

THE INFLUENCE OF SPECIFIC INDICATORS ON THE VOLATILITY OF SHARES ON THE BUCHAREST STOCK EXCHANGE DURING THE COVID-19 PANDEMIC

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Abstract. The Covid-19 pandemic has created increasing uncertainty among companies and investors. As a result, it is necessary to investigate the behaviour of stock exchange mechanisms during the crisis generated by a virus. The purpose of the research is to determine the link between, the increase of the volatility of the shares on the Bucharest Stock Exchange and the specific stock market indicators during the COVID-19 pandemic. The dependent variables were standard deviation and simple moving average, and the variables considered were: PER, P/BV, EPS, DIVY, stock market capitalization and free-float. Data were collected regarding all the shares listed on the Bucharest Stock Exchange between 01.01.2020 and 01.03.2021. The study consists of two econometric models that allowed the identification of the links between the variables. The results obtained show that during the pandemic generated by Covid-19 the volatility of the shares is not dependent on the variables considered. Of all the variables, only EPS has a statistically significant influence.

Keywords: share, Bucharest Stock Exchange, COVID-19, volatility.

JEL Classification: C15, C52, G32.

Introduction

The coronavirus pandemic started in December 2019 in Wuhan, China. The first form of manifestation was infection of a group of people with an unknown virus. The first cases of symptomatic disease appeared on December 8, 2019. On December 31, 2019 first cases were reported. This event was followed by the spread of this virus around the world and the installation of a period of social and economic instability. The first cases of illness were reported in Romania on February 26 (Centrul Național de Supraveghere și Control al Bolilor Transmisibile [CNSCBT], n.d.). A few days later, on March 11, 2020, the World Health Organization declared that the spread of the COVID-19 virus had reached the level of a pandemic (<https://www.who.int/data/>). The effects of the pandemic have been passed on to stock markets around the world. The crisis has led to a reduction in stock market activity, which shows the global dimension.

The stock market in Romania was no exception. Romania had a real GDP dynamics decreasing from +7.1% in 2017, to +4.4% in 2018 and +4.1% in 2019 (European Commission, n.d.). The Romanian economy registered

one of the largest contractions in Europe (12.3%), being surpassed only by the states whose GDP is based on tourism (Spain, Croatia, Greece, Hungary, Portugal, France and Italy) (European Commission, n.d.).

Such a perspective was changed by the emergence of the global COVID-19 crisis in the first quarter of 2020, which progressively affected the Romanian economy through various channels.

In Romania, between November 13, 2020 and November 20, 2020 the maximum value of confirmed cases was registered, respectively, 59615 (Figure 1) (CNSCBT,

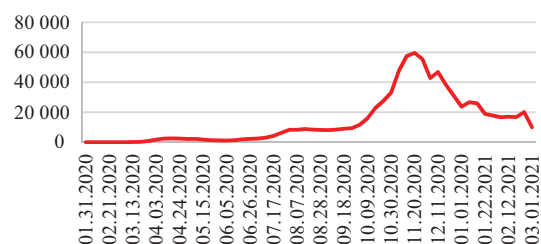


Figure 1. Number of cases of COVID-19 diseases confirmed in Romania during the analysis period (source: author's elaboration, based on CNSCBT, n.d.)

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n.d.). In order to prevent the spread of the COVID-19 virus, the President of Romania decreed a state of emergency for 60 days, between March 16 and May 14.

Romania has a single Stock Exchange located in Bucharest. At the Bucharest Stock Exchange [BSE] (n.d.) are calculated and distributed in real time 8 own indices (BET, BET-TR, BET-XT, BET-XT-TR, BET-BK, BET-FI, BET-NG, BET Plus) and an index developed with the Vienna Stock Exchange (ROTX) (BSE, n.d.). The effect of the spread of COVID-19 virus was reflected by all stock indices, without exception. Bucharest Exchange Index (BET) is the reference of the Romanian capital market (Figure 2).

