

## **The Influence of Financial Performance and Macroeconomic Factors on the Financial Distress of Textile and Garment Companies Listed on the Stock Exchange: Empirical Studies in Indonesia**



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**ABSTRACT:** This study aims to determine the influence of financial performance factors and macroeconomic factors on financial distress in textile and garment companies in Indonesia. In this study, quantitative methods were used with causality research design. The study population is textile and garment companies listed on the Indonesia Stock Exchange in 2022. The research sample consisted of textile and garment sub-sector companies listed on the IDX for 5 consecutive years (2017-2021) and had audited financial statements. Companies that meet the sample criteria are 16 companies. Descriptive and inferential analyses are performed on the data. In inferential analysis, a panel data regression approach is used. The results showed that of the 9 research variables, there were 3 variables that had a significant influence on financial distress. Liquidity (CR) has a significant negative influence, Leverage (DAR) has a significant positive influence, and Activity (TATO) has a significant negative influence. Other variables such as profitability, sales growth, interest rates (BI 7day repo rate), exchange rates, world cotton prices (cotlook A index) and economic growth (GDP) do not affect financial distress.

**KEYWORDS:** Financial distress, financial ratio, macro economy, textile and garment

### **I. INTRODUCTION**

The Textile Industry and Textile Products play an important role in Indonesia's national development. The Textile and Textile Products Industry plays a role in providing jobs to a workforce of 3.65 million people based on data in August 2021 (Ministry of Industry, 2022). In 2019 the Textile and Textile Products Industry grew by 15.35%, making the manufacturing industry the highest growing industry in 2019, among all industries in the Industrial sector. Processing. The Textile and Apparel Industry contributes 7.2% to the GDP of the Non-Oil and Gas Industry, and ranks it as the fifth largest after the Food and Beverage Industry, Transport Equipment Industry, Metal Goods Industry; computers, electronics, optics; and Electrical Equipment, as well as the Chemical, Pharmaceutical and Traditional Medicine Industries. (Ministry of Industry, 2021).

In recent years, the textile industry has faced significant challenges, including rising global oil prices that have an impact on the price of key raw materials such as polyester, as well as intensifying competition with imported products flowing into the domestic market. The Central Statistics Agency reported that in the last 5 years, the average import volume of Indonesian textile products reached 2.25 million tons with an average import value of US\$ 8.96 billion per year (Kusnandar, 2022). In 2021, Indonesia's textile import volume increased by 21.11% to 2.2 million tons with import value also increasing 30.91% higher or worth US\$ 943 billion compared to the previous year. The highest volume of Indonesian textile imports when viewed based on their country of origin in 2021 came from China, which was 990.2 thousand tons, with the highest import value of US \$ 4.06 billion (Kusnandar, 2022).

The price of Polyester's main raw material, PTA, which is a derivative of crude oil, rose quite high at USD 850/ton, whose normal price is around USD 600/ton (Rahayu, 2022). During 2021, cotton prices experienced a significant increase of 28 percent due to high demand, especially from China. In addition, supply was also disrupted due to the impact of the pandemic and logistical problems that triggered an increase in shipping costs. (Wahyudi, 2021).

Import and export activities use foreign currencies in their transactions. Transaction fees using currencies are affected by the exchange rate of the currency itself. Since September 6, 2021, the Local Currency Settlement (LCS) policy has been

# The Influence of Financial Performance and Macroeconomic Factors on the Financial Distress of Textile and Garment Companies Listed on the Stock Exchange: Empirical Studies in Indonesia

implemented which was agreed between the Indonesian government and the Chinese government where in conducting trade transactions local currencies can be used, either yuan or rupiah. Businessmen from both countries no longer have to convert their money into US dollars as before the LCS was agreed. Thus, before 2021, import and export transactions with China were carried out in US Dollars (Ilmie, 2022).

The tight competition of local textile products with imported products makes it quite difficult for textile and garment manufacturers to sell their products in the domestic market. Data on the financial statements of textile and garment companies from 2017 – 2021, shows a negative average sales growth (IDX, 2022a). The increase in raw materials, fluctuations in the rupiah exchange rate due to disruptions in logistics due to the pandemic and the Russia-Ukraine conflict in the past year have further disrupted the company's operations. From 2012 to 2016, the average trend of total debt of textile and garment companies listed on the IDX continued to increase while the average profit decreased (Riantani et al, 2020). Financial report data shows that this trend continues from 2017 to 2021, the average debt of total textile and garment companies listed on the IDX still shows an increase, the average net profit still tends to decline (IDX, 2022a).

Another evidence that shows textile and garment companies listed on the IDX are still hit by prolonged financial difficulties is the existence of shares of SRIL issuers suspended by the IDX in all markets from May 18, 2021 to May 18, 2023. The suspension was issued because the company was unable to pay the principal and interest of the 6 Medium Term Notes (MTN) on time (IDX, 2022b). Until now, there are 18 textile and garment companies that cannot determine their business, which has an impact on layoffs of approximately 9,500 employees (Putri, 2022).

