

COVID-19 Pandemic and Stock Performance

Subjects: Business, Finance

Contributor: Mbongiseni Ncube, Mabutho Sibanda, Frank Ranganai Matenda

The novel coronavirus outbreak, which started in late 2019 in Wuhan, China, and was later dubbed COVID-19, has had a significant impact on global economies and financial markets around the globe. It has been found that the COVID-19 pandemic has plunged most economies around the world into a recession and triggered one of the largest global economic crises in more than a century.

Keywords: COVID-19 pandemic ; sub-Saharan Africa ; stock markets ; sector performance

1. Black Swan Events and Stock Market Performance

A black swan is an extremely unusual occurrence that is unanticipated and can have disastrous repercussions ([Taleb 2007](#)). A black swan event can take many forms, including a natural disaster, a war, a financial crisis, or a virus outbreak. A black swan has the following three main characteristics ([Taleb 2007](#)): first, it is an unpredictable event that occurs outside of usual expectations; second, it has a significant and far-reaching impact on the economy, society, and or the entire planet. Lastly, once it occurs, it is less random and more predictable than before. According to [Teitler-Regev and Tavor \(2019\)](#), black swan events such as natural disasters, terrorism attacks, and man-made disasters usually have a negative impact on the stock market and the economy as a whole; however, it has been discovered that the impact on stock markets is typically short-term, with stock markets quickly returning to normal levels a few days after the event. The stock market's reaction to black swan events is determined by the company's level of exposure to those events ([Seetharam 2017](#)). For example, firms such as those in tourism, travel, and leisure, are associated with lower returns than the non-exposed when an environmental disaster strikes.

Black swan events frequently lead to black swan investing, in which investors seek out stocks and other safe haven assets that will hold their value if the market falls due to a catastrophic event ([Kuruppu and De Zoysa 2020](#); [Lybeck 2017](#)). Other researchers have shown that black swan events are associated with behavioral biases such as fear, loss aversion, and hindsight bias ([Bekiros et al. 2017](#); [Nafday 2009](#); [Yarovaya et al. 2021](#)). Another significant revelation is made by [Tastsidis Olsson and Löfberg \(2014\)](#), who point out that black swan events lead to herding behavior because investors tend to take sides taken by the masses, such as buying when others are also buying or selling when others are selling, and this often leads to inefficient markets. Traditional factor models cannot be relied on in forecasting stock returns in times such as the current COVID-19 pandemic.

2. Respiratory Diseases and Stock Market Performance

Although the COVID-19 epidemic is regarded as a black swan event, the world did experience other related pandemics, such as severe acute respiratory syndrome (SARS), Middle East respiratory syndrome (MERS), and EBOLA, which were found to have affected stock markets around the globe ([David et al. 2021](#)). [Chen et al. \(2018\)](#) examined the impact of SARS on Asian financial markets and found that the epidemic weakened the stock market integration in the region. [Nippani and Washer \(2004\)](#), on the other hand, examined the impact of the SARS pandemic on stock market returns for all the affected countries, and the results indicated no significant negative impact except for the stock markets of China and Vietnam. However, a sector analysis by [Chen et al. \(2007\)](#), using an event study methodology, indicated that stocks in the hotel industry faced a decline in returns during the outbreak of the SARS. Other sectors, such as manufacturing, retail, and banking, were not significantly affected.

[Choe et al. \(2021\)](#) investigated the impact of the MERS on the Korean tourism industry and found that the occurrence of the pandemic negatively affected the performance of this sector and also depressed the Korean economy. The negative performance was mainly due to a reduction in the number of tourists visiting the country, which led to a loss of about 3.1 billion USD between the period of June 2015 to September 2015. Further analysis by [Joo et al. \(2019\)](#) shows that the MERS had a detrimental effect on other tourism-related industries, such as food and beverages, transportation, and accommodation.

Studies on the effects of Ebola on stock markets performance show that the news on the outbreak of the pandemic led to an increase in selloffs in affected stock markets, which negatively impacted the stock prices ([Funck and Gutierrez 2018](#); [Ichev and Marinč 2018](#)). The effect was more pronounced in vulnerable and small industries such as the airline, food and beverage, and leisure industries. [Ichev and Marinč \(2018\)](#) further reveal that the impact of Ebola was more significant in the US, European, and West African regions and that fear and anxiety rather than real economic factors influenced the investors' decisions.

