IMPACT: International Journal of Research in
Business Management (IMPACT: IJRBM);
ISSN(Print): 2347-4572; ISSN(Online): 2321-886X
Vol. 12, Issue 9, Sep 2024, 1–12

UNDERSTANDING THE SURGE IN THE INDIAN STOCK MARKET DURING AND POST THE SECOND WAVE OF COVID-19: AN INTERDISCIPLINARY ANALYSIS

Dr. Swati Jhawar, Shristi Jain & Ishaan Agrawal

Research Scholar, NH Goel World School Raipur Chhattisarh, India

Received: 12 Sep 2024 **Accepted:** 16 Sep 2024 **Published:** 22 Sep 2024

ABSTRACT

The unusual growth in the Indian stock market during and post the second wave of the COVID-19 pandemic has caught the attention of investors both in India and abroad. Between 2020 and 2021, investors were able to receive a whopping 84% returns from the BSE Sensex and Nifty 50. This paper delves into a comprehensive analysis incorporating the various factors contributing to this surge with an interdisciplinary approach. By analysing a range of economic indicators, government policies and market trends, we provide a detailed study explaining this phenomenon. Our study juxtaposes indicators like interest rates, the Volatility Index, the number of Covid cases etc. with the BSE Sensex and NSE's Nifty 50. In addition, we have also analysed the impact of other indicators like India's credit rating, bond yield, employment scenario, demographic factors, liquidity influx, fiscal policies and retail investor behaviour on the Indian stock market. Through a rigorous analysis, we have factored the key drivers which led to the continued growth of the Indian stock market in 2021 and the resulting impact of these on investor sentiments and confidence. This research facilitates greater insights into the trend of the stock market and can be useful for investors to protect their investments and capitalise on future opportunities.

KEYWORDS: *Indian stock market, BSE Sensex, National Stock Exchange, Covid-19 Pandemic, economic indicators, market trends, Volatility index, Repo rates.*

INTRODUCTION

Financial markets play an essential role in an economy as they increase the efficiency and utilisation of financial instruments in the economy and allow firms to raise capital which can improve the ease of doing business and help encourage and nourish entrepreneurship in an economy. The COVID-19 pandemic had a significant impact on the world's stock markets including the Indian stock market which is the world's largest derivative market accounting for 99% of the total transactions.

The Covid-19 pandemic hit India in the last month of the year 2019. Originating from a laboratory in Wuhan, China, it spread across the globe putting pressure on governments worldwide to enforce lockdowns and shut down business activities. After the initial announcement of the emergence of the COVID-19 virus, India saw a sharp initial fall in the stock market as compared to the stock markets of developed economies which experienced a slow fall. The BSE Sensex saw a 33% fall, but from 4th April the Indian stock market saw a growth trajectory till 14th October 2021. Till 2019, India was one of the major emerging markets but after Covid India became the centre of attention. In this comprehensive study, we have analysed the changes in the major economic indicators in India which led to its monumental rise in geopolitics. In this paper, we have summarised and critiqued the relationships of various factors contributing to this unprecedented surge in the stock market, their implications for the economy, and the future trajectory of the Indian stock markets. We have considered the macroeconomic indicators (inflation, GDP growth rate), demographic changes, the government's monetary policy and the fiscal stimulus measures taken under the Atma Nirbhar Bharat initiative. Our aim for the research paper is to analyse the several factors which led to the growth of the Indian stock market amidst a deadly pandemic which created a lot of uncertainty in the market and clouded the vision of investors.

METHODOLOGY

We have conducted an interdisciplinary analysis of the growth of the Indian stock market in 2021 by juxtaposing various economic indicators and indices with the BSE Sensex and Nifty 50 and identifying existing trends. Firstly we have conducted an extensive literature review of all the past research papers addressing our topic and found that there was a research gap. All the previous papers had analysed the impact of the pandemic on the Indian stock market in 2019 and 2020 but very few of them had analysed the growth of the Indian stock market in 2021. Secondly, we have analysed various economic indicators such as inflation, GDP growth rate, credit rating, etc. using quantitative data analysis. The data for the above stated indicators was taken from reputable databases and financial statements. A comparative analysis was carried out to juxtapose the trends in the economic indicators with the performance of the Sensex, a commonly known Indian stock market index. Fourthly, a qualitative analysis has been used to interpret the findings and give reasons for the trends identified. This was done by looking at government policies, demographic trends and other factors affecting investor sentiments. All of this was then used to explain the growth trajectory in the Indian stock market.