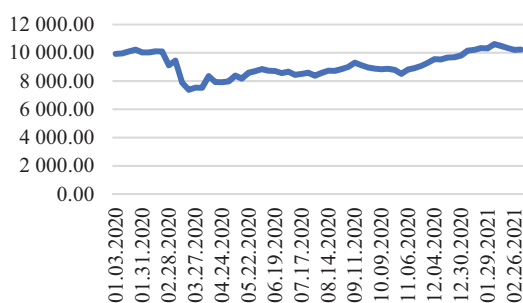


Figure 2. The evolution of the BET index during 01.01.2020–01.03.2021 period (source: author's elaboration, based on BSE, n.d.)

The objective of the paper is to establish if the company specific indicators can influence share volatility during the COVID-19 pandemic period. To achieve this goal, all shares listed on the BSE were initially considered on 1 January 2020 (368 shares). The data were taken from the electronic platform of the Bucharest Stock Exchange.

The applied methodology consists of two econometric models of the data panel, using a multiple linear regression. To express volatility, standard deviation and simple moving average were used as dependent variables and free-float, market value, PER, P/BV, EPS, and DIVY as independent variables.

The study will contribute to the literature, as it presents an analysis of the causes that increase historical volatility during the pandemic. The paper is structured in sections. The following section summarizes the relevant literature on the impact of COVID-19 virus on national, regional, and international stock markets. The second section describes the research methodology. The third section presents the results of the research and discussions related to the results obtained. The last section includes the conclusions of the research, the limits and future directions of the research.

1. Literature review

The unprecedented spread of the COVID-19 virus has led to declining stock markets around the world. The capital market has been characterized by high volatility during major events of the last 120 years such as: World War I, the crisis of 1929–1933, World War II, OPEC oil

shocks, the global financial crisis of 2008, the debt crisis from the EU (Rabhi, 2020).

1.1. Background regarding the impact of viruses on the stock market

Research that has studied the impact of a pandemic on stock exchanges is quite limited. However, there have been studies on the impact of an infectious disease on capital markets. One such virus was Severe Acute Respiratory Syndrome [SARS] which caused a viral respiratory illness. Chen et al. (2018) followed the impact of this virus on shares listed on the Taiwan Stock Exchange in 2007. Nippani and Washer (2004) demonstrated how the same virus affected the stock markets of China and Vietnam. Chen et al. (2007) analyzed the impact of SARS on the link between China and four Asian stock markets. Other authors such as Lee and McKibbin (2004) have studied the impact of SARS on the world economy. According to the authors, the causes that determined the global impact, are not primarily related to the rapid spread of the virus on the continents, but due to the integration of financial markets and globalization.

Pendell and Cho (2013) conducted a study on the reactions of the Korean stock market to Foot-and-Mouth Disease (FMD). Ichev and Marinc (2017) investigated the impact of the Ebola virus (EVD) on stock exchanges. Macciocchi et al. (2016) studied the short-term impact of Zika virus in South America. Other researchers such as McKibbin et al. (2006), Smith et al. (2011) and Karlsson et al. (2014) focused on the global impact of viruses on economies.

1.2. Background regarding the impact of COVID-19 on the stock market

Since the beginning of 2020, information on the spread of COVID-19 has become the main market factors, as demonstrated by Baker et al. (2020). From the area of new concepts generated by the pandemic was introduced the concept of “Staggression” and a simulator of pandemic contagious diseases on the stock market (ϕ -Simulator), in order to assess the determinants of capital market behavior in the presence of a virus (Estrada, 2021). The author developed a model that investigates the impact of COVID-19 on the performance of ten stock indices. Other authors such as Atkeson (2020), Luo and Tsang (2020), sought to create a map of the COVID-19 pandemic effects on national and global economies. Estrada's analysis of ten major stock markets around the world (2021) showed that the effects of COVID-19 could cause damage similar to the 1929 crisis (Estrada et al., 2021). The authors' conclusions are clear: no outbreaks of infectious diseases in the past, including the Spanish flu, have affected the US capital market as strongly as the pandemic caused by the COVID-19 virus (Rabhi, 2020).

In the last two years, researchers have tried to explain the impact of the spread of COVID-19 on stock markets in different countries. The directions in which the

researchers tried to direct their efforts and the period considered in the studies are different.

