

## **Determinants of the Stock Market Performance amid COVID-19 Pandemic: Evidence from the UK**

by

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### **Abstract**

**Aims:** The pandemic has negatively impacted the performance of all the financial markets around the globe including stock market's performance as well. Therefore, the aim of the current study is to assess determinants of the UK stock market performance during the pandemic.

**Method/design:** The present study uses the secondary quantitative research method. For this purpose, the researcher has derived data from different companies in the UK. For data analysis, correlation, and regression analysis highlights the effects of a pandemic on stock markets performance and this was analysed by using Eviews software.

**Findings:** Findings from correlation, descriptive, and Husman test analysis revealed that selected UK companies faced negative challenges during the pandemic. For this purpose, both selected determinants such as EPS (Earnings per share) and divided pay ratio has negative impacts on the stock market performance of the UK. Thus, it shows that cash and dilute earnings affect the stock market performance during the pandemic.

**Future implications:** The study outcomes are helpful for future researchers to analyse the in-depth analysis of the determinants of stock market performance of the UK that can facilitate the researchers to improve the earning pay strategies that will raise stock market performance.

**Keywords:** stock market performance, EPS (Earnings per share), divided pay ratio, Covid-19.

### **Introduction**

The COVID-19 pandemic has negatively influenced the global economy and public health. Despite governments having implemented nationwide quarantine policies and travel, the pandemic has resulted in higher mortality rates (Bou et al., 2021). Different studies have been conducted to address the impact of the COVID-19 pandemic on different sectors and working behaviour (Baker et al., 2020). Economic stability is also affected due to fluctuations in stock market performance. Researchers have evaluated that the pandemic's impact on economic

stability is directly dependent on the macro or microeconomic environment and financial markets (Novoa, 2021). In particular, adverse economic outcomes of the COVID-19 pandemic are more severe in developing countries because their stock markets are more volatile and exposed to various systematic risks. On the other hand, developed countries have more strong rational responses that helped them to overcome economic shocks and maintain their stock market stability (Farooq et al., 2022). Though, UK is a developed economy, pandemic has resulted in serious economic implications in different sectors including the stock market performance of the country (Bai et al., 2021). Therefore, it is important to understand how the pandemic has influenced the stock market of the UK to observe the economic stability of the nation during the COVID-19 pandemic period.

The stock exchange market plays a crucial role in mobilising the capital that improves the economic stability of the country. A study reported that the stock market helps shareholders to manage capital and provides an opportunity for business to increase their capital by selling their shares to potential investors (Tayar, Bandar & Fashakh, 2019). Stock market performance has received significant attention in a business environment because the pandemic has affected the global stock market. Lower stock returns and high volatility have been observed in stock market activities during the pandemic which is mainly caused because of sudden fluctuations in macro as well as microeconomic factors (Endri, Aipama & Septiano, 2021). The UK has also experienced unprecedented disruption in the economy due to higher fluctuations in the stock market. A study reported that investors in the UK have suffered heavy losses in the stock market which severely influenced the business environment (Wojcik & Ioannou, 2020). Mugaloglu et al (2021) also highlighted that sudden shocks in oil prices have significantly influenced the stock market shares of energy sectors in the UK which affects the economic stability of the country. There is no UK-based study conducted until now to explore how the pandemic has influenced the determinants of stock market performance. Therefore, the proposed study is designed to fill this literature gap with the aim of assessing the impact of the COVID-19 pandemic on the determinants of the Stock Market performance of the UK. To achieve this aim, the following objectives are being formulated:

- To critically explore the impact of the pandemic on the UK economy.
- To evaluate the impact of the pandemic on macroeconomic determinants of stock market performance in the UK.
- To assess the impact of the pandemic on microeconomic determinants of the UK's stock market performance.
- To provide mitigation measures for reducing the pandemic impact on the stock market for increasing economic stability.

### **Literature Review and Hypothesis Development**

#### **Impact of the COVID-19 pandemic on the UK economy**

The United Kingdom has been significantly influenced by the serious economic implications which affected the financial markets, travel, industries, trade, and employment opportunities. This economic disruption at the global scale has negatively affected the UK economy because pandemic restrictions have limited the economic growth of the nation (Yu et al., 2022). UK has experienced economic shocks which was measured in terms of GDP and the Office for National Statistics reported that the first national lockdown resulted in a 19.4% fall in GDP before recovering to 17.6% after the pandemic restriction (Office for National Statistics, 2021). This shows that the economy of the UK has been drastically affected by the pandemic. Another study exploring the macroeconomic impact of the lockdown on the economy of the UK shows that the GDP of the nation was significantly reduced by 19% in the year 2020 which resulted in influencing the operational performance of different economic sectors (Wylie, 2021). Similarly, research conducted by McKinsey & Company reveals that economic activities of the UK will recover after the pandemic restrictions, but the speed and patterns of recovery are still uncertain because the economic recovery of the nation varies with the type of sector and their adopted responses to tackle this challenging situation (McKinsey & Company, 2020). EPS has also fluctuated during the pandemic which affects the investment behaviour on stock markets. For instance, a UK-based case study reported that share prices of financial companies in the UK have been significantly influenced by the rate fluctuation of GDP, EPS, and other factors which impact the investment behaviour of potential investors (Wang et al., 2022). Hence, it can be

