

## Impact of Covid 19 on the Indian Stock Market and Mergers

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### ABSTRACT:

**Purpose-** The paper examines to study as to how Covid has impacted valuations considering various dimensions such as stock indices which are linked with various sectors. The purpose of this paper is to examine the impact of Covid-19 on determining the financial stability measures including the valuations on multiple aspects including stock market. The impact of Covid in India started with Lockdown which was initiated on March-2020.

**Design/methodology/approach-** The paper draws on observations which was done on a couple of factors which act as an indicator to draw some basic conclusions like – analysis of various M&A (mergers and acquisitions) which happened during the time, ratings conducted at country level to validate the estimated impacts and re-validation with real data, stock market indices (multiple) and also gold prices (indicator of stable assets), regression analysis using ANOVA tables were also done to analyze the future stock indicators.

**Findings-** The findings indicate that except for a very limited sector like- pharmacy, telecom and some part of food products, most other sectors lost a huge market and a big dip in their valuations. The biggest retail company of India, Future group had to sell of its major business at almost half of their valuations during corona times to India's biggest private sector company- Reliance Industries. In the stock market, 2 Indices have done fairly well being pharmacy and telecom sector as both are much used post Covid. The Industry post Covid had changed with major stress on using telecom or applications using voice like zoom or Google meet. Certain metals like Gold etc have also improved and continue to go up being the most trusted safe asset.

**Research limitations/ Implications-** The data used in the research is for a period of three to four months only. More research is required with a longer period to assess the detailed impact on the valuations.

**Social Implications** – In India, The lockdown was initially for complete and then gradually it started moving up. For first 4 months from march to july-2020, most of the business were either partially locked or completely locked. The research is able to conclude by way of ANOVA tables and regression analysis the impact of gold buying along with movement of stock indices used in India.

**Originality/ Value** – The paper provides evidence and the impact of covid-19 on the valuations using multiple parameters like stock indices, metal like gold, country ranking and ratings and the perceptions about drop in GDP in India and how in actual the market and valuations have behaved. Covid has impacted the global market including the valuations in a big way. The paper attempts to validate the valuations impact in India in the India Stock market and validates the global scenario. Stock Indices and GDP factors were taken as influencing factors / validations to studying the relationship between factors and impact on the valuations and market.

## OBJECTIVE:

Covid-19 has impacted the Indian market and also valuation of various Indices used. While there has been some recoveries in certain sectors like Pharmacy or Telecom however all major sectors have shown a negative growth as compared to pre Covid levels. The valuations and market capitalizations of most companies have dipped. The research paper tries to identify the various capitalization Indices and determine the factors affecting the Indian valuations.

**KEYWORDS:** - Covid-19; MSME; investor sentiment; GDP; Abnormal returns; Stock market indices

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## INTRODUCTION :

The impact of so far the most global spread and fearful, infectious disease is very high with its impact spread all over the globe being considerable and have been directly affected the Stock exchange, being the barometer of Country's financial wealth and covering the share market and business worldwide. Various business which depends upon daily cash inflow have almost closed includes gyms, barbers, sweet shops etc. and the worst affected sector in India is the MSME (Micro, Small and Medium enterprises) sector. While most countries preferring a partial Lockdown while India did a complete lockdown, financial circulation being stopped, had a huge impact on the valuations and the share market. Though the advantage which India had was the lowest numbers of deaths reported while cases are high.

We have used an event study method and basis the working, we have gathered that the share exchange Indian markets had dipped much higher post the Covid spread which was expected as well. While doing overall world analysis we observed that Asian countries including India had experienced higher dip (highest in China) and negative or abnormal returns viz a viz to countries spread elsewhere. Also in certain tests being panel data which is known as longitudinal or cross sectional time-series data regressions, validated and supported the negative impact of COVID-19 confirmed cases on stock indices. The overall negative sentiment has created and due to the same the valuations dipped further. While India has one death per 100,000 population due to Covid-19 while the global average is at 6.04 per 100,000 population (per ministry of health, Govt. Of India-ICMR report in June-2020)