3. COVID-19 Pandemic and Stock Market Performance

Several studies have been conducted to assess the impact of the COVID-19 pandemic on stock market performance. Researchers such as [Xu \(2021\)](#); [Alam et al. \(2021\)](#); [Yousfi et al. \(2021\)](#); [Baker et al. \(2020\)](#); [Haiykir and Çetenak \(2022\)](#) considered the impact of the pandemic on the stock markets of developed economies and found that the occurrence of the pandemic has led to a decline in stock market returns. These studies revealed that the increase in COVID-19 cases and deaths negatively impacted the stock market performance, while the imposition of measures to revive the economy, such as economic stimulus packages, helped the stock markets to recover. [Yousfi et al. \(2021\)](#) further highlight that the government restrictions such as lockdowns and social distancing made the COVID-19 pandemic have a more severe negative impact on stock markets than previous pandemics.

Studies from emerging markets also had similar findings to those from developed economies ([Kharbanda and Jain 2021](#); [Sachdeva and Sivakumar 2020](#); [Topcu and Gulal 2020](#)). Although [Kharbanda and Jain \(2021\)](#) used a GARCH model while [Sachdeva and Sivakumar \(2020\)](#) performed an event study, they both confirm that an increase in COVID-19 cases and deaths had a significant negative impact on stock market returns. Stock markets were found to be more sensitive to the pandemic during the first wave, but later on, the markets seemed to be less responsive. [Topcu and Gulal \(2020\)](#) further reveal that the impact of the pandemic on stock markets of emerging economies is smaller in countries where the government responded swiftly to put measures to curb the pandemic and also where there was more government support in the form of economic stimulus packages. This is further supported by [Singh and Shaik \(2021\)](#), who found that, as in developed markets, stock markets of emerging markets also quickly recovered when the government put measures to revive the economy.

Other studies, for example, [Topcu and Gulal \(2020\)](#); [Ashraf \(2020\)](#); [Ledwani et al. \(2021\)](#); [Uddin et al. \(2021\)](#) compared the performance of stock markets for emerging and developed economies. Although they conclude that the stock markets were negatively affected by the occurrence of the pandemic, it was found that news on COVID-19 cases and deaths led to an increase in volatility in developed markets more than in emerging markets. However, developed economies were more successful in managing stock market volatility than their emerging counterparts, indicating the fragility of emerging market structure and lack of trust in government policies among investors in emerging stock markets. [Uddin et al. \(2021\)](#) further highlighted that in developed markets, economic freedom, governance, and productivity were the most important factors in managing stock market volatility during the pandemic, while for emerging markets, quality of health services, economic support, and governance quality were the most significant factors. [Topcu and Gulal \(2020\)](#) further reveal that the impact of the pandemic differs even among the emerging markets of different regions. Their study found that the impact of COVID-19 was more severe in emerging markets of Asia than the European counterparts.

[Ashraf \(2020\)](#) examined the impact of the pandemic on 77 stock markets around the globe by applying a panel regression on daily stock market returns. Their findings reveal that COVID-19 restrictions that have an adverse effect on economic activity, such as social distancing and lockdowns, negatively affect stock market returns, but over the long term they have a positive effect due reduction in COVID-19 cases. However, government support programs, such as economic stimulus packages, testing, and quarantining, were found to be having a direct positive effect on stock market returns. More related research was performed by [Phan and Narayan \(2020\)](#) on the stock markets of 25 countries most affected by the pandemic. Through an event study analysis, the researchers found that 24 of the 25 stock markets recorded negative returns on the day the World Health Organisation (WHO) declared COVID-19 a global pandemic on the 11th of March 2020. Furthermore, it was found that 12 of the 25 countries, mostly European countries, recorded positive returns when the travel ban was imposed by the governments of those nations, while only 8 reacted positively to the imposition of the lockdown measures. Similar to [Ashraf \(2020\)](#), the researchers established that the introduction of the stimulus package had positive returns in most stock markets, although the effects were more significant in those countries that had already introduced the lockdown measures.

4. COVID-19 Pandemic and Sector Performance

Most studies on COVID-19 and stock market performance have focused on aggregate stock market performance as measured by changes in the value of an index. However, there are a few studies in developed markets that went a step further and considered the impact of the pandemic on sector performance. For example, [Elhini and Hammam \(2021\)](#); [Olczyk and Kuc-Czarnecka \(2021\)](#) found that the pandemic had a negative impact on sectors such as communications, consumer discretionary, consumer staples, health, technology, and materials in the first three months after the occurrence of the pandemic. Other sectors, such as finance, the manufacturing industry, information technology, and utilities, demonstrated a significant positive relationship with the pandemic from the start of the pandemic, whereas the energy and real estate sectors appeared unaffected. In an event study analysis of sectors for the Australian stock exchange, [Alam et al. \(2021\)](#) show that the sensitivity of the sectors to the announcement of the pandemic differs among the sectors. On the day of the announcement, the retail, pharmaceutical, and healthcare sectors exhibited strong positive returns. Later on, telecommunications exhibited strong positive returns together with healthcare and pharmaceuticals, while the transportation industry continued to perform poorly.

