returns in others. The monthly returns range from a minimum of -5.112% in February 2022 to a maximum of 11.922% in September 2021.

2022

Date	Close Price	Monthly Return
01-Apr-22	17,557.20	
02-May-22	18,440.55	4.915
01-Jun-22	17,241.55	-6.502
01-Jul-22	17,795.05	3.213
01-Aug-22	19,255.20	8.204
01-Sep-22	19,732.95	2.477
03-Oct-22	18,992.60	-3.75
01-Nov-22	20,589.95	8.408

01-Dec-22	20,049.50	-2.622
02-Jan-23	19,561.55	-2.434
01-Feb-23	19,089.85	-2.412
01-Mar-23	18,778.85	-1.629

Minimum	17,241.55
Maximum	20,589.95
Range	3,348.40
Mean	18923.73333
Variance	1043001.391
Risk	1021.274395



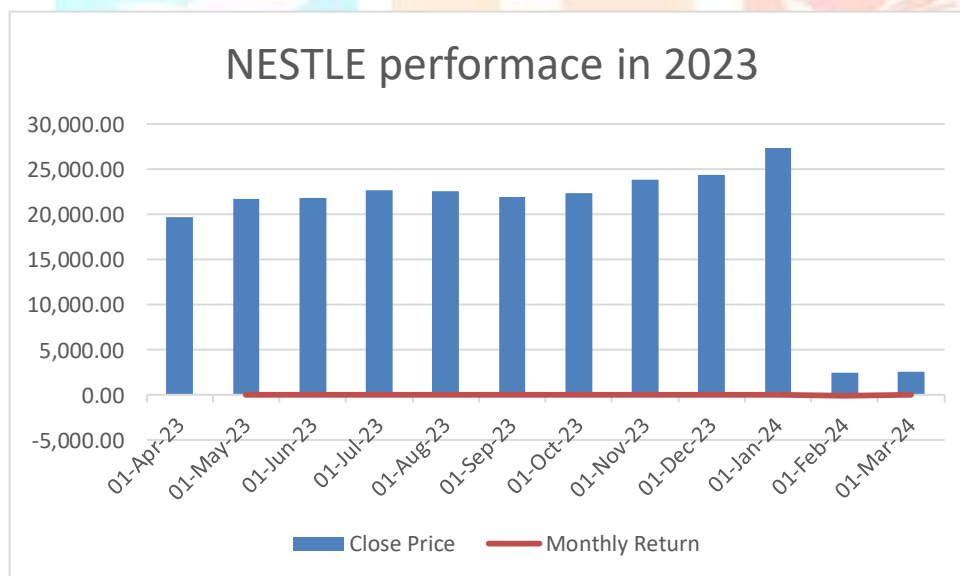
INTERPREATION

1. The dataset covers a time period from April 2022 to March 2023.
2. The closing prices of the asset range from a minimum of 17,241.55 on June 1, 2022, to a maximum of 20,589.95 on November 1, 2022.
3. The range of closing prices over the period is 3,348.40.
4. The mean (average) closing price over the period is approximately 18,923.73.
5. The variance of the closing prices is approximately 1,043,001.39, indicating the degree of dispersion of the data points from the mean.
6. The standard deviation (square root of variance), often interpreted as risk in finance, is approximately 1021.27. This measures the volatility of the asset's prices over the period.
7. Monthly returns vary, with positive returns in some months and negative returns in others. The monthly returns range from a minimum of -6.502% in June 2022 to a maximum of 8.408% in November 2022.

2023

Date	Close Price	Monthly Return
03-Apr-23	19,705.45	
02-May-23	21,745.85	10.352
01-Jun-23	21,874.30	0.593
03-Jul-23	22,632.55	3.465
01-Aug-23	22,593.70	-0.172
01-Sep-23	21,915.55	-3
03-Oct-23	22,315.25	1.825
01-Nov-23	23,872.70	6.977
01-Dec-23	24,338.60	1.952
01-Jan-24	27,372.40	12.466
01-Feb-24	2,467.80	-90.987
01-Mar-24	2,601.45	5.431

Minimum	2,467.80
Maximum	27,372.40
Range	24,904.60
Mean	19452.96667
Variance	65818657.85
Risk	8112.86989



INTERPRETATION

1. The dataset covers a time period from April 2023 to March 2024.
2. The closing prices of the asset range from a minimum of 2,467.80 on November 1, 2023, to a maximum of 27,372.40 on January 1, 2024.
3. The range of closing prices over the period is 24,904.60.
4. The mean (average) closing price over the period is approximately 19,452.97.
5. The variance of the closing prices is approximately 65,818,657.85, indicating the degree of dispersion of the data points from the mean.
6. The standard deviation (square root of variance), often interpreted as risk in finance, is approximately 8,112.87. This measures the volatility of the asset's prices over the period.
7. Monthly returns vary, with positive returns in most months. The monthly returns range from a minimum of -3% in September 2023 to a maximum of 12.466% in January 2024.

