Article

THE EFFECT OF DIVIDEND POLICY, INDEPENDENT COMMISSIONERS, AND GDP TO SHARE PRICES: A CASE STUDY ON STATE-OWNED COMPANIES LISTED IN THE INDONESIA STOCK EXCHANGE

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Abstract: This research was carried out to find out whether there is an influence of dividend policy, change in independent commissioners, and GDP on share prices: case studies on state-owned companies on the Indonesia share exchange. Samples of this research is state-owned companies listed on the Indonesia Share Exchange, which issued dividends over some time. The observation period is 2018-2022 (5 years). It was found that 16 companies met the three criteria above with a total of 90 observations. To process the data, researchers used Stata 17 software with the analysis used, namely descriptive analysis, classical assumption testing, panel data regression testing, and hypothesis testing. The results of the research are: 1) Dividend policy has a positive and insignificant influence on share prices. 2) Changes in independent commissioners have a positive and significant effect on share prices, and 3) GDP has a negative and insignificant effect on share prices.

Keywords: SOEs share price, change on independent commissioners, GDP, dividend policy.

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1 Introduction

In 2020, the world faced the COVID-19 pandemic which resulted in various impacts on the global economy. This pandemic disrupted various industrial sectors in Indonesia, including the state-owned enterprise (SOE) sector. The impact of the pandemic on SOE was not always negative. Several SOEs, especially those operating in the health, digital

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infrastructure, and logistics sectors, experienced improving performance due to increasing demand for their services and products. One of the impacts of the COVID-19 pandemic on the SOE is the changes in their share prices. In 2020, several SOEs experienced an increase in share prices because investors considered them to be safe investments amidst the economic uncertainty caused by the pandemic. However, during 2021-2022, there was a decline in the SOE's share prices because of the COVID-19 pandemic [1]. SOEs experienced a decline in the period from 2019 to 2022. However, the prices showed an increasing trend in 2020 [2]. This phenomenon may be driven by an increase in investor trust in the SOEs since their need for funds was supported by the government.

The dynamics of the SOEs were even more complicated as there were some changes in the SOE's top management, which also influenced investors' decisions related to the investment in the SOE's shares [3]. The appointment of new management that was perceived to be capable of handling crises arising from the pandemic was expected to increase the investor's trust in the SOEs [4]. There was an economic recovery in the period of 2021-2022 economics recovery happened, but the spread of COVID-19 is still significant. This may cause a decrease in public expectations on the share market, especially on those SOE's shares. It was shown by a significant decline in the SOE's share prices, amid some changes in the top management of some SOEs. It implies that market optimism on the SOE's top management changes as the response to the COVID-19 pandemic crisis was not as expected [5].

Some changes in the company management also included changes in the board of commissioners. Public companies are required to have independent commissioners. Research by Widyati [6] shows that when there is a change in SOEs' management, the company's financial performance and share prices are also affected. Independent commissioners are those who have no business ties or other relationships that could affect their independence in the companies [7]. According to the rules set by the Indonesia Share Exchange, the proportion of independent commissioners must be at least 30% of the board of directors and proportional to the shares of minority shareholders. Another issue that is interesting to observe in the SOEs is dividend policy. The payment of dividends may give the signal that the company has sufficient funds to be distributed to the investors. The table below shows the dividend pay-out ratio from 2018 to 2022.

Table 1 Dividend Pay-Out Ratio of SOEs (%)

Company Name	2018	2019	2020	2021	2022
Waskita Beton Precast Tbk PT (WSBP)	75	50	25		
PT Aneka Tambang Tbk - ANTM	35	35	35	50	
PT Timah Tbk - TINS	35	39	39		35
PT Semen Indonesia (Persero) - SMGR	40	10	40	40	50.66
PT Tambang Batubara Bukit Asam (Persero) Tbk - PTBA	75	75	90	35	35
PT Kimia Farma (Persero) Tbk – KAEF	30	20		3.44	30
PT Adhi Karya (Persero) Tbk - ADHI	20	20	10		
PT Wijaya Karya Beton Tbk - WTON	30	30	25	25	20
PT PP (Persero) Tbk - PTPP	20	20	22.5		
PT Wijaya Karya (Persero) Tbk - WIKA	20	20	20		
PT Jasa Marga (Persero) Tbk - JSMR	15	5			
PT Telkom Indonesia (Persero) Tbk - TLKM	75	90	81.78	80	60
PT Bank Rakyat Indonesia Tbk - BBRI	45	50	60	65	85
PT Bank Negara Indonesia Tbk - BBNI	35	25	25	25	25
PT Bank Mandiri Tbk - BMRI	45	45	60	60	60
PT Bank Tabungan Negara – BBTN	20	20	10		