observed through these studies that the economy of the UK was negatively affected by the pandemic-related challenges and government needs to adopt pandemic response measures to recover its economic stability.

### **Pandemic impact on macro-economic determinants of the UK's stock market**

The pandemic outbreak hit the macroeconomic determinants such as GDP, inflation, and economic growth. Since 2020, the UK stock market is facing the challenges of trade deficit and supply-side shocks that affect the economic position of the stock market. According to Altig and Mizen (2020), the economic uncertainty has been increased in the UK as the stock market volatility impacts and raises challenges of economic sustainability. Moreover, during the pandemic, the UK market faced a sharp decrease in earnings per share (EPS) value that relatively influence the business growth and stock market performance. It has found that the pandemic negatively targets the economic development of banking sectors in the UK (Shahzad, Yannan, and Razaq, 2022). Hence, the primary negative effects have been observed within the stock market performance of the UK industries. Moreover, it raises the chances of inflation, lower stock index returns, and market volatility. Therefore, the stock market value of the UK industries faces weak economic capacity during the pandemic situation. During the first wave of the pandemic, the decline of dividend pay ratio of the European firms faced an increase in exposure to diluted net income level and decrease in dividend pay ratio (Cenjek and Zechner, 2021). The effects of raising oil prices in the UK is considered as the macro-economic indicator that affect the stock market performance. The Covid-19 contributes this factor and raise the market's prices of oil and other commodities. This affects the trade initiative and consequently restricts the economic growth of the stock market (Mugaloglu, Tekin, and Dogan, 2021).

### **Impacts of the pandemic on micro-economic determinants of stock market performance in the UK**

The various macroeconomic factors such as customer interest, investor return, and employee performance are the factor affecting the stock market performance of the UK markets. During the pandemic, the daily closing of closing of businesses and low volume of stock trade resulted in a decrease in the economic capacity of industries. As per the research of Machmuddah, and Ali Ghulam (2020) stock markets of the UK faced micro-economic

challenges such as lack of investor's interest to serve in the consumer markets. For example, in the food and beverage markets, investors had a lack of interest to invest because of the risks of loss of investment. Hence, the micro-economic factors such as investor interest and trade restrictions during the pandemic are the factors affecting the business performance of stock markets in the UK. According to Benigno, and Messori, (2020) pandemic shocks negatively hit the stock market performance of the UK and the negative impacts has been found in the European economies. Hence, the market growth capacity and investment interest has also been reduced during the pandemic and this raised the challenges of inflation and lack of GDP growth.

### **Mitigations measures to reduce the pandemic's impact on the stock market**

The governmental bodies in different regions have implemented actions to improve the monetary system and functioning of the stock market by adopting policies or strategies that are strong enough to deal with future pandemic-related crises (Shah et al., 2020). Researchers have explored that stock markets are facing various challenges which resulted in the disruption of business operations. However, on the positive side, these challenges and fluctuations in macro or microeconomic determinants have provided the opportunity for experts to redefine their business operations and stock performance (Murgor & Saxunova, 2022). A study reported that innovative policies for redefining business operations are an effective coping tool for reducing the impact of a pandemic on the stock market (Margherita & Heikkila, 2021). Similarly, another study illustrates that implementing effective policies or reconstructing operational strategies helps the stock market to overcome potential economic challenges and assist in moving towards economic stability (Jabeen et al., 2022). In terms of earnings per share (EPS), a study reported that EPS is largely influenced by firm size and high EPS is directly related to the increased profitability of the firms during the pandemic (Suyanto, 2021). Kilincarslan & Demiralay (2021) also highlighted that the implementation of stable dividend policies by UK-based travel and leisure firms will have a significant impact on the overall stock performance of this sector. Hence it is suggested that UK governmental bodies and economic experts must introduce effective policies that will help in eliminating the pandemic impact and boosting the performance of the stock market.

