

Empirical Analysis Of Covid-19 On Brics Nations And Their Impact Positive/Negative On Stock Market Indices

Prof. Bk Surya Prakasha Rao¹, Prof. P. Raja Babu², Dr. A. Suresh Kumar³, Dr. Deivasree⁴

¹Professor, Department Of Accounting And Finance, Bule Hora University, Ethiopia Bkspr_Rvrjc@Yahoo.Com.

²Professor, Department Of Accounting And Finance, Bule Hora University, Ethiopia. Lien In KLEF, Vaddeswaram, Guntur District. Puppala.Rajababu@Gmail.Com,

³Dr. A. Suresh Kumar, Associate Professor, Department Of Management, College Of Business And Economics, Oda Bultum University., Chiro, Oromia, Ethiopia, Email: Sureshphdou@Gmail.Com.

⁴Dr. Deivasree, Department Of Journalism And Mass Communication, Bule Hora University, Ethiopia

*Corresponding Author:- Prof. BK Surya Prakasha Rao

Professor, Department Of Accounting And Finance, Bule Hora University, Ethiopia Bkspr_Rvrjc@Yahoo.Com.

Doi: 10.47750/Pnr.2022.13.S05.17

Abstract

The coronavirus is a novel disease affected across the world. The symptoms are cold and fever. It was invented in December 2019 by China and is denoted as Covid-19 by World Health Organization (WHO). This disease affected not only humans but also influenced the stock market and an economic crisis across the world. About 3% effect on the global economy, it was comparatively higher than 2008-09. 1.2% and 2.8% were affected by middle Asia and the middle east during 2019-20. The oil export and import countries were affected by about 4.2% and 0.7% (IMF, 2020).

The stock market is one of the barometers for Post Covid-19 status measurement. The study aims to analyze the infected cases, investigate the stock market indices in BRICS Nations, and find the relations between infected situations and the stock market of BRICS Nations. This study uses secondary data from the official websites of the World Health Organization, Dashboard from January 2021-June 2022. Using Multi Regression analysis in the five nations were infected and death cases and stock market indices. This study will be helpful in the present situation, and investors will decide to diversify funds in the profitable sector to accelerate their wealth.

Keywords: BRICS Countries, Stock Indices, Covid-19, Infected cases, Death cases

1. INTRODUCTION

BRICS consists of five countries, viz. Brazil, Russia, India, China, and South Africa. In 2006 South African Nation was added to this bloc. This bloc occupied from the total population and labor force point view was one-fourth 40% and 46%. GDP and economic growth rates, this bloc was protecting 30% and 50%. Also, BRICS Nations produce goods and services with a potential share of 15%, an increase from 3.6% in the global economy. The exports of these nations increased to 2339 USD billion from 417 USD billion from 2001 to 2016. The investment in this bloc rose from 81 billion USD to 221 billion USD from 2000 to 2012 (Rasoulineshadr & Jabalameli, 2018). These nations are playing a vital role in economic and political participation at national and international levels. This group is to meet to discuss investment, economic position, controlling financial crisis, make a vision for 2027, and overtake the G7 economies. Goldman Sachs expressed that by the end of the 2050s BRICS will be a powerful bloc around the globe. The Covid-19 pandemic also affected Europe, Africa, and Asia the stock market plunged (Wagner, 2020; Ashraf, 2020). In the same line, the stock market Covid-19 has been affected severely by the BRICS Nations. It is about 20% of the share price plunged during Post Covid-19.

1.1. Review of Literature:

Many studies reviewed the integration between the stock market, and few studies have indicated a pandemic effect on oil price and natural gas demand. This bloc is one of the victims of the pandemic as severely affected by manufacturing, services, banking, hotels, real estate, and the tourism industry (E. Apergis; N. Devpura; 2020). Jingmin Zhu, Wenxin Yan, Lin zhu & Jue Liu, (2021) expressed that comparison of Covid-19 pandemic responses and related factors in BRICS countries. The aim of the study is to evaluate the relations between Covid-19 cases with socioeconomic and demographic factors, health vulnerability, and policy response in BRICS Nations. Recent research on the pandemics on the stock market negatively affected across the globe outcome and trade and financial markets (X. Qin, 2020; Z. Yu, 2020; Y. Wang 2020; X. Gu, S. Ying, Z. Yu, 2020). Other studies have indicated financial crises, economic uncertainty,

and political woes (Esposito; Kapoor; Mathur, 2016). The World Health Organization recorded India affected with the highest number 18.76 million, followed by Brazil at 14.45 million, Russia at 4.81 million, South Africa at 1.58 million, and China at 0.10 million had the lowest figure. Based on the empirical analysis no research has been done in Covid-19 in BRICS Nations' stock markets affected by infected death cases.