Some researchers have looked at the effects of virus transmission on the stock market nationwide. Al-Alawadhi et al. (2020) showed how the profitability of the Chinese stock market has been affected by the number of people infected with COVID-19 and the deaths caused by this virus in 2020. Carletti et al. (2020) predicted the impact of the COVID-19 shock on equity and profit of Italian firms during the pandemic. Wu et al. (2021) used an MES model in order to analyze the impact of the COVID-19 outbreak on tourism companies listed on Chinese stock exchanges. Xiong et al. (2020) investigated the market reaction of listed Chinese companies due to the COVID-19 pandemic. By regression analysis, Plastun et al. (2021) examined the prices of US shares in the Dow Jones Index from 1890 to 2018. Fariska (2021) investigated how the COVID-19 pandemic affected the profitability of Indonesian stock exchanges (IDX). Didier et al. (2020) studied the relationship between government decisions and US financing company during the pandemic. Authors claim that decision makers must take into account large and small firms, key industries and those most affected by the crisis. Lee et al. (2020) investigated the impact of the COVID-19 outbreak on the Malaysian Stock Exchange. Statistical modelling included as dependent variables 13 sectoral indices and a composite index (KLCI). The period considered was 31 December 2019-18 April 2020.

Other researchers have been concerned about the impact of virus transmission on international stock exchanges situated on the same continent. Aslam et al. (2021) studied the causes of volatility in the stock markets of 12 European countries. The period considered was 2.12.2019–29.05.2020. The main findings show that during the pandemic, European stock markets remained integrated with increasing cross-border volatility. Czech et al. (2020) applied the TGARCH model in order to assess the impact of confirmed cases with COVID-19 on the Visegrad countries. Rabhi (2020) empirically demonstrated the vulnerability of the Asian stock market to pandemics.

Other authors have considered financial markets on different continents in their research, thus demonstrating the global influence of the pandemic. Thus, Okorie and Lin (2021) investigated the impact of the COVID-19 pandemic on the level of efficiency of stock market information in the US, Brazil, India and Russia. Chahuan-Jiménez et al. (2021) performed a comparative statistical analysis between the evolutions of stock market indices from 48 countries. The authors show that countries with better health conditions have a lower impact on declining stock market indices during the pandemic. Youssef et al. (2021) analyzed the dynamic link between stock markets in 8 countries, before the pandemic and during the spread of COVID-19. The results confirm that stock market bonds are becoming more pronounced in times of crisis, and the pandemic has caused a high level

of dynamic spillovers. Souza de Souza and Silva (2020) studied the effect of the COVID-19 pandemic on the international capital market. Through multiple linear regression, the authors provide evidence that the pandemic has significantly affected securities prices, but some markets have better adaptability to the pandemic. O'Donnell et al. (2021) studied the evolution of the indices SSE 180, FTSE MIB, IBEX 35, FTSE 100, DJIA, MSCI World between 31.12.2019-10.06.2020. According to the authors, the investors decided to act before registering financial damages. Yu et al. (2021) conducted a statistical survey that included a number of 19 countries on different continents. Thus, the authors identified the direction, path and size of the risk of contagion, from a static and dynamic perspective. Valls Martínez and Cervantes (2021) analyzed the impact of COVID-19 on global financial markets. They analyzed the evolution of cases confirmed with COVID-19, correlated with the dynamics of a number of six stock indices calculated on the markets of five continents. The results presented an analysis of the effects of COVID-19 on financial assets included in the DJSWI sphere.

Information played a key role for investors in making decisions during the pandemic. Rahim et al. (2020) placed at the center of research the reaction of the Indonesian stock market in March 2020 to information published by the government. Chundakkadan and Neddumparambil (2021) tracked the impact of the light-lamp event in India during the COVID-19 pandemic. Rahim et al. (2021) demonstrate that environmental, social, and governance scores (ESG) are inadequate during the COVID-19 crisis. Their explanatory power decreased in the first quarter of 2020 and remained low throughout the year. Fariska et al. (2021) surprised the increase of the microblogging phenomenon during the pandemic. The study took place between November 2019 and November 2020 and was conducted on 68 listed companies in Indonesia. It has been found that the investor using microblogging has a significant impact on stock returns and volatility and vice versa.

