CHAPTER 2
LITERATURE REVIEW

2.1 Theoretical Framework

2.1.1 Efficient Market Hypothesis

The Efficient Market Hypothesis (EMH) is a foundational financial theory used in this study to examine how a company's financial information correlates with its stock performance in the market. According to this hypothesis, stock prices of a company reflect all fundamental factors if the market is perfectly efficient (Fama, 1965). In an efficient market, it's nearly impossible to achieve excess returns or "beat the market" through trading assets perceived as mispriced. Arbitrageurs would exploit such opportunities until all assets are correctly priced, achieving equilibrium, with no assets deviating from their market value.

A market is considered efficient if it meets three conditions: first, there must be a sufficient number of rational market participants seeking to maximize profits; second, all participants must have access to free information; and third, prices must quickly adjust to new information. (Fama, 1965) identifies three levels of market efficiency based on how quickly and accurately new information is reflected in stock prices: weak-form, semi-strong-form, and strong-form efficiency. In weak-form efficiency, current stock prices incorporate all historical price information. In semi-strong-form efficiency, stock prices reflect all historical price information as well as other publicly available information. In strong-form efficiency, stock prices include all publicly available information and all internal information, such as a company's fundamental factors (e.g., financial ratios, economic indicators).

Financial market participants use fundamental information to evaluate the value generated by listed companies. In a perfectly efficient market, a company's strong financial performance should be mirrored by an increase in its stock price (or positive stock returns), while poor financial performance should result in a decrease in stock prices.

2.1.2 Markowitz Portfolio Theory

Harry Markowitz, a Nobel laureate, made groundbreaking theoretical contributions to financial economics and corporate finance, laying the foundation for Modern Portfolio Theory. This framework helps in the selection and construction of investment portfolios by aiming to maximize expected returns while minimizing risk. Markowitz's model suggests that a well-formed portfolio can achieve significant returns with reduced risk. Unlike random diversification, the Markowitz model focuses on the relationship between portfolio return and risk. However, the model contends that increasing the number of shares in a portfolio beyond a certain point can lead to diminishing returns and higher risk (Negara et al., 2021).

2.1.3 Capital Asset Pricing Model

Developed by William Sharpe, the Capital Asset Pricing Model (CAPM) measures systematic risk, one of the two types of risks in individual investments. Systematic risk, influenced by economic changes and macroeconomic indicators, affects the market as a whole and cannot be mitigated through diversification. In contrast, unsystematic risk, arising from company-specific decisions, can be reduced through diversification.

CAPM uses the beta coefficient to measure a stock's sensitivity to market returns, thereby evaluating the relationship between systematic risk and expected returns. This model aids investors in assessing the performance of portfolios or individual stocks relative to the broader market. Several studies, including those by Abbasi et al. (2017), Al-Mashreqi & Shehab (2014), and Al-Afeef (2017), have validated the significant relationship between market returns and stock returns using CAPM in different contexts and periods

2.1.4 Arbitrage Pricing Theory

Arbitrage Pricing Theory (APT) was introduced by Stephen Ross in 1976. According to Tandelin (2017), the APT model posits that a security's return is

influenced by factors beyond just the market portfolio, as the expected return can be affected by various risk sources. Roll and Ross (1980) identified several factors that influence return rates, such as unexpected changes in inflation, industrial production, risk premiums (the difference between high and low-rated bonds), and changes in the yield curve slope. Therefore, the APT model can be seen as a balanced model for evaluating expected returns influenced by macroeconomic factors. The key assumptions of the APT model are: (1) Capital markets are perfectly competitive, (2) investors are risk-averse, (3) investors have homogeneous expectations, and (4) returns are derived using a factorial model.

2.2 Coal Price

For a coal mining company, changes in coal prices significantly affect the market and financial performance of these companies (G. A. Putra et al., 2021). Producer and exporter of coal is notably impacted by these price fluctuations. Research on Australian coal companies found that a positive coal price shock significantly and positively influenced coal company stock returns (Hasan & Ratti, 2014). Specifically, the study showed that a one percent increase in coal price led to a rise in coal company returns by between 0.15% and 0.17%. These findings are likely applicable to other coal companies worldwide (Hasan & Ratti, 2014). Therefore, it is expected that an increase in coal prices would be associated with a positive return on the stocks.

2.3 Macroeconomics

Krugman and Wells (2017) define macroeconomics as the branch of economics that studies the overall fluctuations in the economy. Davis and Powell (2012) describe macroeconomics as the external conditions or forces that can impact a firm's daily operations. Key macroeconomic variables related to a country's investment include Gross Domestic Product (GDP), employment rate, inflation rate, interest rate, budget deficit, and sentiment (Bodie et al., 2014). These variables are beyond a company's management control and can positively or

negatively impact its performance (Dioha et al., 2018). This study focuses on the percentage change in currency exchange rates as representations of macroeconomic variables.

2.3.1 Exchange Rate

The exchange rate refers to the price at which currencies are traded (Krugman & Wells, 2017). Thobarry (2009) describes it as the comparative value of one country's currency against another's. A strong exchange rate signals a stable economy, while a weak rate indicates economic vulnerability (Gunarto & Sembel, 2019). Governments can adopt either fixed or floating exchange rate policies (Krugman & Wells, 2017). A fixed exchange rate is maintained at or near a target value against another currency, while a floating rate is determined by market forces of supply and demand.

Exchange rates impact stock price volatility, as noted by Amrillah (2016). Domestic currency depreciation can increase export volumes, boosting cash flow for domestic companies and raising stock prices. However, companies reliant on imported goods or holding dollar-denominated debt may see reduced profits and falling stock prices with domestic currency depreciation.

The exchange rate affects stock returns: exporters with low import content benefit from domestic currency depreciation, leading to higher profits and stock prices. Conversely, companies with high import content and domestic sales face reduced profits and stock prices under the same conditions (Amrillah, 2016).

Suriyani and Sudiartha (2018) define the exchange rate as the value comparison between currencies, essential for international trade. Stable exchange rates foster a conducive business climate, enhancing the business environment (Saputra & Dharmadiaksa, 2016).

Adeputra & Wijaya (2015) highlight that exchange rates facilitate trade between countries with different currencies, enabling economic transactions. A weakening domestic currency and strengthening dollar can shift investor preference towards dollar investments, reducing interest in stocks and affecting company

returns. This study uses the mid-rate of the rupiah exchange rate against the USD, measured in units of Rp/1USD and Australian dollar exchange rate against the USD measure in units of AUD/USD.

2.4. Market Return

The market return is a crucial metric that reflects the overall performance of investments in the capital market. Consequently, companies may experience fluctuations in their share prices in response to changes in market returns. The value of a company, often gauged by its share price, is intricately linked to its performance relative to competitors and broader macroeconomic factors, as elucidated by Ma et al. (2022). In this dynamic landscape, market returns play a pivotal role in shaping investor sentiment and influencing stock prices. When market returns are robust, investor confidence tends to be high, driving demand for stocks and elevating share prices. Conversely, subdued market returns may dampen investor enthusiasm, leading to a decline in stock prices (Thamrin, J., 2019).