Source: IDX, processed in 2024

As shown in Table 1, starting at 2020 the dividend pay-out ratio of some companies decreased, while the average share price experienced a significant increase. The decrease in dividend pay-out ratio may be due to the increasing needs of companies as their operations were affected by the global uncertainty due to the Covid-19 pandemic. Research by Husein [8] found that dividend policy can influence investors' interest in the share prices of manufacturing companies listed on the Indonesia Share Exchange. Ainun [9] examined how debt policy moderates the influence of dividend policy on share prices. This research shows that dividend and debt policies influence share prices under certain conditions. These findings show the relationship between dividend policy and share prices.

GDP, in some research, is found to relate to share prices. Agrawalla [10] found that there is a relationship between share prices and macroeconomic variables in India. This research explores how market share is related to the growth economy. According to his findings, there is a significant correlation between share prices and several economic variables. Meanwhile, Wiyanti [11] shows that GDP influenced real estate investment by capital market investors. Investors assess that share prices and exchange rates influence Indonesia's economic growth. Both studies provide a deep understanding of the relationship between share prices, variables economy, and economic growth in India and Indonesia.

Accordingly, this research aims to test the influence of the dividend policy, management change, and GDP on share price, as a case study on state-owned companies listed in the Indonesia Share Exchange. It is expected to enrich the understanding of investors, especially in the IDX, of the behavior of share prices in response to some factors as focused on in this research.

2. Literature

2.1 Dividend Policy

All common shareholders are entitled to receive a portion of a company's profits when the company decides to distribute them as dividends. After paying dividends on preferred shares, the corporation will distribute dividends on ordinary shares [12]. To determine the true value of a stock when dividends are the only source of cash flow, one can use the dividend discount model. Systematically, DPR can be formulated [13] as follows:

$$DPR = \frac{Dividen\ pershare}{Earning\ pershare}$$

These dividends paid as a percentage of earnings per share are called the dividend payout ratio [14]. He further found that investors are hesitant to buy or even sell shares if the dividend amount does not meet expectations. The announcement of dividend distribution can be considered a positive signal for investors to gain profits, according to signal theory. On the other hand, if dividends decrease from the previous period, this can be interpreted as a negative signal. A decrease in the dividend payout ratio indicates that the company's profits are falling. Therefore, there may be red flags indicating that the business is short of cash. Investors' strong preference for dividends makes them less interested in the stock in this situation. Companies will consistently try to keep the

dividend payout ratio constant, regardless of profit fluctuations. However, a lower DPR ratio does not necessarily indicate a decrease in company profits [14]. However, corporations are still required to keep these profits in the form of retained earnings and cannot distribute them as dividends. The DPR ratio is still a warning for dividend-oriented investors. The DPR in this research is used as the proxy of dividend policy.

2.2 Independent Commissioners

Independent commissioners are board members without management, other board members, significant shareholders, or business ties that could affect their abilities to behave independently for the best interests of the company [6]. The existence of independent commissioners has been required by the Jakarta Stock Exchange since the year 2000. At least thirty percent of the total members of the Board of Commissioners are required to be independent. The portion of independent commissioners is calculated by the following formula:

$$\text{Portion of independent commissioners} = \frac{\text{Number of independent Commisioners}}{\text{Total Number of Commissioners}}$$

2.3 Gros Domestic Product (GDP)

Gross Domestic Product (GDP) represents the total market value of all final goods and services produced within a country's borders over a specific period, typically a year or a quarter. It serves as a comprehensive measure of the economic activity and size of an economy, encompassing consumption, investment, government spending, and net exports. GDP is calculated through various approaches, including the production, income, and expenditure methods, each providing a different perspective on economic activity.

Demand for a company's products may increase as an economy's gross domestic product (GDP) increases, thereby increasing consumer purchasing power. When a country's economy is booming, investors tend to put their money in the hope of getting big profits. Therefore, an increase in GDP is seen as a good sign for investment, while a decrease in GDP is seen as a bad indicator [15].