Most of the people would like to forget the year 2020 as it has brought a pandemic Covid-19 which has affected everyone being economically, mentally, financially and almost everyone got impacted considering we are in global economy. The impact could be either direct or indirect where the person who will be earnings got direct impacted while others got indirect impact. WHO (World health Organization) identified the first case of COVID-19 in China- City Wuhan on 31st Dec-2019. WHO on 4th Jan-2020 came out with a report that there was a cluster of pneumonia cases, with no deaths, in Wuhan. On 14<sup>th</sup> Jan,2020 the first case was reported from Thailand outside China basis the WHO Report implying the spread over outside China. That started scare in the world scenario. Mid of January 2020, the virus started spreading to other provinces in China along with places like Thailand which are nearer to China. This was also helped due to year end and heavy out flux and movement of people towards their hometowns for celebrating the New Year at China which is every year celebrated with a huge fan-fare. Though this time it actually turned the movement and holiday moods into a national crisis. Chinese govt. and Wuhan state government did tried a stop with full travel not being allowed for the local residents through the end-Jan-2020, however the virus started spreading with a higher spread. From the WHO reports, it can be analyzed that the spread happens at multiple levels being in initial stages- from animals to animals and them from animals to humans and then from humans to humans(WHO newsletters). Mostly people blamed the Bats in initial timeframe and assumed to be spreading of eating animals like chicken or other ones. WHO also came out with a comprehensive technical guidance manual and advisories having online steps and detailed advice and advising all countries as to how they can detect, check and manage any such identifiable or cases with similar symptoms, basis the limited

knowledge they could gather. Basis the earlier experience with earlier affected viruses like SARS and MERS and tested and experimented modes of how to stop the transmission of respiratory viruses, infection spreads and guidance's on prevention control were also published to protect the population and also the health workers. It was mentioned that the major causes of the infection spread were the droplet which either came from mouth saliva or the air which contained particles in the form of droplets and WHO came out with a detailed report on contact precautions while ensuring the airborne precautions.

WHO the global Body has announced global this deadly disease an pandemic with an emergency declared, as the spread of COVID-19 was felt to be uncontrollable if no harsh measures were taken, on January 30, 2020. It has happened for the 6th time in the history of WHO and world that such type of severe global emergency has been announced (HaiYue Liu, Aqsa Manzoor , CangYu Wang , Lei Zhang , Zaira Manzoor-The COVID-19 Outbreak and Affected Countries Stock Markets Response, International Journal of Environmental research and public health-2020 April), with previous cases which covered of the outbreak of Ebola and also the virus-Zika.

Some data pointers which helped in understanding the issues coming from Covid-19 are captured with data indices like BSE and NSE and also certain prices of metals.

### **Valuation impact on account of Covid 19**

The current market scenario all over the globe are unique and extraordinary for any whether small or big business. From valuation perspective, cash flow are used to do valuations and are used to calculated the discounted cash flows covering the explicit and perpetuity periods. Cash flows are defined as the earnings inflows the business expects to generate in periods upto perpetuity. To consider historical or the projected outcomes, the discretion is based on the valuation analyst's or registered valuer as defined under the companies act,2013, review of the subject Company's (whose valuation is being done) operations and along with important input from management including SWOT (Strength, weakness, opportunities and threats ) analysis prepared for the valuations.

During this Covid-19 time, the period of having economic uncertainty, the operating results may or may not (though chances are may be more) be adversely affected by the effects of COVID-19. A few of business being Hospitals or companies into face masks or sanitizers selling may be impacted in a positive ways also. The overall impact on a particular Company may actually be temporary or permanent though till June 2020, no medicine has come yet and hence the impact continues to hit the valuations badly. The valuation of securities of the Company should ideally reflect the projected future growth in earnings and it is the use of positive or negative cash flow for the foreseeable future which determines the valuations. This is very important for investors or stakeholders as they seek to understand the long-term sustainability of the Company. An event like COVID-19 if is taken into account, it is difficult, not to reduce the economic perspective on growth, at least in the short-term. No one is able to predict as to how long the economy will be impacted by COVID-19 and that is actually creating problems while determining both the medium-term and long-term growth rates. Of course short term is badly impacted. With a lower growth forecast (as the future is worked out), the subject Company has become very less attractive to the potential investors as the uncertainties which may hit the company actually mount over time. This factors has an negative impact on the valuations of the securities of the company. Two sectors have shown positive growths – Telecom and pharmaceuticals' in India.

