
COVID 19 PANDEMIC: MEDIA COVERAGE & PANIC INDUCED UNCERTAINTY IN INDIAN STOCK MARKET AND SECTORAL RETURNS

Divya Jain

Assistant Professor, Delhi Institute of Advanced Studies
divyajain0803@gmail.com

ABSTRACT

The information flow along with the spread of the novel corona virus in India has induced panic among individuals. The influence of information reported by media is very high on decision making by individuals, then be it associated with the panic buying of groceries, masks or it is related to their investment decisions. To determine the short-term consequences of this virus on Indian Financial Markets, market returns for various sectors in pre-crisis and during crisis times is compared. A lot of variability in all the sectors is observed off course due to uncertainty accompanying the panic induced in the markets, allied with the spreading wings of the virus. Sectors on the basis of the nature of goods and services they are associated with have reacted differently to the situation. Automobile is one of the worst hit sectors whereas Media, FMCG and Pharma are few among the gainers.

Keywords: *Novel Corona Virus, Sectoral Returns, Volatility, Media Coverage, Panic*

INTRODUCTION & BACKGROUND

The novel corona virus outbreak from China to all other countries of world has been a matter of surprise as well as shock. As it has literally shaken the economies and has created massive disruptions. The shocks generated by this virus are getting continuous reactions from the financial markets and it is presumed that this volatility is going to pertain for the longer durations as there is no very soon chances of the virus to get disappeared.

(Depoux et al., 2020) has iterated that panic via social media has travelled across countries faster than the virus itself. And there is more of misinformation rather than information. It has also been said that the infodemic is certainly more infectious than the pandemic itself.

Baker et al (2020) applied word-based analysis to judge the explosiveness of stock markets on the basis of the newsflash correlated to the contagion COVID-19. And it has been recognized that in contrast to other similar viruses which have outbroken in past, none of the disease had this prolonged impact on volatility.

(Ramelli et al., 2020) Analysed 3 periods namely incubation, outbreak and fever to identify the investors assessment for the specific companies and for the consequences of overall economy. (Jasuja & Sharma, 2020) attempted to showcase the risk and return analysis due to pandemic on different sectors of Indian Economy by modelling ANOVA and CAPM for the same. GARCH model has been applied to measure volatility.

RESEARCH METHODOLOGY

This study assesses the short-term consequences of coronavirus spread on the Indian financial markets and comparison of returns of different sectors before the spread of virus in India and during the spread of virus in India. This study identifies which sectors have shown positive returns and which sectors are negatively impacted due to this coronavirus outbreak.

Whenever the association of any specific event is studied with financial markets, event study methodology is very commonly used to determine its impact. But here the event of outbreak of virus continues for longer duration and even still it has not ended so event study methodology is not implied and to identify the effect on market movements .Firstly, the data is collected for the total period of duration beginning from 15th October

2019-15th May 2020. It is further divided into Pre COVID CRISIS Period ranging from 15th October till 30th Jan 2020 (when the first case in India is detected on 30th Jan 2020, in Kerala) and During the COVID CRISIS Period. To model the effect according to the situation, data in second part that is During the COVID Period has been divided into phases.