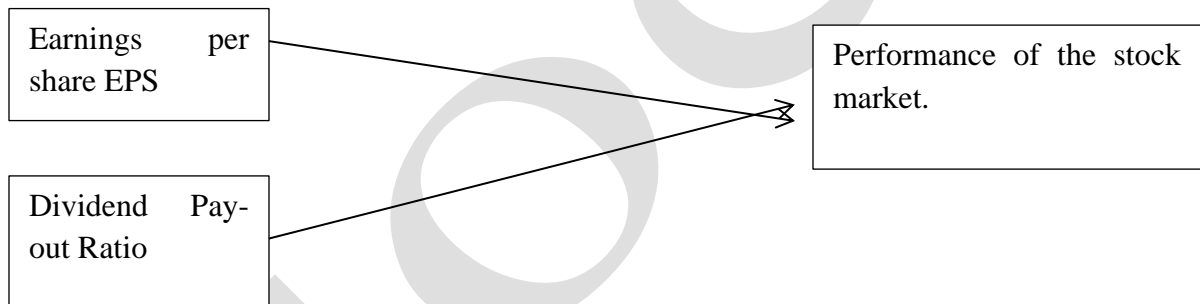
## Hypothesis Statements

The Following hypothesis statements have been developed to estimate the determinants of stock market performance of the UK

- H0a: EPS has no significant influence on share price
- H1a: EPS has a significant influence on share price
- H0b: Dividend pay-out ratio has no significant influence on share price
- H1b: Dividend pay-out ratio has a significant influence on share price.

## Conceptual Framework

The conceptual framework highlight the relationship of one variable with another. The dependent variables including Earnings per share EPS and Dividend Pay-out Ratio. The independent variable is the performance of the stock market of the UK is presented in the conceptual framework.



## Research Methodology

### Research Philosophy

The term research philosophy is used for defining the philosophical ground for conducting specific research which covers all the values, beliefs, and opinions that can directly influence the decisions of the researcher regarding the study (Al-Ababneh, 2020). Pragmatism, positivism, and realism are the three major types of research philosophies that are used by a researcher based on the nature of their study. For the present study, the positivist research philosophy is chosen which assists the researcher to adhere to the factual knowledge related to

the subject of study and this knowledge is obtained through the researcher's observation (Ryan, 2018). It helps the researcher to assess how macro, as well as microeconomic determinants of stock performance, are influenced during a pandemic in the UK. A study addresses that positivism enables the researcher to assess the relationship between variables by interpreting them through factual observations (Alharahsheh & Pius, 2020). It shows that positivism is effective for assessing the research problem through detailed observations to achieve research objectives. Another research uses the positivist research philosophy which helps the researcher to analyse the data in an objective manner (Sangeetha et al., 2022). Based on this discussion, it is considered that this research philosophy is an effective tool for the present study to understand the research problem objectively.

### **Research Approach**

The research approach is a plan that helps a researcher to evaluate the strategy used in the study based on which method can be selected. The main types of research approaches include inductive and deductive approaches (London & Press, 2009). To find the impact of the COVID-19 pandemic on micro and macroeconomic determinants of stock market performance, a deductive research approach has been used which helped in identifying the relationship between the proposed variables. The deductive approach usually helps researchers in a scientific investigation when they have to study existing theories or phenomena based on which hypotheses are generated to test those (Woiceshyn & Daellenbach, 2018). A study addresses that the deductive research approach is specifically used for achieving objectives which are based on certain theories (Melnikovas, 2018). A study conducted to assess the firm performance during the pandemic used a deductive research approach which helps the researcher to deduce conclusions based on the responses achieved by the business owners (Aifuwa, Saidu & Aifuwa, 2020). The proposed study helped the researcher to identify whether the pandemic has influenced the determinants of stock market performance or not by assessing the existing literature.

### **Data Collection Method**

Selecting a suitable data collection method is an important step that helps a researcher to decide how relevant information is being generated to achieve the research objectives (Pandey & Pandey, 2021). It also assists in identifying analytical and methodological grounds of the study



that can influence the outcomes of the study. There are two types of data collection methods i.e. primary and secondary methods from which further types can be generated based on the nature of the research (Ghauri & Goraung, 2010). For the proposed study, a secondary quantitative data collection method is selected that helps the researcher to evaluate existing data for identifying how the COVID-19 pandemic has influenced the macroeconomic and microeconomic determinants of the stock market performance in the UK. For this purpose, macro and microeconomic factors-related data have been evaluated by existing literature to assess how these factors are influenced due to pandemic in the nation. The secondary quantitative method is used because it helped the researcher to quantify the existing literature and interpret the results to identify positive or negative associations between the study variables (Voxco, 2021).

