

THE ROLE OF PROFITABILITY AS A CHANNEL ON INFLUENCING THE EFFECT OF MACROECONOMICS ON STOCK RETURNS IN THE INDONESIAN STOCK EXCHANGE DURING THE COVID-19 PANDEMIC

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ABSTRACT

The purpose of this study is to examine the factors that influenced stock returns during the COVID-19 pandemic in Indonesia, with profitability functioning as an intervening variable. It acts as a mediating variable, influencing how macroeconomic factors impact a company's stock returns. Companies with higher profitability can withstand macroeconomic impacts, leading to higher returns. It is crucial for a company to avoid rising stock returns and ensure stability. The population in this study is the consumer goods industry listed on the Indonesia Stock Exchange. The research sample consists of the consumer goods industry from 2020 to 2022. Sampling uses purposive sampling with data from 26 companies and 312 quarterly financial report data. Test the hypothesis using SmartPLS. The study reveals that exchange rates, interest rates, and inflation all negatively impact stock returns, with profitability acting as an intervening variable. Additionally, inflation also negatively impacts stock returns. This research implies that exchange rate stability is essential for companies carrying out export-import activities as a means of transaction in trade. The increase in interest rates encourages investors to continue investing in stocks because they are temporary and will return to their original level. Understanding the role of profitability in the relationship between macroeconomic factors and stock performance can help investors make more informed decisions.

Keywords: Stock Return, Exchange Rate, Interest Rate, Profitability

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1. INTRODUCTION

The economic growth of the business world is crucial for the community, government, entrepreneurs, and investors in supporting a country's development. The Covid-19 pandemic, brought on by the coronavirus, was a non-natural tragedy that affected the whole world in 2020. The Covid-19 virus pandemic has placed immense strain on the health and commercial sectors, including Indonesia. During the Covid-19 epidemic, this study was done to investigate the impact of macroeconomics factors on stock performance, with profitability serving as a mediating variable. This work adds to the body of knowledge in various ways.

The capital market is a source of capital or finance for economic business initiatives directed at people, governments, investors, and corporations (Wiratno et al., 2018). Performance of the stock market in 2021; the covid-19 pandemic has reduced the number of investors. Additionally, the Covid-19 outbreak significantly negatively impacted Indonesia's business and health sectors. Given the detrimental effects of Covid-19 on health and the economy, this study examined how macroeconomics factors affect stock returns while using profitability as a mediating variable. When this pandemic expanded to every region, macroeconomics issues were among the first to be impacted. The macro-economic theory broadly examines all economic occurrences, phenomena, or problems. Four variables make up macroeconomics fundamentals: money supply, inflation, interest rates, and the value of the US dollar (Hermuningsih, 2019). Several research have been undertaken, and some of them discovered that changes in exchange rates have a favourable effect on stock returns. This means that when the exchange rate increases in value, so will the receipt of corporate returns. This study contributes to the body of knowledge by examining how exchange rates affect profitability.

According to (Lestari & Suaryana, 2020), a decline in investor confidence brought on by erratic exchange rate swings might have a detrimental effect on stock trading within the financial system. International investors will then withdraw money, causing a capital outflow and a decline in the distribution of returns (Kamran Khan, 2019). The reduction in profitability will impact stock returns and anticipated returns. Markowitz provides a positive alpha index for stock returns (Ozdemir & Tokmakcioglu, 2022). Jihadi et al. (2021) claimed that the influence of the exchange rate on stock returns was negative and considerable. It has been recognized that interest rates have a detrimental impact on stock returns (Al Oshaibat & Majali, 2016; Ghosh et al., 2018; Saputra & Dharmadiaksa, 2016; Wiradharma & Sudjarni, 2016). Investors can be persuaded to buy stocks in downturns if interest rates are high.

High-interest rates negatively impact stock returns because when interest rates rise, capital owners and investors shift their capital to deposits, negatively impacting stock returns. After all, investors are less interested in investing in the capital market because stock returns are lower when compared to deposit interest returns. According to Saputra and Dharmadiaksa (2016) and Jihadi et al. (2021), interest rates negatively and significantly impact stock returns. Karim (2015) found that low-interest rates lower borrowing costs, promote investment, and boost economic activity, which increases stock prices. Nevertheless, Suriyani and Sudiarta (2018) found that interest rates negatively impact stock returns.