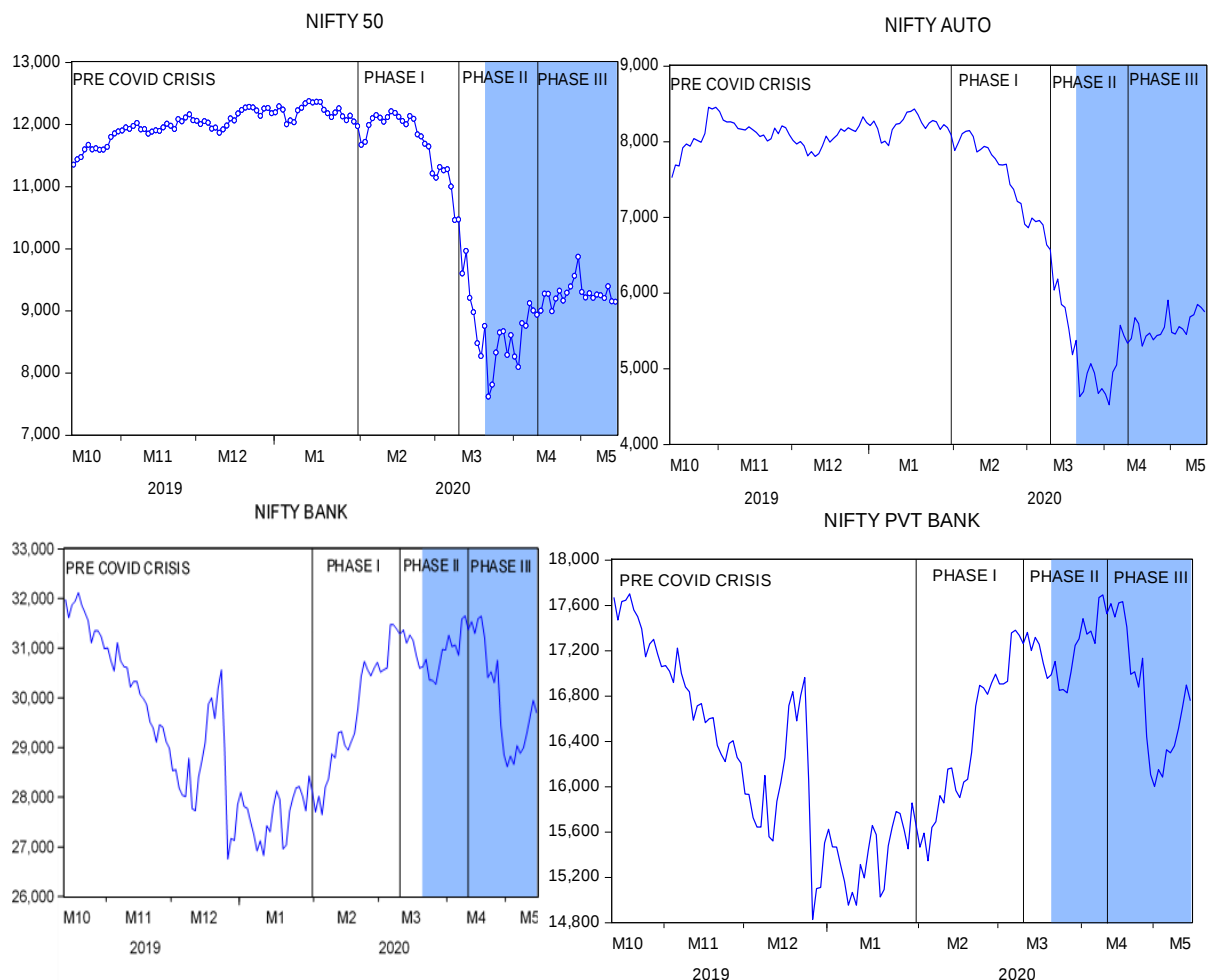
Phase I, the inception phase beginning from first case in India on 30th January 2020 to 11th March 2020 when WHO declared the virus attack as pandemic.