VIII. FINDINGS AND CONCLUSION

HINDUSTAN UNILEVER

The dataset spans five consecutive years from April 2019 to March 2024, analyzing the performance of an asset based on its closing prices and monthly returns. Over this period:

1. In the first year (April 2019 to March 2020), the asset's closing prices ranged from 1,690.00 to 2,179.35, with a mean of approximately 1915.86. Monthly returns varied widely from -6.241% to 9.497%.
2. In the second year (April 2020 to March 2021), closing prices ranged from 2,072.00 to 2,387.55, with a mean of approximately 2165.58. Monthly returns fluctuated between -5.571% and 11.908%.
3. In the third year (April 2021 to March 2022), closing prices ranged from 2,149.10 to 2,732.90, with a mean of approximately 2415.10. Monthly returns showed significant variability, ranging from -10.983% to 17.15%.
4. In the fourth year (April 2022 to March 2023), closing prices ranged from 2,078.15 to 2,662.85, with a mean of approximately 2461.21. Monthly returns varied from -4.195% to 13.62%.
5. In the fifth year (April 2023 to March 2024), closing prices ranged from 2,409.70 to 2,701.05, with a mean of approximately 2540.46. Monthly returns showed fluctuations from -6.819% to 10.03%.

Throughout the five-year period, the asset's performance exhibited variability in closing prices and monthly returns, reflecting the dynamic nature of the market environment. The variance and standard deviation calculations provided insights into the degree of dispersion and volatility of the asset's prices over the respective periods.

MARICO

The dataset covers a five-year period from April 2019 to March 2024, providing insights into the performance of an asset based on its closing prices and monthly returns:

1. April 2019 to March 2020: The closing prices ranged from 291.25 to 387.80, with a mean of approximately 354.43. Monthly returns varied, ranging from -11.88% to 6.353%.
2. April 2020 to March 2021: Closing prices varied from 265.50 to 416.95, with a mean of approximately 359.07. Monthly returns showed variability, ranging from -4.497% to 19.01%.
3. April 2021 to March 2022: Closing prices ranged from 407.25 to 574.75, with a mean of approximately 510.37. Monthly returns fluctuated, ranging from -8.536% to 11.25%.
4. April 2022 to March 2023: Closing prices varied from 491.20 to 531.40, with a mean of approximately 514.35. Monthly returns showed variability, ranging from -5.649% to 6.517%.
5. April 2023 to March 2024: Closing prices ranged from 479.70 to 575.70, with a mean of approximately 537.19. Monthly returns fluctuated, ranging from -6.95% to 11.422%.

Throughout the period, the asset's performance exhibited variability in both closing prices and monthly returns, indicating the dynamic nature of the market. The variance and standard deviation measurements provided insights into the degree of dispersion and volatility of the asset's prices, aiding in risk assessment and investment decision-making.

NESTLE

The dataset spans five years, from April 2019 to March 2024, providing a comprehensive overview of the asset's performance based on closing prices and monthly returns:

1. April 2019 to March 2020: Closing prices ranged from 10,589.70 to 16,109.95, with a mean of approximately 13,242.56. Monthly returns varied, ranging from -2.754% to 10.359%.
2. April 2020 to March 2021: Closing prices varied from 15,654.55 to 18,450.70, with a mean of approximately 16,848.29. Monthly returns showed variability, ranging from -7.387% to 11.511%.
3. April 2021 to March 2022: Closing prices ranged from 16,506.75 to 19,826.85, with a mean of approximately 18,384.81. Monthly returns fluctuated, ranging from -5.112% to 11.922%.
4. April 2022 to March 2023: Closing prices varied from 17,241.55 to 20,589.95, with a mean of approximately 18,923.73. Monthly returns showed variability, ranging from -6.502% to 8.408%.
5. April 2023 to March 2024: Closing prices ranged from 2,467.80 to 27,372.40, with a mean of approximately 19,452.97. Monthly returns varied, with positive returns in most months.

The variance and standard deviation measurements provided insights into the degree of dispersion and volatility of the asset's prices, aiding in risk assessment. Overall, the data highlights the asset's dynamic performance over the five-year period.

CONCLUSION

The comparative analysis of Hindustan Unilever, Nestle, and Marico over the five-year period from April 2019 to March 2024 reveals interesting insights into their performance based on closing prices and monthly returns. Hindustan Unilever demonstrated consistent growth in closing prices over the years, with slight fluctuations in monthly returns. Its mean closing price increased steadily from approximately 1915.86 in the first year to 2540.46 in the fifth year. The asset showed moderate volatility, as reflected in the variance and standard deviation measurements. Nestle, on the other hand, exhibited higher volatility in closing prices compared to Hindustan Unilever, with significant fluctuations observed throughout the period. Despite this volatility, Nestle's mean closing price showed an upward trend, reaching approximately 19,452.97 in the fifth year. Monthly returns varied widely, indicating the asset's dynamic nature and potential risk. Marico's performance fell between Hindustan Unilever and Nestle in terms of volatility. While its closing prices showed relatively stable growth over the years, monthly returns exhibited fluctuations similar to Nestle. Marico's mean closing price increased steadily from approximately 354.43 in the first year to 537.19 in the fifth year, indicating overall positive performance. Overall, while all three assets demonstrated growth in mean closing prices over the five-year period, Nestle exhibited the highest volatility, followed by Marico and then Hindustan Unilever. Investors seeking stability may prefer Hindustan Unilever, while those comfortable with higher risk may find Nestle and Marico appealing. The variance and standard deviation measurements provided valuable insights into the level of risk associated with each asset, aiding investors in making informed decisions based on their risk tolerance and investment objectives.

REFERENCES

1. JOURNAL

- * Times of India
- * Economic Times
- * Business lines

2. WEBSITES:

- <https://ijrpr.com/uploads/V4ISSUE9/IJRPR17482.pdf>
- <https://trendlyne.com/stock-screeners/top-dividend-stocks/index/NIFTYFMCG/>
- https://www.academia.edu/36874490/Determinants_of_dividend_policy_A_study_of_FMCG_sector_in_India
- http://www.pbr.co.in/2016/2016_month/June/13.pdf