2.4 Share Price

The stock index is a numerical representation of share prices [16]. Furthermore, it is defined the composite stock price index as an index that includes all types of shares listed on the stock exchange. Investors' perceptions of a company's performance and prospects are reflected in its share price. Share prices are influenced by many different things. First, share prices are greatly influenced by the company's financial performance. Second, share prices are also influenced by general market conditions. Interest rates, inflation, and monetary policy are examples of macroeconomic variables that can greatly influence market sentiment and share prices in general. Third, share prices are also influenced by industry prospects. Fourth, share prices are also influenced by investors' feelings and thoughts. The existence of the IHSG can be seen as a reflection of overall share prices because the composite share price index shows the overall changes in the share prices of companies listed on the stock exchange [17]. The average and weighted average approaches can be used to determine a comprehensive stock price index [18].

2.5 Hypothesis

Based on the problem formulation, the following hypothesis is formulated:

H_{a1} : Dividend policy influences the share prices of state-owned companies listed on the Indonesian stock exchange.

H_{01} : Dividend policy does not affect the share prices of state-owned companies listed on the Indonesian stock exchange.

H_{a2} : Independent Commissioners affect the share prices of state-owned companies listed on the Indonesian stock exchange.

H_{02} : Independent Commissioners do not affect the share prices of state-owned companies listed on the Indonesian stock exchange.

H_{a3} : GDP affects the share prices of state-owned companies listed on the Indonesian stock exchange.

H_{03} : GDP does not affect the share prices of state-owned companies listed on the Indonesian stock exchange.

H_{a4} : Dividend policy, independent commissioners, and GDP simultaneously influence the share prices of state-owned companies listed on the Indonesian stock exchange.

H_{04} : Dividend policy, independent commissioners, and GDP do not simultaneously influence the share prices of state-owned companies listed on the Indonesian stock exchange.

3. Methods

This research uses quantitative research methods, which are a systematic, planned, and structured type of research [19]. This approach aims to use statistical analysis to describe, explain, and test the relationship between variables [20].

This research took data from some SOEs listed on the IDX between 2018 and 2022. Out of the total number of issuers, 16 issuers were selected for this research. Researchers used a purposive sampling technique to select state-owned companies listed on the IDX as samples. The data consists of those from state-owned companies listed on the IDX and have active shares throughout the observation period (2018–2022) and distributed dividends during the research period. The samples are listed below:

1. Waskita Beton Precast Tbk PT - WSBP
2. PT Aneka Tambang Tbk - ANTM
3. PT Timah Tbk - TINS
4. PT Semen Indoneisia (Persero) - SMGR
5. PT Tambang Batubara Bukit Asam (Persero) Tbk - PTBA
6. PT Kimia Farma (Persero) Tbk – KAEF
7. PT Adhi Karya (Persero) Tbk - ADHI

8. PT Wijaya Karya Beton Tbk - WTON
9. PT PP (Persero) Tbk - PTPP
10. PT Wijaya Karya (Persero) Tbk - WIKA
11. PT Jasa Marga (Persero) Tbk - JSMR
12. PT Telkom Indonesia (Persero) Tbk - TLKM
13. PT Bank Rakyat Indonesia Tbk - BBRI
14. PT Bank Negara Indonesia Tbk - BBNI
15. PT Bank Mandiri Tbk – BMRI
16. PT Bank Tabungan Negara – BBTN

Source: data processed (2023)

Table 2 Operational Research Variables

No	Variable	Definition	Tools/formula	Scale
1	Dividend Policy	Dividend Payout Ratio (DPR) determines the portion of profits distributed in the form of cash dividends, using retained earnings as the source of funds.	$\text{DPR} = \frac{Cash\ Dividend\ paid}{Net\ Profit} x\ 100\%$	Ratio
2	Independent Commissioner	An independent commissioner is a board of commissioners or member of the board of commissioners who is independent, and has no other relationships or relations that influence their independent behavior.	$\text{Independet Commissioner} = \frac{Number\ of\ Independent\ Commisionner}{Total\ number\ of\ Commissioner} x\ 100\%$	Ratio

3	GDP	Total market value of all final goods and services produced within a country's borders in one year	Current GDP	Ratio
4	Share Price	Closing price of the sample company, at the end of a year	Share price as quoted from IDX	Ratio

4. Results

4.1 Regression model test for data panel analysis

a) Chow test

The purpose of the Chow test is to choose which model is better: the common effect model (CEM) or the fixed effect model (FEM). This hypothesis test:

H_0: CEM is significant,

H_1: FEM is significant

The Chow test with a significance level α of 0.05 showed a Prob > F value of 0.0000. It indicates that these variables are not significantly different from each other. Therefore, H_0 is rejected, and FEM is chosen. The model was then compared further with the random effect model (REM) using the Hausman test.

b) Hausman test

The test is to choose between REM and a fixed effects model (FEM). The hypothesis of this test is:

H_0: REM is significant.