LITERATURE REVIEW

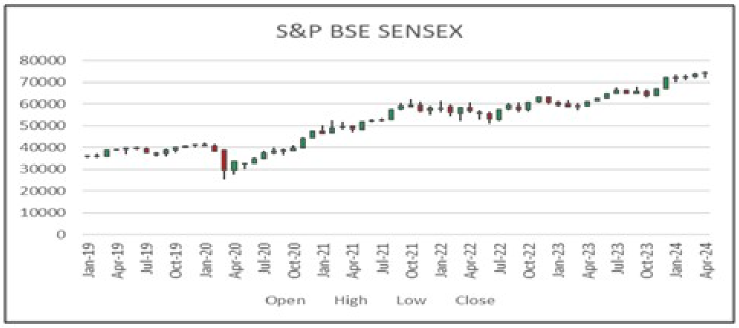
- **Mishra, S. (2024),**Throughout its century-long existence, the Indian stock market has had a spectacular metamorphosis, evolving into a vibrant and sophisticated financial ecosystem that is essential to the country's economic development. The market is a crucial venue for capital allocation and investment, with securities traded on well-known exchanges such as the National Stock Exchange (NSE) and the Bombay Stock Exchange (BSE). Under the jurisdiction of the Securities and Exchange Board of India (SEBI), it demonstrates inclusiveness by accepting a wide range of participants, including institutional funds and ordinary investors. Notwithstanding obstacles like fluctuations and adhering to regulations, the Indian stock market is robust and has several chances for generating money and promoting economic growth. This research seeks to give investors and stakeholders useful insights by thoroughly examining the market players, regulatory framework, historical history, and performance measures. It also attempts to throw light on new opportunities and developing trends in the Indian financial environment.
- **Rashmi Chaudhary, Priti Bakhshi and Hemendra Gupta, 2020,**Prior research has analysed the behaviour of the Indian stock market during the first wave of the Covid-19 pandemic, in which a pattern of declining returns was seen in the Indian stock market, with the BSE 500 and BSE Sensex plummeting by 13-14% in a day.
- **Varma, Yashraj, Renuka Venkataramani, Parthajit Kayal, and Moinak Maiti. 2021,** India being one of the fastest-growing economies, experienced a substantial fall of approximately 40% in its major stock indices' value. The stock markets in India started reacting to the pandemic well before its outbreak reached peak level owing to the knowledge from the experience of other countries.

- **Bala, A. (2013),** One of the financial system's liveliest segments, the stock market makes a significant contribution to economic growth. The stock market is a venue for securities transactions involving the buying and sale of shares, bonds, debentures, and other securities. Put differently, the stock market serves as a platform for the trading of different assets and derivatives. Additionally, it plays a crucial role in empowering corporate entrepreneurs to generate capital through public offerings for their businesses and endeavours. Rather than making investments elsewhere, long-term investors are now more interested in the stock market. The three main stock exchanges in the Indian stock market are the Bombay Stock Exchange (BSE), the National Stock Exchange (NSE), and the Calcutta Stock Exchange (CSE). The primary goal of the current study is to provide an overview of the literature on the Indian stock market in order to conduct a thorough analysis of the market. The research will make it easier for the reader to understand the trends and prospects of the Indian stock market in the past, present, and future. Investors might use the advice provided by this study to enhance profits while minimising risks. The Indian market has experienced extreme volatility recently, which has prompted more development going forward.
- **Kumar, V., Chaudhary, N., & Sah, S. K. (2021),** In order to track the growth of the Indian stock market in the banking industry, this study will analyse data pertaining to the Indian stock market. A listed company's shares can be purchased and sold on a stock market. In the stock market, as in any other market, buyers and sellers get together and engage in conversation. India's stock market is vital to the country's prosperity, especially in the banking industry. Therefore, the purpose of this study is to demonstrate the actual path to success in the Indian economy. Thus, the performance of the stock market determines the growth of the economy as a whole, and empirical data has shown that the development of the capital market is essential to economic growth. Thus, the Indian stock market heralds a new era in Indian history.
- **Srivastava, P., & Ugrasen (2017),** The stock market is a crucial financial sector contributing to economic development by facilitating transactions for buying and selling securities like shares, bonds, and debentures. It serves as a barometer for the Indian economy's performance. The Indian stock market, established by the Securities and Exchange Board of India (SEBI), has evolved over time, reaching global standards. India is projected to become the world's third-largest economy after 2035. The market's efficiency relies on accurate valuations of securities. This paper aims to explore the various technologies that attract investors to invest in the stock market for valuable returns.