A review of previous research on the effect of financial performance such as liquidity, profitability, leverage, activity, and sales growth as well as macroeconomic variables such as exchange rates, interest rates, economic growth on financial distress found quite interesting facts. Research by Balasubramanian et al (2019), Isayas (2021), Khan at al (2019) found that profitability, liquidity had a significant negative influence on financial distress, but Purwanti (2022), Aman (2019), Sihombing & Harjadi (2020) found that profitability, liquid had a positive influence on financial distress, while Nurhayati et al (2021), Arini et al (2021) and Mahaningrum et al (2020) found that liquidity did not affect finance distress. Asfali (2019) and Purwanti (2022) found that Leverage, Activities have a positive influence on financial distress, while Nurhamidah, et al. (2021), Ramadhan, et al. (2021) and Aman (2019) found that Leverage has a negative influence on financial distress, while Asfali (2019), Arini et al (2021) and Sudaryo et al (2021) found that Activity has a positive influence on financial distress.

Furthermore, Rohiman, et al. (2017) and Santosa, et al. (2020) found that currency exchange rates had a significant positive influence on financial distress while Tyas et al (2021), Wulandari et al (2017) found that exchange rates did not affect financial distress. Sairin et al (2019) and Refni et al (2021) found that interest rates had a significant positive effect on financial distress, but Wulandari et al (2017) and Tyas et al (2021) found that interest rates had no effect on financial distress. Curry (2020) concluded that GDP growth or economic growth has a negative and significant influence on financial distress, while Ceylan (2021) and Rinofah et al. (2022) found that economic growth does not affect financial distress.

Against the background of the discovery of the phenomenon of prolonged financial difficulties in textile and garment companies until now, and the results of previous research that still open research gaps, it is necessary to re-examine the effect of financial performance proxied with profitability, liquidity, leverage, activity, and sales growth, as well as macroeconomic variables proxied by currency exchange rates, interest rates, cotton raw material prices and economic growth) to financial distress. The research was conducted on textile and garment industry sub-sector companies listed on the IDX in an observation period of 5 years (2017 to 2022).

## II. LITERATURE REVIEW

### Financial Distress dan Bankruptcy

Platt and Platt (2002) define financial distress as a situation where the company's financial performance is in an unhealthy position and is experiencing a crisis. It can be said that financial distress is a condition where the company faces financial difficulties, especially in connection with its financial liquidity so that the company can no longer run its business operations properly and can no longer meet its financial obligations. Sihombing (2018) describes bankruptcy as a very significant financial difficulty so that the company fails to run the company's operations properly. There are several indicators to predict financial distress both from internal (company conditions) and from external (outside the company). Internal company indicators can be identified from the company's cash flow or company business trends. While external indicators are usually macroeconomic conditions that can be known from financial markets (rating agencies), as well as information from outside parties, for example from suppliers, dealers, and others.

# The Influence of Financial Performance and Macroeconomic Factors on the Financial Distress of Textile and Garment Companies Listed on the Stock Exchange: Empirical Studies in Indonesia

One of the most known bankruptcy prediction models is the Altman Multivariate Analysis developed by Edward I. Altman in 1968. According to Altman (1968), the discriminant ratio model has proven to be very accurate in correctly forecasting bankruptcy in 94% of the initial sample with 95% of all companies in the bankrupt and non-bankrupt categories assigned to their actual group classification. Furthermore, the discriminant function proved appropriate in the use of multiple secondary samples used to test the superiority of the model. Altman Z-score uses an accounting model through information contained in a company's financial statements. The financial data used in accounting-based models are profitability, liquidity, and solvency (Sihombing, 2018). The ease and willingness of financial information data makes this technique widely used as a measure of bankruptcy prediction of a company. Pangkey et al (2018) stated that the Altman method (Z-Score) is more solid in accuracy than the Zmijewski method (X-Score). Robiansyah et al (2022) also stated that the Altman model is more suitable for estimating the bankruptcy of manufacturing companies when compared to the Springate, Zmijewski, and Grover models, and on the other hand Endri & Yerianto (2019) found that the Altman Z-Score bankruptcy prediction model also has a significant positive influence on stock prices, meaning that Z-Score is an important forecasting tool for investors to analyze the company's financial health. In its development, the Altman Model underwent improvements and changes. The Altman Model of 1983 changed the numerator of the fourth variable from Market Value of Equity to Book Value of Equity because it could accommodate measurements in private or private sector companies that did not have a market price for their equities. Here is the Altman Z-score equation improved in 1983 (Sihombing, 2018).

$$Z = 0,717 X1 + 0,847 X2 + 3,108X3 + 0,42X4 + 0,988 X5$$

Description:

X1 = Working Capital / Total Asset

X2 = Retained Earnings / Total Asset

X3 = Earning Before Interest and Taxes / Total Asset

X4 = Book Value of Equity / Book Value of Total Debt

X5 = Sales / Total Asset

Based on the Z-Score value of the Altman model in 1983, a category was made if the Z value < 1.23, then the company is categorized as being in financial difficulty. If  $1.23 < Z < 2.9$  companies are categorized as grey areas (cannot be determined). If the Z value > 2.9, the company is included in the healthy category.