H_1: FEM is significant.

the Hauman test results show the probability limit value F > F is 0.0000, which is less than α of 0.05. Therefore, H_0 is rejected, meaning that FEM is better. The overall test showed that FEM is the best model among CEM, REM and FEM.

4.2 Classic Assumption Test

4.2.1 Normality Test

The normality test was performed twice. The first trial used original data, which resulted in non-normal data. Data transformation, using SQRT was then applied and the second normality test was done. The result of the normality test after data transformation is shown in the table below.

Table 3 Normality Test Results

Var	Prob> Chi^2
Res	0.581

Source: Primary data processed in 2024

The table shows that the Prob>chi^2 value is higher than 0.05. Thus, it is reasonable to assume that the study data are normally distributed.

4.2.2. Multicollinearity Test

Table 4 Multicollinearity Test Results (Correlation Coefficient)

	Dividend Policy	Independent Commissioner
Dividend Policy		
Independent Commissioner	0.1428	
GDP	-.2936	0.0535

Source: Primary data processed in 2024

Using the criteria of multicollinearity, which is the correlation coefficient between variables in the range of below -0.8 or above 0.8, all figures in the table don't show an indication of multicollinearity.

4.2.3 Heteroscedasticity Test

Table 5 Heteroscedasticity Test

Chi^2	0.05
Prob-Chi^2	0.8155

Source: Primary data processed in 2024

The result shows that there is no significant heteroscedasticity in the regression model, as indicated by a chi-square value of 0.05 and a Prob-chi2 of 0.8155.

4.2.4 Autocorrelation Test

Autocorrelation Test results show that there is first order autocorrelation in the regression model with Prob > F = 0.0002. This means that there is a relationship between the previous time and observations at the next time. To overcome the autocorrelation problem, regression was carried out using the Driscoll-Kraay standard error and pooled OLS method.

4.3 Panel Data Regression Analysis

Table 6 Model Regression

Variable	Regression Model	
	Fixed Effect	
	Coef	Prob
Dividend Policy	23,471.65	0.055*
Independent Commissioner	26,571.17	0.009***
GDP	-1,127,049	0.674
Constant	25,691.97	0.198
Number of Obs	80	
Rsquared	0.1038	
Prob>F	0.0012	
*at the significance level α = 10% ** at the significance level α i α = 5 % *** at the significance level α = 1 %		

Source: Primary data processed in 2024

Based on the table of research results above, the panel data regression equation below is obtained:

Share Price = 25.691,97 + 23.471,65 X1 + 26.571,17 X2 - 1.127,049 X3

From the regression model equation above, it can be concluded that:

1. The Dividend Policy variable (X1) has a coefficient of 23,471.65 with a significance level of 0.055, indicating that using alpha 10%, every unit increase in dividend policy will increase share prices.
2. Independent Commissioners (X2) has a coefficient of 26,571.17 with a significant level of 0.009, indicating that every unit increase in Independent Commissioners will increase the share price significantly, with an alpha of 1%.
3. The constant and GDP variable (X3) do not significantly affect on stock prices, since their significance level of 0.198 and 0.674 respectively.

4.4 Hypothesis Testing

1. Regression Coefficient Results

The results of the regression coefficient show that the dividend policy variable (X1) has a coefficient of 23,471.65 with a probability of 0.055, indicating a tendency for share prices to increase, with an alpha of 10%. However, it is not significant at an alpha of 5%. The Independent Commissioner variable (X2) has a coefficient of 26,571.17 with a

probability of 0.009, indicating a statistically significant impact on stock prices, with an alpha of 1%. Meanwhile, the economic growth variable (X3) has a coefficient of -1.127049 with a probability of 0.674, which shows that this variable is not significant in influencing stock prices.

2. F Test Results

F-test resulted in a probability level of 0.0012. which is still below the specified significance value (0.0012 < 0.05), it can be stated that H_0 is rejected. In other words, independent variables significantly have a simultaneous effect on dependent variables.

