# Financial Distress in Indonesian BUMN and State Capital Participation

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Abstract:- The purpose of this study is to find out whether there is Financial Distress in BUMN in Indonesia and State Equity Participation. The population in this study are state-owned infrastructure and non-problem infrastructure companies listed on the website of the Ministry of BUMN RI for the period 2016 to 2020. The sampling technique used is purposive sampling method so that the research sample is 12 companies. The data analysis technique used multiple regression analysis method. The results showed that the Cash Ratio, Return On Assets (ROA), Return On Equity (ROE), Debt to Equity Ratio (DER) and Ebitda had a significant and negative effect on the potential for financial distress. BUMN receive small and insignificant State Equity Participation (PMN) assistance on the basis of the assignment and are paid to pay off large debts. State Equity Participation (PMN) does not affect the ability of BUMN to get out of financial problems, the Health Level of BUMN does not affect the resolution of SOEs' financial problems.

*Keywords:*- Financial Ratios, BUMN Health Level, PMN, Financial Distress.

# I. INTRODUCTION

The economy in Indonesia is driven by state-owned companies, private companies, national, foreign companies and MSMEs. State-owned companies have enormous assets of almost 8 thousand trillion and gross domestic product in the Indonesian economy amounts to around 16,000 trillion rupiah. Several BUMN in Indonesia have a very large role, for example banking BUMN (www.bumn.go.id . 2022).

BUMN were established to drive the Indonesian economy at a time when large private companies had not played much of a role in all important economic sectors. State-Owned Enterprises (BUMN) is one of the state-owned corporations and is defined as a business entity whose entire or most of its capital is owned by the state through direct investment originating from separated state assets (based on Law No. 19, 2003). The government established BUMN at the beginning of independence by nationalizing foreign companies such as Dutch companies, for example the government nationalized Dutch companies which became the beginning of the establishment of Bank Rakyat Indonesia (BRI). This also happened to other companies, such as in the field of Natural Resources, for example companies that produce Alumina (Press Release Number PR-57/S.MBU. /8/2020 About Collaboration for Indonesian MSMEs Press

Release Number PR-57/S .MBU./8/2020 concerning Collaboration for Indonesian BUMN).

At first, Alumina was produced by a Japanese company which later changed to PT. Inalum. Companies that have been nationalized under the BUMN Law are divided into 3 types, namely, firstly, BUMN companies whose shares are 100% owned by the government, for example PT. Pertamina is engaged in the energy sector. Second, BUMN companies that are allowed to go public by the DPR RI, for example BUMN companies with a majority ownership of 51%, for example companies that go public include PT. Krakatau Steel (Persero) tbk, and the three state-owned companies whose shares are owned by the government but not in the form of a limited liability company but in the form of a service or general company, for example a Jawatan company such as PT. Kereta Api Indonesia (KAI) which was originally a service company became PT Persero (historical website of the Ministry of BUMN. 2022). With the form of a business entity as a limited liability company, the BUMN is expected to generate profits that are used as dividends as a source of funds for part of the APBN financing funding. In the development of the economy, the Indonesian government has experienced difficulties in funding the state budget. This condition gave birth to the 2013 APBN Law.

One of the implicit intentions of the BUMN Law is that the government has the option of implementing a restructuring program. One of the programs is that BUMN are allowed to go public. This program allows the government to get additional capital from selling shares, and the potential for increasing dividends from the participation of funds and human resources from foreign nationals. In addition, if the BUMN are not healthy, the BUMN assets will be sold and revalued. The proceeds from the sale of the company's assets are used as a source of state revenue. Basically, in its development, the government gives assignments to certain BUMN with a view to carrying out government programs, such as the government's desire to build toll roads in various places in Indonesia, build airports, seaports and other developments.

These assignments are often followed in the form of providing an injection of funds in the form of State Capital Participation (PMN) to increase the investment capacity needed by BUMN to carry out assignments from the government. In its development there are BUMN that have difficulty in obtaining profits, then the government injects funds in the form of State Capital Participation (PMN).

Support for state financial policies in Article 1 (paragraph 2), that State Equity Participation (PMN) is the separation of state assets from the State Revenue and Expenditure Budget or the determination of company reserves or other sources to serve as capital for BUMN and other limited liability companies, and managed in a corporate manner . The provision of PMN to BUMN shows the Government's commitment to budget efficiency while increasing production spending (www.djkn.kemenkeu.go.id. 2020).

Financial distress is a liquidity problem that cannot be solved without changing the size of the company's operations or structure (Yati, 2017: 56). Where the problem that occurs is that BUMN that have received capital injections in the form of State Equity Participation (PMN) will make the above BUMN companies become financially healthy.