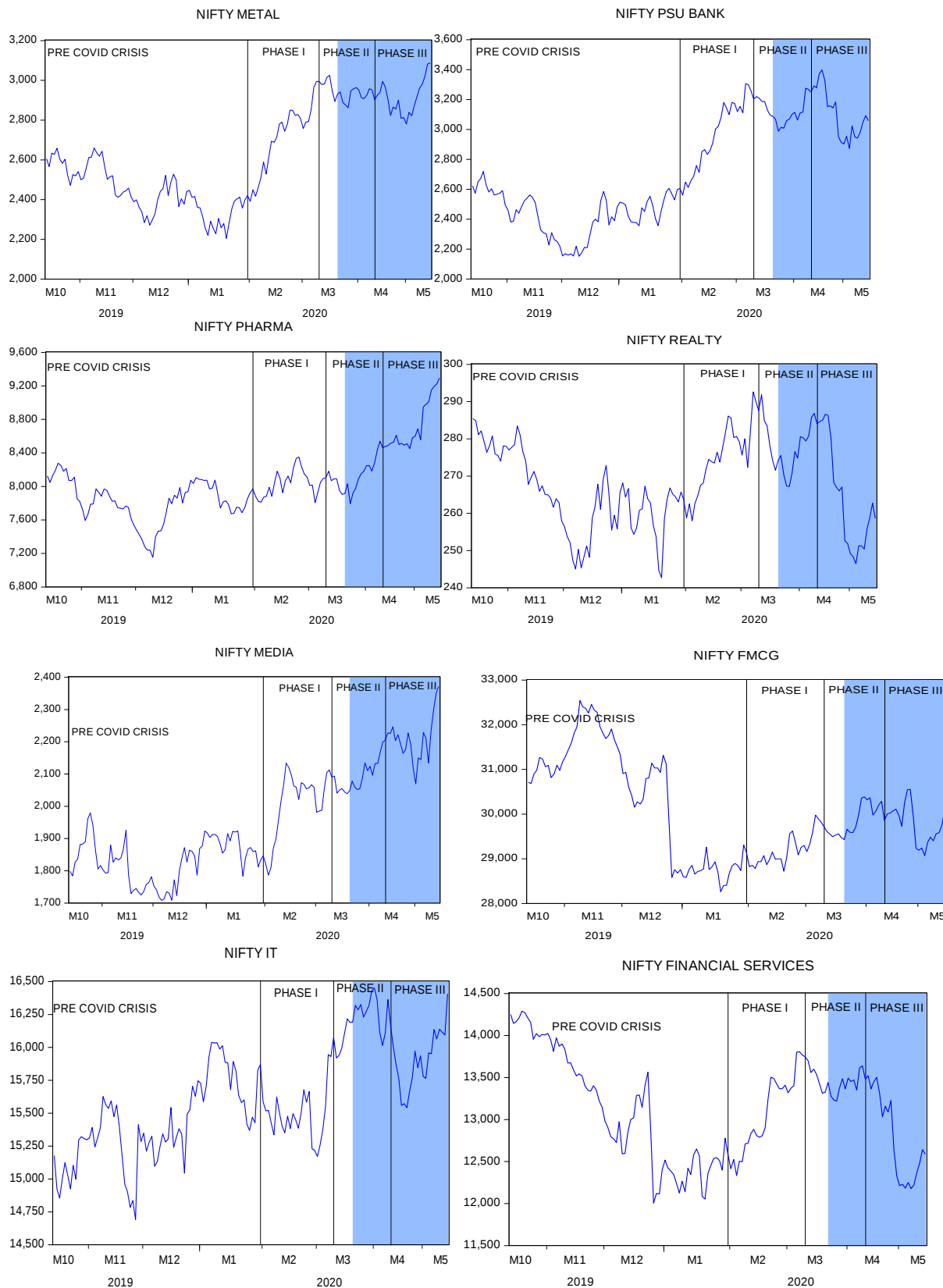
Phase II, the outbreak phase from 11th March 2020 till 14th April 2020, when first lockdown of 21 days got completed. (Government of India announced lockdown from 22nd March 2020).

Phase III, the feverish phase from 14th April 2020 to 15th May 2020, as the cases were surging high in this duration.

So, for the total period beginning from 15th October 2019 till 15th May 2020 the daily data of closing prices of 11 sectoral indices including sectors like banking, Automobile, FMCG, Pharma, Realty, Media, Metals, etc. and Nifty 50 have been undertaken in the study from the official website of NSE, and daily returns are calculated by dividing log values of current day by previous day and multiplying by 100.

EMPIRICAL ANALYSIS





(Source: Author's own compilation with E-views)

Figure 1: Graphical Representation of Returns of Sectoral Indices and Nifty 50 during Study Period

This is the graphical representation of the Returns calculated for all the sectoral indices and Nifty 50 for the period under study from 15th October 2019 to 15th May 2020. As it is defined in methodology that data is divided in two broad durations: Pre Covid-Crisis and During Covid Crisis (which is further divided into 3