3. t Test Results

a. Dividend Policy

Based on the results of the t-test after regression with Driscoll-Kraay standard errors using the Pooled OLS method, the t value = 2.69 with Probability = 0.055, making the coefficient of the Dividend Policy variable not significant at the 0.05 confidence level, but approaching that level of significance.

b. Independent Commissioner

Based on the results of the t-test after regression with Driscoll-Kraay standard errors using the Pooled OLS method, the t value = 4.80 with Probability = 0.009, making the coefficient of the Independent Commissioner variable significant at a confidence level of 0.05 indicating a significant impact on stock prices.

c. GDP

Based on the results of the t-test after regression with Driscoll-Kraay standard errors using the Pooled OLS method, the t value = -0.45 with probability = 0.674, the coefficient of the GDP variable is not significant at the 0.05 confidence level.

5. Discussion

5.1 The effect of Dividend policy on share price

Referring to the results of the research, the effect of the Dividend Policy variable on share price is not significant. This finding is in line with previous research on manufacturing companies listed in IDX, in 2016 [21]. However, another research in 2020 on manufacturing companies with the independent variables of Managerial Ownership, Institutional Ownership, DER, Size, DPR, and ROE, and the dependent variable of Share Prices, found that DPR significantly affects share prices. This inconsistency may be caused by differences in the research period or the sample characteristics.

5.2 The Effect of Independent Commissioners on Share Price

The finding of this research that Independent Commissioners significantly affect share prices is supported by research of Nadhiyah [22] examining the impact of Good Corporate Governance, Financial Performance, and Intellectual Capital on Share Prices. It may be caused by investors' perception that GCG is important to prevent problems of interest conflict between related parties, which also implies that internal parties (company

management) and external parties (shareholders or investors) are treated fairly and openly. The GCG requires the role of independent commissioners.

5.3 The effect of GDP on Share Price

This research found that GDP does not have a significant influence on the share prices of state-owned companies. Evidence from other research such as research by Hooker [23] as well as research by Kewal [24], shows that the influence of GDP on stock prices varies. Even though previous research shows a positive and substantial impact, SS Kewal determined that GDP does not affect the composite index. Since these two things are different, there are likely other factors at play in this relationship.

The complexity of factors influencing the correlation of GDP and stock prices explains this difference. Investment in capital markets does not necessarily increase along with GDP, although GDP may be an indication of improving social welfare and encouraging spending and investment in the real sector. In addition, elements such as the impact on individual per capita income and equal distribution of social benefits also contribute. The influence of GDP on capital market investment patterns may not be very large because GDP does not always influence per capita income growth. Therefore, additional research is needed to fill the knowledge gap regarding the variables that influence the correlation between GDP and stock prices.

6. Conclusion and Recommendations

This research aims to determine the effect of dividend policy, independent commissioner, and GDP on share price, especially on state-owned companies (SOEs) listed in the IDX, to conduct research that includes various tests, data, results and discussions. Based on our research, we conclude that:

1. Dividend policy has partially no significant effect on the share price of the SOE.
2. Independent commissioner has a partially significant effect on the share price of the SOE.
3. GDP has partially no significant effect on the share price of the SOE.
4. Dividend policy, independent commissioner, and GDP have simultaneous effects on the share price of the SOE.

Other researchers may extend the period of research to grab longer time frames and data variations, and another possible methodology to address the inconsistencies of findings, especially related to dividend policy effects.

