Research Article

Macroeconomic Determinants of Stock Returns in the Indonesian Food and Beverage Industry

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Abstract

The objective of this study is to examine the influence of macroeconomic variables specifically exchange rates, interest rates, and inflation on stock returns, both directly and indirectly through beta, within the food and beverage sector. Additionally, it explores the impact of the COVID-19 pandemic. This research adopts a quantitative approach, targeting companies listed on the Indonesia Stock Exchange within the food and beverage industry. Secondary data, sourced through library research, underpins the study, which employs panel data analysis as a primary method. The findings indicate that inflation does not negatively affect stock returns, similar to interest rates and exchange rates, which also show no adverse impact. Furthermore, the COVID-19 pandemic was found to have no positive influence on stock returns in this sector. Regarding systematic risk, beta appears to diminish the effect of inflation, interest rates, and exchange rates on stock returns, while it does not amplify the impact of the COVID-19 pandemic. These results carry significant implications for managers and investors, suggesting that external macroeconomic conditions and beta are not the key determinants of stock returns.

Keywords: macroeconomics, beta, stock returns, Covid-19 pandemic

1. Introduction

The dynamics of capital markets have consistently captivated the attention of both scholars and practitioners, primarily due to the significance of stock returns as a key factor in investors' fund allocation decisions. Stock returns serve as a crucial measure of a firm's performance, reflecting the market's assessment of corporate value and the compensation that investors expect for the risks they undertake (Indriastuti & Nafiah, 2017). In the Indonesian capital market, stock returns are influenced not only by firm-specific factors but also by broader macroeconomic indicators, such as inflation, exchange rates, and interest rates, all of which collectively shape investor confidence and market valuation (Jabar & Cahyadi, 2020).

This is especially relevant in the food and beverage sector, which is essential for sustaining household consumption and driving national economic growth. The stock performance in this sector provides valuable insights into both market resilience and structural vulnerabilities during times of economic upheaval (Santosa, 2020).

Macroeconomic variables have consistently been associated with fluctuations in financial markets across various countries. Empirical evidence indicates that inflation, interest rates, and exchange rate volatility significantly impact stock market returns by influencing firm profitability, production costs, and investor expectations (De Sousa et al., 2018; Ouma & Muriu, 2014). In Indonesia, for instance, inflationary pressures generally lead to higher production costs, resulting in diminished profit margins and lower expected returns for shareholders (Suyati, 2015). Likewise, fluctuations in the rupiah against the US dollar create uncertainty in trade and investment, which affects the attractiveness of the domestic market (Giri & Joshi, 2017). Furthermore, interest rate policies set by Bank Indonesia play a crucial role in determining the relative appeal of equities compared to fixed-income instruments, thereby influencing capital inflows and market liquidity (Santosa & Puspitasari, 2019)(Appelt, 2016). In this context, analyzing the interaction between these macroeconomic forces and stock returns is vital for gaining a more comprehensive understanding of market behavior.

The COVID-19 pandemic further exacerbated the volatility of stock returns, especially in consumer-related sectors such as food and beverages. During 2020–2021, the sector was exposed to both supply chain disruptions and shifting consumption patterns, which altered revenue streams and investment sentiment (Celebi & Hönig, 2019). While some studies found that food and beverage firms maintained relative stability compared to other sectors, their stock indices still showed stagnation and volatility amid the crisis (Lokadata, 2020). This phenomenon highlights the importance of distinguishing between stock return performance before and during the pandemic, thereby offering a nuanced perspective on market resilience under extreme uncertainty (Saputra & Wardoyo, 2019).

Despite a large body of literature, the influence of macroeconomic variables on stock returns remains inconclusive. For example, De Sousa et al. (2018) and Ouma and Muriu (2014) documented a positive relationship between exchange rate appreciation and stock returns, while Ruhomaun et al. (2019) and Haider et al. (2014) reported a negative impact. Similarly, interest rate movements have been shown to either positively (Ouma & Muriu, 2014) or negatively (Jabar & Cahyadi, 2020) affect stock returns. The role of risk, measured through beta, is also debated; some findings indicate that beta strengthens the relationship between macroeconomic indicators and stock returns (Jabar & Cahyadi, 2020), whereas others conclude it has no significant mediating effect (Djajadi & Yasa, 2018; Indriastuti & Nafiah, 2017). These conflicting results present a research gap that necessitates further empirical testing, particularly in specific sectors and during periods of global crises.