Thamrin and Sembel (2020) underscored the significant impact of market return, as represented by the Jakarta Composite Index (JKSE) return, on the stock performance of consumer goods companies listed on the Indonesia Stock Exchange (IDX). This finding underscores the interconnectedness between market dynamics and individual stock performance, emphasizing the importance of monitoring market returns in assessing investment opportunities. The formula employed to compute market return is elucidated as follows (Bertuah and Sakti, 2019):

$$MR_t = \frac{IHSG_t - IHSG_{t-1}}{IHSG_{t-1}} \tag{2.1}$$

In the context of the Australian Securities Exchange (ASX), the market return can be computed using a similar formula, adapted to the ASX 200 index. According to research published in the Australian Financial Review (Smith, 2021), the formula employed to compute market return is as follows:

$$MR_t = \frac{ASX200_t - ASX200_{t-1}}{ASX200_{t-1}} \quad (2.2)$$

Where:

MR_t = Market return at the period of t

$IHSG_t$ = Jakarta Composite Index at the period of t

$IHSG_{t-1}$ = Jakarta Composite Index at the period of t-1

$ASX200_t$ = Australia Composite Index at the period of t

$ASX200_{t-1}$ = Australia Composite Index at the period of t-1

2.5 Financial Performance

Financial performance involves evaluating a company's profitability, liquidity, and efficiency over a specific period. This analysis is vital for stakeholders such as investors, creditors, and management because it helps them assess the company's financial health and make informed decisions. Financial performance reveals a company's financial status, using financial analysis tools to understand its performance and aid in future financial planning. It's essential for a company to measure its financial performance as it reflects its ability to manage operations effectively and efficiently (Fujianti et al., 2022)

Financial performance is defined as an analysis to determine how well a company adheres to financial implementation rules (Hutabarat, 2021). The objectives of financial performance assessment include understanding the company's profitability, liquidity, solvency, and overall stability.

According to Hutabarat (2021), the stages of analysing a company's financial performance are:

1. Reviewing financial report data to ensure compliance with existing regulations.
2. Performing calculations appropriate to the company's condition.
3. Comparing the obtained results with calculations from other companies. The most common methods for comparison are:
    1. Time series analysis, which compares different time periods.

2. Cross-sectional approach, which compares ratios between similar companies.

4. Interpreting various issues identified.
5. Finding and providing solutions to these issues.

Generally, financial performance analysis involves evaluating past performance and comparing it with established standards to predict the company's future prospects and improve performance. Using metrics like liquidity ratios, solvency measures, activity ratios, profitability indicators, and market valuation, stakeholders can better understand a company's financial position (Sembel and Malau, 2023).Financial performance can be measured using various ratios, such as profitability, liquidity, leverage, sales growth, dividends, working capital, and firm value, among others (Gaffar et al., 2022). Good financial performance positively influences investors' decisions to invest in a company. This study focuses on four ratios: profitability, leverage, liquidity, and total asset turnover, detailed below.

According to Brigham and Houston (2018), ratios help evaluate financial statements by enabling comparisons and examining various aspects of a company's operations. Similarly, Ross (2018) states that financial ratios are relationships derived from a company's financial information used for comparative purposes. Analyzing financial statements over several periods helps compare data within one report and with other reports, providing a more accurate assessment of management's performance progress from one period to the next.

2.5.1 Profitability Ratio

The primary goal of a company is to maximize its profits. Profitability indicators can reflect the financial performance of a company. According to Kasmir in 2019, profitability ratios are used to evaluate a company's ability to generate profits over a specific period. These ratios also provide a measure of how effectively a business is managed, as indicated by the profits generated from sales or investment income. They serve as a measure of the effectiveness of the company's management, as demonstrated by the profits from sales and returns on investments.

Essentially, the use of these ratios shows the company's performance. High profitability makes a company more competitive among its peers. Companies that generate high profits can open new lines or branches and start new investments related to the parent company.

Among the myriads of financial metrics, profitability ratios hold a prominent position, offering a direct assessment of a company's financial performance. As elucidated by Brigham and Houston (2018), profitability, represented by ratios such as Return on Equity (ROE) and Return on Asset (ROA), reflects the culmination of various managerial policies and decisions. These ratios serve as invaluable tools for stakeholders seeking to gauge the efficacy of a company's operational strategies and investment decisions.

Profitability ratios such as Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin (NPM) are critical indicators that provide insights into how efficiently a company is being managed and its ability to generate profit. ROA measures the ability of the company to generate earnings from its assets, indicating how well the company's assets are being used to generate profits. ROE, on the other hand, measures the return generated on shareholders' equity, providing insights into how effectively the management is using the company's equity base to generate profits. The Net Profit Margin shows the percentage of revenue that remains as profit after all expenses are deducted, giving a clear picture of the company's profitability from its core operations.

High profitability ratios are often indicative of a company's robust financial health and its capacity to sustain growth and attract investment. Sembel (2017) found that a company with high profitability can reinvest its earnings into new projects, expand its operations, and explore new market opportunities. This, in turn, enhances the company's market position and competitive edge. Moreover, profitability ratios are essential for investors and creditors, as they indicate the potential for future earnings growth and the overall financial stability of the company.

In addition to providing a snapshot of the company's current financial performance, profitability ratios also help in comparing the company's performance over different periods. This temporal analysis allows stakeholders to identify trends, assess the impact of strategic decisions, and predict future performance. For instance, a consistent increase in ROE over several years might indicate effective management and profitable growth, whereas a decline could signal potential issues that need to be addressed.

The significance of profitability ratios extends beyond internal management and investors. They are also crucial for external stakeholders such as creditors, who use these ratios to assess the company's ability to generate sufficient profits to meet its debt obligations. Creditors prefer to lend to companies with strong profitability ratios, as these companies are perceived to be less risky and more likely to honour their debt commitments.

In conclusion, profitability ratios are indispensable tools in financial performance analysis, providing a comprehensive view of a company's ability to generate profits and sustain growth. By evaluating ratios such as ROA, ROE, and Net Profit Margin, stakeholders can gain valuable insights into the company's operational efficiency, managerial effectiveness, and overall financial health. High profitability not only enhances a company's competitiveness but also provides the financial flexibility to pursue new opportunities and drive long-term success.

2.5.1.1 Return on Equity (ROE)

Among various profitability ratios, Return on Equity (ROE) is chosen by researchers because it indicates the optimal result achieved by using the company’s invested capital in assets to generate profits. ROE measures the income available to the owners of the invested capital of a company. It is a ratio used to evaluate the net profit after tax against the shareholders' equity. This ratio reflects the net profit after tax compared to the company’s equity. The higher the ratio, the better, indicating a stronger position for the company’s owners, and vice versa.

According to Brigham and Houston (2018), this ratio demonstrates the ability to generate profit from investments based on the book value of shareholders. A higher ratio signifies better performance, meaning the position of the company's owners is stronger. The most critical ratio is the net profit available to shareholders divided by the total shareholders' equity.

Ross (2018) explains that Return on Equity (ROE) is a measure of how well shareholders are compensated in a given year. ROE uses the company's equity to generate net profit. The magnitude of ROE is significantly influenced by the company's profit; the higher the profit earned, the greater the ROE. Based on this definition, ROE can be summarized as a profitability ratio that indicates the income available to the company's owners from the capital they have invested. This ratio can be used by shareholders to measure the return on their capital from the company and to assess the company's performance.