ANALYSIS AND FINDINGS

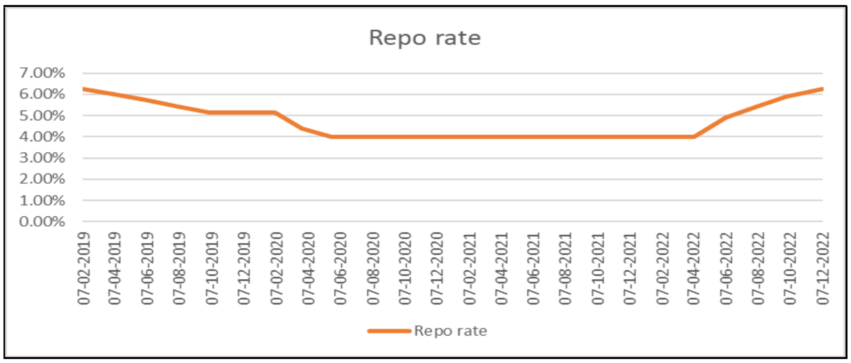
Our analysis delves deep into and explores the various key factors that have fueled the growth of the Indian stock market during the second wave of Covid-19.

Figure 1 shows the trend in the S&P BSE Sensex starting from January 2019 and Figure 2 shows changes in the repo rate charged by the Reserve Bank of India.



Source: BSE India

Figure: 1



Source: RBI

Figure: 2

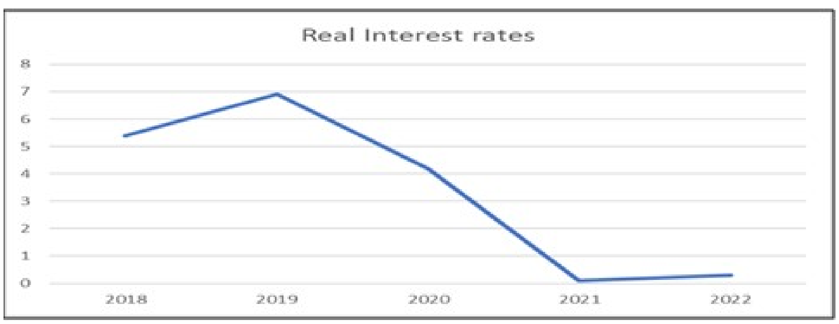


Figure: 3.

