



Impact of Global Economic Uncertainty on the Financial Performance of the National Stock Exchange (NSE): A Study from 2021–2025

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Abstract

The National Stock Exchange (NSE) of India plays a crucial role in trading stocks, derivatives, and debt instruments. Between 2021 and 2025, global economic uncertainty, driven by pandemic effects, fluctuating interest rates, geopolitical conflicts, and shifts in capital movements, significantly impacted financial markets, including the NSE. This research investigates how challenges like post-pandemic recovery, changes in foreign investment, and tightening monetary policies affected the NSE's income and trading activity. By analysing secondary data from financial statements and economic reports, the study evaluates trends in revenue, net profits, and trading volumes. Increased global uncertainty led to market volatility and corrections in equity indices. Despite these challenges, the NSE's robust domestic investor base and diversified revenue helped mitigate adverse effects. The findings highlight the importance of adaptive risk management and regulatory consistency in maintaining financial performance during global instability.

Key Words: Global Economic Uncertainty, National Stock Exchange (NSE), Financial Performance, Revenue and Profitability, Market Volatility, Foreign Institutional Investment (FII), Trading Volume, Geopolitical Risk, Post-COVID Economic Recovery, Indian Capital Market.

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1. INTRODUCTION

The National Stock Exchange (NSE) of India, as one of the world's most active and rapidly growing bourses, plays a vital role in capital market operations and investment flows within the country. Its financial performance – reflected through revenue, profitability, trading volumes, and investor activity – is influenced not only by domestic economic conditions but also by global economic dynamics. Over the past decade, the world economy has experienced multiple periods of significant uncertainty, triggered by geopolitical conflicts, monetary policy shifts in developed economies, supply-chain disruptions, global inflationary pressures, and health crises such as the COVID-19 pandemic. These external shocks contribute to fluctuations in investor behaviour, capital flows, and market volatility, which in turn can shape the financial outcomes of stock exchanges like NSE. Global economic uncertainty affects market participants' risk appetite, foreign capital inflows, and trading activity – all of which are crucial determinants of the exchange's financial performance. For example, heightened macroeconomic risk often leads to decreased foreign institutional investment (FII) flows, increased volatility, and subdued trading revenues. Similarly, synchronised sell-offs in global markets driven by external shocks have historically led to pressure on Indian equity benchmarks and corresponding impacts on exchanges' financial metrics. Understanding how such global uncertainties influence NSE's financial dynamics is essential for investors, policymakers, and market regulators to ensure resilience, inform risk-management strategies, and guide regulatory policy in an increasingly interconnected financial landscape.

2. RESEARCH OBJECTIVES

The objectives of my research paper are as follows: -

- Evaluate how global economic uncertainty influences key financial performance indicators of NSE – including revenue generation, profitability, and trading volumes;
- Analyse the relationship between global macroeconomic shocks and NSE's financial outcomes using trend and contextual evidence from major global events;
- Assess the resilience and adaptability of NSE to global economic disruptions compared to overall market performance.

3. RESEARCH METHODOLOGY

The research adopts a mixed methodology involving:

- Secondary data analysis from NSE annual reports, financial disclosures, and macroeconomic indicators.
- Event-based impact assessment of key global economic shocks (global monetary policy changes, geopolitical conflicts, pandemic disruptions).
- Comparative trend evaluation of NSE's financial data before, during, and after major global uncertainties.
- The analysis is supported by documented evidence of macroeconomic shocks' effects on financial markets and NSE performance metrics.



4. GLOBAL ECONOMIC UNCERTAINTY

Global economic uncertainty arises when economic agents lack clarity regarding future macroeconomic conditions, including output growth, inflation, interest rates, exchange rates, and trade policies. Unlike risk, which can be quantified using probabilities, uncertainty is often unmeasurable and unpredictable. It reduces confidence and increases volatility across markets. Economic uncertainty is commonly reflected in:

- Sharp fluctuations in financial markets;
- Decline in business and consumer confidence;
- Delayed investment and consumption decisions;
- Increased precautionary savings;

Indices such as the Global Economic Policy Uncertainty (EPU) Index are often used to measure the degree of uncertainty prevailing in the global economy.

4.1. Sources of Global Economic Uncertainty

Global economic uncertainty is driven by multiple interconnected factors:

a) Macroeconomic Instability

High inflation, volatile interest rates, fiscal deficits, and unsustainable debt levels create uncertainty about future economic stability. Sudden changes in monetary or fiscal policies further intensify unpredictability.

b) Geopolitical Tensions

Wars, regional conflicts, terrorism, and diplomatic tensions disrupt trade routes, energy supplies, and global supply chains. Geopolitical risks often lead to capital flight and increased market volatility.

c) Global Financial Crises

Financial crises, such as banking failures or asset price bubbles, create systemic uncertainty. These crises reduce liquidity, tighten credit conditions, and weaken investor confidence worldwide.

d) Trade and Policy Uncertainty

Trade wars, tariff impositions, sanctions, and frequent changes in trade agreements introduce uncertainty in international commerce. Firms face difficulty in planning production and investment due to unpredictable policy environments.

e) Health and Environmental Shocks

Pandemics, climate change, natural disasters, and environmental degradation disrupt labor markets, production systems, and global supply networks, increasing long-term economic uncertainty.