2. Materials and methods

2.1. Data collection

In order to achieve the objective of the paper, information was collected from the BSE electronic platform. The purpose of the platform is to ensure access to information and to improve communication with shareholders, investors and analysts, through a secure and credible means of communication.

BSE manages two segments for the trading of Romanian financial instruments (PR and AeRO). The classification of a company on the two segments is done according to: history, size, and percentage of shares sold to the public out of the total number of shares issued. The main market is dedicated to large companies which meet some strict criteria, such as the existence of a sufficient number of shares distributed to the public (free-float). The main

market is divided into two sections, with different admission conditions: premium and regular.

Companies that do not meet the criteria for admission to the regulated market may be admitted to trading on AeRO market. SMEs are usually admitted to this market. Like the main market, the AeRO market is divided into two sections: premium and regular. All the shares traded on the two markets at 01.01.2020 were taken into account in this research.

Empirical research began with the identification of all listed shares. Daily data were used for all shares traded on BSE. The analysis period for the study of historical volatility was between 01.01.2020 and 01.03.2021. The arguments that determined the analysis period were:

- First cases of COVID-19 infection were reported in China on 31 December 2019. Until then stock market was functioning with no perturbation;
- Spread of the virus has caused a reaction of the international stock markets, with different intensities, at different time intervals;
- Shares decreased differently. Some shares registered an increased volatility before the appearance of the first case of infection in Romania. Most shares recorded decreases immediately after the first case of infection in Romania announcement, while other shares registered a delayed decrease;
- There were three pandemic waves in Romania during this period.

Initially, 368 shares of all companies listed on BSE on January 1, 2020 were included in the analysis. These include 18 shares of foreign companies from the following countries (BSE, n.d.): Germany (13 companies), Poland (1 company), the Netherlands (1 company), Austria (1 company) and Cyprus (2 companies). Volatility research did not take into account shares of international companies. The arguments that led to such an organization are: higher level of market value of foreign companies compared to domestic ones, higher stock market performance and influences from own countries.

A number of 88 shares were subsequently eliminated due to events that affected their volatility during the analysis period, such as:

- 3 companies were listed during the analysis period on the AeRO market and one company on the PR premium market, so that there is no data on the stock price throughout the period;
- 15 companies were suspended from trading due to the initiation (2 companies) or the insolvency proceedings (13 companies);
- 4 companies were approved for liquidation and dissolution;
- 1 company was suspended from trading due to the reduction of the share capital;
- 1 company was suspended to clarify the situation regarding the administration of the company, according to the request made by the Financial Supervisory Authority (Romanian capital market authority);

- In 2 companies, it was decided to suspend trading from Financial Supervisory Authority;
- 1 company merged by absorption;
- In 2 suspended companies, the application for admission to trading was rejected;
- At 1 company was approved the request for withdrawal from trading made by the company's shareholders;
- For 36 companies listed on the standard AeRO market and one company in the AeRO Premium segment, there is no data on stock market indicators, due to the fact that during the reference period there were no stock transactions with the shares of those companies.

The shares of the 88 companies listed above were not taken into account. In this way, 280 shares remained. The actions included in the analysis were grouped in Table 1.

Table 1. Table Distribution of shares by segments and categories on BSE (source: author's elaboration based on BSE, n.d.)

Market	Frequency	Percent
RM premium	25	8.9
RM standard	51	18.2
AeRO premium	16	5.7
AeRO standard	188	67.2
Total	280	100.0

2.2. Variables description

The stock volatility is determined by internal factors, dependent on the efforts made by the company and by external factors, depending on the local or international market. The aim of the research was to study internal factors. To measure volatility, the literature offers several indicators. The standard deviation and simple moving average are often used to calculate historical volatility and were chosen for the first econometric model (Aveh & Awunyo-Vitor, 2017; Shaikh et al., 2017; Xiong et al., 2020).

Standard deviation was established on the basis of exchange rates corresponding to a number of 65 weekly average values collected for each share between 01.01.2020 and 01.03.2021. The standard deviation measures the dispersion of the stock market price relative to the average.

$$SD = \sqrt{\frac{\sum_{i=1}^n (P_i - \bar{P})^2}{n-1}}, \tag{1}$$

where: *SD* – standard deviation; *N* – number of shares; *P* – price of share; \bar{P} – price mean.