ROE is an essential metric for investors as it measures the efficiency with which a company uses shareholders' equity to generate profits. A consistently high ROE indicates that the company is effectively utilizing its equity base to grow profits, which is a positive signal for existing and potential investors. This ratio is particularly valuable for comparing the profitability of companies within the same industry, as it provides insights into how well each company is using its equity to generate earnings.

A high ROE can also signify effective management and strong financial health, as it suggests that the company is generating substantial profits relative to the equity invested by shareholders. Conversely, a low ROE may indicate inefficiencies or potential financial issues, prompting further investigation by stakeholders.

In practical terms, ROE helps investors determine the return they are getting on their investment in the company. It is a crucial indicator of financial performance that investors consider when making decisions about buying, holding, or selling shares. A rising ROE trend over time can indicate good management performance

and a profitable growth strategy, while a declining trend might raise red flags about the company's operational efficiency or financial stability (Malau et al., 2019).

For calculating Return on Equity (ROE), the following formula is used:

$$\text{Return on Equity (ROE)} = \frac{\text{Net Profit}}{\text{Total Equity}} \tag{2.3}$$

2.5.2 Liquidity Ratio

Effective liquidity management is paramount for meeting short-term operational and financial commitments, thereby averting potential debt issues in the future (Sundas and Butt, 2021). Durocher and Fortin (2021) define liquidity ratios as metrics indicating a company's capacity to honor obligations or settle short-term debts.

According to Kasmir (2019), liquidity ratios, often referred to as working capital ratios, are used to measure how liquid a company is. This is done by comparing components in the balance sheet, specifically total current assets with total current liabilities (short-term debts). Evaluating these ratios over several periods allows stakeholders to see the company's liquidity development over time. The types of liquidity ratios used in this research are as follows.

Liquidity ratios are essential indicators of a company's short-term financial health and its ability to cover its short-term obligations with its most liquid assets. They provide insights into the company's operational efficiency and financial stability. A company with good liquidity can easily meet its short-term liabilities, thus maintaining smooth operations without financial distress.

2.5.2.1 Current Ratio

The current ratio evaluates a company's ability to meet current liabilities with current assets. A current ratio below one indicates potential difficulties in managing short-term debts, while excessively high ratios may signal inefficient management of current assets (Dika and Daryanto, 2019). This ratio serves as a yardstick for assessing a company's capacity to meet imminent financial obligations

by utilizing its available current assets relative to total current liabilities (Barth and Landsman, 2010).

According to Kasmir (2019), the current ratio is a measure used to evaluate a company's ability to pay short-term obligations or debts that are due in the near future. In other words, it assesses how much current assets are available to cover short-term liabilities that are soon to mature.

The formula to calculate the current ratio is:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} \tag{2.4}$$

The current ratio is one of the most widely used liquidity ratios because it provides a straightforward measure of a company's short-term financial health. A higher current ratio suggests that the company has more than enough resources to meet its short-term obligations, which is a positive indicator of financial stability. Conversely, a lower current ratio may indicate potential liquidity issues and a higher risk of financial distress.

A current ratio that is too high, however, can also be a sign of inefficiency. It might suggest that the company is not utilizing its current assets effectively or that it is holding too much cash or inventory, which could otherwise be invested in growth opportunities. Therefore, while a healthy current ratio is crucial, it is equally important to strike a balance that indicates efficient asset management.

For investors and creditors, the current ratio is a critical metric when evaluating the financial health of a company. It provides a quick snapshot of the company's ability to cover its short-term liabilities with its short-term assets, offering insights into the company's operational efficiency and financial stability. Investors use this ratio to assess whether a company has enough liquidity to continue its operations smoothly and to avoid potential liquidity crises. Creditors, on the other hand, look at the current ratio to determine the creditworthiness of the company and its ability to repay short-term debts.

In practical terms, companies aim to maintain an optimal current ratio that ensures sufficient liquidity while also reflecting efficient management of assets. Regularly monitoring the current ratio helps management make informed decisions about working capital management, such as inventory levels, receivables, and payables. This ensures that the company can meet its short-term obligations while maximizing the return on its current assets.

In summary, the current ratio is a vital liquidity measure that provides insights into a company's ability to meet its short-term liabilities using its current assets. A balanced current ratio indicates good financial health and efficient asset management, which are essential for the company's operational stability and growth. By regularly analyzing the current ratio, stakeholders can make informed decisions about the company's financial practices and ensure its long-term success.

2.5.3. Activity Ratio

Activity ratios are critical in assessing a company's ability to efficiently manage its day-to-day operations, including sales, collection of receivables, and utilization of assets. These ratios provide insights into how well a company is using its resources to generate revenue and support its operations. Key activity ratios include inventory turnover, accounts receivable turnover, fixed asset turnover, and total asset turnover.

According to Brigham and Houston (2018), activity ratios offer a clear picture of a company's operational efficiency. These ratios are essential for maintaining low operational costs, which in turn can lead to higher net profits. By evaluating activity ratios, stakeholders can determine how effectively a company is managing its assets and whether it is optimizing its resources to generate maximum returns.

2.5.3.1 Total Asset Turnover (TATO)

In measuring activity ratios, researchers use the total asset turnover (TATO) analysis. This ratio demonstrates how effectively investments are utilized at the

time of financial reporting. It helps estimate whether the company's management is effectively utilizing the existing capital, which is then compared with the sales generated per unit of the company's assets. The total asset turnover (TATO) ratio is calculated by dividing total sales by total assets (Brigham and Houston, 2018).

The TATO ratio measures how efficiently a company uses its assets to generate sales. It provides insight into the company's operational efficiency and asset management. A high TATO ratio indicates that the company is using its assets effectively to generate revenue, while a low TATO ratio suggests inefficiencies in asset utilization. Companies with high-profit margins typically have lower asset turnover, whereas companies with lower profit margins often have higher asset turnover.

According to Brigham and Houston (2018), the total asset turnover ratio is a critical measure of how well a company generates sales from its assets. It is particularly useful for assessing the efficiency of asset utilization across different industries and business models. For instance, asset-intensive industries, such as manufacturing, might have lower TATO ratios compared to service-oriented industries, which require fewer assets to generate sales.

The formula to calculate the total asset turnover (TATO) ratio is:

$$\text{Total Assets Turnover (TATO)} = \frac{\text{Total Sales}}{\text{Total Asset}} \tag{2.5}$$

By using this formula, businesses can determine how efficiently they are using their assets to generate sales. A higher TATO ratio indicates that the company is making efficient use of its assets to produce revenue, suggesting strong operational performance. Conversely, a lower TATO ratio may indicate that the company is not utilizing its assets effectively, which could point to potential inefficiencies in operations or asset management.

For investors and creditors, the TATO ratio is a valuable metric for assessing a company's efficiency and overall financial health. A consistently high TATO ratio can boost investor confidence, indicating that the company is capable

of generating substantial revenue from its asset base. This is particularly important for evaluating the performance of capital-intensive businesses where efficient asset utilization is crucial for profitability.

