



GLOBAL MARKET INSIGHTS

“A 5 Year Comparative Market Analysis (2020-2024)”

IST 737: Visual Analytic Dashboards

GROUP 6 - TEAM MEMBERS:

Tejas Sonavane - tsonavan@syr.edu

Amulya Walimbe – gwalimbe@syr.edu

Sakshi Singh – ssing114@syr.edu

Shivani Pandeti – spandeti@syr.edu

Project Description

This project analyzes the stock market performance of the top five global economies using five years of historical data (2020 - 2024). By examining each country's major equity index, the project provides a comprehensive view of how their markets evolved during this period. These indices represent large, diverse, and liquid companies that best capture each country's economic and market conditions. The dashboards present cross-country and sector-level insights into returns, market capitalization trends, valuation ratios, and growth drives, enabling a clear comparison of global market behavior.

Data Sources

Capital IQ was used as the primary data source to extract.

Capital IQ - Equity Index & Company-Level Data:

<https://www.capitaliq.com/CIQDotNet/my/dashboard.aspx>

Dashboards

We designed dashboards using a hierarchical structure to provide a clear top-down understanding of global equity markets. The analysis starts at the Global Level, then narrows into Sector Level, then Industry Level, and finally ends with a deep-dive at the Company Level. This structure ensures a logical flow, from broad market trends to detailed company performance.

Cover Page:

A high-level introduction to the project, showing the five countries and equity indices analyzed, along with a snapshot of key metrics (e.g., ROE comparison) to set the context for the 5-year timeframe (2020-2024).

Global Level Analysis:

A complete overview of how the major indices (S&P 500, Hang Seng, DAX, Nifty 50, Nikkei 225) performed over five years (2020-2024), including market capitalization trends, global KPIs, and a heatmap comparing fundamental metrics across economies.

Sector Level Analysis:

An understanding of which out of the top sectors are driving each country's index performance by comparing revenue, profit margins, CAGR, and sector-level growth patterns, helping identify the strongest and weakest sectors globally.

Industry Level Analysis:

Insight into the top 10 global industries, including revenue, profitability benchmarks, market cap share, and capital intensity, enabling the viewer to assess which industries are the most efficient, dominant, and investment heavy.

Company Level Analysis:

A deeper dive into the top companies within each index, showing trends in market cap, enterprise value, revenue, EBITDA, gross profit, and ROE, allowing the viewer to connect market-level trends back to individual companies.

Additional Details That Support Project Evaluation

- Five-Year Data Window (2020–2024):**

All dashboards are built using consistent 5-year historical data to ensure meaningful comparisons and trend patterns. Across all dashboards, we found that the U.S. S&P 500 consistently leads in EBITDA margins and ROE, India's Nifty 50 shows the highest annual returns, while China's Hang Seng maintains stronger dividend yield despite lower price performance. These multi-level dashboards help connect global trends down to company fundamentals.

- Data Source:**

Capital IQ provided index-level, company-level, and sector-level financial data, ensuring standardized values in dollars and globally comparable metrics.

- Indices Chosen:**

S&P 500 (USA), Hang Seng (China), DAX 40 (Germany), Nifty 50 (India), Nikkei 225 (Japan) selected for reliability, global relevance, and data availability.

- Analytical Focus:**

- Market Capitalization Evolution
- EBITDA Margin & ROE
- Price Change % & CAGR
- Sector/Industry Profitability
- Revenue Growth & Efficiency Benchmarks
- Company-Level Deep Dive on Financial Strength

- **Dashboard Design Principles:**
 - Hierarchical structure for clear analytical storytelling
 - Consistent color scheme & labeling
 - Interactive filters for index, sector, industry, and year
 - Use of KPIs, heatmaps, bar charts, bubble charts, etc. for clarity
 - Logical drill-down: broader to deeper insights
 - Tooltips provide definitions and metric-specific insights for easier interpretation
 - Sector level interactivity: Clicking on any bubble in the sector distribution chart updates the Revenue and Profit Margin Over Time visualization, allowing users to analyze sector performance dynamically.
 - Company Level Interactivity: Clicking on any company in the Company-Level treemap automatically updates all related charts including Gross Profit, ROE Comparison, EBITDA & Revenue Growth, and the Market Cap vs Enterprise Value trend providing an instant, focused view of the selected company's performance.
- **Project Goal:**

To provide a comprehensive, multi-layered understanding of how global stock markets behave across countries, sectors, industries, and companies, supporting informed decision-making and comparative analysis.