To verify the results, it was used in the second simple moving average (SMA) econometric model, calculated as the average of closing prices over the entire period considered in the analysis.

$$SMA = \frac{\sum_{i=1}^N P_i}{N}. \tag{2}$$

Specific stock indicators have been selected as independent variables that are commonly used in stock markets around the world. The literature includes the influence of macroeconomic indicators and factors specific to listed companies on the share prices of listed companies. Studies, older or more recent, show the influence of an indicator or group of indicators on the stock market price (Aveh & Awunyo-Vitor, 2017; Ghosh et al., 2018; Shaikh et al., 2017; Aliu et al., 2021; Pelcher, 2019; Modigliani & Miller, 1958; Erasmus, 2013; Hooi et al., 2015). The values of the stock market indicators on January 1, 2020, for each company included in the research were collected from the BSE platform.

a) Free-float expressed in absolute value was determined as the total number of shares issued by a company from which the following shares were eliminated in accordance with Romanian legislation (Law no. 297/2004):

- shares available to the company (treasury stock);
- shares held by the state and other government agencies, strategic investors, majority shareholders;
- holdings of at least 30% of insurance companies, pension funds, investment funds;
- holdings of at least 5% of other categories of investors.

The free-float expressed as a ratio is determined as the rapport between the number of shares included in the free-float and the total number of shares issued. The inhomogeneous nature of the shareholders (state, investment company, bank, individuals, legal entity, employees' association etc.) can generate different effects on volatility. Given the different objectives and behaviour of these shareholders during the pandemic, the authors decided to study the influence of this indicator.

b) Market value (leu-Romanian currency) is the value of all the shares of a company. It was calculated as the product of the market price of a share and the number of shares distributed by the company. The market value of a company is an indicator of volatility, risk and growth potential. Therefore, investors often use it to assess company's investment profile. Stock market value may have a different effect on pandemic volatility. To study such behaviour, the authors decided to include indicator in the data panel.

c) Price earnings ratio (PER) is the most commonly used valuation multiple of listed companies. The calculation formula is simple, the market price of the share being divided by the profit per share obtained by the company.

d) Price to book value (P/BV) is the ratio between the market price of the shares and their book value. The carrying amount is the difference between a company's total assets and total liabilities. If P/BV is supra-unitary, the company created value for the shareholders, and if P/BV is sub-unitary, it consumed part of the value that the shareholders brought.

e) Earnings per share (EPS) (lei/share) measures the part of the profit that returns for each share. It was calculated as the ratio between net income minus preferred

dividends and end of period share outstanding. It is a useful indicator, especially from the point of view of the individual shareholder, interested in what is personally win and the result at the company level.

f) DIVY (Dividend Yield) (lei/share) was calculated by relating the total dividends granted by the company to the total number of shares issued. It is an important indicator for investors interested in dividend-bearing stocks.

The variables considered in the study were grouped in Table 2. For each variable, the type, name, and calculation relationship are specified.

Table 2. Variables selected in the empirical investigation (source: author's elaboration)

Name	Symbol	Type
Standard deviation	SD	Dependent
Free-float	FF	Independent
Natural logarithm of market value	MV	Independent
Price earnings ratio	PER	Independent
Price to book value	P/BV	Independent
Earnings per share	EPS	Independent
Dividend yield	DIVY	Independent

2.3. Econometric models

Roodman (2009) showed that the Generalized Method of Moments [GMM] is the best econometric estimator for estimating dynamic models. It is used in the case of analysis of panel data characterized by many variables and several periods of time. At the same time, it is a solution for endogeneity associated with predictors. Such a problem assumes that valid tools are available in the data set and depends on the lag transformation of the instrumented variables. Starting from the GMM model, the research is based on a regression model that has the following form:

$$SD = \beta_0 + \beta_1 FF + \beta_2 MV + \beta_3 PER + \beta_4 P/BV + \beta_5 EPS + \beta_6 DIVY + \varepsilon, \quad (3)$$

where: p – number of variables; FF , MV , PER , P/BV , EPS , $DIVY$ – independent variables; β_0 – intercept; $\beta_1, \beta_2, \dots, \beta_6$ – weight of independent variables; ε – error term.