## Signaling Theory

Signal theory describes how a success signal or management failure signal (agent) is transmitted and captured information by the owner (principal). Signal theory describes how a company transmits signals to users of financial statements. Signal theory was developed by Spence in 1973 which describes that signals will convey some parts of information from the owner of information that can be used by users of relevant information (Purwanti, 2019). Signal theory explains that company managers convey information to users about management performance so that signs are obtained whether performance targets can be achieved or cannot be achieved by the company.

## Agency Theory

According to agency theory, everyone acts in reference to their own self-interest. As principals, owners and shareholders are generally only interested in the financial results that develop from their investment in the company. On the other hand, management seeks to maximize its own prosperity by reducing various agency costs. In principle, managers, as parties authorized by the principal, must act in accordance with the wishes of the principal in running the company that is their duty. But in fact, the actions taken by managers as agents are often not in line with the interests of the principal, this has the potential to cause agency conflict, thus stimulating agency costs. Jensen and Meckling (1976) stated that due to agency conflicts in a company agency costs will arise which are divided into three types, namely monitoring costs or costs incurred and incurred by principals to supervise the process and performance of agents, Bondling costs are costs to secure that agent steps do not provide losses to principals or may be compensation given by principals to agencies so as not to make deviations, as well as residual loss which is the value of money used because of the inequality of interests owned by Agency and the principal..

## Capital Structure

According to Ross, et al. (2016), capital structure is a combination of long-term funding with capital used by companies to support their operational activities. Capital structure describes a company's choice in obtaining funding for investment, whether

## **The Influence of Financial Performance and Macroeconomic Factors on the Financial Distress of Textile and Garment Companies Listed on the Stock Exchange: Empirical Studies in Indonesia**

through debt, own capital, or the issuance of shares. Some theories that support the concept of capital structure include Pecking Order Theory and Static Trade-off Theory.

Pecking Order Theory provides information on the order of funding sources of the company. The first order is internal (retained earnings) then external (debt then finally equity issuance). According to Pecking Order Theory, profitable companies tend to take out smaller loans. This is not because they want a low Debt to Equity Ratio target, but because the company only needs a little outside funding as a strategy (Handayani, 2020). Companies that are less profitable usually tend to have more debt, because there are not enough funds from within the company or because debt is the preferred source of funds. Debt as a source of funds from outside the company is preferred because it has a relatively low cost than the cost of issuing equity (Kurniasih, Rustam, Heliantono, Endri, 2022).

Stiglitz (1969) explained that companies have optimal debt levels and always adjust to the optimal debt point so that companies are not at debt levels that are too high (over levered) or too low (under levered). The factor that stimulates the company to push debt to the optimal point is tax, while the cost of bankruptcy is a factor that limits the company from using debt. The main benefit of debt is tax deduction from interest payments, so this theory focuses on achieving optimal debt ratio targets that can save companies from financial difficulties. Static Trade-off Theory, also known as the target adjustment model, explains that each firm has a specific debt ratio target, which is adjusted gradually. The company makes adjustments to its debt levels by comparing previous debt levels with predetermined debt levels.

Miller (1977) states that in Static Trade-off Theory, there are significant and definite tax control benefits, but the cost of bankruptcy is considered irrelevant. As a result, many companies fund themselves with larger amounts of debt than are actually needed based on actual conditions. With tax control, corporate profits increase which causes the cost of financial distress to decrease. Trade off theory explains that (assuming the target point of the capital structure is not optimal), adding the debt ratio to the capital structure will increase the company's value equivalent to the tax rate multiplied by the amount of debt (Sartono & Fatmawati, 2015). Trade off theory estimates a positive relationship between capital structure and a company's profit rate or financial performance. A decrease in debt interest in the calculation of taxable income reduces the proportion of tax burden so that the portion of net income after tax will increase, or the level of profit becomes larger.

### **III. RESEARCH HIPOTESIS**

#### **The Effect of Profitability on Financial Distress**

Profitability is how able the company is to make a profit from sales, from total assets, or from its own capital (Sartono and Fatmawati, 2015). One measure of a company's ability to generate profits is the Return on Assets (ROA) ratio. The more ROA increases, the better the company's condition so that it is increasingly protected from financial distress. The results of research by Nurhamidah (2021), Handayani (2020), Rudiyanto (2021), Mahaningrum (2020), Ramadhan (2021), Dwiantari (2021), Isayas (2021), Khan (2019), Kamaluddin (2019), Balasubramanian (2019) and Waqas (2018) found that profitability has a significant negative effect on financial distress.

H1: profitability negatively affects Financial Distress.

#### **The Effect of Liquidity on Financial Distress**

Liquidity is how capable a company is in meeting short-term financial obligations (Munawir, 2016). One measure of liquidity is the current ratio (CR). CR indicates the level of a company's ability to meet its financial obligations on time, namely by comparing current assets with short-term liabilities (Sunnyoto, 2013). The higher the CR, the higher the company's condition so as to avoid Financial Distress. This is supported by the results of research by Ardi (2020), Handayani (2020), Zhafirah (2019), Dwiantari (2021), Isayas (2021), Khan (2019), Balasubramanian (2019), Mbai (2018) and Waqas (2018) that liquidity has a negative influence on financial distress.