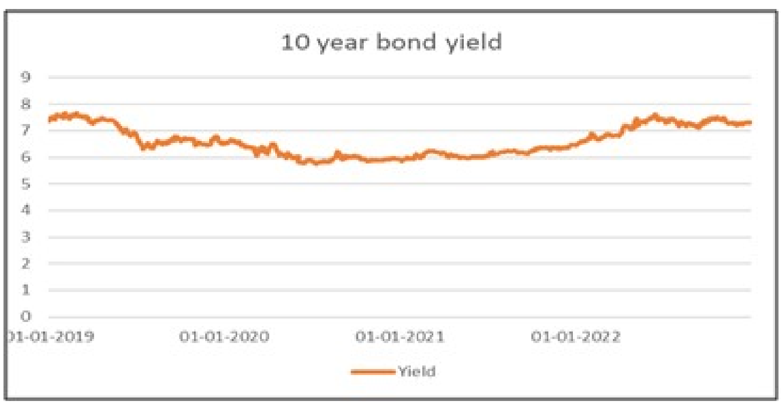
As seen from figure 1 and 2 above, there is an inverse relationship between the repo rate charged by the Reserve Bank of India and the S&P BSE Sensex, when the RBI cut the repo rate to 4% in 2021, in order to stimulate economic recovery, the S&P BSE sensex saw a significant boom. Lowering the repo rates decreased the cost of borrowing for banks which incentivised them to lower the interest rates which they charge to their customers. It encouraged commercial banks to borrow more and hence increased the volume of loans given out, which in turn lowered the interest rate.(with real interest falling to almost 0%). This encouraged investors to use leverage where they borrowed money to invest in the stock market. With the cheaper borrowing costs, investors amplified their potential returns which drove up the demand for the stocks.With record-low interest rates, the returns from traditional investment like bonds have decreased. As interest rates and bond yields move in the same direction, a fall in interest rates decreased the incentive to invest in saving accounts and hence made bonds more lucrative. Due to this the demand for bonds increased causing the prices of bonds to increase, and due to the coupon remaining constant, the bond yield decreased (as $-D(\Delta r/1+r)$ = bond price) (see Figure 5) This compelled investors to turn to the stock market for gaining higher returns through capital appreciation and dividends.The reduced interest rate also caused WACC, which is the discounting rate used to calculate the net present value of future cash flows from stocks using the DCF method, to fall. This led to higher predicted future earnings from stocks which pushed up stock prices.

Moreover, the cut in interest rates stimulated economic growth, as people's spending increased due to easier and cheaper availability of loans, which resulted in higher corporate earnings. Stronger economic growth expectations led to positive investor sentiment and greater confidence in the Indian stock market, which further led to stock price appreciation.

As the cost of borrowing fell, firms borrowed more in order to expand their business operations and to fund buyback programs. Share buybacks reduced the number of outstanding shares, causing earnings per share (EPS) to increase and stock prices to shoot up. For example during 2022 TCS made its biggest buyback worth around 18000 cr.

Source: NSE

Figure:4



Source: Investing.Com

Figure: 5

volatility index was at rock bottom and when the VIX was at its maximum then the nifty 50 was at its lowest leading to negative returns. The volatility index shows the market's expectations and portrays investor sentiments. In 2021, the Volatility index was at its lowest compared to the other years in the pandemic, due to a mix of factors such as stimulus packages by the government, increased consumption due to lower interest rates and expectation of economic recovery etc. This caused greater investment in the stock market and led to the growth of Nifty 50. Furthermore, RBI was successful in keeping inflation near the target level, reassuring stability in the market and eradicating uncertainty. This boosted investor confidence leading to higher investment into equity. (see Figure 10)

Another factor which contributed to the growth of the Indian stock market was the stability of India's credit rating. According to Fitch the rating was BBB- all along 2019, 2020 and 2021 (see Table 1); this stability in the rating led to higher investor confidence as confidence in the country's economic practices was reassured, lowering uncertainty. Despite falling output and lockdowns put in place, the credit ratings given by Moody's improved from Baa2 in 2019 to Baa3 in 2020 and 2021. This improvement led to positive foreign investor sentiments and a resulting increase in foreign direct investments by 10.19% in 2021 (see Table 2). The improved credit ratings increased the security of investments and thus led to increased investment in the Indian stock market. Due to the improvement of the credit ratings , the demand for government bonds increased which caused bond prices to rise and bond yields to fall. Consequently, people started shifting their investment from bonds to equity markets.