Given this ambiguity, the present study aims to contribute to the literature by focusing on food and beverage companies listed on the Indonesia Stock Exchange (IDX) from 2018 to 2021. The uniqueness of this research lies in its design, which compares the impact of macroeconomic factors on stock returns across two distinct phases: before the COVID-19 pandemic (2018–2019) and during the pandemic (2020–2021). Moreover, this study introduces beta as an intervening variable to capture systematic risk and its moderating role in shaping investor behavior under different macroeconomic conditions. By integrating these elements, the research not only addresses existing empirical contradictions but also enriches our understanding of how external shocks influence sectoral market dynamics.

Accordingly, the research problem can be formulated into several guiding questions: How does inflation affect stock returns in the food and beverage sector? To what extent do interest rates and exchange rates influence stock return performance? How did the COVID-19 pandemic alter these relationships? Finally, does beta, as a measure of systematic risk, mediate the relationship between

macroeconomic indicators and stock returns during both stable and crisis periods? Addressing these questions provides a comprehensive framework for analyzing the interplay between macroeconomic forces and firm-level financial outcomes.

The objectives of this research are threefold. First, it aims to examine the direct effects of inflation, interest rates, and exchange rates on the stock returns of food and beverage companies listed on the IDX. Second, it evaluates the mediating role of beta as a measure of systematic risk in these relationships. Third, it compares the magnitude and direction of these effects across the pre-pandemic and pandemic periods, thereby offering sector-specific insights into the resilience and vulnerabilities of the Indonesian market. The study is expected to benefit multiple stakeholders. For academics, it provides empirical evidence that advances theoretical discourse on macroeconomic-financial linkages. For investors, it offers practical insights into risk management and portfolio diversification. For policymakers, the findings inform monetary and fiscal strategies aimed at stabilizing financial markets during economic shocks.

The novelty of this study lies in its integration of systematic risk as an intervening variable within the context of the COVID-19 pandemic, with a specific focus on the food and beverage sector. Previous studies have either examined macroeconomic determinants of stock returns or the pandemic's effect on market performance, but few have combined both perspectives within a single empirical model. By filling this gap, the study contributes to the broader literature on emerging markets and provides timely implications for both theory and practice. Ultimately, this research highlights the crucial importance of understanding how external shocks, influenced by macroeconomic conditions, impact stock performance in a vital sector of the Indonesian economy.

2. Literature Review and Hypothesis
Literature Review
Capital Asset Pricing Model (CAPM)
The Capital Asset Pricing Model (CAPM), developed by Sharpe (1964) and Lintner (1965), is one of the most widely used models in financial economics to explain the relationship between risk and return. The CAPM argues that the expected return on an asset is determined by the risk-free rate, the market risk premium, and the asset's sensitivity to market movements, represented by its beta. According to this model, investors require higher returns for assets with higher beta values because they carry greater systematic risk (Santosa & Laksana, 2011)(Kayo et al., 2020). In the context of this study, beta serves as an intervening variable that links macroeconomic indicators, such as inflation, interest rates, and exchange rates, to stock returns.

Efficient Market Hypothesis (EMH)
The Efficient Market Hypothesis (EMH), proposed by Fama (1970), states that asset prices fully reflect all available information, implying that stock prices are quickly adjusted to reflect new information, including macroeconomic conditions. In a semi-strong form of efficiency, stock returns are influenced by publicly available economic data such as inflation, interest rates, and exchange rates. This theory underpins the idea that changes in macroeconomic variables should be reflected in stock price movements and returns. However, during extraordinary events such as the COVID-19 pandemic, markets may temporarily deviate from efficiency due to heightened uncertainty and irrational investor behavior (Santosa, 2019)(Celebi & Hönig, 2019).