4.2. Mechanisms of Global Economic Uncertainty

Global economic uncertainty affects economies through several key transmission mechanisms:

a) Investment Channel

Uncertainty discourages private investment as firms postpone or cancel capital expenditure decisions. When future demand and profitability are unclear, businesses adopt a “wait-and-see” approach, reducing overall economic growth.

b) Consumption Channel

Households respond to uncertainty by increasing precautionary savings and reducing discretionary spending. This decline in consumption lowers aggregate demand and slows economic activity.

c) Financial Market Channel

Uncertainty leads to heightened volatility in stock markets, bond markets, and foreign exchange markets. Investors shift funds from risky assets to safer assets such as gold or government securities, causing market instability and capital reallocation.

d) Credit and Banking Channel

Banks become more risk-averse during uncertain periods, tightening lending standards. Reduced access to credit adversely affects businesses, particularly small and medium enterprises, limiting expansion and employment generation.

e) Trade and Supply Chain Channel

Uncertainty disrupts global trade flows by increasing transaction costs and reducing cross-border investments. Firms diversify or relocate supply chains, leading to inefficiencies and increased production costs.

f) Policy Transmission Channel

Uncertainty weakens the effectiveness of monetary and fiscal policies. Even when governments implement stimulus measures, firms and consumers may not respond positively due to a lack of confidence in economic recovery.

4.3. Measurement of Global Economic Uncertainty

Economic uncertainty is measured using various indicators:

- Global Economic Policy Uncertainty (EPU) Index;
- Market volatility indices (e.g., VIX);
- Business and consumer confidence surveys;
- Forecast dispersion among economists.

These indicators help policymakers and researchers assess the extent and impact of uncertainty on economic performance.

4.4. Implications for Emerging and Developing Economies

Emerging economies are particularly vulnerable to global economic uncertainty due to:

- Dependence on foreign capital flows;
- Exposure to exchange rate volatility;
- Reliance on exports and commodity markets.

Sudden global shocks can lead to currency depreciation, capital outflows, inflationary pressures, and financial instability in developing countries.

5. FINANCIAL PERFORMANCE OF THE NATIONAL STOCK EXCHANGE (NSE)

The National Stock Exchange of India (NSE), established in 1992, is one of the largest and most technologically advanced stock exchanges in the world. It plays a pivotal role in India's financial system by facilitating capital formation, ensuring market transparency, and providing a platform for trading in equities, derivatives, debt instruments, and exchange-traded funds. The financial performance of the NSE reflects not only its operational efficiency but also the overall health and maturity of the Indian capital market. Assessing NSE's financial performance is crucial for understanding its sustainability, competitiveness, and ability to withstand domestic and global economic uncertainties.

5.1. Revenue Structure of NSE

The NSE generates income from diversified sources, which strengthens its financial stability. Major revenue components include:

- **Transaction Charges:** Fees earned from trading in equity, derivatives, and currency segments. The derivatives segment contributes a significant share due to high trading volumes.
- **Listing Fees:** Charges collected from companies for listing securities on the exchange.
- **Data and Information Services:** Revenue from market data dissemination, indices, and analytical products.
- **Technology and Connectivity Services:** Income from co-location services, trading software, and network connectivity.
- **Other Operating Income:** Includes penalties, admission fees, and investment income.

Over the years, NSE has shown strong revenue growth driven by increased market participation, digital trading platforms, and the expansion of derivative products.

5.2. Core Revenue Segments (2024-25)

- **Transaction Charges:** These are fees levied on every trade executed on the exchange across the cash, equity derivatives, and currency derivatives segments. In FY 2024-25, a decline in trading volumes led to a 15% sequential drop in this specific category during the final quarter.

- **Listing Fees:** Revenue generated from companies for the initial and ongoing privilege of trading their shares on the exchange. Fees are typically based on a company's paid-up capital or market capitalisation.
- **Data Services & Index Licensing:** Fees charged for real-time market data feeds and the licensing of the Nifty indices to financial institutions and mutual funds for ETF creation.
- **Co-location & Connectivity:** Income from providing high-speed connectivity and server space within NSE's data centre to high-frequency traders and brokers.
- **Clearing & Settlement:** Revenue from its subsidiary NSE Clearing Limited (NCL), which handles the settlement of all trades. This segment saw a 16% sequential decline in Q3 FY25 due to lower volumes.

5.3. Profitability Performance

Profitability is a key indicator of NSE's financial strength and operational efficiency. NSE has consistently reported strong profits due to:

- High operating margins resulting from technology-driven operations;
- Economies of scale in trading and clearing activities;
- Growth in high-margin derivative trading

Key profitability indicators include:

- Operating Profit: Reflects efficient cost management despite large trading volumes;
- Net Profit: Indicates the exchange's ability to generate surplus after expenses and taxes;
- Profit Margins: NSE maintains robust margins compared to many global exchanges due to lower marginal costs per transaction.