Management uses the TATO ratio to identify areas where asset utilization can be improved. By regularly monitoring this ratio, companies can make informed decisions about capital investments, asset acquisitions, and operational improvements. Enhancing the TATO ratio can lead to better financial performance, higher profitability, and increased shareholder value.

In summary, the total asset turnover (TATO) ratio is a vital activity measure that provides insights into a company's ability to generate sales from its assets. It reflects the efficiency of asset utilization and is crucial for evaluating operational performance and financial health. By analysing the TATO ratio, stakeholders can make informed decisions about the company's financial practices and strategic direction, ensuring long-term success and growth.

2.5.4 Solvency /Leverage Ratio

Leverage represents a vital aspect of a company's financial structure, encompassing various sources of funding, notably debt financing (Sari, 2020). According to Brigham and Houston (2018), leverage ratios provide insight into how a company finances its assets and its ability to repay long-term debt. These ratios indicate the level of risk the company assumes and how much of its operating income must be allocated to debt servicing compared to payments to shareholders.

Leverage ratios are critical for understanding the financial risk associated with a company's capital structure. High leverage indicates a higher proportion of debt in the company's financing, which can amplify both returns and risks. While debt can provide the necessary funds for expansion and growth, excessive leverage can lead to financial distress if the company is unable to meet its debt obligations. Therefore, leverage ratios are essential for investors and creditors to assess the risk profile and financial stability of a company (Malau, 2020).

One of the primary leverage ratios is the Debt-to-Equity Ratio (DER), which measures the proportion of a company's total debt to its shareholders' equity. This ratio highlights the balance between debt and equity in financing the company's assets. A higher ratio suggests greater reliance on debt, indicating higher financial risk, while a lower ratio suggests a more conservative approach with lower risk.

Another important leverage ratio is the Debt to Total Assets Ratio (DAR), which measures the proportion of a company's total assets financed by debt. This ratio provides insights into the extent to which a company's assets are leveraged and its dependence on debt financing. A high DAR indicates that a significant portion of the company's assets are financed by debt, which can increase financial risk if the company faces difficulties in generating sufficient cash flow to service its debt.

Leverage ratios also help in assessing a company's financial flexibility and its ability to take on additional debt for future growth opportunities. Companies with lower leverage have more room to raise debt without significantly increasing their financial risk, making them more attractive to investors and creditors.

In conclusion, leverage is a crucial component of a company's financial structure, reflecting its reliance on debt financing and the associated risks. By analyzing leverage ratios such as the Debt-to-Equity Ratio and the Debt to Total Assets Ratio, stakeholders can gain valuable insights into the company's financial risk, capital structure, and ability to meet long-term obligations. These ratios are essential for evaluating the financial health and stability of a company, guiding investment decisions, and ensuring prudent financial management.

2.5.4.1 Debt-to-Equity Ratio (DER)

Among leverage ratios, the Debt-to-Equity Ratio (DER) is crucial because it reflects a company's financial health, not just through its human resources or sales figures, but from its internal financial perspective. The DER measures the ratio of a company’s total debt to its total equity, providing insight into the company’s long-term ability to meet its financial obligations. This ratio falls under solvency ratios,

which are used to assess a company's capacity to fulfill its long-term debt commitments.

The Debt-to-Equity Ratio (DER) serves as a critical measure of a company's financial structure, highlighting the balance between debt and equity utilized to finance its assets (Bloomenthal, 2019). Calculated by dividing total debt, including current liabilities, by total equity, the DER provides insights into a company's ability to fulfill its debt obligations using its equity base.

Essentially, the DER offers a snapshot of the company's leverage position, indicating the proportion of capital contributed by creditors versus shareholders (Kurniawan, 2021). A higher DER suggests a greater reliance on debt financing, potentially increasing financial risk and the company's vulnerability to economic downturns (Endria et al., 2019). Consequently, monitoring changes in the DER enables stakeholders to assess the company's financial health and its ability to manage debt effectively.

According to Ross (2018), the debt-to-equity ratio is the comparison between total debt and total equity in company funding, showing the company's ability to meet all its obligations with its own capital. This ratio is crucial for evaluating the extent to which a company is financing its operations through debt versus wholly owned funds.

A higher DER indicates that a company is aggressively financing its growth with debt, which can result in higher returns on equity but also increases the risk of financial distress. Conversely, a lower DER suggests a more conservative approach with greater reliance on equity financing, indicating potentially lower financial risk but also possibly lower returns.

For management and investors, the DER is an essential tool for making informed decisions. A rising DER might signal the need for closer scrutiny of the company's debt levels and its strategies for managing financial risk. For creditors, a high DER might be a red flag indicating potential issues with the company's ability to service its debt, whereas a lower DER would be more reassuring.

The formula to calculate the Debt-to-Equity Ratio (DER) is:

$$\text{Debt to Equity Ratio (DER)} = \frac{\text{Total Debt}}{\text{Total Equity}} \tag{2.6}$$

In conclusion, the Debt-to-Equity Ratio (DER) is a fundamental measure in financial analysis that provides deep insights into a company's financial leverage and risk profile. By assessing the DER, stakeholders can better understand the balance between debt and equity in a company's capital structure and its implications for financial stability and performance. Monitoring this ratio over time helps in evaluating the effectiveness of a company's financial strategies and its capacity to sustain long-term growth.

2.5.5 Valuation

The valuation ratio is usually used to analyse the attractiveness of an investment in a company and determine the fair value of a public company. Common valuation ratios are Price to Earnings Ratio (PER) or Earning Yield (EY)

2.5.5.1 Earning Yield (EY)

This ratio calculates the value of a company's stock price with its Eearning per share (EPS). This ratio is used to compare a company's stock against previous records and to see if the company is overvalued or undervalued. A high ratio indicates a high growth rate expected by investors in the future.

Abraham (2017) defines earnings yield as the ratio of net income to price. Furthermore, the reciprocal of the price-earnings ratio is known as earning yield. In essence, earnings yield is the proportion of stock value fluctuations that may be linked to shifts in business profitability. Earning yield, according to David and Randall (1997), is an organization's ability to make money from the sale of goods and services. The phrase may also refer to the ability to successfully use resources to produce a range of goods that appeal to a growing customer base. Earning yield

is a reliable indicator of company performance since it is based on value generation. Based on headlines, irrational expectations, analyst hype, and herd frenzy, this metric isolates earnings yield from other market-related factors (David & Randall, 1997).

$$\text{Earning Yield (EY)} = \frac{\text{Earning per share}}{\text{Market Price per share}} \quad (2.7)$$

In this research, the company's financial performance is shown by the financial ratio variables that refer to (Daryanto et al., 2022), Brigham & Daves (2019), and Kasmir (2016) as follows:

Table 2.1 Research Financial Ratio

NO	VARIABLE	INDICATOR
1	Profitability	Return of Equity (ROE)
2	Liquidity	Curent Ratio
3	Solvency	Debt to Equity Ratio (DER)
4	Activity	Total Asset Turnover (TATO)
5	Valuation	Earning Yield (EY)

2.6 Stock Performance

Stock performance is an indicator of whether a company's stock is good or bad, in general there are two measurements of stock performance, namely stock returns and stock risk.