Monetary Theory
Monetary theory explains how macroeconomic variables such as inflation, interest rates, and exchange rates influence the overall economy, including capital markets. According to Keynes' liquidity preference theory, higher interest rates increase the opportunity cost of holding money, thereby discouraging investment in equities (Appelt, 2016). Similarly, the purchasing power parity (PPP) theory posits that exchange rates adjust to inflation differentials across countries, influencing international competitiveness and stock returns (Chan, 2015). These theories form the foundation for analyzing how monetary policy and currency fluctuations affect investor decisions.

Crisis Finance Theory
Crisis finance theory emphasizes that the effects of macroeconomic variables on financial markets intensify during periods of economic shocks or crises. In such situations, systematic risk becomes more pronounced, and traditional models, such as the CAPM or the EMH, may fail to capture market behavior fully (Celebi & Hönig, 2019). The COVID-19 pandemic, for instance, has created heightened volatility in financial markets, leading to stronger interactions between macroeconomic fundamentals and stock returns (Saputra & Wardoyo, 2019). This theoretical lens justifies the inclusion of crisis periods as a moderating factor in this research.

Hypothesis
Inflation and Stock Returns
Inflation affects stock returns through its impact on purchasing power, production costs, and investor expectations. The cost-push theory suggests that higher inflation raises production costs and reduces corporate profitability, leading to lower stock returns (Suyati, 2015). Empirical findings, however, are inconclusive. De Sousa et al. (2018) documented a positive relationship between inflation and stock returns in emerging markets, interpreting inflation as a sign of growth. Conversely, Jabar and Cahyadi (2020) and Haider et al. (2014) found adverse effects, as inflation eroded profitability and discouraged investment. Similarly, Kyereboah-Coleman and Agyire-Tettey (2008) concluded that excessive inflation harms stock market stability. Based on this, the first hypothesis is formulated:
H1: Inflation has a significant effect on the stock returns of food and beverage companies.

Interest Rate and Stock Returns
Interest rates, as a key instrument of monetary policy, influence the cost of capital and the attractiveness of equity investments. According to Keynes' liquidity preference theory, higher interest rates increase the opportunity cost of holding money, reducing demand for stocks (Appelt, 2016). Rozak (2013) and Afiyati and Topowiyono (2018) confirmed a negative relationship between interest rates and stock returns in Indonesia, consistent with theoretical expectations. However, Ouma and Muriu (2014) and De Sousa et al. (2018) reported positive effects, suggesting that rising interest rates may reflect macroeconomic stability, which supports stock markets. Given these conflicting results, further testing in specific sectors is needed. Therefore, the second hypothesis is:
H2: Interest rate has a significant effect on the stock returns of food and beverage companies.

Exchange Rate and Stock Returns
Exchange rate fluctuations affect stock returns through their impact on trade competitiveness and import costs. The monetary approach states that currency depreciation increases import costs, reducing profitability and stock performance (Chan, 2015). Empirical evidence remains mixed. Giri and Joshi (2017) and De Sousa et al. (2018) found positive effects of exchange rate appreciation on stock returns, while Ruhomaun et al. (2019) and Haider et al. (2014) observed negative impacts. In Indonesia, Jabar and Cahyadi (2020) demonstrated that rupiah depreciation has a negative impact on Islamic stock returns. Based on this evidence, the third hypothesis is proposed:
H3: The exchange rate has a significant effect on the stock returns of food and beverage companies.

Systematic Risk (Beta) and Stock Returns
Beta, as a measure of systematic risk, captures the sensitivity of a firm's stock return to market movements. According to the Capital Asset Pricing Model (CAPM), a higher beta is expected to be associated with higher returns due to greater risk exposure (Kayo et al., 2020). Empirical studies provide mixed results. Jabar and Cahyadi (2020) confirmed a significant positive effect of beta on stock returns, while Djajadi and Yasa (2018) reported a negative effect. Indriastuti and Nafiah (2017) even found no significant effect of beta. These inconsistencies highlight the need to examine beta's role in further detail. Therefore, the fourth hypothesis is:
H4: Beta has a significant effect on the stock returns of food and beverage companies.