Inflation is defined as a general and ongoing rise in prices. Inflationary pressures can result in higher input or raw material prices, lower revenue and profits, lower consumer purchasing power, and a deteriorating economy. Inflationary pressures send a negative signal to stock returns. The economy will slow down due to the COVID-19 epidemic, as seen by the decline in inflation in 2020. According to the Central Statistics Agency, the 2020 Indonesian economy as measured by Gross Domestic Product at current prices reached IDR 15,434.2 trillion and Gross Domestic Product per capita reached IDR 56.9 million. In 2020, Indonesia's economy experienced a growth contraction of 2.07 percent compared to 2019. The positive stock returns correlation with profitability (Sugito et al., 2020; Asikin et al., 2021;). Interest rates have a beneficial, but not overly significant, influence on stock returns. (Suriyani & Sudiarta, 2018).

While inflation has a negative and negligible impact on stock returns, the exchange rate has a negative and considerable impact. Second, the following are some concrete applications of our research: First, it demonstrates that a corporation must be profitable with all the capital put into it to avoid rising stock returns. Second, it seems crucial to ensure that both the company's performance and investor interest are stable. If the company's profitability drops, the cost mechanism must be changed to pay for the costs of operational activities. A quick overview of the macroeconomics environment increases stock performance and impacts the study. Third, some scholars have tried to close the research gap by looking at how macroeconomics factors affect stock prices, but their results still need clarification. Studies by Hakim and Martono (2019) and Kamran Khan (2019) show that the currency rate significantly affects stock returns. Al-Abdallah (2017), Siregar and Diana (2019), and Fahlevi (2019) revealed that rates of interest get a substantial effect on the stock. Results from studies by Fadlilah and Hermuningsih (2017) and Hendrawan and Avitianti (2018) show that stock returns are impacted by the currency rate, which causes them to differ. Studies by Alam (2020) further demonstrate that interest rates unaffected stock returns.

In light of previous research findings, the researchers examined the unintended effects of macroeconomics conditions on market returns using profitability as a mediating variable. The profitability ratio is described as a ratio that gauges a company's capacity to turn a profit (Kasmir, 2019). In addition, it serves as a baseline for measuring a company's managerial side's effectiveness. The earnings from sales and investment income demonstrate this evidence. (Pujawati et al., 2015) argue that profitability serves as a mediating variable. The Covid-19 profoundly affected the Indonesian economy, causing disruptions in global supply networks and declining foreign investment. The slowdown in economic growth—which dropped from 5.02 percent in 2019 to 2.97 percent in 2020—helps to highlight this decrease. A rise in unemployment followed the slowdown in economic development, rising from 5.28 percent in 2019 to 7.07 percent in 2020, according to data from the World Bank. Indonesia, a component of the global supply chain, is also severely impacted because the export industry accounts for about 18.5% of Indonesia's GDP. Data from the Central Statistics Agency show that as a result, exports to Indonesia declined by about 2.6% in 2020 compared to the previous year.

Before Covid-19, Indonesia's economy had expanded by 4.97 percent in the final quarter 2018. While this was happening, Indonesia's economy had negative growth of 2.19 percent in the fourth quarter of 2019 and the Covid-19 period. Government Consumption Expenditures and Gross Fixed Capital Formation were two areas where this growth was particularly noticeable.

Very limited studies use profitability as a mediating variable to explain the relationship between macroeconomic factors and stock returns. The use of profitability helps measure a company's managerial effectiveness, stabilize investor interest, and mitigate the impact of macroeconomic factors on stock returns by influencing cost mechanisms.

2. LITERATURE REVIEW

The stock market's relationship with macroeconomic variables is a significant concern for economic and financial researchers. The market plays a crucial role in achieving economic growth and development by efficiently directing funds from surplus to deficit units. According to Okechukwu et al. (2019), high market volatility can trigger financial crashes and crises, potentially pushing the economy into recession.

Stock Returns

An investor's purpose in investing is to maximize profits. Return is one of the elements that can attract investors to invest, as well as a reward for investors' courage in accepting the risk of their investment. According to Brigham and Houston, (2020), rate of return is the percentage increase or decrease in investment during a certain period. There is a negative relationship between total accrual and potential profit and return, which raises the possibility that accounting distortion is a factor in low income sustainability (Dang & Tran, 2019).

There are several types of returns, including realized returns that have occurred and expected returns. Realized returns are returns that have occurred and are calculated based on historical data. Stock returns are made up of two parts: (1) capital loss, which is the change in stock prices that results in gains or losses for investors; and (2) yield, which is a regular return that represents cash flow or earnings from equity investments. Stock earnings over period t and a change in share price at period $t-1$ combine to form a stock return. In other words, the more significant the difference in stock prices, the greater the return on investment. Stock returns are unaffected by macroeconomic conditions; a reduction in macroeconomic conditions in Indonesia does not always translate into a decrease in stock returns (Widagdo et al., 2020). Previous study of Banerjee et al. (2023) explain when compared to actual and domestic variables, financial and foreign factors have a stronger correlation with historical stock return. The study in Vietnam confirms the negative impact of worsening COVID-19 on stock returns and market liquidity, significantly affecting the financial services industry (Nguyen et al., 2021).