1.2. The Problem of the Study

This study concentrates on the number of infected and death cases influencing BRICS countries' stock markets positively or negatively. Few studies refer to stock market performance influencing various factors before Covid-19, and in other studies, Covid-19 either positively or negatively affected (R.J. Barro, J. Weng, 2020). But no study highlights BRICS countries' stock market positive or negative effects of Covid-19 infection and death cases. This study helps investors manage risk in the future.

1.3. The Objective of the Study

This research paper is to investigate Covid-19 and how infection and death cases influence the BRICS stock market.

- To analyze the number of infected and death cases in BRICS Nations
- To investigate stock market indices in BRICS Nations
- To find the relationship between Covid 19 cases and deaths influencing BRICS country's stock market

1.4. The Hypothesis of the study

- H01 There is no relationship between the number of infected and death cases towards stock market returns of BRICS countries.

1.5. Methodology of the Study

This study focuses on monthly stock prices dependent variable comparison with infected and death cases independent variable. The researcher analyzed the data from January 2021 to June 2022. Monthly stock prices are more convenient than weekly and daily. Collected data was from investing.com, moneycontrol.com, and dashboards of the World Health Organization of BRICS countries. This study aims in pandemic situation investor behavior towards stock market was identified. This study used a statistical tool of multiple regression analysis to find the relationship between infected and deaths on BRICS nations' stock market indices. This study focuses on Covid-19 effect of stock market indices, and how the investor has taken the decision either invest in the stock market or withdraw their investment has been analyzed. The contribution of this study is mainly four parts, primarily observing socioeconomic factors in BRICS nations. Second, study the number of infected and death cases in BRICS countries, and the third is to test the infected and deaths on stock market indices of the BRICS Nations with the use of multiple regression analysis.

Table:01 BRICS Nation's number of cases and deaths recorded, and the stock market growth rate from January 2021 to June 2022

Months	Brazil			Russia			India			China			South Africa		
	SM Return	Cases	Deaths	SM Return	Cases	Deaths	SM Return	Cases	Deaths	SM Return	Cases	Deaths	SM Return	Cases	Deaths
4-Jan	-0.14	313130	6049	1.87	165167	3331	0.54	126319	1564	0.73	624	7	0.73	125287	3649
1-Feb	2.13	328652	7368	2.1	116842	3479	5	80180	722	0.81	395	8	0.821	24464	2229
1-Mar	0.27	413597	935	0.71	76697	2978	1.53	114068	705	1.21	186	5	1.21	7981	706
5-Apr	-0.02	463092	20512	-0.88	60496	2612	-1.74	873296	4652	-0.04	216	2	-0.04	6026	302
3-May	0.27	423438	15333	1.85	57007	2464	-0.13	2738957	26820	-0.65	146	0	-0.65	8472	318
7-Jun	0.5	454710	13393	-0.39	82250	2643	0.44	630650	23625	0.21	1998	187	0.21	47934	724
5-Jul	-1.44	3333030	9736	0.04	172392	5077	0.75	291789	6035	0.66	430	51	-0.11	132986	2631
2-Aug	0.59	228473	6302	0.15	159073	5529	0.69	278631	3511	1.97	828	19	1.97	76034	2610
6-Sep	0.22	118790	3176	-0.45	127471	5549	0.29	248248	2122	1.12	279	2	1.12	40220	1408
4-Oct	0.22	105079	3200	2.7	118829	6497	0.75	139572	1772	-0.01	251	3	-0.01	5884	539
1-Nov	1.98	69057	1598	1.72	281305	8276	1.4	82236	2605	-1.1	637	0	0.81	1865	156
6-Dec	0.65	55415	1291	-3.77	215283	8205	1.76	57255	2108	0.16	651	0	0.16	109053	151
3-Jan	-0.39	162701	766	1.72	112883	5645	1.14	638872	2020	-0.2	1601	0	-0.2	53433	1173
7-Feb	-0.22	1009678	6658	2.33	1323391	4834	-1.75	443283	6686	0.67	7571	6	0.67	17952	1168
7-Mar	-2.52	331315	3301	4.37	393530	4530	1.1	28038	814	-2.25	174716	1955	-2.35	10360	169
4-Apr	-1.97	148798	1120	1.02	99194	2008	2.25	7140	340	0.02	22519	645	0.47	9182	50
2-May	-1.15	110866	681	-2.94	38265	915	-2.29	23006	221	0.68	200968	192	0.68	43977	153
6-Jun	-0.82	178298	676	0.41	24736	500	-0.17	45200	69	1.28	501146	1201	1.28	10550	164