Studies performed prior to the COVID-19 pandemic also confirm that stock market sectors react to the market crisis in different ways. For instance, a study by [Ranjeeni \(2014\)](#), which focused on New York Stock Exchange sectors, discovered that the global financial crisis had a positive influence on utilities, consumer staples, consumer discretionary, and health care while negatively impacting energy, information technology, and financial services. However, the materials and industrial sectors were more resilient to the crisis. On the other hand, [Bekaert et al. \(2014\)](#) analyzed 415 country-sector equity portfolios across 55 countries and found that the only sectors negatively impacted by the global financial crisis were materials, consumer cyclical, and financials.

References

1. Taleb, Nassim Nicholas. 2007. *The Black Swan: The Impact of the Highly Improbable*. New York: Random House, vol. 2, Available online: https://innovation.cc/book-reviews/2008_13_3_14_gow_bk-rev_taleb_black-swan (accessed on 1 October 2022).
2. Teitler-Regev, Sharon, and Tchai Tavor. 2019. The impact of disasters and terrorism on the stock market. *Jàmbá: Journal of Disaster Risk Studies* 11: 1–8.
3. Seetharam, Ishuwar. 2017. *Environmental Disasters and Stock Market Performance*. Stanford University Working paper. Stanford: Stanford University.
4. Kuruppu, Gayithri Niluka, and Anura De Zoysa. 2020. COVID-19 and panic buying: An examination of the impact of behavioural biases. Available online: <https://ssrn.com/abstract=3596101> (accessed on 11 November 2022).
5. Lybeck, Eric. 2017. *An Analysis of Nassim Nicholas Taleb's The Black Swan: The Impact of the Highly Improbable*. Macat Library. Available online: <https://www.taylorfrancis.com/books/mono/10.4324/9781912281206> (accessed on 11 October 2022).
6. Bekiros, Stelios, Sabri Boubaker, Duc Khuong Nguyen, and Gazi Salah Uddin. 2017. Black swan events and safe havens: The role of gold in globally integrated emerging markets. *Journal of International Money and Finance* 73: 317–34.
7. Nafday, Avinash M. 2009. Strategies for managing the consequences of black swan events. *Leadership and Management in Engineering* 9: 191–97.
8. Yarovaya, Larisa, Roman Matkovskyy, and Akanksha Jalan. 2021. The effects of a black swan event (COVID-19) on herding behavior in cryptocurrency markets. *Journal of International Financial Markets, Institutions and Money* 75: 101321.
9. Tastsidis Olsson, Aleksis, and Pontus Löfberg. 2014. Black Swan Investing: An empirical study in context of efficient markets. Available online: <https://lup.lub.lu.se/student-papers/search/publication/46> (accessed on 11 October 2022).
10. David, Sergio A., Cláudio MC Inácio Jr, and José A. Tenreiro Machado. 2021. The recovery of global stock markets indices after impacts due to pandemics. *Research in International Business and Finance* 55: 101335.
11. Chen, Mei-Ping, Chien-Chiang Lee, Yu-Hui Lin, and Wen-Yi Chen. 2018. Did the SARS epidemic weaken the integration of Asian stock markets? Evidence from smooth time-varying cointegration analysis. *Economic research-Ekonomska istraživanja* 31: 908–26.
12. Nippani, Srinivas, and Kenneth M. Washer. 2004. SARS: A non-event for affected countries' stock markets? *Applied Financial Economics* 14: 1105–10.