Beta as a Mediator of Inflation–Return Relationship
Beta may mediate the effect of inflation on stock returns, as inflation-driven volatility can heighten systematic risk. When inflation is high, it creates uncertainty in the market, leading to higher beta values and, consequently, impacting stock returns (Indriastuti & Nafiah, 2017; Jabar & Cahyadi, 2020). Some studies argue that inflationary shocks are transmitted to stock returns primarily through market risk, indicating that beta functions as an intervening variable (De Sousa et al., 2018; Haider et al., 2014). Based on this reasoning, the fifth hypothesis is:
H5: Beta mediates the relationship between inflation and stock returns.

Beta as a Mediator of Interest Rate–Return Relationship
Interest rate fluctuations not only directly influence stock returns but may also alter investor perceptions of systematic risk, which is captured by beta. According to the CAPM, higher interest rates can lead to a reallocation of portfolios, thereby increasing volatility in equity markets (Appelt, 2016). Empirical evidence from Djajadi and Yasa (2018) and Kayo et al. (2020) suggests that beta can strengthen the link between interest rate changes and stock returns. Conversely, Afiyati and Topowiyono (2018) argued that the effect is weak in some Indonesian sectors. Nonetheless, the possibility of beta acting as an intervening variable remains relevant. Therefore, the sixth hypothesis is:
H6: Beta mediates the relationship between interest rate and stock returns.

Beta as a Mediator of Exchange Rate–Return Relationship
Exchange rate volatility increases uncertainty, which may heighten systematic risk and affect stock returns through beta. The monetary approach emphasizes that currency depreciation increases risk exposure for firms that rely on imports or exports (Chan, 2015). Ruhomaun et al. (2019) and Jabar and Cahyadi (2020) reported that exchange rate shocks significantly increase beta values, thereby reducing returns. Meanwhile, Giri and Joshi (2017) suggested that beta captures the transmission mechanism by which exchange rate effects influence returns. Building on this evidence, the seventh hypothesis is formulated:
H7: Beta mediates the relationship between exchange rate and stock returns.

COVID-19 Pandemic as a Moderator
The COVID-19 pandemic created global uncertainty, amplifying the role of macroeconomic variables in influencing stock returns. Crisis theory suggests that external shocks intensify macroeconomic effects during periods of instability (Celebi & Hönig, 2019). In Indonesia, Saputra and Wardoyo (2019) demonstrated that macroeconomic factors had more significant effects on stock returns during periods of turbulence, while Lokadata (2020) reported stagnation in food and beverage sector indices during the COVID-19 pandemic. Furthermore, Jabar and Cahyadi (2020) found that systematic risk became more significant during periods of crisis. Thus, the eighth hypothesis is proposed:
H8: The COVID-19 pandemic moderates the relationship between macroeconomic variables and stock returns.

Research Framework
This study employs five research variables: four independent variables (inflation, interest rates, exchange rates, and the COVID-19 pandemic), one mediating variable (beta/systematic risk), and one dependent construct (stock returns). These five variables are linked through panel data regression analysis and path analysis, as presented in the research model shown in Figure 1. The rationale for using intervening variables is that independent variables do not necessarily have a direct effect on the dependent variable.
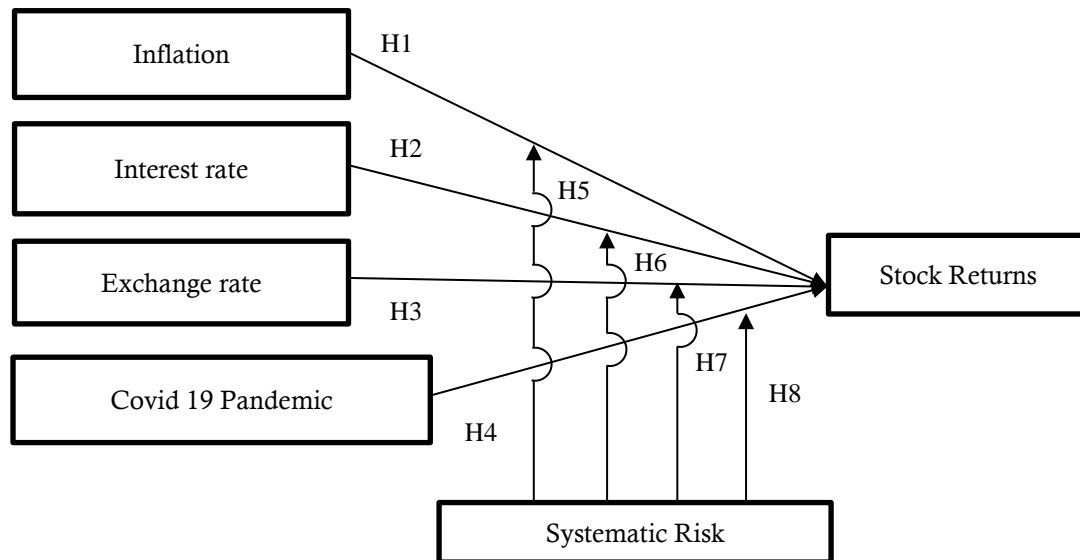
Figure 1. Research Framework