To verify the results, a multiple linear regression was used as in the previous model, having as dependent variable simple moving average:

$$SMA = \beta_0 + \beta_1 FF + \beta_2 MV + \beta_3 PER + \beta_4 P/BV + \beta_5 EPS + \beta_6 DIVY + \varepsilon. \quad (4)$$

The working hypotheses were:

Hypothesis 0 (H0). Specific company indicators have an effect on stock volatility during the COVID-19 pandemic;

Hypothesis 1 (H1). Specific company indicators have no effect on stock volatility during the COVID-19 pandemic.

The collected data were statistically processed with SPSS (IBM Corp., 2017).

3. Results and discussions

Table 3 presents the statistical data for each variable considered. Table 4 contains the correlation matrix. From the results, it can be seen that between the independent variables there are small positive or negative correlations, the values being close to 0. Such links have been demonstrated over time by several researchers (Corder & Foreman, 2014). However, based on the results, it is confirmed that these correlations are maintained during the COVID-19 pandemic. Therefore, before model validation, the autocorrelation variables were checked using the Durbin-Watson test. The value obtained ($D = 2.047$) shows that the positive (or negative) autocorrelation hypothesis does not exist.

Performing a multiple linear regression, we obtained an R -square of 0.40, which means that there is a significant average link between the variables, respectively, the company-specific stock market indicators influence in a proportion of 40% the volatility during the COVID-19 pandemic. In the second multiple linear regression, we obtained an R -square of 0.474, the Durbin-Watson coefficient $D = 2.059$. It is confirmed that the first model is correct. Both models refute the H_0 hypothesis that stock market indicators influence stock volatility during the pandemic.

An estimate of the probability of regression of random effects was made to show the influence of each independent variable. The results can be seen in Table 5, the correlation coefficients together with the t values in the Student's test between parentheses and the level of significance.

The following results were retained:

1. Five of the control variables: free-float, market value, PER, P/BV, DIVY were not statistically validated;

2. The only variable that had a statistically significant positive influence was EPS ($\beta_5 = 0.732, p = 0.001 < 0.05$). One explanation for the result would be that, amid the declining market price, shareholders acted instinctively. The indicator is less dependent on the company's profit. During the pandemic, the behaviour of the individual

shareholder, interested in personal gain, becomes important;

3. There is a negative correlation between the independent variable and 4 of the dependent variables (capitalization, FF, PER, EPS, DIVY), while 2 of the dependent variables have a positive correlation (P/BV, free-float);

4. Market value of the companies listed on BSE has an insignificant negative importance ($\beta_5 = -0.11, p = 0.812 > 0.05$). Regardless of the level of capitalization, the shares of companies listed on the BSE have been affected in terms of volatility. The shares of companies listed on the premium segment of the two markets (PR and AeRO), registered increase volatility;

5. Free-float variable has a negative influence, but not a significant one. The level is very close to the maximum value of p ($\beta_5 = -0.86, p = 0.065 > 0.05$). This means that in companies with a higher free-float, the volatility was lower, while the shares in a smaller proportion in the possession of other shareholders registered a higher volatility;

6. PER coefficient has an insignificant negative influence ($\beta_5 = -0.06, p = 0.896 > 0.05$). Of all the variables considered, PER has the lowest significance. Shares with low values of PER on January 1, 2020, which meant the investment initially made, were highly volatile. On the other hand, the stocks that showed high PER values on January 1, 2020, summing up either an overvaluation of the company or very optimistic expectations from the market, registered high volatility.

7. The variable P/BV ($\beta_5 = 0.15, p = 0.747 > 0.05$) and has an insignificant negative influence. A lower or higher level of the shares market price relative to the book value, did not influence the volatility of the stock during the pandemic. Depending on the characteristics of the field of activity and of the company in particular, the indicator can take higher or lower values.

8. The variable DIVY has a statistically insignificant negative influence ($\beta_5 = -0.075, p = 0.113 > 0.05$). With such indicator you can compare the returns of different stocks, but you can also compare them, with other investment opportunities, to decide which one is more advantageous. Both the companies that distributed a high dividend in 2020 and 2021 and those that postponed the decision to distribute the dividends recorded high share volatilities during the period.