Consider reporting any material developments as a subsequent event if these events occur after the valuation date. From a business valuer's perspective, if assumptions underlying any of the methodologies employed to determine the value of a business change significantly, then a valuation opinion as of a prior date may no longer be suitable for a current use. Some of the key factors that may be impacted in the COVID-19 environment include: future revenue orders, supplier risks, customer risks, overall market risk factors and market multiples of public guideline companies, etc. To the extent that COVID-19 would materially impact the determination of current fair market value, the guidance would suggest that any prior valuation needs to be updated.

**Literature Review:** Various researchers have done good amount of work in the field of covid and its impact on various parameters. The spread of Hong Kong’s SARS epidemic was studied (Siu and Wong-2004) and they addressed the impact on economic terms and came out with conclusions about the most severe impacts being the usage or the consumption on micro factors while the immediate and short periods were majorly impacted by local factors which also covered due to lockdown impact the tourism sector by all means which majorly affected the travel by air or the travel-related activities which included the airlines and hotels. The economy as they could analyze never faced the supply shock since there was a well established manufacturing base being present which was actually unaffected. The performance of biotechnology stocks in Taiwan was studied (Wang, Y.-H; Yang, F.-J.; Chen, L.-J. 2013) impacted through outbreaks of infectious diseases showing that the biotechnology industry specifically had significant abnormal returns because of the perception factors. Immediate impact of the corona virus on top 21 indices of stock market in highly impacted countries including Singapore, Italy, Japan, USA, Korea, European countries mainly Germany and the UK were studied ( HaiYue Liu, Aqsa Manzoor, CangYu Wang, Lei Zhang and Zaira Manzoor -2020) and they had used an study method basis events validation and the results validated that the share and stock exchanges in almost all affected countries had fallen at much higher speed post the outbreak of

virus. The active linkages along with relations in the Asian stock markets using a auto vector regression model, examined (Kim, S.; Yoon, J.H. International Stock Market Linkages,2002) and their outputs captured that the share markets are more close and in a sync logical manner had behaved during the financial crisis, except for Malaysia. And it is obvious also for any analyst who studies financial market at a global level that it is quite normal phenomena that the stock markets shall continue to behave in the same pattern also while they are in different countries. Thompson did an analysis of the sector adjustments which were being anticipated and their impact on the free trade agreement of Canada–United States on industry-level stock returns and had mentioned that the linkage of the liberalization of the trade and on the economy was directly proportional. Agrawa and Kamakura had studied the impact of celebrity endorsement and studied their analysis on any normal or negative returns on stocks. Gaver, K. M., and Battistel also had evaluated the responses on the stock market to the adherence of the contracts of compensation and long terms payments agreements of the higher management including Board members.

Our review is basis the on existing literature in the covid scenario, we had done an event study methodology to validate affect including any abnormal impacts in the Indian market and the affect into valuations affecting the Indian market.

***Table 1- Estimated global and regional impact of the COVID19 outbreak***

Global Countries	Shorter Containments		Longer Containments	
	% of GDP	Losses \$ in Billions	% of GDP	Losses \$ in Billions
World	-2.3	2,013	-4.8	4,091
China	-4.6	628	-5.1	691.6
Developing Asia excluding China	-1.0	93.3	-2.2	200.1
Rest of World	-2.0	1291.6	-5.1	3,199.1