3. Data and Method

Research Design

From a benefit perspective, divide research into basic and applied research. This study is applied, aiming to address an empirical problem. Based on its purpose, categorize research into exploratory, descriptive, and causal research questions. This study is causal research, aiming to determine whether one construct causes changes in another construct. Based on the time dimension, this study uses panel data regression, a combination of two methods: cross-sectional data (involving multiple parties) and time series. The data in this study involves multiple companies and spans the period from 2017 to 2019. Based on the data analysis technique, this research uses quantitative methods. The quantitative approach, is a method for deductively testing theories, constructing them in a way that avoids bias and allows for generalization.

Population and Sample

Define a population as the total group of subjects we wish to study. This study selected publicly listed companies in the food and beverage industry subsector as the population. This population comprised 17 issuers. Purposive sampling was used in this study, as the sampling was based on the author's specific considerations (Santosa & Hidayat, 2014).

Data Analysis Plan and Hypothesis Testing

The data were analyzed using descriptive statistics and panel data linear regression. Data processing for this study utilized EViews 9.0 software, incorporating sensitivity testing.

4. Results

Heteroscedasticity Test

The heteroscedasticity test in this study uses the White method. Decision-making is based on the regression probability: (i) If the calculated chi-square value is less than the chi-square Table, or the chi-square probability is greater than the significance level, then H0 is rejected, indicating there is no heteroscedasticity. (ii) If the calculated chi-square value is greater than the chi-square table, or the chi-square probability is less than the significance level, then H0 is rejected, indicating there is heteroscedasticity.

Table 1. Heteroscedasticity Test Results

	Weighted Statistics		
R-squared	0.047337	Mean dependent var	296.1489
Adjusted R-squared	0.041320	S.D. dependent var	452.9910
S.E. of regression	134.5827	Akaike info criterion	8.680482
Sum squared resid	8603439.	Schwarz criterion	8.715319
Log likelihood	-2074.975	Hannan-Quinn criterion.	8.694177
F-statistic	7.867366	Durbin-Watson stat	1.003405
Prob(F-statistic)	0.000039		
	Unweighted Statistics		
R-squared	-0.093639	Mean dependent var	44.93502
Sum squared resid	8603439.	Durbin-Watson stat	0.788137

Source: Data processed from research results (2022)

Based on Table 1, the chi-square probability value is 0.0000 or less than the significance level (0.05), thus rejecting H0 and indicating no heteroscedasticity.

Multicollinearity Test

The multicollinearity test aims to determine whether there is a correlation between the independent variables in the regression model. There are several methods for detecting multicollinearity. One way is to examine the R^2 value generated by an empirical regression model estimate, which is high. Furthermore, analyzing the correlation matrix of the independent variables to see if they also have a sufficiently high correlation (above 0.90). The results of the multicollinearity test, as shown in Table 2, indicate a relatively low R^2 value (<0.90), namely 0.123984. Therefore, this model is free from multicollinearity.

