

# ASSESSING VOLATILITY IN THE BANKING STOCKS IN INDIAN STOCK MARKET DURING THE COVID-19 PANDEMIC: USING ARCH/GARCH MODELS

**Dr. K. Mallikarjunarao**

Assistant Professor of Commerce  
Department of Commerce  
Government City College (Autonomous)  
Nayapul, Hyderabad, Telangana, INDIA  
dr.mallikarjunarao@gmail.com

<https://doi.org/10.51705/AIJBSR.2021.v13i01.008>

## Abstract

*The present study examines at modelling and forecasting the volatility of the Nifty, Sensex, Nifty Bank index, and five banking stocks in the Indian stock market, including HDFC Bank, ICICI Bank, Axis Bank, Kotak Bank, and SBI Bank, using regular data from January 26th, 2019 to January 25th, 2021, spanning both the period before and after the COVID-19 pandemic. The first positive case in India was recorded on January 27, 2020. The Nifty, Sensex, Nifty Bank index and five banking stocks: HDFC Bank, ICICI Bank, Axis Bank, Kotak Bank, and SBI Bank return volatility for the Indian stock market are investigated using GARCH, EGARCH, and TGARCH models. The aim of this study is to look at the Indian stock market's volatility characteristics, such as clustering volatility, leverage impact, and risk premium. Positive and negative shocks have different effects on the volatility of the Nifty, Sensex, Nifty bank index, and five bank stock returns in the TGARCH(1,1) model, which means that negative news causes more volatility than positive news. Hence, the effect of news on the Indian stock market during the Covid-19 pandemic is asymmetric.*

*Keywords : Leverage, GARCH, Volatility, Nifty , Indian Stock Market, Pandemic study*

## Introduction

The banking sector is the lifeblood of the economy, keeping it afloat and going. Banks perform the majority of the functions needed to keep the country's economy running smoothly. Banks play a crucial role in providing companies with financing in the form of loans and equity investments. The black swan case of the century, Covid-19, has had a major influence on the Indian economy. Prior to the outbreak of covid-19, the Indian economy was in poor condition, and the pandemic situation has had a huge effect on India's banking sector, as well as other important sectors. The effect of COVID-19 on banking would be a significant drop in demand, lower wages, and output shutdowns. As companies scramble to deal with the effect of COVID-19 on financial services, the situation is compounded by workforce shortages, a lack of digital sophistication, and strain on existing infrastructure. In view of the novel coronavirus outbreak, banks have their hands full. As the virus spreads across the globe, borrowers and companies face job losses, slowed revenue, and decreasing earnings. Customers of banking institutions are likely to request financial assistance. Pandemics have a clear effect on financial structures because of their immense economic costs. Banks must have a strategy in place to protect staff and customers from the coronavirus in order to manage the virus's direct economic effects. Many banks are now encouraging some workers to operate remotely.



Vol. 13 Issue 1  
Nov. 2021  
PP. 59-68

A

I

J

B

S

R