2.6.1 Stock Returns

The stock returns or the level of stock profit can also be defined as the benefits obtained by investors from investment activities in a company either directly or through securities companies Suciati (2018). The stock returns are critical aspects of conducting investment analysis because they serve as investors' indexes. From a particular investment that the investors want to choose, they will ensure that they will obtain a higher return than the cost of capital.

Besides serving as an index for the investors, the stock returns can determine the effectiveness and efficiency of the stock market in allocating the shares and equities based on preference and availability of market information (Hussein, 2017). The stock returns consist of capital gain and any income obtained by the investors from the stock investment (Okech & Mugambi, 2016). The stock returns can be seen from the actual profit or loss that investors will experience on an investment or portfolio (Kenton, 2020). The actual return is important to measure the performance of an investment.

One of the factors that motivate investors in investment activities is the return of shares. According to Ristyawan (2019), stock returns are a reward for the courage of investors to take risks on their investments. Stock return is the level of profit that investors enjoy on the investments they make. Stock returns is the expected rate of return on an investment invested in a stock or multiple groups of shares through a portfolio. Stock returns can be dividends, i.e., corporate profits received by investors in cash, stock, or property, and capital gains, i.e., the difference between buying and selling prices (Chritianto & Firnanti, 2019).

According to (Oktavia & Muljono, 2018), the return of shares is a document as proof of ownership of a company. If the company earns a profit, shareholders are entitled to a share of the profits distributed or by the dividend and proportion of ownership. In investing in the capital market, the main goal that market participants want is to maximize returns.

According to Endria et al., (2019), the return of shares is defined as the level of profit earned and expected by an investor from an investment over a period and will be earned in the future. Returns are profits that companies share with investors both individually and institutionally resulting from their investment policies. Then, investors' interest in investing in the capital market is to get a return based on their expectations from investment activities Endria et al., (2019).

Return is the income earned from an investment. If the company earns a profit, each investor is entitled to dividends by the proportion of their ownership. Total return can be calculated from the capital gain (loss) added to the yield. Capital

gain (loss) is the difference in profit (loss) from the current investment price relative to the previous period's price. Meanwhile, yield is the percentage of periodic cash receipts against the investment price for a certain period from an investment Widyarini & Ridha (2019). Stock is the income received from an investment plus changes in market price, which are usually expressed as a percentage of the initial market price of that investment. Return is the difference between the amount received and the amount invested divided by the amount invested Kurniawan (2021). Return of shares, according to Kurniawan (2021), can be divided into two types, namely:

1. Realized return is the return that has occurred. The return of realization is calculated using historical data. The realization of returns becomes important because it is used as a measure of a company's performance. Return realization is also helpful in determining expected returns and risks in the future.
2. An expected return is the return that investors are expected to earn in the future. In contrast to the realized yields that have occurred, the expected yield has not happened.

2.6.2 Stock Risks

Investors who can think logically will choose stocks that are efficient when investing their capital. The efficient stock in question is a stock that provides a maximum return at a certain risk or a minimum risk with a certain return Zubir (2011). Harry Markowitz once suggested that minimizing risk and still get a significant return can be done by forming a portfolio. Stock risk is defined as the possible difference between actual return and expected return. Both risk and return are two things that cannot be separated, like currencies that are always sided by the side. That is, in investing, in addition to taking into account the desired return, investors must also take into account the risks that must be borne.

2.7. The Rusia-Ukraine War

The Rusia-Ukrainian War is an ongoing conflict between Russia and Ukraine that began in February 2014. After Ukraine's Revolution of Dignity, Russia annexed Crimea and backed pro-Russian separatists in the Donbas region, leading to a protracted conflict. The first eight years saw naval clashes, cyberwarfare, and rising political tensions. In February 2022, Russia launched a full-scale invasion, expanding its occupation within Ukraine.

In early 2014, the Euromaidan protests led to the ousting of Ukraine's pro-Russian president, Viktor Yanukovych, followed by unrest in eastern and southern Ukraine. Unmarked Russian troops took over Crimea, which Russia then annexed after a disputed referendum. In April 2014, Russian-backed militants declared independence in parts of the Donbas, sparking the Donbas war. Despite significant support from Russia, Ukraine could not reclaim these areas, and although Russia denied involvement, its troops were active in the region. The Minsk II agreements in February 2015 aimed to end the conflict but were never fully implemented, resulting in a static and violent stalemate with intermittent ceasefires.

Starting in 2021, Russia amassed a large military presence near Ukraine, including in Belarus, while denying plans to invade. Russian President Vladimir Putin expressed views against Ukraine's sovereignty, criticized NATO expansion, and demanded Ukraine never join NATO. Russia also recognized the Donetsk and Luhansk People's Republics as independent states.

On February 24, 2022, Putin announced a "special military operation" to "demilitarize and denazify" Ukraine, asserting no intent to occupy it. The invasion was widely condemned, leading to international sanctions against Russia. Facing strong Ukrainian resistance, Russia abandoned its attempt to capture Kyiv by early April. Ukrainian forces began reclaiming territories in the northeast and south from August. In late September, Russia declared the annexation of four partially occupied regions, which was condemned globally. Russia's winter offensives in the Donbas were inconclusive, and a spring 2023 Ukrainian counteroffensive failed to

make significant gains. The war has caused a refugee crisis and tens of thousands of deaths.

2.8. Previous Research

Research in the realm of fundamental analysis has witnessed significant growth, particularly in exploring the determinants of stock returns. Numerous studies have delve comparison between a company's financial performance and its stock returns before and after crisis or war or other global special phenomena like disaster, pandemic or wars, examining key ratios such as asset turnover, current ratio, debt-to-equity ratio, and profitability ratio. However, the findings across these studies have yielded diverse outcomes, revealed inconsistencies and paving the way for further investigation.

Table 2.2 Previous Research

No	Author, Year, Journal	Research Variables	Research Results
1	Fitria et al., (2021) Effect of Financial Performance and Investment Risk as Mediation Variables on Stock Returns (Study on Food And Beverage Companiesin The List of Sharia Securities)	Return on Equity (ROE),Return on Assets (ROA), Current Ratio (CR), Quick Ratio (QR.), Stock Returns, Investment Risk.	ROA has a positive effect on investment risk.,ROE has a positive effect on investment risk.CR has a positive effect on investment risk.QR. has a positive and insignificant effect on investment risk.
2	Benny Halim, (2023) The Effect of Fundamental and	Return on Equity (ROE), Current Ratio (CR), Total	Positive change in USD/IDR is associated with

	Macroeconomic Factors on the Financial Performance of Pt Adaro Energy Indonesia tbk and the impact of covid-19 pandemic on its stock return	Asset Turnover (TATO), Cash Conversion Cycle (CCC) Exchange rate, Coal Price, Market Return	negative stock return Positive market (JKSE) return is associated with positive stock return Positive coal price change is associated with positive stock return Covid-19 Moderates the Impact of Foreign Exchange Rate on Stock Return Covid-19 Moderates the Impact of Market Return on Stock Return