Exchange Rate

The exchange rate is the price of a country's currency measured or represented in another currency. Exchange rates are incredibly significant in purchasing decisions because they allow us to translate prices from several nations into a common language. The exchange rate, also widely recognized as the currency exchange rate, determines the value of two currencies (Hermuningsih, 2019). Changes in the value of the Rupiah will impact the economy. The relationship between stock market and exchange rate remains unclear, but financial theory suggests that firm value is influenced by exchange rates and interest rates (Suriani et al., 2015). COVID-19 has significantly impacted the relationship between exchange rate and stock returns in Japan (Narayan et al., 2020).

Interest Rate

The interest rate is an essential aspect as a driver of financial market prices, where the interest rate is a modern instrument employed by a country's central bank to support economic growth. Interest rates significantly impact the stock market, with higher rates negatively impacting stock performance by increasing borrowing costs and decreasing circulation, while declining rates may increase the appeal of equities, driving up both stock and currency (Alam, 2020; Folorunso, 2023; Rumasukun et al., 2020).

The expense of borrowed funds or investing in mutual funds is traditionally believed to be the interest rate (Boediono, 2018). Macroeconomics indicators such as interest rates impact the movement of stock returns. The return on investment comes from interest rates. Interest rates are crucial to a nation's economic health because they significantly impact investment activity, money availability, and inflation. More funding is available at higher interest rates. The debtor's capacity to repay the creditor with interest determines the interest rate. The term "risk-free rate of interest" refers to the financial sector interest rate, which is typically regarded as a benchmark for investors and includes the deposit rate and the central bank's interest rate. Classical theory affirms that interest rates measure whether a person invests or saves.

Profitability

Profitability refers to a company's ability to generate profits from the sale of total assets and own capital. A corporation must be profitable to draw in investors and gauge the efficiency and efficacy of all the resources at its disposal when running a business (Rumasukun et al., 2020). Profitability is one of the fundamentals for measuring a company's condition, and we need an analytical tool to examine it, as well as analytical tools. Profitability ratios assess managerial effectiveness based on the returns on sales or investments. Profitability is also crucial for the company in the long run since it reflects whether or not the company has an excellent corporate image. As a result, the earnings earned will entice investors to put their money into the company (Rudangga & Sudiarta, 2016). The previous research done by (Emma Suryani & Yesi Mardiana, 2022) showed that exchange rates, interest rates, and inflation negatively impact profitability, while profitability directly affects stock returns. Profitability cannot mitigate the negative effects of inflation, interest rates, and currency rates on stock returns.

Inflation

Inflation is a continuous price rise, often linked to an overheated economy where demand exceeds capacity, leading to higher prices. It is a monetary phenomenon caused by the depreciation of the monetary unit of commodities. All countries must implement policies to prevent inflation from exceeding the government's standard limit for citizens and currency rates (Ali & Ibrahim, 2018; Suharyanto & Zaki, 2021). In general, economists believe that inflation reduces the purchasing power of money for goods and services, the size of which is determined by the elasticity of demand and supply for goods and services. Other factors influencing changes in the overall price level include government regulations governing price levels, such as price restrictions and consumer subsidies. The inflation rate has a positive relationship with stock market returns. The study conducted in Nigeria revealed that stock market returns were positively correlated with inflation and currency rates, but negatively correlated with interest rates (Okechukwu et al., 2019). In other side the inflation had a negative and significant impact on stock returns in Nigeria both in the short run and in the long run (Folorunso, 2023).

3. METHODOLOGY

The population of this study consists of 51 consumer products businesses, the majority of which are listed on the Indonesia Stock Exchange and are still actively traded as of 2022. In addition, 51 firms that debuted on the Indonesian Exchange between 2020 and 2022 are also included in the research sample. Purposive sampling is used in the sampling process, which yielded data from 26 companies with 312 quarterly financial report data. The data in this research is panel data, as shown in Table 1.