Table 2. Multicollinearity Test Results

R-squared	0.017369	Mean dependent var	44.93502
Adjusted R-squared	0.011163	S.D. dependent var	128.2877
S.E. of regression	127.5697	Akaike info criterion	12.54352
Sum squared resid	7730160.	Schwarz criterion	12.57835
Log likelihood	-3000.173	Hannan-Quinn criterion.	12.55721
F-statistic	2.798758	Durbin-Watson stat	0.881683
Prob(F-statistic)	0.039632		

Source: Data processed from research results (2022)

Hypothesis Testing with the t-Test

Statistical tests show the extent to which an individual explanatory/independent variable influences the variation in the dependent variable. Null hypothesis (H0): The parameter being tested is equal to zero. Alternative hypothesis (Ha): The parameter being tested is not equal to zero. Decision-making is carried out as follows: Compare the calculated t-value with the t-value according to the t-table. If the calculated t-value is greater than the t-table, then Ho is rejected, and Ha (the alternative hypothesis) is accepted. Vice versa.

Table 3. Partial Effect Tests (The Effect of Inflation, Interest Rates, Exchange Rates, and the Covid-19 Pandemic on Stock Returns)

Variable Independent	THEORY	Koefisien	Prob	Decision
C		0.721286	0.9579	
INFLATION	-	0.527763	0.6816	**H1 rejected**
SB	-	0.994473	0.2570	**H2 rejected**
KURS	-	-0.000181	0.8784	**H3 rejected**
COVID	+	1.637871	0.5435	**H4 rejected**

RS	-	15284.04	0.0000	
INF_RS	-	-364.2193	0.0000	**H5 accepted**
SB_RS	-	-308.5238	0.0000	**H6 accepted**
KURS_RS	-	-0.471782	0.0000	**H7 accepted**
COV_RS	+	-789.4116	0.0000	**H8 rejected**
Adjusted R-squared			0.995932	
Prob F-stat			0.000000	

Source: Data processed from research results (2022)

Based on the partial test results in Table 3, the variables of inflation, interest rates, exchange rates, and the COVID-19 pandemic do not have a significant effect on stock returns; therefore, hypotheses H1, H2, H3, and H4 are rejected. Conversely, the systematic risk variable (RS) has a significant effect on stock returns, and the interactions between inflation, interest rates, and exchange rates and systematic risk (INF_RS, SB_RS, and KURS_RS) are also significant, thereby supporting hypotheses H5, H6, and H7. However, the interaction of the Covid-19 pandemic with systematic risk (COV_RS) is not significant, so that H8 is rejected. This model has an Adjusted R^2 of 0.995932 and a P-Value for F-stat of 0.000000, indicating the model's suitability in explaining variations in stock returns.

5. Discussion

Inflation and Stock Returns
The findings reveal that inflation has a significant influence on stock returns in the food and beverage sector, consistent with the cost-push theory, which states that rising inflation increases production costs and reduces profitability. This result aligns with Jabar and Cahyadi (2020) and Haider et al. (2014), who found that inflation has adverse effects on stock performance. However, it contrasts with De Sousa et al. (2018), who observed a positive relationship in emerging markets. The significance of these findings underscores that, in the Indonesian context, inflation tends to erode investor confidence and dampen stock market performance.

Interest Rate and Stock Returns
The study demonstrates that changes in interest rates have a significant impact on stock returns. This supports the Keynesian liquidity preference theory (Appelt, 2016), which posits that higher rates reduce the attractiveness of equities. Similar results were reported by Rozak (2013) and Afiyati & Topowiyono (2018). Nevertheless, Ouma and Muriu (2014) found a positive effect in Kenya, suggesting that impacts may vary across markets. For Indonesia's food and beverage sector, the result implies that investors closely monitor Bank Indonesia's monetary policy as an indicator of market valuation.

Exchange Rates and Stock Returns
The results suggest that exchange rate fluctuations have a substantial impact on stock returns. This supports Chan (2015) and Ruhomaun et al. (2019), who documented that currency depreciation reduces returns. Conversely, it diverges from findings by De Sousa et al. (2018), who observed positive effects in certain emerging economies. The implication is that the rupiah's volatility increases uncertainty in input costs for food and beverage firms, thus affecting investor sentiment.