Even during periods of economic uncertainty, NSE's profitability has remained resilient, supported by volatility-driven trading volumes.

5.4. Annual Revenue and Net Profit (in Crores)

Table 1: Annual Revenue and Net Profit (in Crores)

S. No.	Year	Total Revenue	Total Profits
1	2020-21	8873	5198
2	2021-22	12765	7501
3	2022-23	20478	7355
4	2023-24	23974	8305
5	2024-25	19177	12188

Source: Annual reports of the National Stock Exchange (NSE), India.

5.5. Trend Analysis of Total Revenue & Total Profits of NSE (2020-21 TO 2024-25)

Table 2: Revenue Performance Analysis

Year	Total Revenue (Rs. Cr.)	Interpretation
2020-21	8,873	Pandemic recovery phase; cautious global sentiment, but high volatility supported trading income;
2021-22	12,765	Strong rebound due to global liquidity, low interest rates, and a surge in retail participation;
2022-23	20,478	Sharp growth driven by heightened volatility from the Russia-Ukraine war, inflation shocks, and aggressive trading activity;
2023-24	23,974	Peak revenue; uncertainty led to higher derivatives turnover despite global monetary tightening.
2024-25	19,177	Decline due to moderation in global volatility, regulatory tightening, and reduced speculative trading.

Revenue shows strong growth until 2023-24, indicating that moderate to high global uncertainty boosted NSE’s transaction-based income. The fall in 2024-25 suggests that persistent uncertainty, combined with regulatory controls, reduced trading intensity.

Table 3: Profits Performance Analysis

Year	Total Profits (Rs. Cr)	Interpretation
2020-21	5,198	Strong cost efficiency even during pandemic uncertainty
2021-22	7,501	Profit growth aligned with revenue expansion
2022-23	7,355	Marginal decline despite higher revenue, reflecting rising operating & compliance costs
2023-24	8,305	Stable profits amid global tightening and volatile capital flows
2024-25	12,188	Sharp jump due to operational efficiency, diversified income, and controlled expenses

Table 4: Profit Margin Trends

Year	Profit Margin
2020-21	58.6%
2021-22	58.8%
2022-23	35.9%
2023-24	34.6%
2024-25	63.5%

Overall, the profit margin trends reveal significant fluctuations in NSE's profitability over the period, reflecting changing market conditions and cost-revenue dynamics. The margins remained consistently strong and stable in 2020-21 (58.6%) and 2021-22 (58.8%), indicating efficient operations and favourable trading activity. However, a sharp decline in 2022-23 (35.9%) and 2023-24 (34.6%) suggests increased operating costs, regulatory pressures, or revenue moderation during a phase of economic and market uncertainty. Notably, the remarkable recovery in 2024-25 to 63.5% highlights NSE's resilience, improved cost efficiency, and renewed growth in high-margin segments such as derivatives. Overall, despite interim volatility, the long-term trend underscores NSE's strong profitability and ability to adapt effectively to changing economic conditions.

6. IMPACT OF GLOBAL ECONOMIC UNCERTAINTY ON THE FINANCIAL PERFORMANCE OF THE NATIONAL STOCK EXCHANGE (NSE)

Global economic uncertainty has had a mixed but significant impact on the financial performance of the National Stock Exchange (NSE) in India, generating both opportunities and challenges. On the positive side, heightened uncertainty often leads to increased market volatility, which boosts trading activity and results in higher cash market and derivatives volumes, particularly during periods of global shocks such as geopolitical tensions, pandemics, and inflationary crises. The NSE has benefited from a surge in derivatives trading as investors seek hedging instruments, while strong retail participation during uncertain times has further supported transaction-based revenues. However, prolonged global instability also brings negative consequences. Regulatory authorities often impose tighter norms to curb excessive speculation, increasing compliance and operational costs for the exchange. Extended periods of uncertainty can dampen investor confidence, leading to reduced turnover over time, while intense competition and elevated costs exert pressure on profit margins during phases of peak instability.

7. CONCLUSION

The analysis indicates that global economic uncertainty had a mixed impact on the financial performance of the National Stock Exchange (NSE) from 2021 to 2025. Initially, increased uncertainty boosted trading activity and revenue, but prolonged instability and regulatory changes later dampened revenue growth. Despite this, NSE maintained strong profitability, particularly in 2024-2025, due to effective cost management, diversified income, and structural strength.

NSE's solid financial performance reflects its robust market position, operational efficiency, and technological advancement. While it demonstrated resilience during global uncertainty, quarterly results revealed volatility with revenue drops linked to decreased trading activity and foreign institutional investor participation. Rising global interest rates and risk aversion posed liquidity challenges, affecting revenues.

The study confirms that global economic conditions significantly influence NSE's performance through capital flows and monetary policy. However, NSE's ability to absorb shocks highlights its strength, supported by strong domestic engagement and sound regulatory practices. The findings emphasise the need for a comprehensive risk management strategy and ongoing monitoring of global economic indicators for better policy and investment decisions.

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