Table: 1

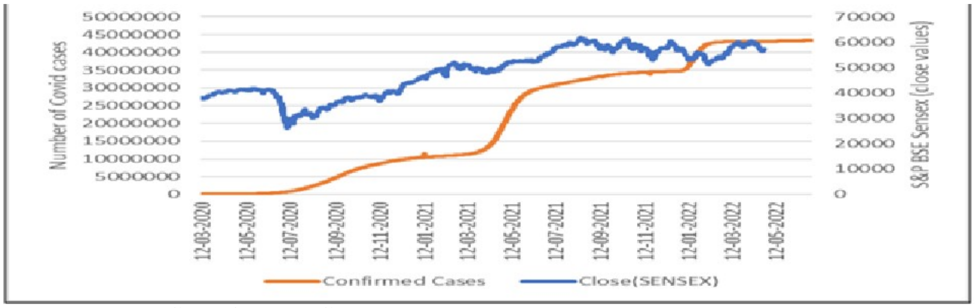
Agency	Rating	Date
Fitch	BBB-	1/2024
Moody's	Baa3	8/2023
Fitch	BBB-	5/2023
Fitch	BBB-	12/2022
Fitch	BBB-	6/2022
Fitch	BBB-	11/2021
Moody's	Baa3	10/2021
Fitch	BBB-	4/2021
Moody's	Baa3	6/2020
Fitch	BBB-	6/2020
Fitch	BBB-	12/2019
Moody's	Baa2	11/2019
Fitch	BBB-	4/2019

Source: The Globaleconomy.Com

Table: 2

S. No.	Financial Year	Amount of FDI inflows (in USD billion)
1.	2018-19	62.00
2.	2019-20	74.39
3.	2020-21	81.97
4.	2021-22	83.57

Source: RBI



Source: BSE India and PRS India

Figure: 6

Figure 6 shows the change in the BSE Sensex with the change in the number of confirmed covid cases. Firstly, in July 2020, there is an increase in the number of confirmed Covid cases and a decline in the Sensex value. This was the result of the increasing uncertainty clouding the market and increased fear of extended lockdowns and slowdown of business activities. In 2021, however, there is a huge increase in the number of Covid-19 cases and simultaneously there is growth in the BSE Sensex values. This occurred because India began the administration of the vaccine against Covid-19 in January 2021, which resulted in a decline in fear against the Covid-19 as people believed it to be curable and preventable and along with the other factors described, investors' sentiments turned positive. The number of covid cases no longer caused a significant fall in the Sensex values.

Source: BSE India and PRS India

Figure: 7

Figure: 8

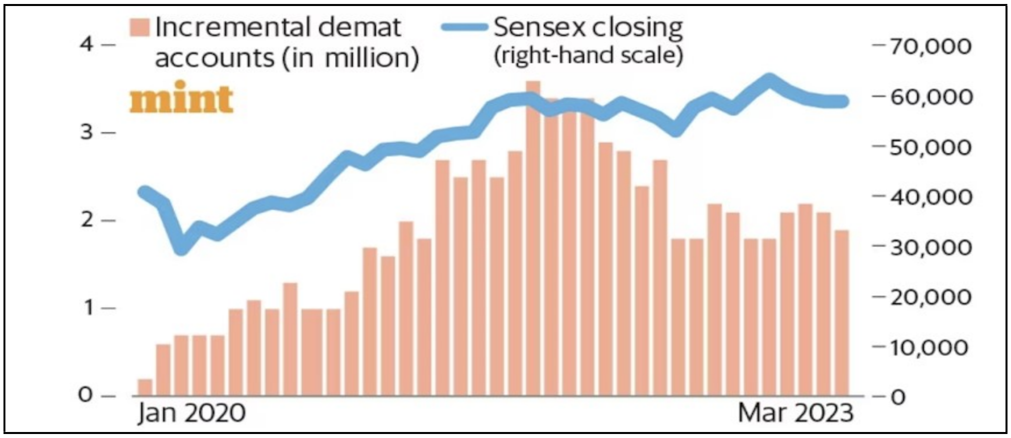
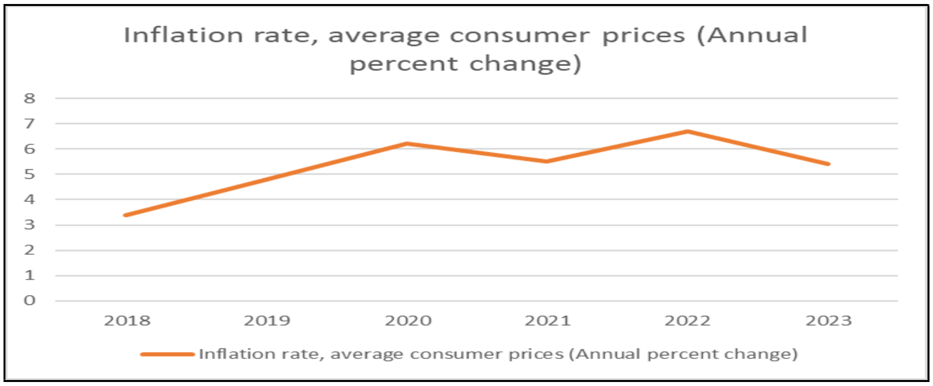
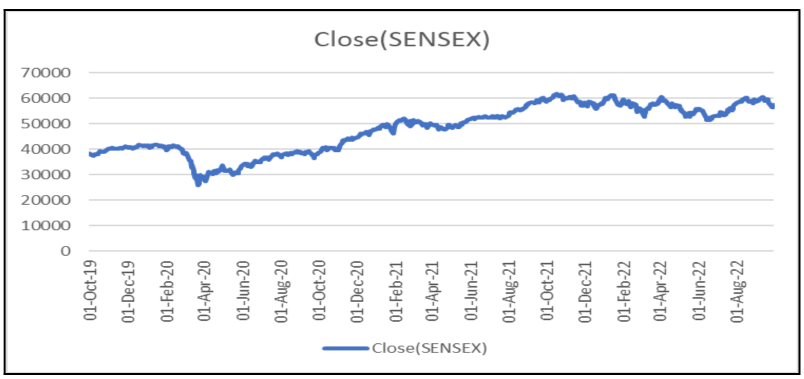