Source – Asian Development Bank Report -2020 – ADB Outlook 2020, April -2020

It can be interpreted that while the world has an impact of about 4% overall reduction in GDP, China impact is going to be about 5% while India estimated impact is about 1 to 1.5% . As of June 24, 2020, due to this epidemic the cases have touched 9,373,807 while the deaths are more

than 480,170 which has impacted the whole universe in both emotional and financial terms. Though it started in China, however the highest number of cases are as off now in USA (2.4 million) followed by Brazil (1.15 million) and the

Russia (0.6 million). India is ranked 4<sup>th</sup> (0.45 million) (rankings are taken from worldmeter on Corona. Though it started in China and on June-24<sup>th</sup> in the world meter scale, China is ranked at number 21. These recent developments has impacted the social , cultural , economic activities in a big way . In India , initially it started with a Lockdown for 40 days initially and then beyond 40 days , some partial openings happened. World wide some countries declared state of emergency Though the education system remained under suspension initially but over a period, it moved in switching to the online course system is another example of how

Covid-19 affected. Most of the official activities switched to online system. Zoom , Google meet, Microsoft Teams and a few other software’s started becoming life over a period of time. While a few countries like New Zealand reported that they are free from Covid as there were no reported cases on 9th June-2020 over last 15 days , a benchmark to confirm that whether the country is free from Covid-19. As off June-24th, eight countries are reported to be free which included – Montenegro, Eritrea, Papua New Guinea, Seychelles, Holy See, Saint Kitts and Nevis, Fiji , East Timor along with ninth New Zealand the ninth country.

**Table 2- Rating of India post - COVID -19 impact and Valuation parameters**

June 2020 ratings

Rating Agency	S&P Global rating	Moody's Investor Services	Fitch ratings
Rating scale	Lowest Investment rating (BBB- ) credit rating	'BAA3' from 'BAA2' and also maintained the outlook from 'stable' to 'negative'	BBB- on LTR (Long Term) F3 on STR (short term)

The downwards trends happening in recent times have further created a negative atmosphere leading to depressed valuations in the market.

**Table 3- Stock market India Indices –Comparison Chart- COVID -19 impact**

Bourses –India	Indexes			
	14 <sup>th</sup> - Jan-20	23 <sup>rd</sup> Mar-20	24 <sup>th</sup> Apr-20	24 <sup>th</sup> June-20
Nifty- 50	12,362	7,610	9,154	10,305
Sensex	41,952	25,981	31,327	34,868
Gold Prices (per 10 gms-24k)	39,650	41,750	44,680	42,250

Source – NSE AND BSE daily charts on their websites

The Nifty-50 Index has dropped to 60% levels during covid times and also the Sensex dropped to 60% levels though Gold prices went up by 5.2% increase and the futures in Gold touched upto 50k

levels as well clearly indicating that gold is the best buy in all bad times.  
Regression analysis done on the above data :

	Nifty-50	Sensex	Gold Prices
Nifty-50	1		
Sensex	0.999811428	1	-
Gold Prices	-0.572148638	0.565573807	1

**SUMMARY OUTPUT**

<i>Regression Statistics</i>	
Multiple R	0.999844253
R Square	0.99968853
Adjusted R Square	0.99906559
Standard Error	61.1844842
Observations	4

  

<i>ANOVA</i>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	12015201.21	6007600.6	1604.791	0.017648514
Residual	1	3743.541107	3743.5411		
Total	3	12018944.75			

Anova table with Intercepts and p-values

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 5.0%</i>	<i>Upper 95.0%</i>
Intercept	294.3709508	1009.935854	0.2914749	0.819444	12538.08078	13126.82268	12538.08078	13126.82268
Sensex Gold Prices	0.297147175	0.006395685	46.460572	0.0137	0.215882294	0.378412055	0.215882294	0.378412055
	-	-	-	-	-	-	-	-
	0.009518446	0.020734624	0.4590605	0.726022	0.272976826	0.253939934	0.272976826	0.253939934

If Sensex at 45000, and Gold Price at 46000, what will be Nifty (as it is Y, Output Factor)

Equations  $Y = a + b_1X_1 + b_2X_2$

Sensex X1 45000  
 Gold Price X2 46000

**Y 13228.15**

**Table 4- Valuations in India pre covid and post covid** :while review of various Indices which are used as a benchmark in India :