3.1 Data and Sample

Table 1: Sample Selection Criteria

Criteria	Total
Consumer product companies will be listed mainly on Indonesia Stock Exchange from 2020 through 2022.	51
Firms in the consumer goods sector publish quarterly reports for 2019-2021.	35
Eligible companies for samples.	26
The number of processed quarterly financial reports	312

In addition, we used SmartPLS with a graphical user interface for variance-based structural equation modeling (SEM) using the partial least squares (PLS) path modeling method to test the theory. Bootstrapping analysis is used for hypothesis testing by comparing the observed statistic to the distribution of the bootstrap samples. This allows for the calculation of p-values, estimate the standard error, calculate confidence intervals, assessing the precision of the estimate and for making inferences about the population parameter.

3.2 Measurement of Derivatives

3.2.1 Endogenous Variables

Endogenous variables are those that are influenced by external variables. This is commonly referred to as the dependent variable. The endogenous variable in this study is stock returns, which is determined as the difference between the invested and received amounts divided by the invested amount. Following (Kasmir, 2019), the stock returns is calculated below:

$$Return = \frac{P_t - P_{t-1}}{P_{t-1}} \quad (1)$$

Note:

R = Stock returns

Pt = Stock price now

Pt-1 = Previous period's stock price

3.2.2 Exogenous Variable

Exogenous variables do not depend on or have their values modified by other model variables. Every external factor always constitutes an independent factor. For example, this study explores them, including interest, exchange, and inflation rates.

a. Exchange Rate

The foreign exchange rate compares one currency's value to another (Hermuningsih, 2019). The midpoint of the BI USD/IDR Transaction Rate, also known as the Reference Rate, is used in this study (JISDOR). ISDOR, the spot price of USD/IDR, is determined by the real-time Monitoring System for Foreign Exchange Transactions against Rupiah (SISMONTAVAR) at Bank Indonesia using the USD/IDR to Rupiah exchange rate between banks in the Indonesian foreign exchange market (Bank Indonesia, 2021). Data on the currency rate based on information on Bank Indonesia's online webpage.

b. Interest Rate

Investors frequently use the risk-free rate of interest, which combines the deposit rate and the interest rate of the central bank, as a benchmark in the finance sector. The BI-7 Day Reverse Repo Rate (BI7DRR), which replaced the BI Rate on August 19, 2016, is used in Indonesia to approximate the central bank interest rate.

c. Inflation

When ongoing price increases occur, the inflation rate determines the rate of change (Hermuningsih, 2019). The formula used to calculate inflation (Natsir, 2014) is as follows:

$$INF_n = \frac{IHK_n - IHK_{n-1}}{IHK_{n-1}} \times 100\% \quad (2)$$

Note:

INF_n: Inflation or deflation at the time (month or year) (n)

IHK_n: Consumer Price Index by time (month or year) (n)

IHK_{n-1}: Consumer Price Index by time (month or year) (n-1)

3.2.3 Intervening Variables

Dependent and intervening variables are indirectly related to each other. Profitability is a fundamental variable that reflects a business's capacity to profit using its available working capital. Profitability is determined using the return on assets calculation (Kasmir, 2019) :

$$ROA = \frac{\text{Net Income}}{\text{Total Asset}} \quad (3)$$

4. RESULTS AND DISCUSSION

4.1 Results

The descriptive statistics for each variable are displayed in Table 2.

Table 2: The Test Results of Descriptive Statistics

		Exchange Rate	Interest Rate	Inflation	Profitability	Stock Return
N	Valid	312	312	312	312	312
	Missing	0	0	0	0	0
Mean		14483.0000	4.3750	2.1717	0.11687	0.00768
Std. Deviation		620.63765	0.88235	0.72863	0.278331	0.185882
Minimum		13901.00	3.50	1.33	0.000	-0.454
Maximum		16367.00	6.00	3.39	3.138	1,580

Source: Processed Data

Table 2 displays a descriptive analysis from 312 research samples: The Exchange Rate variable has a range of values, with a low of 13901.00, a high of 16367.00, an average of 14483.0000, and a standard deviation of 620.63765. The lower value for the interest rate variable is 3.50, the highest value is 6.00, the average is 4.375, and the standard deviation is 0.88235. The inflation variable has a wide range of matters, with a low of 1.33, a high of 3.39, an average of 2.1717, and a standard deviation of 0.72863. Regarding profitability, the lower value is 0.000, the highest is 3.138, the average is 0.11687, and the standard deviation is 0.278331. The lower value of the stock returns variable has a minimum value of -0.454, the peak value is 1.580, the average is 0.00768, and the standard deviation is 0.185882. The R-square value for the stock return variable is shown in the table below.