Figure: 9



Source: IMF

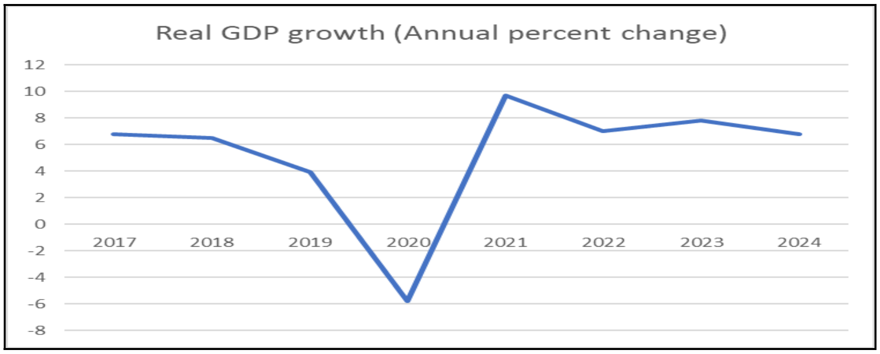
Figure:10



Source: BSE India

Figure:11

Although a weak inverse relationship is seen between inflation and Sensex, the stock market was not severely affected by inflation even in 2020 when it was at its highest (see figure 10) as the RBI was able to keep it between 2% and 6% which is in the range of the target set by the Indian government. This created a sense of stability and helped boost investor confidence leading to the growth in the Indian stock market

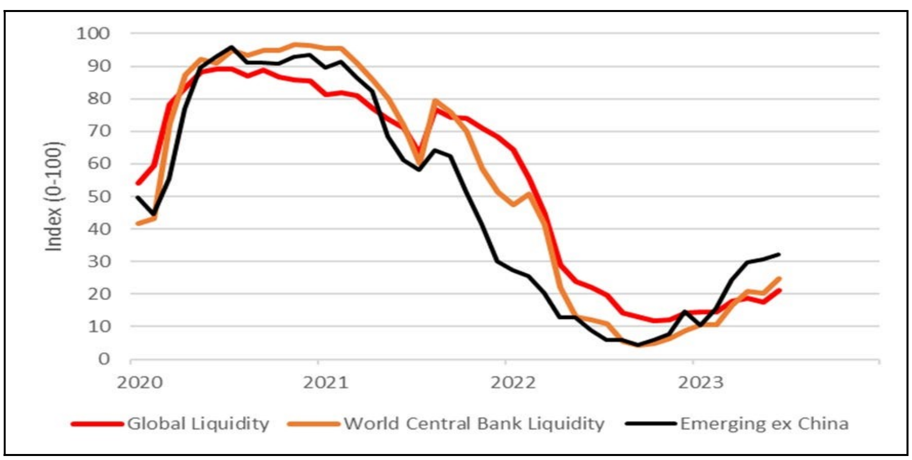


Source: IMF

Figure:12

As seen from the graphs (see figure 11 for Sensex values), there is a positive correlation between the growth rate and Sensex, as during 2020 both the Sensex and GDP growth rate fell and reached their minimum for the timeframe concerning the pandemic. In 2021 both the GDP growth rate and Sensex peaked as in times when the growth rate increases, people earn higher disposable incomes and there is greater consumption and investment in the economy leading to greater investor confidence and money flowing into the equity markets.