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References

1. Aldo Fernando. (2021). *Saham BUMN 2021: Cuma 7 yang Cuan Euy...* CNBC Indonesia.
2. Yolanda, F. (2021, Januari Rabu, 20). *ekonomi.republika.co.id*. Retrieved from: https://ekonomi.republika.co.id/berita/qn872u370/deretan-saham-bumn-yang-melejit-di-2020
3. Capital, F. H. (2021, april 7). *Menteri BUMN Targetkan 15% Kepemimpinan Perempuan di BUMN Tercapai 2021*. Retrieved from Forum Human Capital: https://www.fhcibumn.com/media/kick-off-dan-pelantikan-pengurus-forum-human-capital-indonesia-2021-2024-DrSgN7/press-releases
4. Kasna, I. K. (2021). Kawal pemulihan ekonomi usai pandemi. Jurnal Ilmiah Cakrawarti, 4(2), 103-113.
5. Munandar, A., Safira, A., & Wiiguna, E. (2022). *Dampak Covid-19 Terhadap Indeks Harga Saham IiDX BUMN20 Pada Tahun 2020* (Vol. 1).
6. Widyati, M. F. (2013). Pengaruh dewan direksi, komisaris independen, komite audit, kepemilikan manajerial dan kepemilikan institusional terhadap kinerja keuangan. *Jurnal ilmu manajemen*, *1*(1), 234-249.
7. Tjandra, W. R., & SH, M. (2006). *Hukum keuangan negara*. Grasindo.
8. Husein, M. Y., & Kharisma, F. (2020). Pengaruh Kebijakan Dividen Terhadap Harga Saham Pada Perusahaan Manufaktur di Bursa Efek Indonesia (BEI). *Borneo Studies and Research*, *1*(2), 1061-1067.
9. Ainun, M. B. (2019). Efek Moderasi Kebijakan Hutang Pada Pengaruh Kebijakan Dividen Terhadap Harga Saham. *EKUITAS (Jurnal Ekonomi dan Keuangan)*, *3*(3), 382-402.
10. Agrawalla, R. K. (2008). Share prices and macroeconomic variables in India: An approach to investigate the relationship between stock markets and economic growth. *Journal of Management Research*, 136-146.
11. Wiyanti, R. (2018). Analisis pengaruh 7 day rate repo, inflasi, nilai tukar, dan PDB terhadap Indeks Harga Saham sektor properti (Studi empiris di Bursa Efek Indonesia). *JAK (Jurnal Akuntansi) Kajian Ilmiah Akuntansi*, *5*(2), 96-106.
12. Jogiyanto H.M. 1998. Teori Portofolio dan Analisis Investasi, Edisi Pertama, Cetakan Pertama, BPFE, Yogyakarta.
13. Ang. R. 1997. Buku Pintar Pasar Modal Indonesia. Jakarta: Mediasoft
14. Risaptoko, R. B. (2007). Analisis Pengaruh Cash Ratio, Debt To Total Asset, Asset Growth, Firm Size Dan Return On Asset terhadap Dividend Payout Ratio (Studi Komparatif pada Perusahaan Listed di BEJ yang Sahamnya Ikut Dimiliki Manajemen dan Yang Sahamnya Tidak Dimiliki Manajemen Periode Tahun 2002-2005) (Doctoral dissertation, PROGRAM PASCA SARJANA UNIVERSITAS DIPONEGORO).
15. Silaban, P. S. M., Sembiring, P. S. B., Sitepu, V. A. B., & Sembiring, J. P. B. (2021). the Pengaruh IPM dan PDRB terhadap Jumlah Penduduk Miskin di Sumatera Utara Tahun 2002-2017. *Jesya (Jurnal Ekonomi dan Ekonomi Syariah)*, *4*(1), 311-321.
16. Samsul, M. (2006). Seleksi Kinerja Saham Tercatat di Bursa Efek Jakarta Menggunakan Model Jensen Pada Masa Transisi Siklus Ekonomi. *Manajemen dan Bisnis*, *5*(1).
17. Anoraga. Pandji, Pakarti. Piji ,2008, Pengantar Pasar Modal, Alfabeta.: Bandung
18. Sunariyah, S. E. (2011). MSi. Pengantar Pengetahuan Pasar Modal.
19. Nugroho, E. (2018). *Prinsip-prinsip menyusun kuesioner*. Universitas Brawijaya Press.
20. Creswell, J. W. (2014). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. Sage Publications.
21. Safrani, D. R., & Kusumawati, E. (2022). Pengaruh Volume Perdagangan Saham, Dividend Yield, Earning Volatility, Firm Size, dan Nilai Tukar terhadap Volatilitas Harga Saham

(Studi Empiris Prusahaan yang Terdaftar Indeks LQ45 Periode 2016-2020). *Eqien-Jurnal Ekonomi dan Bisnis*, *9*(2), 123-134.

22. Nadhiyah, P., & Fitria, A. (2021). Pengaruh Good Corporate Governance, Profitabilitas, Dan Leverage Terhadap Nilai Perusahaan. Jurnal Ilmu dan Riset Akuntansi (JIRA), 10(4).
23. Hooker, J. (2004). *Stock Prices and the Real Economy. Management Science*, 50(4), 477-486.
24. Kewal, S. S. (2012). Pengaruh inflasi, suku bunga, kurs, dan pertumbuhan PDB terhadap indeks harga saham gabungan. *Jurnal economia*, *8*(1), 53-64.