Table 3: R-Square Value

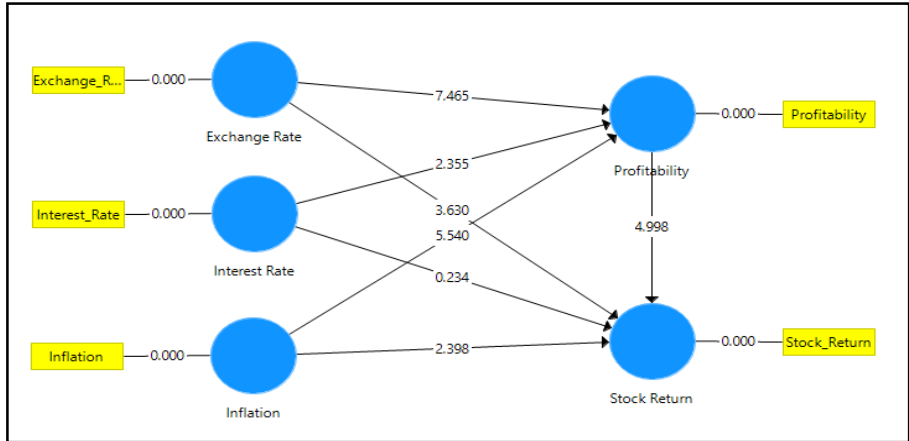
	R Square	R Square Adjusted
Profitability	0.101	0.092
Stock Return	0.558	0.553

Source: Processed Data

Table 3 discloses that the R-square value for the Profitability variable is 0.101, indicating that profitability is impacted by the Exchange Rate, Interest Rate, and Inflation by 10.1%, while other variables not included in the study influence 89.1%. While the R-square value for the Stock Returns variable is 0.558, this suggests that the Stock Returns variable is controlled by the Exchange Rate, Interest Rate, Inflation, and Profitability to the extent of 55.8%. In comparison, the remaining 44.2% is influenced by variables not included in this study.

The model created using the SmartPLS application's bootstrap testing is shown below:

Figure 1: A Bootstrap Research Model Following the Bootstrap Process



The t-statistics value can be used to test the provided hypothesis. The hypothesis is accepted if the t statistic's value exceeds the t table's value. The table below displays the estimation results of the t-statistics on the inner weight results.

The Bootstrap method is used to estimate confidence intervals. Testing the hypothesis in this study used a Bootstrap subsample of 500.

Table 4: Results of the P-Value (Bootstrapping)

	Original Sample	T Statistics	P Values	Results	Conclusion
Exchange Rate -> Profitability	-0.121	7.465	0.000	Significant	accepted
Exchange Rate -> Stock Return	-0.210	3.630	0.000	Significant	accepted
Inflation -> Profitability	-0.139	5.540	0.000	Significant	accepted
Inflation -> Stock Return	-0.131	2.398	0.000	Significant	accepted
Interest Rate -> Profitability	-0.174	2.355	0.000	Significant	accepted
Interest Rate -> Stock Return	-0.011	0.234	0.815	No Significant	rejected
Profitability -> Stock Return	0.633	4.998	0.000	Significant	accepted

Source: Processed Data

The research hypothesis that may be examined is shown in Table 4. The t table of 1.968 (N=312) is used for hypothesis testing with a significance level of 5%. With a negative coefficient value and a p-value less than 0.05, it can be argued that the exchange rate has a detrimental impact on profitability (p-value = 0.019 at a significance level of 0.05). With a negative coefficient and a p-value less than 0.05, the significance level is set at 0.05, and the p-value is 0.000. The exchange rate negatively impacts stock returns. With a negative coefficient, a p-value of less than 0.05, and a significance level of 0.05, inflation has a detrimental impact on profitability. With a negative coefficient and a p-value less than 0.05, inflation damages stock returns because the p-value is 0.000 at a significance threshold of 0.05. With a negative coefficient value and a p-value less than 0.05, it is possible to infer that the interest rate has an adverse impact on profitability because the p-value is 0.000 at a significance threshold of 0.05. With a negative coefficient and a p-value greater than 0.05, the interest rate does not affect stock returns, as shown by the p-value of 0.815 at a significance level of 0.05. With a negative coefficient value and a p-value less than 0.05, profitability positively impacts stock return because the p-value is 0.000 at a significance threshold of 0.05.