No	Author, Year, Journal	Research Variables	Research Results
3	Hafni, L., Sarisa, and Safari, S. (2019). Analysis of influence of current ratio (CR), debt to equity ratio (DER), return on equity (ROE), and earning per share (EPS) on stock return LQ45 listed on Indonesian stock exchange period 2012-2016. Bilancia: Jurnal Ilmiah Akuntansi.	Independent Variables: Return On Equity (ROE), Current Ratio (CR), Debt to Equity Ratio (DER), Earnings per Share (EPS); Dependent Variables: Stock Return	Return On Equity (ROE) does not affect stock return. Current Ratio (CR) does not affect stock return. Debt to Equity Ratio (DER) does not affect stock return. Earnings per Share (EPS) does not affect stock return.
4	Sausan, S., et al. (2020). The effect of return on asset (ROA), debt to equity ratio (DER), earning per share (EPS), total asset turnover (TATO), and exchange rate on stock return of property and real estate companies at Indonesia Stock Exchange period 2012-2017. Journal of Financial Studies.	Independent Variables: Return on Asset (ROA), Debt to Equity Ratio (DER), Earnings per Share (EPS), Total Asset Turnover (TATO), Exchange Rate; Dependent Variables: Stock Return	Debt to Equity Ratio (DER) negatively affects stock return. Total Asset Turnover (TATO) and the Rupiah/US Dollar exchange rate positively affect stock return. ROA, DER, EPS, TATO, and the exchange rate collectively influence stock return.
5	Izuddin, A. (2021). The impact analysis of fundamental factors on the return of construction company shares. Journal of Financial Studies.	Independent Variables: Debt to Equity Ratio (DER), Return on Asset (ROA), Total Asset Turnover (TATO), Net Profit Margin (NPM); Dependent Variables: Stock Return	DER negatively and significantly affects stock return. ROA does not significantly affect stock return. Total Asset Turnover (TATO) positively affects stock return but is not significant. NPM positively affects stock return.
6	Badru Zaman, M. (2021). Influence of debt to total asset ratio (DAR) current ratio (CR) and total asset turnover (TATO) on return on asset (ROA)	Independent Variables: Debt To Total Asset Ratio (DAR), Current Ratio (CR), Total Asset Turnover (TATO); Intervening	Debt to Asset Ratio (DAR) positively and significantly affects Return on Assets (ROA). Current Ratio (CR) positively and significantly affects

	and its impact on stock prices on mining companies on the Indonesia stock exchange in 2008-2017. Journal of Financial Studies.	Variables: Return On Asset (ROA); Dependent Variables: Stock Prices	Return on Assets (ROA). Total Asset Turnover (TATO) positively affects Return on Assets (ROA) but is not significant. Debt to Asset Ratio (DAR), Current Ratio (CR), and Total Asset Turnover (TATO) collectively have a positive and significant effect on Return on Assets (ROA). Return on Assets (ROA) positively affects Stock Prices but is not significant.
7	Sitanggang, M., et al. (2022). Pengaruh ROA, CR, TATO, dan DER terhadap harga saham pada sektor pertambangan yang terdaftar di BEI periode 2016-2019. Journal of Financial Studies.	Independent Variables: ROA, CR, TATO, DER; Dependent Variables: Stock Prices	Return On Assets significantly affects stock prices. Current Ratio does not significantly affect stock prices. Total Asset Turnover and Debt to Equity Ratio do not significantly affect stock prices. Return On Assets, Current Ratio, Total Asset Turnover, and Debt to Equity Ratio collectively affect stock prices.
8	Sembel, R. (2017). Pengaruh volatilitas arus kas, profitabilitas, dan aset berwujud terhadap struktur modal perusahaan-perusahaan LQ45. Journal of Financial Studies.	Independent Variables: Cash Flow Volatility, Profitability, Tangible Assets; Dependent Variables: Capital Structure	Cash flow volatility and profitability significantly affect capital structure, while tangible assets do not have a significant effect.

9	Malau, M. (2020). The impact of financial ratios on stock returns in the pharmaceutical industry during the COVID-19 pandemic. Journal of Financial Studies.	Independent Variables: Profitability Ratios, Liquidity Ratios, Leverage Ratios; Dependent Variables: Stock Returns	Profitability ratios have a significant positive impact on stock returns, while liquidity and leverage ratios do not show a significant impact.
10	Thamrin, J., and Sembel, R. (2020). The effect of market return on the stock return of consumer goods companies listed on the Indonesia stock exchange. Journal of Financial Studies.	Independent Variables: Market Return; Dependent Variables: Stock Return	Market return has a significant positive effect on the stock return of consumer goods companies.
11	Malau, M., and Sembel, R. (2021). Financial performance analysis and the effect of profitability and market return on the stock return of PT. Adaro Energy Indonesia Tbk. Journal of Financial Studies.	Independent Variables: Profitability, Market Return; Dependent Variables: Stock Return	Both profitability and market return have significant positive impacts on the stock return.
12	Sembel, R., and Achsani, N. A. (2022). The impact of ESG score, financial performance, and macroeconomics on stock returns during the pandemic era in Indonesia. Journal of Financial Studies.	Independent Variables: ESG Score, Financial Performance, Macroeconomic Indicators; Dependent Variables: Stock Returns	ESG score and financial performance significantly affect stock returns, while macroeconomic indicators have a mixed impact.
13	Trisnowati, Y., and Sembel, R. (2022). Analysis of financial ratios and their impact on stock returns in the Indonesian mining sector. Journal of Financial Studies.	Independent Variables: Financial Ratios (Profitability, Liquidity, Leverage); Dependent Variables: Stock Returns	Financial ratios have varying degrees of impact on stock returns, with profitability showing the strongest correlation.

14	Malau, M. (2021). Assessing the influence of financial performance on stock prices of healthcare companies listed on the IDX. Journal of Financial Studies.	Independent Variables: Financial Performance Metrics (Profitability, Liquidity, Solvency); Dependent Variables: Stock Prices	Financial performance metrics significantly influence the stock prices of healthcare companies.
15	Sembel, R., and Malau, M. (2022). Evaluating the financial stability and stock market performance of Indonesian pharmaceutical companies during COVID-19. Journal of Financial Studies.	Independent Variables: Financial Stability Indicators, Market Performance Metrics; Dependent Variables: Stock Market Performance	Financial stability indicators have a significant positive impact on the stock market performance of pharmaceutical companies.

A synthesis of prior research outcomes is presented in Table 2.1, offering a consolidated overview of the existing body of knowledge in this domain.

2.9 Hypothesis Development

2.9.1. The Effect of Coal Price Affects Stock Returns

For a coal mining company, fluctuations in coal price would highly impact the market and financial performance of coal companies (G. A. Putra et al., 2021). A coal producer and exporter company were therefore highly influenced by the fluctuations in coal price. Research conducted on the Australian coal companies, found that positive coal price shock had a positive statistically significant influence on coal company stock returns (Hasan & Ratti, 2014). Specifically, the study revealed that a one percent rise in coal price raised coal company returns by between 0.15% and 0.17% and that the findings in this study highly likely extended to other coal companies in other countries (Hasan & Ratti, 2014). Zhenhua Liu, Shumin Chen, Hongyu Zhong, Zhihua Ding, (2024) investigate the results show that coal price shocks have a significant negative impact on Chinese stock market returns,

but the impact degree is time-varying, particularly larger during economic downturns. Moreover, individual investor sentiment provides an important channel in the transmission of coal price shocks to the stock market. It was expected that a positive coal price rise was associated with a positive to stock return.