(Sources from WHO Dashboard)

Table:2 The Summary of BRICS Nations Multi Regression Analysis

Description	Brazil	Russia	India	China	South Africa
Multiple R	0.370795	0.31181	0.257859	0.659768	0.350934
R Square	0.137489	0.097226	0.066491	0.435294	0.123155
Adjusted R Square	0.022487	-0.02314	-0.05798	0.359999	0.006242
Intercept	-0.14939	0.373555	0.88811	0.425757	0.151823
X Variable 1	-5.7E-07	2.13E-06	-7.2E-07	5.12E-06	-4.2E-06
X Variable 2	5.4E-05	-2.5E-05	5.71E-06	-0.00165	0.00039
P-value	0.329789	0.464349	0.59688	0.013762	0.373183

From the above analysis of BRICS nations' relationship between the number of cases confirmed and deaths recorded for 18 months, there was a direct relation with stock market return in China than in other countries. In other countries, the R Square value and the p-values are not significant China's values have shown more significance than other countries. The p-value is 0.013762. It is lower than the alpha value of 0.425757. Hence, it is therefore in BRICS nations Covid-19 analysis found that the number of cases and deaths recorded was too low, and at the same time a significant relationship between recorded cases and deaths in the stock market in China than in other countries.

CONCLUSION

In the Globe, 45% of the population is from BRICS nations. During Covid-19 the BRICS nations India, Brazil, and Russia suffered a lot number of deaths and recorded cases during the Covid-19 situation. The Socioeconomic and demographic factors India and China occupied the highest population and life expectancy. The number of cases and deaths recorded in China is very low compared to other nations. The main reason is that China took precautions so that in a pandemic China's death cases are very low. Regarding the stock market returns directly depending on the number of cases and deaths in BRICS nations China occupied a significant position in direct relation between cases and deaths in the stock market. But, in other nations, there is no relationship between the stock market and the pandemic situation in remain four nations.

REFERENCES

1. Apergis, E. (2020). Can the Covid-19 pandemic and oil prices drive the US Partisan conflict Index? *Energy Res. Lett.*, 131-144.
2. Esposito, M. (2016). What is the state of the BRICS Economies? *World Economic Forum*.
3. Devpura, N. (2020). Hourly Oil Price Volatility: The role of Covid-19. *Energy Res. Lett.*, 13683.
4. Barro, R. (2020). The coronavirus and the great influenza pandemic: Lessons from the Spanish Flue for the coronavirus's effects on mortality and economic activity. *National Bureau of Economic Research Work*.
5. Zwuang, W. (2020). Covid-19: Structural changes in the relationship between investor sentiment and crude oil futures price. *Energy Res. Lett.*
6. X. Gu, S. (2020). How do firms respond to Covid-19? First evudebce frin Suzhor, China. *Emerge Mark Finance*.
7. X. Qin, G. (2020). Covid-19 Pandemic and Firm-level cash holding-moderating effect of goodwill and goodwill impairment. *Emerge Mark Finance*.
8. Y. Wang, D. (2020). How does Covid-19 Affect China's insurance market? *Emerge Mark Finance Trade*.
9. WHO. (2020). Covid-19. *Dashboard*.
10. Chen, Y. C. (2020). The outbreak of Covid-19-An overview. *China Medical Association*.
11. Z.Yu, Y. C. (2020). The Response of the labor force participation rate to a pandemic: Evidence from a cross-country analysis. *Emerge Mark Finance*.
12. Jingmin Zhu, Wenxin Yan, Lin zhu & Jue Liu, (2021). Covid-19 pandemic in BRICS countries, and its association with socioeconomic and demographic characteristics, health vulnerability, resources, and policy response. *BMC Malaria Journal: Infectious Diseases of Poverty*.