The parametric coefficient test between exchange rate and profitability yields a coefficient value of -0.121, a t-count of 7.465, and a p-value of 0.000. The significance level (α) = 0.05 is reached because the t-count is higher than the t-table value (7.465 > 1.968), and the p-value is lower than 0.05. ($p < 0.05$). Therefore, the exchange rate has a detrimental effect on profitability because it has a negative coefficient value and a p-value less than 0.05. The parameter coefficient test results indicate a negative correlation between the exchange rate and stock returns, with a t count of 3.630 and a p-value of 0.000. At the level of significance (α) = 0.05, the t-count exceeds the value of the t-table (3.630 > 1.968), and the p-value is even lower than 0.05 ($p < 0.05$). Exchange rates have a negative coefficient value and a p-value below 0.05, affecting stock returns negatively.

Profitability and inflation are tested using a parametric coefficient test, which yields coefficient values of -0.139, 5.540 for the t-count, and 0.000 for the p-value. As a result, the t-count exceeds the value of the t-table (5.540 > 1.968), and the p-value is less than 0.05 ($p < 0.05$) at the level of significance (α) = 0.05. Inflation negatively impacts profitability because the coefficient value is negative and the p-value is lower than 0.05. The parameter coefficient test's findings indicate a negative correlation between the exchange rate and stock returns of -0.210, a t count of 3.630, and a p-value of 0.000. At a significance level of (α) = 0.05, the t-count is greater than the value of the t-table (3.630 > 1.968), and the p-value is even lower than 0.05 ($p < 0.05$). Because the coefficient value is negative and the p-value is lower than 0.05, the impact of the exchange rate on stock returns is adverse.

The parameter coefficient values prove coefficient values of -0.174 and 2.355 with a p-value of 0.019. The data show that the p-value drops below 0.05 because the t-count is greater than the t-table value (2.355 > 1.968). At the (α) = 0.05 level of significance, the value is ($p < 0.05$). The coefficient value is negative, with the p-value below 0.05, indicating that the negative impact of interest rates on profitability has been significant. The exchange rate and stock returns show a coefficient of -0.011, a t count of 0.234, and a p-value of 0.815 in the parameter coefficient test results. At the (α) = 0.05 level of significance, the t-count is greater than the t-table value (0.234 > 1.968), and the p-value is less than 0.05 ($p > 0.05$). Consequently, because the coefficient value is negative and the p-value is more significant than 0.05 ($p > 0.05$), the Interest Rate may have a negative impact on stock returns.

The results of the parameter coefficient test indicate that profitability and stock returns have a 0.000 correlation, a coefficient value of 0.633, and a t-count value of 4,998. The t-count is higher than the t-value table's ($4.998 > 1.968$), and the p-value is even lower than 0.05 ($p < 0.05$) at the level of significance (α) = 0.05. Profitability positively impacts stock returns because the p-value is less than 0.05, and the coefficient value is good.

Table 5: The result of direct impact and indirect impact

	Original Sample	T Statistics	P Values	Results	Conclusion
Exchange Rate -> Profitability -> Stock Return	-0.077	4.135	0.000	Significant	Accepted
Inflation -> Profitability -> Stock Return	-0.088	3.396	0.001	Significant	Accepted
Interest Rate -> Profitability -> Stock Return	-0.110	5.116	0.000	Significant	Accepted

Source: Processed Data

Results from the parameter coefficient test, which indicate a coefficient value of -0.077, a t count of 4.135, and a p-value of 0.000, confirm the exchange rate's indirect influence on the stock returns through profitability. At the significance level (α) = 0.05, the p-value is less than 0.05 ($p < 0.05$), and the t-count exceeds the t-table value ($4.135 > 1.968$). Because the p-value is less than 0.05, it can be declared that there is a mediating variable between the exchange rate and stock returns, profitability, that mediates the direct effect of the exchange rate on stock returns.

The parameter coefficient test yields the values -0.088 for the coefficient, 3.396 for the t-count, and 0.001 for the p-value. At the significance level (α) = 0.05, the t-value ($3.396 > 1.968$) is higher than the t-table value, and the p-value is even lower than 0.05 ($p < 0.05$). Because the p-value is less than 0.05, it is evident that profitability or profitability, the mediating variable between inflation and stock returns, indirectly impacts stock returns.

The parameter coefficient test results show that the indirect impact of interest rates on the stock returns through profitability has a coefficient value of -0.110, a t-count value of 5.116, and a p-value of 0.000. The t-value exceeds the value of the t-table ($5.116 > 1.968$), and the p-value drops below 0.05 ($p < 0.05$) at the level of significance (α) = 0.05. Because the p-value is less than 0.05, it can be said that there is a mediating variable between interest rate and stock returns called profitability that mediates the indirect effect of interest rate on stock returns.