### **Data Analysis**

The data analysis provide the authentic measures through which information can be organise in a relevant manners. Thematic and content data analysis approaches are used by the researcher. For the purpose, to analyse the determinants of stock market performance of the UK stock markets, the researcher has used the statistical tools. It is significant to include the analysis approach through authentic statistical tool such as Eviews. According to Synder (2019) analysis of data through relevant data analysis approach improve the logical database needed to execute in research findings. Hence, in this present study the secondary data collected from authentic research sources will be analysed using statistical software's. The rationale behind the selection of statistical software is that it provides the statistical analysis and highlight the relationship between the research variables. Moreover, statistical findings of the study present the rational qualities and data presentation in a logical framework of the research (Pandey and Pandey, 2021). It also provide the interpretation of research findings and generalization of study patterns based on research variables. Hence, the descriptive and correlation analysis present in this research highlight the information regarding the impacts of pandemic on stock market performance of the UK. The statistical analysis will be performed and the information collected about the stock market performance is highlighted the performance of stock markets of the UK.

### **Ethical Considerations**



The present study was carried out by the collection of secondary data, therefore, several ethical concerns are associated with information collected from different sources. The researcher maintains the ethical specification such as confidentiality, data privacy and integrity of information through proper citation and referencing. Therefore, collection of data from existing research sources demands authentic logical approach to support the statement. According to Arifin (2018) ethical specifications that are followed in the research improve the integrity of information and enhance the validity of accurate research findings. For this purpose, the researcher used the critical analysis approach and highlight the findings of the other researchers through references. This highlight the validity and reliability of information used for research purpose. Therefore, to find out the information of macro and micro economic determinants of stock market performance, the ethical specification are followed throughout the research work.

## Results

### Descriptive Statistics

The descriptive statistics of the study variables involved in the study is presented in the following table

*Table 1 - Descriptive Statistics*

	DIVIDEND_PAY		
	SHARE_PRICE	OUT_RATIO	EPS
Mean	1772.646	0.550735	1.341333
Median	1614.238	0.353117	0.730000
Maximum	5129.449	2.250000	4.882000
Minimum	39.57971	0.000000	0.160000
Std. Dev.	1468.955	0.541770	1.272293
Skewness	0.677239	1.873059	1.163586
Kurtosis	2.353703	6.304065	3.497211
Jarque-Bera	2.815390	31.18780	7.078681
Probability	0.244707	0.000000	0.029032

Sum	53179.38	16.52205	40.24000
Sum Sq. Dev.	62577066	8.511919	46.94318
Observations	30	30	30

Referring to the above table it is observed that total number of observations is 30 denoted by “Obs”, as data has been collected from 2019 to 2021 on 10 selected companies in the UK. Form the table it can be seen that the mean value of the share price is found to be 1772.646, and the standard deviation value is 1468. This shows that the average share price of the companies in the UK is found to be £1772 and it is expected to deviate towards £1468. Additionally, divided payout ratio highlighted that mean value of companies is found to be 0.550735, and its standard deviation value is 0.541770. It suggested that the dividend payout ratio of firms in the UK must be £0.550735, and it is expected to deviate towards £0.541770. Moreover, EPS (Earn Price Share) has also been taken into account to analyse the determinants of stock market performance of the UK firms. Referring to the above information presented in the table, it can be seen that the mean value of EPS is identified as 1.341333, and the standard deviation value is determined to be 1.272293. It shows that the average value of EPS is found to be £1.341333in UK companies which is relatively lower than it is expected to deviate towards £1.272293.

### Correlation Analysis

To examine the association between research variables correlation analysis is presented in the following table.

*Table 2 - Correlation Analysis*

Correlation	DIVIDEND_ SHARE_PRI PAYOUT_R		
Probability	CE	ATIO	EPS
SHARE_PRICE	1.000000		

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DIVIDEND_PAY			
OUT_RATIO	-0.096377	1.000000	
	0.6124	-----	
EPS	0.484147	-0.250111	1.000000
	0.0067	0.1825	-----

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Form the above table, it is imperative to consider that the UK firms have significant impact on stock market value because of EPS and dividend pay ratio. Thus, share price of the company has significant influence on the divide-pay ration and earn price share. It has been examined that divided pay ratio has inverse relation to the share price of the company because the coefficient value is found to be negative (i.e. -0.096). Hence, lower value of divided pay ratio leads to the negative influence on the stock market performance of the UK companies. Moreover, the coefficient value of EPS is 0.48 and it has positive impact on the stock market performance of the UK firms.

