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An Empirical Study of Integration of Indian Capital Markets with GlobalMarkets after Covid 19 Pandemic

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ABSTRACT

The impact of Covid 19 on the Indian capital markets has been noticeable from March 21.Not just the macro and micro elements of the Indian economy have influenced the stock prices of Indian companies and the stock market indices.Stock prices in India have surged as a result of greater stock market volatility and laxer border constraints on the flow of cash.This research seeks to demonstrate that the Indian capital markets have been impacted by the movement of other major world capital market.It calculates the degree to which the major international stock markets of the United States, United Kingdom, Japan, and Hong Kong are correlated with the Indian Stock Market Index, such as the NIFTY 50. The study only covers the time frame from January 2021 to December 2022.

Keywords: Covid 19, Regression and Correlation analysis, Dow Jones, NIKKEI, Hang Seng, UK FTSE.

INTRODUCTION

The Indian stock market clearly demonstrated evidence of integration with the global stock markets in the latter half of the 2021s, particularly in the years following 2020 after the pandemic Covid 19.Along with the other stock markets around the world, the global capital flows have also played a significant role in the stock market volatility, which has been influenced by both macro and microeconomic factors in the Indian economy.

Impact of Covid 19 on Indian Stock Market

Stock prices may tumble as a result of investors trying to get their investments out before values fall even more due to fear tied to an unexpected catastrophe.Since every investor wants to sell, there is a greater supply of stocks than there is demand for them, which causes stock prices as a whole to fall.

The spread of the coronavirus has affected every industry.Because of storage problems, oil futures prices have fallen.Fears of a recession earlier in March 2020 caused stock indices to decline.While the global markets became extremely turbulent in March, the March 9 stock market crash in 2020 will be remembered as "Black Monday."when the Dow Jones and other leading stock indices fell to their lowest levels ever in a single day.The most extreme shift since the global recession in 2008 has been noted to be this one.On March 12 and March 16, these indices continued to post historical losses.India saw these knock-on consequences as well; in March, the BSE Sensex fell more than 2,919 points, or 8.18 percent, and a circuit breaker was set off right after the market opened.According to intraday statistics, the index saw its largest one-day decline, 3204 points.The NSE Nifty fell 8.30 percent in a single day as well.The severity of the 2020 stock market crash is demonstrated by the fact that there have only been two other occasions in the history of stock trading when markets have experienced such record reductions in a single day.Prior to December 12, 1914, when prices plunged 23.52 percent, ushering in the Great Depression, Black Monday of October 19, 1987, saw a 22.6 percent drop in prices in a single day.

Impact of Covid 19 on US Stock Market

The crash resulted in a brief bear market, and in April 2020, stock markets worldwide returned to a bull market. However, it took until November 2020 for U.S. market indices to reach their pre-crisis levels.The COVID-19 recession got underway after the crash.Following the Great Recession's recovery, there was a decade of economic prosperity and steady global growth before the 2020 stock market catastrophe.While quality of life was rising all around the world, global unemployment was at its lowest point in history.The COVID-19 pandemic, the worst since the Spanish flu, started wreaking havoc on the economy in 2020, though.The pandemic caused global economic shutdowns, which were made worse by panic buying and supply interruptions.

LITERATURE REVIEW

Building a strong theoretical foundation for this study's analysis of how the COVID-19 epidemic has negatively impacted financial markets is crucial.As demonstrated by Goodell (2020), markets are expected to respond to the pandemic in a manner similar to how they respond to previous disasters, such as natural disasters (Gao et al., 2020) or terrorism (Wang and Young, 2020).Additionally, their research supported the findings of Mishkin and White (2002), who discovered that the sequence of panic selling during the equity market crash could cause the United States (U.S.) equity index to decline by 20% to 25% compared to other crises (such as World War I, World War II, etc.). The internationalisation of stock markets, according to Ayling (2013), "involves four main issues: deregulation of financial markets on a global scale; financial innovation faster than ever before; space age technology for connecting marketeers and transferring money and capital across national frontiers; and progress towards integrated world financial markets."When he writes that "Capital transfers from one country to another in quest of greater return and/or reduced risks," Mathew (2000) echoes these same ideas.The recent internationalisation of capital can be attributed to a number of factors.The main causes are the development of new hybrid varieties of derivative instruments, the reduction of international capital transaction costs due to low-cost computer technology, the relaxation of quantitative controls on foreign exchange transactions, regulatory restrictions on lending, and restrictions on the composition of institutional investors' portfolios in many countries. Additionally, portfolio holders have a strong desire for international diversification.Global capital movements in India are a relatively new phenomena that began with the liberalisation process in 1991 and became more pronounced in the second half of the 1990s.India had a closed economy up until this point, and the exchange control regulations were too onerous to draw in enough international investment.There was hardly any activity in this area even though "by the late 805, the Indian government had decided to permit foreigners also to make portfolio investments in India for the first time on a controlled and limited basis, for example through dedicated funds like the India Fund launched by UTI Merrili Lynch in 1986." (Gupta et al., 2003).The Indian economy underwent a series of significant structural changes between 1990 and 1991, which created a number of fresh difficulties.This development is the result of extensive policy changes that

were implemented in the economy following the 1991 balance of payments crisis, which nearly caused the nation to stop paying its foreign debt.