4.2 Discussion

The study's findings support the Efficient Market Hypothesis (EMH) as follows Fama (1970) created this theory, which holds that stock prices fully reflect economic conditions. Because it makes the assumption that stock prices already take into account all publicly accessible information, the semi-strong variant of the EMH is frequently employed to examine the link between stock returns and macroeconomic factors. Another theory that might help explain the outcome is the Arbitrage Pricing hypothesis (APT), developed by Ross in 1976. This theory is a theoretical framework that connects changes in macroeconomic factors to returns on stocks. It implies that both expected and unexpected variables affect an individual stock's performance, with unexpected occurrences accounting for the majority of the return that investors actually realize.

4.2.1 The Effect of Exchange Rate on Profitability

The results of statistical testing show that exchange rates negatively impact profitability. This evidence depicts how the profitability of an organization declines when the exchange rate rises. When a currency's value decreases, the purchasing power of all income and capital gains is significantly reduced. If the exchange rate drops, currency risk may impact a company's profitability. For businesses with foreign currency holdings, this depreciation will raise corporate debt and reduce profitability. Market sentiment has been negatively affected by the COVID-19 epidemic, which is why prices are generally lower. The results of this analysis provide credence to the findings of (Prasetyo, 2018) and Inrawan et al. (2020), which demonstrate that the exchange rate has a detrimental effect on profitability.

4.2.2 The Effect of Interest Rates on Profitability

According to statistical tests, interest rates have been shown to affect profitability adversely. The more interest rates are charged, the less profitable the company will be because some people think that inflation will happen as interest rates rise, forcing people to reduce their consumption expenditure and lowering profitability. In addition, consumers prefer to cut back on their spending and retain their money in banks due to the COVID-19 pandemic and rising interest rates, which lowers profitability. Studies by Afizah et al. (2019) found that interest rates had an adverse effect on profitability, supporting the conclusions of this study.

4.2.3 The Effect of Inflation on Profitability

According to statistical tests, inflation has a detrimental effect on profitability. This shows that while lower inflation leads to higher profitability, higher inflation results in lower profitability. This is so because an unexpected rise in inflation raises the cost of goods and services, which lowers consumption and profits. The COVID-19 pandemic's repercussions have increased commodity prices, decreased money circulation, and reduced consumer spending, decreasing profitability. This finding is relevant to the studies by (Aghae & Kazempour, 2013; Ali & Ibrahim, 2018; Lafairi Rera & Pelita Bangsa, 2022; Nugraha et al., 2021), which discovered that inflation negatively affects profitability.

4.2.4 The Effect of Profitability on Stock Returns

Returns on stocks are positively impacted by profitability. This suggests that stock returns to investors are negatively associated with profitability in both directions. This shows that the company's performance is improving, which explains why the stock price is rising. The company's stock returns climbed along with rising stock prices. On the other hand, the COVID-19 epidemic lowers productivity, lowers corporate profitability, and lowers stock earnings. This evidence pertains to the studies by Sugito et al. (2020) and Almira and Wiagustini (2020), which show that profitability positively influences stock returns.

4.2.5 The Effect of Exchange Rate on Stock Returns

The findings of statistical investigations demonstrate that the exchange rate positively impacts stock returns. This displays the inverse link between exchange rates and stock returns, showing

that higher exchange rates result in lower stock returns and vice versa. Investors are discouraged from investing due to COVID-19's impact on the company's worth in an unfavourable or unpredictable national economy. This directly jeopardizes share prices and trades, which diminishes stock returns. The conclusions of this study are supported by (Afizah et al., 2019; Fakhri Rana Sausan et al., 2020; Kamran Khan, 2019; Saputra & Dharmadiaksa, 2016; Suharyanto & Zaki, 2021). Exchange rates negatively impact stock returns considerably (Suharyanto & Zaki, 2021).

4.2.6 The Effect of Interest Rates on Stock Returns

Stock returns is influenced favourably by interest rates. This shows that while a lower interest rate increases stock returns, stock returns are diminished by a higher interest rate. If interest rates increase, businesses will choose more cost-efficient finance solutions, affecting profitability. Therefore, a rise in interest rates will affect the company's stock returns. The COVID-19 pandemic caused interest rates to drop. Investors prefer other high-yielding capital market assets due to this downturn, which influences stock returns. These results support earlier research that found that interest rates have a detrimental effect on stock returns, including studies by (Al Oshaibat & Majali, 2016; Ghosh et al., 2018; Saputra & Dharmadiaksa, 2016; Setyaningrum & Muljono, 2016; Suharyanto & Zaki, 2021; Wiradharma & Sudjarni, 2016). The findings of this study contradict those of Andes et al. (2017), who discovered that interest rates did not affect stock returns.