H1: Coal Price Positively Affects Stock Returns

2.9.2. The Effect of Exchange Rates on Stock Returns

According to Kalam (2020), the exchange rate represents the cost a country incurs when compared to another country's currency. The study provided evidence on how exchange rates influence emerging markets. Okyere et al. (2014) confirmed a significant direct relationship between stock prices, exchange rates, and other macroeconomic variables. A decrease in liquidity can lead to currency depreciation, causing capital outflows and lowering interest rates. For a country, the exchange of foreign currency is a crucial factor in economic activity. Fluctuations in exchange rates significantly and positively impact investors' investment frameworks.

Theoretically, a high foreign exchange rate compared to the domestic currency tends to result in lower stock returns because investors lose interest in stock market investments. This is supported by research from Gunarto & Sembel (2019), which found a negative effect of exchange rates on stock returns. Similarly, Okyere et al. (2014) stated that the Rupiah/U.S. Dollar exchange rate negatively affects manufacturing stock returns. When the rupiah weakens against the U.S. dollar, it negatively impacts the capital market, leading investors to prefer holding their money in dollars. Also imply to Australian dollar agains the U.S dollar

Research by Amrillah (2016) and Saputra & Dharmadiaksa (2016) also indicates that the rupiah exchange rate significantly negatively affects company stock returns. This suggests that rupiah depreciation lowers stock return rates because a weaker exchange rate increases company costs for corporate debtors. Based on these theories and studies, the following hypothesis can be formulated:

H2: The exchange rate negatively affects stock returns.

2.9.3 The Effect of Market Return on Stock Returns

Market return refers to the profit that investors earn from their investments in the capital market. Theoretically, a high market return leads to high stock returns because it increases investor interest in buying company stocks. This theory is supported by research from Daniswara & Daryanto (2019), Yuswandy (2012), Kasman et al. (2011), and Defrizal et al. (2015), all of which demonstrated that market return positively affects stock returns. Based on these studies, the following hypothesis can be formulated:

H3: Market Return Positively Affects Stock Returns

2.9.4 The Effect of Return on Equity (ROE) on Stock Returns

A higher ROE signifies better company performance, positively impacting the company's stock price. However, ROE is not an accurate measure of shareholder return as it does not consider dividends and capital gains (Ristyawan, 2019). Ristyawan (2019) also showed that ROE negatively affects stock returns. ROE indicates a company's ability to generate profits for shareholders, and a higher ROE implies more efficient capital use, potentially increasing stock returns.

Making decisions that align with the company's capital needs and investor desires can improve financial performance, providing adequate capital and enhancing returns. Studies by Araujo & Machado (2018) and Banerjee (2019) also showed that ROE significantly affects stock returns. Further support comes from Tarau et al. (2020), indicating a significant impact of ROE on stock returns. Findings from Fitria et al. (2021), Nurhikmawaty et al. (2020), and Saleh (2015) also demonstrated a positive and significant relationship between ROE and stock returns, indicating that higher profitability (measured by ROE) leads to higher returns from invested capital. Karlina & Widanaputra (2016) also found a positive effect of ROE on stock returns, while Chritianto & Firnanti (2019) and Bertuah & Sakti (2019) found no influence. Based on these theories and studies, the following hypothesis can be formulated:

H4: Return on Equity (ROE) Positively Affects Stock Returns

2.9.5 The Effect of Current Ratio (CR) on Stock Returns

The current ratio (CR) assesses a company's ability to pay off short-term liabilities. A high or increasing CR indicates a greater capacity to settle debts, suggesting a positive influence on stock returns, as shown by Suantari et al. (2016). Fitria et al. (2021) found that CR significantly affects stock returns. A higher CR means the company has more current assets to meet obligations, reflecting good liquidity management and reducing external debt limits (Saif-Alyousfi et al., 2019). A favorable CR increases the attractiveness of a company's stocks, aligning with investor expectations. This finding aligns with Srbinoska (2018), who showed that CR significantly affects stock returns. Conversely, Tarau et al. (2020), Razak et al. (2020), and Chritianto & Firnanti (2019) found no influence of CR on stock returns. Based on these theories and studies, the following hypothesis can be formulated:

H5: Current Ratio (CR) Positively Affects Stock Returns

2.9.6 The Effect of Total Asset Turnover (TATO) on Stock Returns

Total asset turnover (TATO) illustrates how effectively a company uses its assets to generate sales. A higher TATO indicates efficient asset management and increased sales, leading to higher profits and stock returns (Widyarini & Ridha, 2019). Studies by Tarau et al. (2020), Widyarini & Ridha (2019), and Vedd & Yassinski (2015) support this positive relationship between TATO and stock returns. Santosa (2015) also found a significant positive influence of TATO on stock returns, both before and after being moderated by exchange rates. A higher TATO reflects better asset management, increasing company revenue and attracting investors. Other studies by Zulkarnaen et al. (2016), Laksono (2017), and Salim & Simatupang (2016) also found a positive effect of TATO on stock returns. However, Razak et al. (2020) found no significant impact of TATO on stock returns. Based on these theories and studies, the following hypothesis can be formulated:

H6: Total Asset Turnover (TATO) Positively Affects Stock Returns

2.9.7 The Effect of Debt-to-Equity Ratio (DER) on Stock Returns

The Debt-to-Equity Ratio (DER) measures the proportion of a company's total funds provided by creditors compared to its own capital. A higher DER indicates that the company relies more on debt for funding, which can reduce its ability to provide stock returns (Chritianto & Firnanti, 2019). The DER ratio is calculated by dividing total debt by the total equity held by shareholders. A higher DER suggests greater dependence on external funding, increasing the company's risk in meeting its debt obligations, including interest payments. High DER values negatively affect stock prices, as supported by studies from Endria et al. (2019), Harahap et al. (2020), and Puspitadewi & Rahyuda (2016). However, some studies, such as Chritianto & Firnanti (2019), Nurhikmawaty et al. (2020), and Razak et al. (2020), found no effect of DER on stock returns. Based on these theories and studies, the following hypothesis can be formulated:

H7: Debt-to-Equity Ratio (DER) Negatively Affects Stock Returns

2.9.8 The Effect of Earning Yield on Stock Returns

The market perception of a company's value can be measured using the Earning Yield, which calculates the current share price relative to its earnings per share. Theoretically, a high Earning Yield indicates high future growth and profit expectations, positively affecting stock returns. This theory is supported by Arslan & Zaman (2014) and Bintara & Tanjung (2019), who found a positive effect of the Earning Yield on stock returns. Signalling Theory also suggests a positive market value effect on stock returns. Previous research by Menike & Prabath (2014) in Sri Lanka, Mgbame & Ikhatua (2013) in Nigeria, and Menaje (2012) in the Philippines also found a positive effect of market value on stock prices and returns. Thus, the following hypothesis can be formulated:

H8: Earning Yield Positively Affects Stock Returns

2.9.9 The Effect of the Russia-Ukraine War on Stock Returns

The invasion of Ukraine by Russia in February 2022 has significantly impacted stock returns. Research by Neely & Jordan-Wood (2022) indicates that the conflict has negatively affected global stock prices, primarily due to increased geopolitical risks and economic uncertainties. This decline in stock returns is attributed to the disruptions in global commodity supplies and the sanctions imposed on Russia, which have affected investor confidence and market stability. Therefore, the following hypothesis can be proposed:

H9: The Russia-Ukraine War Negatively Affects Stock Returns

2.9.10 The Russia-Ukraine War Moderates the Effect of Coal Price on Stock Returns

According to Ferrara, Mogliani, and Sahuc (2022), the Russia-Ukraine war has led to a significant increase in key commodities price including coal Therefore, the following hypothesis can be proposed:

H10: The Russia-Ukraine War Moderates the Effect of Coal Price on Stock Returns

2.9.11 The Russia-Ukraine War Moderates the Effect of Exchange Rates on Stock Returns

The exchange rate fluctuations during the Russia-Ukraine war have had a pronounced impact on stock returns. The conflict has led to increased volatility in currency markets, as noted by Deng et al. (2022), making exchange rates a significant factor in stock price movements. The war has heightened investors' sensitivity to currency risks, thereby moderating the relationship between exchange rates and stock returns. Therefore, the following hypothesis can be proposed:

H11: The Russia-Ukraine War Moderates the Effect of Exchange Rates on Stock Returns

2.9.12 The Russia-Ukraine War Moderates the Effect of Market Return on Stock Returns

The Russia-Ukraine war has caused significant disruptions in global markets, leading to a decline in market returns. Studies by Al-Awadhi et al. (2022) and Ashraf (2022) have shown that the conflict has increased market volatility, negatively affecting investor returns. The war has moderated the positive effects of market returns on stock prices due to the heightened geopolitical risk. Therefore, the following hypothesis can be proposed:

H12: The Russia-Ukraine War Moderates the Effect of Market Return on Stock Returns

2.9.13 The Russia-Ukraine War Moderates the Effect of Return on Equity (ROE) on Stock Returns

The efficiency of capital utilization, as measured by ROE, has been adversely affected by the Russia-Ukraine war. Devi et al. (2022) and Ivanov et al. (2022) found that the war negatively impacted financial performance, including ROE, due to increased economic instability. This reduction in ROE performance has moderated its effect on stock returns. Therefore, the following hypothesis can be proposed:

H13: The Russia-Ukraine War Moderates the Effect of Return on Equity (ROE) on Stock Returns

2.9.14 The Russia-Ukraine War Moderates the Effect of Current Ratio (CR) on Stock Returns

The economic fallout from the Russia-Ukraine war has severely impacted industrial sales and current assets, affecting the current ratio (CR). As observed by Devi et al. (2022), the war has led to significant liquidity challenges for companies, thereby moderating the relationship between CR and stock returns. Therefore, the following hypothesis can be proposed:

H14: The Russia-Ukraine War Moderates the Effect of Current Ratio (CR) on Stock Returns

2.9.15 The Russia-Ukraine War Moderates the Effect of Total Asset Turnover (TATO) on Stock Returns

Total asset turnover (TATO) has been influenced by the Russia-Ukraine war, as companies struggle with disrupted supply chains and decreased sales. Studies by Salim & Simatupang (2022) indicate that the war has moderated the positive impact of TATO on stock returns due to inefficiencies in asset utilization during the conflict. Therefore, the following hypothesis can be proposed:

H15: The Russia-Ukraine War Moderates the Effect of Total Asset Turnover (TATO) on Stock Returns

2.9.16 The Russia-Ukraine War Moderates the Effect of Debt-to-Equity Ratio (DER) on Stock Returns

The financial instability caused by the Russia-Ukraine war has led to increased risks associated with high debt levels. As reported by Devi et al. (2022), the war has exacerbated the negative impact of high DER on stock returns, as companies face higher costs and reduced access to capital. Therefore, the following hypothesis can be proposed:

H16: The Russia-Ukraine War Moderates the Effect of Debt-to-Equity Ratio (DER) on Stock Returns

2.9.17 The Russia-Ukraine War Moderates the Effect of Earning Yield (EY) on Stock Returns

The moderating effect of the Russia-Ukraine war significantly influences the relationship between Earning Yield (EY) and stock returns, diminishing the typically observed positive correlation under stable economic conditions. According to Asia (2022), the war has introduced significant economic uncertainties, altering investor perceptions and reducing the reliability of traditional valuation metrics like the Price-to-Earnings (PER) ratio. Consequently, Earning Yield (EY) provides a more intuitive measure during such volatile periods.

H17: The Russia-Ukraine War Moderates the Effect of Earning Yield (EY) on Stock Returns

2.10. Research Framework

This study employed a quantitative data analysis method. Data utilized in this study were secondary data obtained from two sources. The data were from the business financial reports and the literature study of educational books, research papers, publications, journals, articles, and expert reports. Based on the description above, the model framework in this study is as follows:

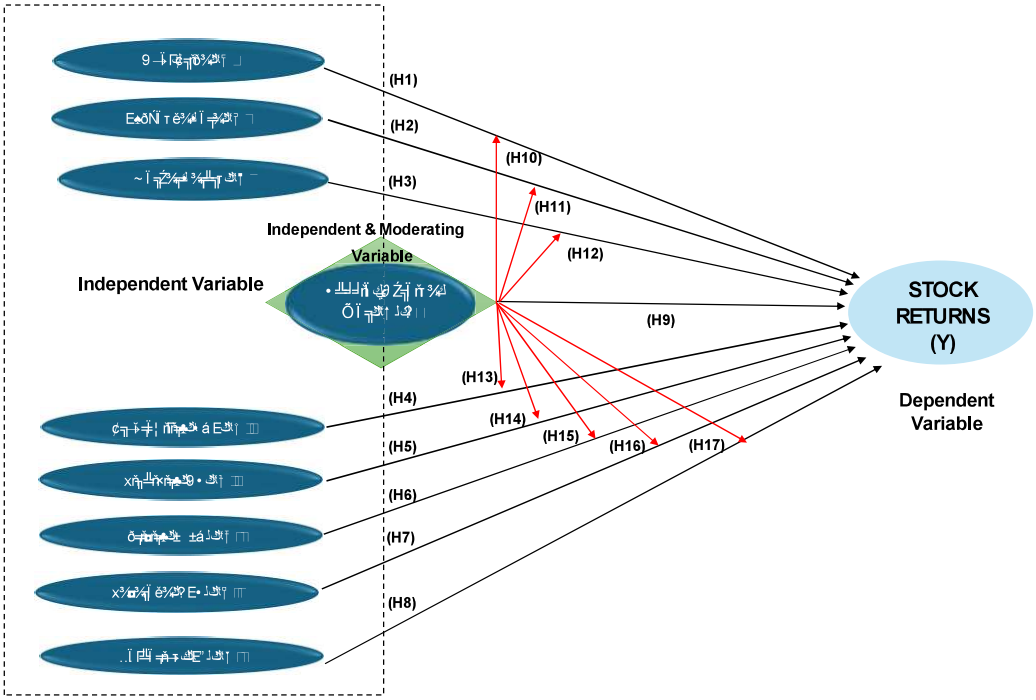

Figure 2.2 Research Framework