H2: liquidity negatively affects financial distress.

#### **The Effects of Leverage on Financial Distress**

Kasmir (2018) states that the solvency ratio or leverage is used to see the company's ability to pay its obligations. One measure of leverage is proxied by the Debt to Asset Ratio (DAR). The higher the DAR value, the more likely the company is to be in a state of financial difficulty because the greater the debt, the higher the possibility of default on its obligations. Handayani (2020), Rudiyanto (2021), Asfali (2019), Mahaningrum (2020), Purwanti (2022), Dwiantari (2021), Isayas (2021), Kamaluddin (2019), Balasubramanian (2019), Lucky (2019), Mbai (2018), Waqas (2018), Koske (2017) found that liquidity had a significant positive effect on financial distress.

# **The Influence of Financial Performance and Macroeconomic Factors on the Financial Distress of Textile and Garment Companies Listed on the Stock Exchange: Empirical Studies in Indonesia**

H3: leverage has a positive influence on financial distress.

## **The Effect of Activities on Financial Distress**

The activity ratio describes the company's ability to manage assets effectively (Kasmir, 2018). One measure of activity ratio is Total Asset Turnover (TATO). The increase in the TATO ratio shows that the more efficient the company is in managing its assets so that it is increasingly protected from financial difficulties. This is supported by the results of research by Santosa et al (2020), Ramadhan (2021), Khan (2019) which found that activities have a significant negative effect on financial distress.

H4: activities have a negative influence on financial distress.

## **The Effect of Sales Growth on Financial Distress**

Sales growth illustrates the company's increased ability to carry out its operational activities. Sales growth can be monitored by comparing this year's sales performance to last year's sales performance (Fahmi, 2013). Increasing sales indicates that the company is getting higher cash flow and will be more able to complete its financial obligations, so that it is further away from potential financial distress. The results of research by Ratuela (2022) and Setyowati & Nanda (2019) concluded that sales growth has a significant negative effect on financial distress.

H5: sales growth has a negative effect on financial distress.

## **The Effect of Sales Growth on Financial Distress**

Sales growth describes an increase in the company's ability to carry out its operational activities. Sales growth can be monitored by juxtaposing this year's sales performance with last year's sales performance (Fahmi, 2013). Increasing sales indicate that the company is getting higher cash flow and will be more able to complete its financial obligations, so that it is further away from the potential for financial distress. The results of research by Ratuela (2022) and Setyowati & Nanda (2019) concluded that sales growth has a significant negative influence on financial distress. H5: sales growth negatively affects financial distress.

## **Effect of Interest Rate (BI-7 Day Repo Rate) on Financial Distress**

The BI Rate is a policy rate that reflects the attitude or stance on financial policy set by Bank Indonesia and released to the public (Bank Indonesia, 2022). If interest rates increase, it will have an impact on increasing the cost of debt capital that is the responsibility of the company. An increased interest rate will increase interest costs, and can result in the company's ability to pay off its obligations down which means the company is experiencing financial distress. Sairin et al (2019) and Refni et al (2021) found that the Interest Rate (BI-7 Day Repo Rate) has a significant positive effect on financial distress. H6: The interest rate (BI Rate) has a positive influence on financial distress.

## **The Effect of Exchange Rates on Financial Distress**

The currency exchange rate or exchange rate is a number that reflects the amount of domestic currency required to obtain one unit of foreign currency. (Sukirno, 2011). If the exchange rate of 1 US Dollar against the Rupiah is getting higher, it indicates that the rupiah is weakening. The decline in the value of the rupiah against foreign currencies, namely the US dollar, causes an increase in the cost of importing goods and will increase production costs for companies that need imported raw materials. Increased production costs have the potential to increase financial distress. Thus, the weaker the rupiah exchange rate against the US dollar, the higher the possibility of financial distress. Refni et al (2021) found that currency exchange rates negatively affect financial distress.

H7: Exchange rates negatively affect financial distress.

## **Effects of World Cotton Prices (Cotlook A index) on Financial Distress**

Cotton is one of the main raw materials in the textile and garment industry. Rising cotton prices cause production costs to increase. An increase in production costs can end in financial difficulties for the company. H8: World Cotton price (Cotlook A Index) has a positive effect on financial distress

## **The Effect of Economic Growth on Financial Distress**

Gross Domestic Product (GDP) is one of the benchmarks to detect the economic situation in a country at a certain period of time. The determination of GDP can be based on prevailing prices in the market or on the basis of constant prices (BPS, 2023). Rising GDP indicates that the economy is experiencing growth. A growing economy shows the opportunity for companies to grow even greater. Companies that are growing are further away from the possibility of experiencing financial distress. Curry (2020) concluded that Economic Growth has a significant negative effect on financial distress

H9: Economic Growth has a negative effect on financial distress

# The Influence of Financial Performance and Macroeconomic Factors on the Financial Distress of Textile and Garment Companies Listed on the Stock Exchange: Empirical Studies in Indonesia

## IV. RESEARCH METHOD

This research is a quantitative research with causality design. The research population is textile and garment sub-sector companies listed on the IDX, in 2022 there are 22 companies. The research sample was determined using the purposive sampling method, namely 1) textile and garment companies listed on the IDX in 2017-2022 and 2) have complete financial statements during the 2017-2021 period. Based on these criteria, as many as 16 textile and garment companies fit the sample criteria.