4.2.7 The Effect of Inflation on Stock Returns

Increases in inflation diminish salaries, and declines in inflation yield high returns, increasing stock returns. High inflation boosts the cost of goods while lowering consumer purchasing power. This influences stock returns because inflation only has a long-term effect on pricing. The COVID-19 pandemic has also contributed to inflation, which has made it more challenging for people to meet their fundamental needs. To minimize expenses and boost profits, the corporation reduces production, disappointing investors and shareholders and diminishing stock returns. The results of this analysis are consistent with research by (Ibrahim & Agbaje (2013), which revealed that inflation had a detrimental effect on returns. The results of this study disagree with those of Andes et al. (2017), who discovered that inflation has no bearing on stock returns.

4.2.8 The Effect of Exchange Rate on Stock Returns with Profitability as a Mediating Variable

Several earlier studies have suggested that profitability mediates the relationship between exchange rates and stock returns or that profitability directly affects stock returns. The company's return on equity decreases when the exchange rate rises. In other words, a company is worth more to investors if it is profitable and retains potential. A company's stock return, which is determined by the value of its shares, increases along with its capacity for making profits. Profitability can lessen the influence of interest rates on stock returns, according to Prasetyo (2018) and Wiratno et al. (2018), which is consistent with the findings of this study.

4.2.9 The Effect of Interest Rate on Stock Returns with Profitability as a Mediating Variable

This study demonstrates that either profitability mediates the relationship between interest rates and stock returns or that profitability directly influences stock returns due to interest rates. In other words, the company's profitability is impacted by the stock returns, which decrease as interest rates

rise and increase as they fall. Therefore, a rise in interest rates has an impact on the stock returns of the company. The research was undertaken to support the conclusions of this study by Lestari and Suaryana (2020). While the exchange rate only has a small, indirect effect on stock returns through profitability, profitability positively and considerably impacts stock returns. Exchange and interest rates can impact stock returns less if a company is profitable (Prasetyo, 2018).

4.2.10 The Effect of Inflation on Stock Returns with Profitability as a Mediating Variable

Several earlier studies suggest that profitability or profitability indirectly affects stock returns due to inflation. Profitability, therefore, serves as a link between inflation and stock price growth. As inflation rises, this results in higher commodity prices, decreased purchasing power for commodity consumers, and lower profitability. The results of this analysis are supported by research (Kartikaputri, 2018), which shows that inflation can reduce the impact of exchange and interest rates on stock returns. However, the findings of the study by Nurlaelasari et al. (2021), which showed that inflation did not lessen the impact of exchange rates on stock returns, run counter to this assertion.

5. CONCLUSION

The COVID-19 pandemic has had a significant impact on various aspects of the global economy, including profitability, interest rates, inflation, and import-export transactions. Here's how these factors are interconnected and contribute to the difficulties faced by businesses.

Exchange rates can impact an organization's profitability by decreasing the purchasing power of investments' income and capital gains. Currency depreciation can also impact profitability, especially for organizations with foreign currency portfolios, as it leads to increased debt and decreased consumer spending. The COVID-19 pandemic has led to a decrease in interest rates, making investors wary of investing and affecting the company's value through changes in share prices and transactions. Inflation increases profitability due to rising prices of goods and services, reduced consumption, and decreased consumer spending. The pandemic has contributed to inflation, increasing commodity prices, decreased money circulation, and reduced consumer spending. Stock returns to investors are inversely correlated with profitability, with higher stock returns indicating better performance.

The COVID-19 pandemic's impact on unstable economic situations makes investors wary of investing, affecting a company's value by changing share prices and transactions. Higher interest rates can also impact stock returns, as businesses may choose more cost-effective finance options. Inflation indirectly influences stock returns through profitability, as it moderates the link between stock returns and exchange rates. As inflation rises, it translates into higher commodity prices, lower commodity buyers' purchasing power, and lower profitability, which in turn affects stock returns. Import-export transactions have been challenging because of the COVID-19 pandemic, containment measures, uncertainties, declining demand, logistical challenges, and export restrictions. Owing to these conditions, companies are having more trouble locating clients and completing transactions, and they are also having to limit their production capacity and raise costs.

Policy implications

The study may assist enterprises or policy maker to boost international collaboration, direct investment decisions, lead monetary and fiscal policies, and improve data gathering and research initiatives. Export limitations may be reduced, firms with foreign currency portfolios can be supported, and the effects of inflation and interest rates on enterprises can be lessened. The research may also be used to better support programs and find policy gaps.

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