Analysis of Structural Breaks in Stock Returns and Volumes in the Indian Stock Markets:
Pre- and Post-COVID-19 Era

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EXECUTIVE SUMMARY

COVID-19 impacted the whole world's economy at large and all the sectors except a few. Most industries witnessed huge losses in most countries, whether developing, developed, or undeveloped. The losses suffered by the major sectors catering to the economies typically affect all the ancillary service sectors also. The research attempts to look at the causality of stock returns and volumes within, using a dynamic Markov regime switching GARCH model to identify the changes in this relation pre and post COVID-19. The study finds a weak relationship between the real growth represented by GDP and stock returns pre and post COVID-19. The presence of structural breaks was evident from the observations and a positive result from the regime-switching models, which suggests that the perception of stock markets is not derived from the real GDP.

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INTRODUCTION

The COVID-19 pandemic, which emerged in early 2020, had a profound impact on global financial markets, including the stock exchanges in India. The unprecedented nature of the pandemic, coupled with its wide-ranging economic consequences, brought about significant shifts in investor sentiment, market volatility, and overall trading activity. In the early stages of the pandemic, stock exchanges in India experienced a significant decline in stock prices. As uncertainty grew and the scale of the pandemic became apparent, investor confidence waned, leading to widespread selling pressure and a sharp decline in stock market indices.The initial market turmoil caused by the pandemic raised concerns about liquidity in Indian stock exchanges. Market participants were uncertain about the financial health of companies, which led to increased caution and reduced trading volume. The Covid-19 pandemic stressed the Indian Economy to its limits. The credit rating of India stumbled from BAA2 to BBB. India's external debt raised to about 570 billion dollars, which shows an increase of 2.1% year on year from 2019 till 2021 (RBI Reports, Jun 30, 2021).

The impact of the pandemic varied across different sectors of the Indian economy. Sectors heavily reliant on physical presence, such as aviation, hospitality, and retail, faced substantial challenges, leading to significant declines in their stock prices. On the other hand, sectors related to healthcare, pharmaceuticals, and technology experienced relative resilience and, in some cases, even growth.

The pandemic prompted a shift in investor preferences towards sectors perceived to be more resilient or essential during the crisis. Investors showed increased interest in healthcare, pharmaceuticals, e-commerce, and technology companies, leading to divergent trends in stock prices and trading activity.

COVID-19 pandemic introduced significant volatility in the Indian stock markets. Daily price swings became more pronounced as news related to the pandemic, government responses, and economic indicators emerged. Increased uncertainty and rapidly changing market conditions led to higher volatility, impacting trading strategies and decisions. Also, the trading volumes in Indian stock exchanges experienced fluctuations during the pandemic. Initially, trading activity decreased as investors adopted a wait-and-see approach and adjusted their portfolios. However, as markets stabilized and certain sectors showed signs of recovery, trading activity gradually rebounded.

To mitigate the economic impact of the pandemic, the Indian government introduced various fiscal and monetary stimulus measures. These interventions aimed to support businesses, stabilize financial markets, and boost investor confidence. Such initiatives played a role in market recovery and shaping investor sentiment.

Regulatory bodies in India implemented temporary measures to ensure market stability and safeguard investor interests during the pandemic. These included revised

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