**Table 1. Research Variables and Their Measurement**

Variable	Definition	Measurements	Scale
Liquidity (CR)	Measure the company's ability to meet short-term obligations	$Current\ Ratio = Current\ Asset / Current\ Liabilities$	Ratio
Profitability (ROA)	Measure the company's ability to generate profits through existing assets	$Return\ On\ Asset = Earning\ After\ Interest\ and\ Tax / Total\ Asset$	
Leverage (DAR)	Measure how capable the company's own capital is to meet all its obligations	$Debt\ to\ Asset\ Ratio = Total\ Debt / Total\ Asset$	
Activity (TATO)	Measure a company's ability to get sales from existing assets	$Total\ Asset\ Turn\ Over = Sales / Total\ Asset$	
Sales Growth (SG)	Measure sales growth	$Sales\ Growth = Sales\ (t) - Sales\ (t-1) / Sales\ (t-1)$	
Interest (BI)	BI-7 Day Repo Rate	Average value of BI-7 Day Repo Rate per year	
Exchange Rate (KURS)	BI Annual Middle Rate	Ln (Exchange Middle Rate IDR/USD)	
Cotton Price (Cotton)	World cotton prices (Cotlook A Index-Liverpool)	Ln (Average of world cotton price per year)	
GDP	GDP Growth (Economic Growth)	$GDP\ Growth = (GDP\ (t) - GDP\ (t-1)) / GDP\ (t-1)$	
Financial Distress (FD)	Altman Z-Score (1983)	$Z = 0,717X_1 + 0,847X_2 + 3,108X_3 + 0,42X_4 + 0,988X_5$ $X_1 = working\ capital / total\ asset$ $X_2 = retained\ earnings / total\ asset$ $X_3 = earnings\ before\ interest\ and\ taxes / total\ asset$ $X_4 = book\ value\ of\ equity / book\ value\ of\ total\ debt$ $X_5 = sales / total\ asset$	

The data required are the company's annual data on the level of sales, net income, total assets, total current assets, total current debt, total debt, retained earnings, earnings before interest and taxes, as well as macroeconomic data on the rupiah exchange rate against the US dollar (Exchange rate), interest rates, world cotton prices, and GDP. The data was analyzed using a panel data regression approach.

## V. RESULTS AND DISCUSSION

Table 2 shows the descriptive statistics of the research variables of 16 textile and garment companies listed on the IDX in a period of 5 years (2017-2021). It can be seen that on average textile and garment companies have an Altman score of 0.2024. This value is <1.23, which indicates that on average the company is in a financial distress situation. The lowest Altman Z-Score value of -10.6541 is owned by POLY in 2020. The negative Z-score value is due to the company being in a loss and also indicates the company is in Financial Distress. The highest Altman Z-Score value is 5.8580 owned by TFCO in 2019. Referring to the Altman Z-score indicator, the value > 2.9 indicates that the company is in a healthy condition. There are 7 issuers that for 5 consecutive

## The Influence of Financial Performance and Macroeconomic Factors on the Financial Distress of Textile and Garment Companies Listed on the Stock Exchange: Empirical Studies in Indonesia

years are in the category of financial difficulties because the Z-score value is below 1.23, namely ARGO (-3.9), CNTX (-0.05), ESTI (-0.21), HDTX (-3.54), MYTX (-0.41), POLY (-9.6), SRIL (1.0) and SSTM (0.89). POLY is the issuer with the lowest Z-Score value for 5 consecutive years, followed by ARGO at the second lowest. Only 1 issuer with 5 consecutive years in the healthy category is TFCO. A total of 6 issuers for 5 consecutive years are in the Gray Area category, namely BELL (1.87), ERTX (1.56), INDR (1.75), RICY (1.57), and TRIS (2.29). While the other 2 (ADMG and PBRX) have been in the Gray Area category for 4 years and 1 year in the healthy category.

**Table 2. Descriptive Statistics of Research Variables**

Variable	Mean	Minimum	Maximum	Std. Dev.
Z-Score	0.2024	-10.6541	5.8580	3.4272
ROA	-0.0302	-0.8762	0.1205	0.1214
CR	1.6628	0.0575	6.5059	1.6037
DAR	0.9892	0.0758	5.1677	1.1288
TATO	0.8222	0.0198	2.0113	0.3988
GROWTH	-0.0063	-0.9842	0.8051	0.2892
BI	0.0460	0.0352	0.0563	0.0072
KURS	14,061	14,481	13,548	322
COTTON	85.19	71.88	101.17	10.33
PDB	0.0338	-0.0207	0.0517	0.0279

**Data source:** Processed by researchers using E-Views10

The average ROA is -0.0302. This figure shows that on average, textile and garment issuers experience losses. Every 100rupiah of the company's assets experienced a loss of 3.02rupiah. The lowest ROA was -0.8762 experienced by SRIL in 2021. The highest ROA is 0.1205 achieved by SSTM in 2021, indicating that every 100rupiah of SSTM's assets can generate 12.05rupiah of net profit.