Indian Sector	Benchmarks Identified	Market cap/Indices value (pre covid)- 1 <sup>st</sup> jan -2020	Market cap/Indices value (post covid)- 31 <sup>st</sup> mar-2020	% change	Indices value – 26 <sup>th</sup> Jun-20	% Change (with pre-covid)
Auto	BSE Auto	18,393	10,746	-42%	15,288	-17%
Aviation	Performance Indices	19,966	12,685	-38%	13,450	-32%
Building & Const.	BSE India Infrastructure	178	116	-35%	181	1.7%
Consumer (FMCG)	BSE FMCG	11,462	10,255	-11%	11,144	-3%
Consumer (Discretion)	BSE Consumer Discret	3,705	2,566	-31%	3,180	-14%

Financial Services	BSE Finance	7,001	4,300	-39%	4,900	-30%
Information Technology	BSE IT	15,569	12,843	-18%	15,067	-3%
MSME	BSE 250 Small Caps	2,023	1,336	-34%	1,724	-15%
Metal and Mining	BSE Metal	10,404	5,713	-45%	7,386	-29%
Oil and Gas	BSE Oil and gas	14,707	10,021	-32%	12,829	-13%
Power	BSE Power	1,961	1,378	-30%	1,611	-18%
Pharma	NSE Pharma	8,047	7,177	-11%	10,300	28%
Telecom	BSE Telecom	1,113	972	-13%	1,308	17%
Transport & Logistics	Performance Index	15,022	9,363	-38%	12,065	-20%

(Source- NSE India, BSE India, Capital IQ and moneycontrol)

While a review of 14 sector over 3 periods being pre covid, post covid (immediate) and post covid (still in Covid stage and started operational with removed lockdowns) there are three things which are importantly observed being- pharmacy sector is on upswing with reason being all focus towards medicine for Covid, telecom sector is also upwards with more business moving towards internet and operations on zoom or Google meet and third sector is building sector which has shown some improvements is the construction sector as infra sector is again showing signs of positive movements.

In India the affect has been severe in the valuations – the market capitalization has reduced across all sectors exceptions being the pharmacy. The most impacted sectors are facing multiple challenges such as supply chain disruption, decline in levels of consumption, heavy drop in sales and revenue due to lockdown and lower demand and income levels, high fixed cost, and long-term growth uncertainty. The most impacted sectors are- aligned with global markets from demand and supply side, such as aviation and logistics, suffering from demand shock, such as auto, realty, etc and are dependent on highly impacted sectors for demand, such as financial services and metals.

Another impact area has been change in laws in India. Government of India in a much awaited and a step against China vide its Press Note No. 3 dated April 17, 2020 issued by the Department for

Promotion of Industry and Internal Trade along with a amendment to the Foreign Exchange Management (Non-debt Instruments) Rules, 2019 dated April 22, 2020 issued by the Department of Economic Affairs, notified changes to the **foreign direct investment policy** which aimed to curb any possible opportunistic acquisition/ takeover due to the pandemic, especially from China. The need was felt as the valuations dipped in India and Chinese Investors started acquiring good shares in the Indian stock market and one of the major acquisition was HDFC shares. The restriction imposed by the new amendment has puts all new funding/investments from new investors from India’s land border-sharing countries (China, Bangladesh, Pakistan, Bhutan, Nepal, Myanmar, and Afghanistan) as well as additional funding from a beneficial owner under the approval route only and any direct investments are stopped from the above date.

**CONCLUSION:** India is as off now is moving better in certain sectors like pharmacy and infrastructure with gold prices also moving up. The paper is able to establish that earlier lockdown has helped India to reduce to death rates though considering the size and population India had, cases number are climbing up. In the period of study validated, the valuations and market indices are not yet fully recovered. The paper is able to also establish the Nifty calculations using the gold prices and sensx levels also. It can be ascertained

that once the medicine to control covid comes up, there are chances that it will be through positive sentiments in the market and the valuations goes up in the market.

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