13. Chen, Ming-Hsiang, SooCheong Shawn Jang, and Woo Gon Kim. 2007. The impact of the SARS outbreak on Taiwanese hotel stock performance: An event-study approach. *International Journal of Hospitality Management* 26: 200–12.
 14. Choe, Yunseon, Junhui Wang, and HakJun Song. 2021. The impact of the Middle East Respiratory Syndrome coronavirus on inbound tourism in South Korea toward sustainable tourism. *Journal of Sustainable Tourism* 29: 1117–33.
 15. Joo, Heesoo, Brian A. Maskery, Andre D. Berro, Lisa D. Rotz, Yeon-Kyeng Lee, and Clive M. Brown. 2019. Economic impact of the 2015 MERS outbreak on the Republic of Korea's tourism-related industries. *Health Security* 17: 100–8.
 16. Funck, Mary, and Jose A. Gutierrez. 2018. Has Ebola infected the market: A contagious reaction to a (media) health care crisis? *Journal of Business Strategies*. Available online: <https://ssrn.com/abstract=2786001> (accessed on 26 August 2022).
 17. Ichev, Riste, and Matej Marinč. 2018. Stock prices and geographic proximity of information: Evidence from the Ebola outbreak. *International Review of Financial Analysis* 56: 153–66.
 18. Xu, Libo. 2021. Stock Return and the COVID-19 pandemic: Evidence from Canada and the US. *Finance Research Letters* 38: 101872.
 19. Alam, Md Mahmudul, Haitian Wei, and Abu NM Wahid. 2021. COVID-19 outbreak and sectoral performance of the Australian stock market: An event study analysis. *Australian Economic Papers* 60: 482–95.
 20. Yousfi, Mohamed, Younes Ben Zaied, Nidhaledine Ben Cheikh, Béchir Ben Lahouel, and Housseem Bouzgarrou. 2021. Effects of the COVID-19 pandemic on the US stock market and uncertainty: A comparative assessment between the first and second waves. *Technological Forecasting and Social Change* 167: 120710.
 21. Baker, Scott R., Nicholas Bloom, Steven J. Davis, Kyle J. Kost, Marco C. Sammon, and Tasaneeya Viratyosin. 2020. The Unprecedented Stock Market Impact of COVID-19. Cambridge, MA: National Bureau of Economic Research.
 22. Haiykir, Cetenak, and Özlem Öztürk Çetenak. 2022. Monetary policy application and stock market reaction during Covid-19 Pandemic: Evidence from Turkey. *Ömer Halisdemir Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi* 15: 149–64.
 23. Kharbanda, Varuna, and Rachna Jain. 2021. Impact of COVID on the stock market: A study of BRIC countries. *International Journal of Financial Markets and Derivatives* 8: 169–84.
 24. Sachdeva, Kanika, and P. Sivakumar. 2020. COVID-19 and Stock Market Behavior—An Event Study of BRIC Countries. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)* 11: 741–54.
 25. Topcu, Mert, and Omer Serkan Gulal. 2020. The impact of COVID-19 on emerging stock markets. *Finance Research Letters* 36: 101691.
 26. Singh, Gurmeet, and Muneer Shaik. 2021. The Short-Term Impact of COVID-19 on Global Stock Market Indices. *Contemporary Economics* 15: 1–19.
 27. Ashraf, Badar Nadeem. 2020. Economic impact of government interventions during the COVID-19 pandemic: International evidence from financial markets. *Journal of Behavioral and Experimental Finance* 27: 100371.
 28. Ledwani, Sanket, Suman Chakraborty, and Sandeep S. Shenoy. 2021. Spatial tale of G-7 and Brics stock markets during COVID-19: An event study. *Investment Management and Financial Innovations* 18: 20–36.
 29. Uddin, Moshfique, Anup Chowdhury, Keith Anderson, and Kausik Chaudhuri. 2021. The effect of COVID–19 pandemic on global stock market volatility: Can economic strength help to manage the uncertainty? *Journal of Business Research* 128: 31–44.
 30. Phan, Dinh Hoang Bach, and Paresk Kumar Narayan. 2020. Country responses and the reaction of the stock market to COVID-19—A preliminary exposition. *Emerging Markets Finance and Trade* 56: 2138–50.
 31. Elhini, Maha, and Rasha Hammam. 2021. The impact of COVID-19 on the standard & poor 500 index sectors: A multivariate generalized autoregressive conditional heteroscedasticity model. In *Journal of Chinese Economic and Foreign Trade Studies*. Bradford: Emerald Publishing Limited.
 32. Olczyk, Magdalena, and Marta Ewa Kuc-Czarnecka. 2021. Determinants of COVID-19 impact on the private sector: A multi-country analysis based on survey data. *Energies* 14: 4155.
 33. Ranjeeni, Kumari. 2014. Sectoral and industrial performance during a stock market crisis. *Economic Systems* 38: 178–93.
 34. Bekaert, Geert, Michael Ehrmann, Marcel Fratzscher, and Arnaud Mehl. 2014. The global crisis and equity market contagion. *The Journal of Finance* 69: 2597–649.
-