The average CR of all issuers is 1.6628. This value shows that on average, textile and garment issuers are in a liquid state. For every 100rupiah of current liabilities, 166.28rupiah of current assets are available to pay off. The lowest CR is 0.0575 occurred in ARGO in 2020. This value shows that ARGO is in an illiquid state, because for every 100,000 current liabilities, only 5.75,000 current assets are available to pay off. The highest CR is 6.5059 which was achieved by PBRX in 2019.

The average DAR in textile and garment issuers is 0.9892, meaning that on average textile and garment issuers have a large amount of debt. For every 100rupiah of assets, 98.92rupiah is funded with debt. The lowest leverage is 0.0758 experienced by TFCO in 2019. The highest leverage is 5.1677 which was achieved by POLY in 2020. POLY's leverage value indicates that the company is in an unsolvable state. For every 100rupiah of assets, the company's debt is 516.77rupiah. POLY is an issuer that in a period of 5 years has continuously been in an unsolvable state because the company's debt ratio is 4 to 5 times its assets.

The average value of TATO is 0.8222. This means that on average, textile and garment issuers are able to generate 82.22 rupiah of sales from every 100 rupiah of assets. The lowest activity ratio of 0.0198 is owned by HDTX in 2019. HDTX is only able to generate 1.98 million sales from 100 million assets owned. The highest TATO is 2.0113 which was achieved by POLY in 2018.

The average Sales Growth is -0.0063. This means that on average, textile and garment issuers experienced a decline in sales. The lowest sales growth was -0.9842 experienced by HDTX in 2019. This value shows that HDTX experienced a decrease in sales of 98.42 percent between 2018 - 019. The highest sales growth was 0.8051 achieved by TRIS in 2018. TRIS's sales in 2018 increased by 80.51% compared to sales in 2017.

The average BI 7day repo rate from 2017 to 2021 is 0.0460 or 4.6%. The lowest BI 7day repo rate is 0.0352 or 3.52%, which occurred in 2021. The peak interest rate was in 2019, which amounted to 0.0563 or 5.63%.

The average exchange rate of the Rupiah against the US Dollar from 2017 to 2021 is IDR 14,061. The weakest exchange rate of the Rupiah against the US Dollar occurred in 2018, which amounted to IDR 14,481 per 1 USD. The strongest exchange rate of the Rupiah against the US dollar was IDR 13,548 per 1 USD which occurred in 2017.

The average cotton price (Cotlook A Index) in the 2017-2021 period was 85.10 US Cents per Pound. The lowest world cotton price of 71.88 US cents per Pound occurred in 2020. While the highest cotton price was 101.17 US Cents per Pound which occurred in 2021.

## The Influence of Financial Performance and Macroeconomic Factors on the Financial Distress of Textile and Garment Companies Listed on the Stock Exchange: Empirical Studies in Indonesia

The average acceleration of Indonesia's economic growth in the 2017-2021 period was 0.0338 (3.38%). The lowest economic growth occurred in 2020 which amounted to -0.0207. This negative value shows that the Indonesian economy contracted 2.07% compared to GDP in 2019. Economic growth at the peak position occurred in 2018, which amounted to 0.0517 (5.17%).

Next, the best panel model was selected. Table 3 presents the results of the best panel data regression model selection. It is found that the Fixed Effect Model (FEM) is the best model.

**Table 3.** Best Multiple Regression Model Selection Results

Test	Test Criteria	Statistic	Test Results	Conclusion
<i>Chow</i>	<i>Cross-Section F</i>	10,079814	0,0000	CEM is not the best model
<i>Hausman</i>	<i>Cross-Section random</i>	0,000000	1,0000	There is no random effect

After the best model was found, the fit of the selected model was tested. Table 3 shows that the model built is suitable (fit). The F-Statistic value is 140.467 with a significance of 0.000. R<sup>2</sup> worth 97.76% indicates that together profitability (ROA), liquidity (CR), leverage (DAR), activity (TATO), Sales Growth (GROWTH), interest rate (BI), currency value growth (KURS), cotton price (COTTON), and economic growth (GDP) are able to explain 97.76% of the variability of financial distress of Textile and Garment issuers listed on the IDX. There are still 2.24% other factors that affect financial distress.