### **Hausman Testing**

Hausman test is also conducted to examine the existence of fixed or random effect models. The Prob chi-square value for dividend pay ratio is 0.0008 which is lesser than the threshold set of 0.05. Moreover, for ESP the prob chi-square value is found to be 0.0029.

*Table 3 - Hausman Test*

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Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq.	Chi-Sq. d.f.	Prob.
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	Statistic			
Cross-section random	11.669167	2	0.0029	

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
	-			
DIVIDEND_PAYOUT	106.16748		11615.8911	
_RATIO	3	41.807850	71	0.1698
	-			
	728.31537		-19318.4528	
EPS	3	261.913984	72	0.0008

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**Fixed Effect GLS Model**

*Table 4 - GLS Fixed Effect Model*

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Variable	Coefficient	Std. Error	t-Statistic	Prob.
DIVIDEND_PAYOUT				
_RATIO	-106.1675	317.5858	-0.334295	0.7420
EPS	-728.3154	244.2687	-2.981616	0.0080
C	2808.030	433.4824	6.477841	0.0000

Effects Specification

Cross-section fixed (dummy variables)

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R-squared	0.927862	Mean dependent var	1772.646
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Adjusted R-squared	0.883777	S.D. dependent var	1468.955
S.E. of regression	500.7888	Akaike info criterion	15.55942
Sum squared resid	4514210.	Schwarz criterion	16.11990
Log likelihood	-221.3913	Hannan-Quinn criter.	15.73872
F-statistic	21.04730	Durbin-Watson stat	2.171970
Prob(F-statistic)	0.000000		

The above table, stated that the coefficient value of log (company dividend pay-out ratio) is found to be -221.3913, which implies that dividend pay ratio has a negative influence on stock prices in UK firms. Moreover, EPS has also a negative influence on stock price, and it is found to be -728.31. Further, the above table also shows the value of R-square, it can be observed that the overall value of R-square is found to be 0.927 which suggests that 90% of changes in the GSL model are predicted due to the changes in the independent variables.

### Discussion

The main objective of the present study was to analyse the determinants of the stock market performance of the UK during the pandemic era. The findings predict that the divided pay ratio and EPS of the UK firms have a significant impact on the stock market performance of the UK. For this purpose, macroeconomic and microeconomic determinants have been evaluated that affect the stock market performance of the UK. The findings of the study have revealed that the stock market performance of the UK during the pandemic faced negative challenges and it affects the company's performance. Ex-dividend paid out the value of the UK companies has a significant impact on cash dilute earnings of the company during the pandemic. During the pandemic, the period affect the stock market growth and economic development of industries (Mishra, 2021). Hence, uncertainty in the financial market and stock performance of the industries has been raised when the companies faced the challenges of lockdown measures. In the first quarter of the pandemic, the breakdown of dividend pay ratio of the UK firms faced an increase in exposure to diluted net income level (Cenjek and Zechner, 2021). Hence, the business company faces the economic decline, and stock market performance faces potential risks of economic growth. The findings of the study predicted that during the pandemic dividend-pay

ratio is uncertain. Moreover, business industries did not face the positive reaction of economic growth toward the financial leverage and stock market position. The pandemic shocks negatively hit the stock market performance of European economies Benigno, and Messori, (2020). Moreover, the predictors of the study have depicted that business companies in the UK face lower earnings per share ratio that affect the market position of the companies and reduce the stock market performance. The global physical restriction reduce the facilities of trade operation and resulted in economic decline of export and import operations.

### **Conclusion and Future Implications**

The proposed study address the determinants of stock market performance of the UK companies during pandemic. For this purpose, three companies of the UK were selected and statistical analysis were performed by reviewing the market performance of the companies during the pandemic. Using the statistical analysis tool Eviews, correlation and descriptive findings has been presented in the result section. Although research findings revealed that macro-economic factors like inflation, economic development and GDP growth of companies has been decreased during the pandemic. Similarly, it has also found that micro-economic determinants of stock market performance measures also negatively affected during the pandemic. Additionally, the findings of existing literature has also presented in the literature section that provide the in-depth information regarding the effects of pandemic on stock market evaluation of the UK. Therefore, it is stated that stock market performance and financial performance of the UK industries face economic decline during the Covid-19.

The present research address the macro-economic and microeconomic determinants of stock market performance of the UK during the pandemic. For this present the study used the quantitative research approach for measuring the stock market performance by analysis the company information related to Earning per share EPS, and Dividend Pay-out Ratio. It is recommended for future research, in-depth analysis through qualitative analysis must be conducted to increase the validity of the research findings. Moreover, current research has considered only few variable (i.e. earnings per share and dividend pay-out ratio) but other variables like (net profit margins, revenue and GDP improvement) can also be analysed in future research work.

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