

Abstract

This work investigates the effect of the COVID-19 pandemic on the S&P 500 stock index and its eleven sectors. Employing the ARMA and the T-GARCH model on a time series of daily returns from 2018 until March 2021, we examine the impact on volatility, returns, and day-of-the-week effect during the stock market crash caused by the pandemic and the period after. Our main findings imply that in the case of returns, the Monday effect was more negative than the Friday effect during the market crash and vice versa in the rising market after the crash. Concluding that the calendar time hypothesis holds for the observed periods. In terms of volatility, it drastically increased across the US stock market during and even after the crash. The increase was especially noticeable for the IT and Energy sectors. We also found the U-shaped daily volume pattern changed significantly with proportionately less volume of trades happening in the first half-hour of trading and more throughout the whole day.