**Table 4.** The Effect of Financial Performance and Macroeconomics on Financial Distress Textile and Garment Companies Listed on the IDX 2017-2021

Variable	Coefficient	t-Statistic	Significance	Description
C	-79,7063	-0,1487	0,8823	
ROA	1,2842	1,3482	0,1831	
CR	0,2888	3,0597	0,0034	***
DAR	-2,4377	-2,4965	0,0156	**
TATO	2,1568	3,9255	0,0002	***
GROWTH	-0,2702	-0,8470	0,4006	
BI	-79,5018	-0,1964	0,8450	
KURS	11,4930	0,1574	0,8755	
COTTON	-6,04229	-0,1819	0,8563	
PDB	23,9038	0,1835	0,8551	
R <sup>2</sup>	0,9839			
Adjusted R <sup>2</sup>	0,9769			
F-Statistic	140,4672			
Prob (F-Statistic)	0,0000			***

\*\*\* Significance of  $\alpha=0,01$  atau 1%, \*\* Significance of  $\alpha=0,05$  atau 5%,

The panel data regression equation based on Table 3 is as follows:

$$FD = -79,7063 + 1,2842ROA + 0,2888CR - 2,4377DAR + 2,1568TATO - 0,2702GROWTH - 79,5018BI + 11,4930KURS - 6,04229COTTON + 23,9038PDB$$

The constant in the regression equation above is -79.7063 with a significance of 0.8823. This means that the constant is insignificant or has no meaning.

The ROA regression coefficient is 1.2842 with a significance of 0.1831. This value shows that profitability has a positive but insignificant effect on Z-Score. In other words, profitability has no effect on Financial Distress. The results of this study do not support the hypothesis built. The results of this study are in line with the results of research by Ardi et al. (2020), Nurhayati et al. (2021), and Purwanti (2022) who found that profitability has no effect on financial distress. Ardi et al (2020) examined the Textile and Garment industry in Indonesia in 2016-2018. While Nurhayati et al (2021) examined the Food and Beverage industry in Indonesia during 2017-2019. Meanwhile, Purwanti (2022) examined the Retail Sub-Sector industry in Indonesia in 2015-2019.

The results of this study show that the comparison between net income and assets owned by the company does not affect bankruptcy conditions. This is probably because the average textile and garment issuer in the period 2017 to 2021 is in a state of



## The Influence of Financial Performance and Macroeconomic Factors on the Financial Distress of Textile and Garment Companies Listed on the Stock Exchange: Empirical Studies in Indonesia

loss. The research data shows an increase in the average current liabilities and total liabilities of the company, indicating that the company covers operational costs not from profits but from other sources of financing. This possibility is corroborated by the increasing trend in the average debt of textile and garment companies in the form of current liabilities of 12.34% and total liabilities of 8.08% per year.

A negative ROA ratio occurs when the company's sales are unable to cover operating costs or other expenses. This can be caused by several things such as a decrease in sales (as evidenced by the negative average sales growth), an increase in production costs (as experienced by ARGO, where from 2017 to 2021 the cost of goods sold each year exceeded the sales themselves, plus the burden of financial costs). Losses can also be caused by unexpected large company expenses.

The CR regression coefficient is 0.2888 with a significance of 0.0034. It can be concluded that CR has a significant positive effect on Z-Score. If CR increases by 1 unit, then Z-Score will increase by 0.288 units. The higher the company's ZScore, the further the company is from the financial distress category. Thus, the higher the liquidity, the lower the possibility of financial distress. In other words, liquidity has a negative influence on financial distress. This finding is in line with the hypothesis built and supports the results of research by Sutra & Mais (2019), Kurniasih et al. (2020), Handayani (2020), and Nurhamidah & Kosasih (2021).

The DAR regression coefficient is -2.4377 with a significance of 0.0156. This means that DAR has a significant negative effect on Z-Score. If DAR increases by 1 unit, then Z-Score will decrease by 2.4377 units. The lower the Z-Score the more towards financial distress. It can be concluded that the higher the leverage, the higher the potential for the company to be in financial distress. In other words, leverage has a positive influence on financial distress. This finding is in accordance with the hypothesis built and supports the research results of Asfali (2019), Kurniasih et al. (2020), Handayani (2020), and Purwanti (2022).

The TATO regression coefficient is 2.1568 with a significance of 0.0002. This shows that TATO has a significant positive effect on Z-Score. If TATO increases by 1 unit, then Z-Score will increase by 2.1568. The higher the Z-Score value indicates the less likely the company is in financial distress. Thus the higher the company's activity ratio indicates the lower the possibility of financial distress. It can be concluded that TATO has a negative effect on financial distress. This finding is in line with the initial hypothesis that was built and in line with the research of Sutra & Mais (2019) and Swara (2021) which found that TATO has a positive and significant effect on Altman Z-Score, thereby reducing the potential for financial distress.

The GROWTH regression coefficient is -0.2702 with a significance of 0.4006. This means that company growth does not have a significant effect on financial distress. This finding is not in line with the hypothesis built. However, the results of this study are in line with the results of research by Sutra & Mais (2019), Mahaningrum & Merkusiwati (2020), and Muzharoatiningsih & Hartono (2022), who concluded that sales growth has no effect on financial distress. The growth ratio is used to show how capable the company is in carrying out its company's operations in one period identified by the increase in sales. Research data shows that the average sales growth of textile and garment companies in the period 2017 to 2021 is negative, which indicates that the company is not experiencing growth.