	PRE COVID CRISIS	DURING COVID CRISIS			
SECTORAL INDICES		FIRST CASE DETECTION (PHASE I)	WHO PANDEMIC DECLARATION (PHASE II)	LOCKDOWN 2.0 (PHASE III)	OVER ALL DURING CRISIS
NIFTY AUTO	6.41%	-19.71%	-18.80%	7.73%	-28.94%
NIFTY BANK	-10.06%	10.02%	0.29%	-5.31%	5.68%
NIFTY FINANCIAL SERVICES	-9.65%	7.57%	-1.91%	-6.64%	0.02%
NIFTY FMCG	-4.48%	1.39%	0.46%	0.80%	3.29%
NIFTY IT	6.03%	1.69%	0.53%	1.50%	3.37%
NIFTY MEDIA	2.77%	14%	5.48%	7.53%	28.42%
NIFTY METAL	-6.48%	24.82%	-3.10%	6.38%	27.56%
NIFTY PHARMA	-1.50%	2.24%	4.36%	9.88%	16.65%
NIFTY PVT BANK	-9.23%	8.87%	1.52%	-4.38%	6.98%
NIFTY PSU BANK	0.98%	23.28%	1.46%	-5.88%	17.43%
NIFTY REALTY	-6.72%	8.22%	-1.23%	-8.92%	-1.85%
NIFTY 50	5.31%	-13.10%	-14.65%	2.37%	-23.61%

(Source: Author's own compilation with E-views)

Table 1: RETURNS FOR SECTORAL INDICES AND NIFTY 50

Phases: Phase I, Phase II, & Phase III). First Black partition in the graph represents the beginning of Phase I by dividing Pre Covid-Crisis period and During Covid Crisis period. The next black line represents the beginning of Phase II on 11th March 2020, when the virus has been declared as pandemic. The shaded blue colour region defines the Lockdown period as lockdown to control mobility and maintain social distancing has been announced by Indian Government on 22nd March 2020. The next black partition in lockdown period depicts the beginning of Phase III which is on 14th April 2020, the starting day of Lockdown 2.0. A lot of variability in all the sectors can be observed off course due to uncertainty associated with the panic induced in the markets due the spreading wings of the virus.

The values of returns represented in the above table depicts that how returns have been roller coaster for some of the sectors and few sectors which were showcasing negative returns before the crisis have revived themselves during this situation. Different sectors have reacted differently to the virus according to the nature of services and goods it is associated with. Automobile sector is one of the major hit sector which has shown a great dip in the returns as earlier in pre covid crisis period it had positive returns of 6.41% but as there was this virus outbreak and inception it has represented huge negative returns though in phase III the returns have improved but overall there had been a loss of almost 29% returns. After Automobile it's the composite Index Nifty 50 which has shown the downfall of 23%.

Sectors like FMCG, Pharma, Metals, Financial Services and Banking especially are among those whose returns were negative before the crisis but now they have shown the contrarian effect and returns have shown the positive growth. Realty and IT are the momentum sectors as Realty returns were negative formerly as well as in current situation it is also negative, and for IT is was positive earlier with around 6% but now it is still positive

with a dip to 3%. Media has played a very important role in these times undoubtedly. Though the media returns have momentum effect as returns were positive earlier also but it has shown a great hike of almost 26% increase in returns.

CONCLUSION

The novel corona virus spread has not only affected just one economic sphere but all other aspects of lifestyle as well including measures for social distancing, shift in personal and professional life, travel ban, mobility controls, etc. All have been under such process of change which was never ever imagined in the hardest situation foreseen. The economies have faced losses terribly at global levels and global economies are about to sink in in the recession, and India is just another country. A lot of variability in all the sectors can be observed off course due to uncertainty associated with the panic induced in the markets owing to the spreading wings of the virus. Sectors like Automobile and Nifty 50 has shown the worst hit due to this outbreak whereas panic to buy every goods have given boost to returns of FMCG, Pharma, Metals, etc. The influence of reporting by media is reflected in public sentiments to a great extent and further impacting their decision making. Returns of Media Index have also shown a good hype in returns. To determine the long-term effect, lots of factors like fatality rate, policy measures by government, duration of the virus spread, behavioural reactions of individuals, acceptance of new normal by individuals will contribute to its overall future economic impact.

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