Table 3. Descriptive statistics (source: author's elaboration, based on BSE, n.d.)

Indicator	SD	MV	FF	PER	P/BV	EPS	DIVY
Number of shares	Valid	280	280	280	280	280	280
	Missing	0	0	0	0	0	0
Mean	1.885	19.89253778	24.019	40.150	1.629	.742	3.974
Median	.377	16.82742075	18.900	11.985	.6850	.0400	.0000
Variance	33.306	33.79890091	41.590	12.341	21.194	24.811	173.782
Minimum	.001	12.98470577	.00	.00	-25.11	-14.97	.00
Maximum	79.035	23.92764457	100.00	991.90	42.92	55.69	183.91
Skewness	9.651	8.948715834	1.552	5.414	4.116	7.418	10.174
Kurtosis	118.310	11.12440597	2.896	34.230	35.728	72.033	128.776

9. Another conclusion from the study is that a very good level of indicators cannot avoid a reduction in the market price. Moreover, the good profitability of the companies, the book value of the assets held by each listed company, or the investments made cannot avoid the decrease of the stock price. Such conclusions lead to the confirmation of the results obtained by other researchers, according to which the influence of aspects related to the company is not decisive in the pandemic period (Lee et al., 2020; Okorie & Lin, 2021; Youssef et al., 2021).

At the beginning of the pandemic and during the period of increasing number of infections, the stock market price decreases. In our opinion, during the pandemic, the stock market no longer accurately reflects the state of the economy in which it operates. More influential are the exogenous variables that can affect supply and demand on the stock market.

Conclusions

Although the global economic context is not yet clear, the COVID-19 virus has led governments to take steps to mitigate the impact on economies. The rapid spread of the COVID-19 pandemic has created global uncertainty and an unprecedented decline in stock market yields. COVID-19's crisis management needs to be fast and accurate. Governments, central banks, and international financial institutions need to implement effective economic strategies and policies to manage the COVID-19 crisis. Market participants need to learn to manage the panic caused by the appearance and spread of a virus on the financial market.

After the announcement of the pandemic, stock yields became more volatile in Romania. In this study, the authors investigated the company specific indicators that affect the market reaction of BSE listed shares during the COVID-19 pandemic.

The research has several practical implications for the literature related to the behavior of investors in pandemic conditions. The research results show that specific company indicators have a certain influence on the market price, but not significant. The only indicator with a determining influence is EPS ($p < 0.05$). The results confirm other studies conducted in the last 15 months during the pandemic on different continents.

Manual data collection can be considered a limitation. Other limitations are related to the stock market indicators used. The comparison of PERs should be made on companies in the same field of activity. The P/BV indicator can take higher or lower values, depending on the characteristics of the field of activity. Such information was not taken into account in the research. Another direction for future research is the analysis of exogenous variables that affected the volatility of stocks on the Romanian stock market during the COVID-19 pandemic. Future research directions can be oriented towards eliminating such limitations.

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Contribution

The authors state that they contributed equally to the article.

Disclosure statement

The authors declare no conflict of interest.

Table 4. Correlation matrix (source: author's elaboration, based on BSE, n.d.)

Variable	Correlation	SD	MV	FF	PER	P/BV	EPS	DIVY
SD	Pearson correlation	1	.015	-.089	-.028	.008	.632**	.039
	sig. (2-tailed)		.796	.136	.642	.888	.000	.520
MC	Pearson correlation		1	.086	-.030	-.001	.042	.019
	sig. (2-tailed)			.150	.617	.983	.483	.753
FF	Pearson correlation			1	.065	-.034	-.006	.108
	sig. (2-tailed)				.276	.573	.921	.072
PER	Pearson correlation				1	.049	-.035	-.051
	sig. (2-tailed)					.410	.565	.399
P/BV	Pearson correlation					1	-.010	-.047
	sig. (2-tailed)						.862	.436
EPS	Pearson correlation						1	.176**
	sig. (2-tailed)							.003
DIVY	Pearson correlation							1
	sig. (2-tailed)							

**Correlation is significant at the 0.01 level (2-tailed).

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