OBJECTIVE OF THE STUDY

In order to gauge how closely the Indian stock market is integrated with the global markets, this study aims to comprehend how foreign capital flows affect it. The specific goals are to: i) investigate the degree of correlation between the indices of the New York Stock Exchange, London Stock Exchange, Tokyo Stock Exchange, and Hong Kong Stock Exchange and the Indian stock market index.
ii) determine the connections between the movement of the Sensex and the net investments made in India by foreign institutional investors.

METHODOLOGY

In order to determine the relationship between the stock index in India and the indexes of the US (Dow Jones Industrial Average DJIA), UK (FTSE100), Japan (Nikkei 225), and Hong Kong (Hang Seng). stock markets, correlation studies have been conducted.
The data used for this purpose is only available from January 2021 to December 2022.

DATA ANALYSIS

The following model was formed to establish the integration of NIFTY 50 on world's leading market indices.
Nifty 50 = $A+\beta_1$DJI + β_2NIKKEI + β_3FTSE + β_4HANGSENG + ε…
We have reviewed the data on the movement of the major stock indices and compared them to the movements of the NIFTY 50.Empirical Support for the Integration of the Indian MarketIn this study, correlation analyses were performed between the daily closing values of the five most important international indices, including the nifty 50, Dow Jones Industrial Average (DJIA), Nikkei 225, Hang Seng, and FTSE100, from January 2021 to Dec 2022.

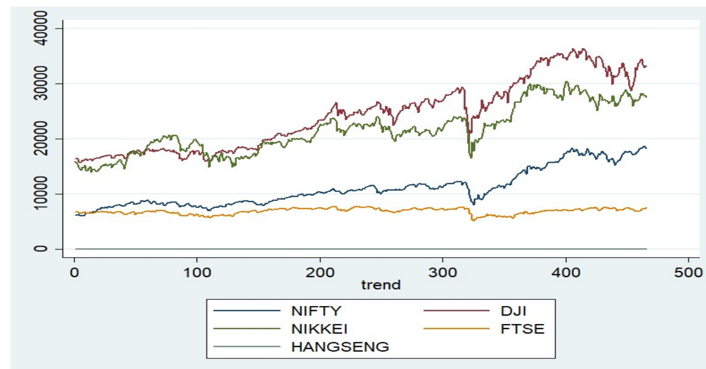

Table 1 contains the correlation and regression data.

Equation	Obs	Parms	RMSE	"R-sq"	F	P
NIFTY	466	5	702.956	0.9559	2497.963	0.0000

NIFTY	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
DJI	.255473	.0166362	15.36	0.000	.2227808	.2881652
NIKKEI	.3805305	.0243188	15.65	0.000	.3327411	.4283199
FTSE	1.057602	.0737032	14.35	0.000	.9127657	1.202437
HANGSENG	-261.7297	12.25146	-21.36	0.000	-285.8053	-237.6541
_cons	-3796.668	453.4472	-8.37	0.000	-4687.747	-2905.588

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. corr NIFTY DJI NIKKEI FTSE HANGSENG
(obs=466)
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	NIFTY	DJI	NIKKEI	FTSE	HANGSENG
NIFTY	1.0000				
DJI	0.9467	1.0000			
NIKKEI	0.9326	0.9473	1.0000		
FTSE	0.3953	0.3526	0.3532	1.0000	
HANGSENG	0.0865	0.2297	0.2911	0.4626	1.0000

Let's examine the correlation and regression study's findings.The following observations are crucial:

The Dow Jones and NIKKEI showed strong association withNIFTY 50. The two indexes have moved together nicely during the study period (January 2021 to December 2022), as seen by the correlation coefficient of 0.94 and 0.93 respectively.

According to the aforementioned correlation coefficient values, the Indian Stock Market is currently quite well linked with the New York Stock Exchange, the Hong Kong Stock Exchange,Tokyo Stock Exchange, and to a lesser extent the London Stock Exchange.

It is important to note that this correlation analysis does not necessarily show a cause-and-effect connection; rather, it measures the degree of link between the Sensex and the other indices.The international indexes are just one of the many elements that affect stock values and cause them to increase and decrease.

CONCLUSION

The main objective of this study was to examine and analyse the connections between the Indian market and developed Western markets (the US and UK) and Asian (Hong Kong, and Japan) markets.

Using the simple regression model, we investigated the volatility transmission from global markets to Indian markets.The model clearly distinguished between the US and UK markets and the Asian markets.It was discovered that Indian market is considerably impacted by the movement of the US followed by NIKKEI, Hongkong and UK.

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REFERENCES

- Goodell, J. W. (2020). COVID-19 and finance: Agendas for future research. *Finance research letters*, *35*, 101512.
- Gao M., Liu Y.-J., Shi Y. Do people feel less at risk? Evidence from disaster experience. J. Financ. Eco. 2020;138(3):866–888.
- Wang A.Y., Young M. Terrorist attacks and investor risk preference: evidence from mutual fund flows. J. Financ. Econ. 2020;137(2):491–514.
- Mishkin, F. S., & White, E. N. (2002). US stock market crashes and their aftermath: implications for monetary policy.
- Ayling, D. E., & Jiang, Z. (2013). Chinese and Western stock markets: international influences and development. In *Perspectives on Accounting and Finance in China (RLE Accounting)* (pp. 87-96). Routledge.
- Mathew, P. A. (2000). Econometric evidence on the internationalization of Indian capital market. *Finance India*, *14*(1), 143-164.
- Davila, A., Foster, G., & Gupta, M. (2003). Venture capital financing and the growth of startup firms. *Journal of business venturing*, *18*(6), 689-708.