Additionally, all over the world, central banks injected massive liquidity into financial markets to support economies during the pandemic. As Figure 13 indicates, during 2020 there was a surge in liquidity which not only left institutional investors but also retail investors with liquid assets to invest into financial instruments like equities. This surge of liquidity was invested into emerging economies like India boosting investor sentiment and prices. India was a favourable option for investors due to its fierce fiscal stimulus measures like infrastructure projects, favourable demographics and its volatile stock markets which can leads to greater returns.



Source: CrossBorder Capital, US Federal Reserve, People's Bank of China, ECB, Bank of Japan, Bank of England, IMF

Figure:13

India has attracted much investment into its equity markets also as a result of its promising demographics. India's population contains more than 600 million people aged between 18 and 35 years of age with approximately 65% under the age of 35. This trend in demographics is projected to persist until 2055 and will peak in 2041 with 59% of its population being of working age. These favourable demographics were also backed up by suitable government policies. For instance, the Indian Prime minister launched the Skill India Mission in 2015, with the aim of training 400 million citizens in various skills by 2022. Also, the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) program which has helped 13.7 million citizens to receive training since April 2016. These measures coupled with the promising demographics have boosted investor sentiments and hope for the Indian economy to become a manufacturing hub and prosper, hence, leading to increased investments into the Indian stock markets.

The growth in the Indian stock market in 2021 was also greatly driven by large scale fiscal stimulus measures put in place by the Indian government. One of such measures was the Atma Nirbhar Bharat which was a package of Rs. 20 Lakh crores to fight the covid-19 pandemic in India. It was the second largest in Asia and accounted for 10% of the Indian GDP. As a part of this package, INR 3 lakh crore was for free automatic loans for businesses, including MSMEs and INR 30000 crore special liquidity scheme was for Non-Banking Financial Companies, Housing Finance Companies, and Microfinance Institutions. Table 3 shows the various areas of government expenditure made under the Atma Nirbhar Bharat initiative

Table: 2

S. No.	Item	INR CR
1	Emergency W/C facility for businesses including MSMEs	300000
2	Subordinate debt for stressed MSMEs	20000
3	Fund of Funds for MSME	50000
4	EPF support for business and workers	2800
5	Reduction in EPF rates	6750
6	Special liquidity scheme for NBFC/HFC/MFIs	30000
7	Partial Credit Guarantee Scheme 2.0 for liabilities of NBFCs/MFls	45000
8	liquidity injections for DISCOMS	90000
9	reduction of TDS/TCS rates	50000
Sub Total		594550

Source: RBI

Data indicates that during 2021 the labour market also recovered and there was greater labour force participation rate not only in males but also in women. The participation rate in males increased from 55.6% in 2018-19 to 57.5% in 2020-21 and in females increased from 18.6% in 2018-19 to 25.1% in 2020-21.There has also been a significant rise in Rural Female Labour Force Participation Rate as it increased from 19.7 % in 2018-19 to 27.7% in 2020-21. In addition, for the unemployed, the Employee Provident Funds contribution by the government was also increased to 3 months. The government provided relief of 2500 cr to about 7.22MN employees. Due to this, the income of the citizens rose which led to higher consumption and sentiment in the market of economic recovery. Another consequence was that it led to greater savings which got invested into equity markets and not in the bond market as the returns in the bond market fell.