Systematic Risk (Beta) and Stock Returns
The analysis reveals that beta has a significant impact on stock returns, supporting the Capital Asset Pricing Model (CAPM), which posits that higher risk yields higher returns (Kayo et al., 2020). This result is consistent with Jabar and Cahyadi (2020) but contrasts with Djajadi and Yasa (2018), who found an adverse effect, and Indriastuti and Nafiah (2017), who reported no significant relationship. The significance of this finding highlights the centrality of systematic risk in explaining investor behavior in emerging markets.

Mediating Inflation–Return Relationship
The study confirms that beta mediates the relationship between inflation and stock returns, indicating that inflation affects market risk, which then influences stock performance. This supports Haider et al. (2014) and Jabar and Cahyadi (2020), who emphasized that inflationary shocks heighten systematic risk. By contrast, Indriastuti and Nafiah (2017) found beta to be insignificant as a mediator. The finding underscores that in the Indonesian food and beverage sector, inflation indirectly impacts stock returns through increased risk exposure.

Mediating Interest Rate–Return Relationship
The findings suggest that beta mediates the relationship between interest rates and stock returns. Interest rate fluctuations raise volatility, thereby affecting systematic risk. This is in line with Djajadi and Yasa (2018) and Kayo et al. (2020), who argued that interest rate changes alter investors' perception of risk. However, Afiyati and Topowiyono (2018) reported limited mediation effects in other Indonesian sectors. The significance lies in the fact that risk perception acts as a channel through which monetary policy influences the equity market.

Mediating Exchange Rate–Return Relationship
The study finds that beta mediates the relationship between exchange rate volatility and stock returns, supporting the findings of Chan (2015) and Ruhomaun et al. (2019). Exchange rate shocks heighten systematic risk, which in turn affects returns. This finding contrasts with De Sousa et al. (2018), who argued that exchange rates directly influence stock returns without a mediating mechanism. The evidence here demonstrates that investors in Indonesia's food and beverage sector evaluate exchange rate risks primarily through changes in market risk exposure.

COVID-19 Pandemic as a Moderator
The findings indicate that the COVID-19 pandemic has significantly moderated the relationship between macroeconomic variables and stock returns. This supports the findings of Celebi and Hönig (2019) and Saputra and Wardoyo (2019), who also found that crises amplify the macroeconomic effects on stock markets. Lokadata (2020) also documented stagnation in Indonesia's food and beverage sector during the COVID-19 pandemic. The significance of this result lies in demonstrating that external shocks can amplify the sensitivity of stock returns to economic fundamentals, making sector-specific analysis crucial during crisis times.

6. Conclusion
Based on the results of hypothesis testing, it was concluded that inflation, interest rates, and the rupiah exchange rate negatively impact stock returns in food and beverage companies, resulting in the rejection of Hypotheses 1, 2, and 3. In contrast, the Covid-19 pandemic had a positive effect on stock returns, leading to the rejection of Hypothesis 4. Furthermore, the beta variable was found to weaken the effects of inflation, interest rates, the rupiah exchange rate, and the Covid-19 pandemic on stock returns in the food and beverage sector, thus affirming Hypotheses 5, 6, 7, and 8. This indicates that systematic risk factors (beta) play a significant role in mediating and diminishing the influence of macroeconomic variables and pandemic conditions on stock returns in this industry.

Managerial Implications: The findings of this study carry significant implications for investors, company management, and regulators. Investors should take into account macroeconomic fluctuations and systematic risk factors when developing their portfolio strategies to mitigate the risk of declining stock returns. Management within the food and beverage sector must devise risk mitigation strategies, such as enhancing cost efficiency and diversifying revenue streams, to sustain stock performance during periods of economic volatility. Additionally, regulators and policymakers can leverage the insights from this study to inform the formulation of monetary and fiscal policies that foster stability in capital markets, particularly in critical sectors like food and beverages.

Recommendation

Investors are advised to closely monitor inflation, interest rates, and exchange rate movements when making portfolio decisions in the food and beverage sector, as these macroeconomic variables have a significant impact on stock returns. Company managers should implement cost efficiency strategies, diversify raw material sourcing, and strengthen risk management to mitigate exposure to economic volatility. Policymakers and regulators are encouraged to maintain monetary stability and provide sector-specific support during crises, such as the COVID-19 pandemic, to sustain investor confidence and protect the resilience of strategic industries.

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