The interest rate regression coefficient (BI 7day repo rate) is worth -79.5018 with a significance of 0.8450. This means that interest rates do not have a significant effect on financial distress. This finding is not in line with the hypothesis built. However, the results of this study are in line with the research of Wulandari et al., (2017) which examined the conventional banking industry in Indonesia in 2010-2014, and in line with the findings of Siregar (2022) which examined the Property & Real Estate Industry in Indonesia in 2010-2019.

The KURS regression coefficient is 11.4930 with a significance of 0.8755. The rupiah exchange rate against the US dollar also has no significant effect on financial distress. This does not support the hypothesis that was built. This finding is in line with the results of research by Wulandari et al. (2017) which concluded that the exchange rate has no effect on financial distress.

The COTTON regression coefficient is -6.0422 with a significance of 0.8563. This shows that the world cotton price (Cotlook A Index) does not have a significant effect on financial distress. The results of this study do not support the hypothesis built. This may be due to the fact that cotton is not the only raw material for textile manufacturing used by textile and garment issuers in Indonesia. As is known that the basic ingredients of textiles other than cotton are rayon (fiber from pine trees), polyester (artificial fiber), texture (processed fiber), tetoron rayon (a mixture of natural fibers and synthetic fibers), tetoron cotton (a mixture of cotton and polyester), and others. Therefore, cotton price alone is unable to influence financial distress.

# The Influence of Financial Performance and Macroeconomic Factors on the Financial Distress of Textile and Garment Companies Listed on the Stock Exchange: Empirical Studies in Indonesia

The regression coefficient of economic growth is 23.9038 with a significance of 0.8551. It can be concluded that economic growth has no significant effect on financial distress. This is not in line with the hypothesis built by researchers that economic growth has a negative effect on financial distress. A growing economy is expected to increase people's purchasing power so as to increase public purchases of textile and garment products which have an impact on company sales. However, as is known from the research data, sales of textile and garment companies have decreased in the 2017-2021 period. The findings of this study are in line with the results of research by Siregar (2022) that GDP has no effect on financial distress. Siregar (2022) examined the Property & Real Estate industry in Indonesia in the period 2010-2019.

## CONCLUSIONS AND SUGGESTIONS

The results showed that of the 9 independent variables only 3 variables had a significant effect on financial distress, the three variables were financial performance variables. Liquidity (CR) has a significant negative effect, leverage (DAR) has a significant positive effect, and activity (TATO) has a significant negative effect. Other variables, namely profitability, company growth, interest rates (BI 7day repo rate), exchange rates, world cotton prices (cotlook A index) and economic growth have no effect on financial distress.

Of the three variables that have a significant effect on financial distress, the largest to smallest influence on financial distress in a row is leverage, activity and finally liquidity. There are no macroeconomic variables in this study that have a significant effect on financial distress.

The finding that leverage has the greatest influence on financial distress indicates that management needs to manage the company's debt well. If debt can be reduced financial distress will decrease. Future researchers can examine the optimal capital structure for textile and garment issuers listed on the IDX.

It was found that the activity ratio had a significant negative effect on financial distress. Therefore, management needs to increase the activity ratio. If the level of sales increases followed by unchanged assets, the activity ratio will increase. Management needs to find marketing strategies that can increase sales. The company needs to focus on products or services that generate higher revenue, by expanding sales of these products or services. In conditions where the sales level cannot be increased, the activity ratio can be increased by reducing the amount of assets. Unproductive assets are reduced so that total assets decrease and the impact of the activity ratio increases. It is necessary to ensure that all company assets are used optimally to generate revenue.

Liquidity has a significant negative effect on financial distress. In order for liquidity to increase, management needs to pay attention to the composition of current assets to current liabilities, so that the company is in a liquid state. Management needs to manage receivables well by accelerating the receipt of receivables from customers through improving the billing process and evaluating credit policies. Management needs to manage inventory by optimizing the amount of inventory and ensuring that the inventory owned does not hamper the company's operations. Companies need to have sufficient cash reserves to cope with emergencies or sudden needs, make accurate cash projections to ensure that the company has enough cash to pay maturing obligations and other operational needs. Accurate cash projections will help companies plan better long-term financial strategies.

The results showed that macroeconomic factors (interest rates, currency exchange rates, cotton prices (Cotlook A Index), and economic growth did not have a significant effect on financial distress. However, the government is expected to continue to support the development of the textile and garment industry with various policies. The "I love domestic products" movement needs to be intensified so that people prefer domestic products to imported products.

Future researchers need to conduct deeper research to find other factors that cause textile and garment companies to experience prolonged financial distress. Government policies that facilitate the availability of raw materials and energy supplies as well as safeguard rules, namely imposing import duties on textile and garment products originating from abroad, can be studied for their impact on financial distress.

For investors and potential investors who invest in the shares of textile and garment companies, they should pay attention to the liquidity, leverage and activity ratios of the company. Especially need to pay attention to the company's leverage.

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