CONCLUSIONS

After a comprehensive analysis we have found that the unprecedented surge in the Indian stock market during 2021 was due to high investor confidence in India's economy which resulted from a number of factors including an improvement in the credit rating given to India by Moody's, a stable and low repo rate at 4% charged by the Reserve Bank of India and real interest rate reaching almost 0%, the low volatility indicated by VIX, which had a falling trajectory, indicated more stable returns and RBI being successful at keeping a stable inflation rate between the target 2%-6%. Also India's favourable demographics and initiatives taken under Atma Nirbhar Bharat indicated India's potential of becoming a future manufacturing hub, attracting significant investment inflows. Furthermore lower interest rates led to falling bond yield and lowered the cost of leveraging leading to higher derivative trading which made equity more lucrative. A rise in the number of IPOs and retail investors also contributed to the growth in the Indian stock market.

Further Research Directions

Further research can delve into topics like the degree of the impact of government fiscal stimulus measures on the stock market and further analysis of the yield curve can be conducted to study the investor sentiment of the market in order to establish detailed trends between stock market indices and bond yield. Also, further research can use regression techniques or build algorithms to explore the relationships in an intricate manner.

REFERENCES

1. *https://www.spglobal.com/en/research-insights/featured/special-editorial/look-forward/india-s-demographic-dividend-the-key-to-unlocking-its-global-ambitions#:~:text=India%20is%20home%20to%20more,is%20expected%20to%20hit%2059%25.*
2. *https://rbi.org.in/scripts/AnnualReportPublications.aspx?Id=1316*
3. *https://www.rbi.org.in/commonman/English/Scripts/PressReleases.aspx?Id=3287*
4. *https://www.bseindia.com/indices/IndexArchiveData.html*
5. *https://tradingeconomics.com/india/rating*
6. *https://www.theglobaleconomy.com/India/credit_rating/*
7. *https://www.fitchratings.com/entity/india-80442259*
8. *https://www.worldgovernmentbonds.com/credit-rating/india/*
9. *https://pib.gov.in/Pressreleaseshare.aspx?PRID=1894913*
10. *https://data.worldbank.org/indicator/NY.GDP.MKTP.KD?end=2022&locations=IN&start=2015&view=chart*
11. *https://www.worldometers.info/coronavirus/country/india/*
12. *https://www.makeinindia.com/eodb*
13. *https://www.allcommercejournal.com/article/134/4-1-7-335.pdf*
14. *https://pib.gov.in/PressReleasePage.aspx?PRID=1826946*
15. *https://mospi.gov.in/sites/default/files/publication_reports/Youth_in_India_2022/Statistical_Profile.pdf*
16. *https://pib.gov.in/PressReleasePage.aspx?PRID=1826946*
17. *https://www.bseindia.com/markets/keystatics/Keystat_index.aspx*

18. *https://capitalwars.substack.com/p/global-liquidity-slowly-rebuilding*

19. *https://www.bseindia.com/publicissue.html*

20. *https://www.bseindia.com/indices/IndexArchiveData.html*

21. *https://economictimes.indiatimes.com/news/economy/indicators/soaring-high-end-falling-low-end-indias-consumption-story-splits-in-two-after-pandemic/articleshow/105865911.cms?from=mdr*

22. *https://www.livemint.com/market/stock-market-news/yearender-2022-top-10-buybacks-of-the-year-11672063334859.html*

23. *https://www.spglobal.com/en/research-insights/featured/special-editorial/look-forward/india-s-demographic-dividend-the-key-to-unlocking-its-global-ambitions*

24. *https://in.investing.com/rates-bonds/india-10-year-bond-yield-historical-data*

25. *Mishra, S. (2024). A Brief Study On Stock Market. Interantional Journal Of Scientific Research In Engineering And Management, 08(04), 1–5. https://doi.org/10.55041/ijsrem32209*

26. *Bala, A. (2013). Indian Stock Market - Review of Literature. Asian Journal of Multidimensional Research, 2, 67-79.*

27. *Kumar, V., Chaudhary, N., & Sah, S. K. (2021). Indian Stock Market: A New Era of Indian Banking. International Journal of Applied Research, 7(7S), 119–122. https://doi.org/10.22271/allresearch.2021.v7.i7sc.8703*

28. *Srivastava, P., & Ugrasen (2017). A Study of Indian Stock Market Scenario with Reference to Its Growth. Imperial journal of interdisciplinary research, 3.*