Fig 1.2. BUMIN Income and Profit/Loss Source: Indonesia Stock Exchange. 2022

Company in Figure 1.2. The BUMN profit/loss revenue recorded a decrease in profitability in sales by 9.2% (year-onyear/yoy) to Rp339.03 billion in the first quarter of 2022. In the same period last year, it recorded sales of Rp373.2 billion. By segment, sales decreased from Rp197.7 billion to Rp159.06 billion. On the other hand, other sales slightly increased from Rp. 175.49 billion to Rp. 179.97 billion (Indonesian Stock Exchange, 2022). The decline in sales and the swelling expenses made this State-Owned Enterprise (BUMN) at a loss. The company recorded a net loss of Rp51.18 billion in the first quarter of 2022, inversely proportional to a profit of Rp1.82 billion in the first quarter of last year. One of the state-owned companies is Indofarma which is part of the Pharmaceutical BUMN holding which also contains PT Biofarma (Persero) and PT Kimia Farma Tbk. Biofarma acts as the parent in the holding.

Likewise, the role of BUMN in the development of investment in Indonesia. Commonly called large capital expenditures from BUMN. One of the problems that has begun to appear in terms of the management of BUMN over the last few years is that the more assignments there are, the faster the debts of several BUMN are increasing. The State Equity Participation provided, among other things, is intended to enable them to owe more.

The increase in the debt position has the consequence of increasing the burden of debt payments. Both the repayment

of principal debt, as well as interest payments each year. The risk for the BUMN concerned is in the overall economic condition, especially related to debt to foreign parties. The financial condition of several large-scale BUMN is not good or not. In the management of the State Budget, which is quite burdened, either by providing PMN directly or PMN to BUMN and other agencies that will assist in financing.



Fig 1.3. Development of PMN Investment in Indonesian SOEs

Source: Book II of State Budget Financial Notes. 2022

It can be seen that the development of investment (Capital Expenditure) of State Equity Participation (PMN) to Indonesian BUMN can be seen in Figure 1.2. based on Book II of the 2020 State Budget Financial Note that there was an increase in government assignments in the form of State Capital Participation (PMN) from 2017 the funding was at 6.4 trillion rupiah and then in 2018 the budget for capital injections to BUMN was again lowered to 3.6 trillion rupiah then in 2018 in 2019 experienced an increase of 17.8 trillion rupiah. In 2020 it increased again at 31.3 trillion rupiah and in 2021 PMN spent quite a lot of funding to BUMN amounting to 71.2 trillion rupiah. Based on the data on the aid in the form of State Equity Participation (PMN) from the government, state-owned companies are increasingly receiving it every year. PMN received causes a continuous decline in the financial performance of BUMN companies. This is in line with the government's policy of allocating investment to BUMN which are development agents that can play an active role in supporting national priority programs.

#### II. THEORETICAL REVIEW

#### Financial Distress Theory

Financial distress can see a condition in which the company's finances occur, perhaps the management is wrong, the lack of capital for the company or the wrong use of funds will be the beginning of the cause of bankruptcy (Baldwin, C. and Scott, 1983). Through financial distress, you can see a company's financial condition that is happening, maybe it is mismanaged, lack of capital funding for the company or misuse of funds that will be the beginning of the cause of bankruptcy. Financial distress often occurs because many companies are experiencing financial difficulties as a result of poor management, company performance that is still unable to pay obligations or in other words debt is greater than a company's assets (Whitaker, 1999).

#### ➤ Altman Z-Score

The Altman Z-Score formula is built based on the regression equation of the industry sample in Norway based on research from (Aasen, 2011). In this study the Altman Z-Score method is calculated using the formula carried out by Altman, while the variables that affect the Altman Z-Score (Financial Distress indicator) for state-owned companies are stated to be influenced by the variables of BUMN health, State Equity Participation, Profitability, Liquidity, Leverage, Cash flow Operation, and Capital Expenditure, therefore this research is used as a modification of the Altman Z-Score method based on case studies on BUMN experiencing financial problems in Indonesia. The above differences are expected to be an update in this study where the Altman Z-Score BUMN in Indonesia.

The method of calculating Altman's Z-Score analysis uses several financial ratios. This model was revised in 1983 and modified in 1993. The original Z-score model (1968) was used for manufacturing companies that have gone public, the revised Z-Score model (1983) and the modified Z =Score model (1993) were used. for non-manufacturing companies. The formula for the 1968 Altman Z-Score Method is:

Information:

X1 = Net Working Capital/Total Assets

X2 = Retained Earning/Total Assets

X3 = Earning Before Interest and Tax / Total Assets

X4 = Market Value of Equity to Book Value of Total Debt

Z Score = 1,2 (X1) + 1,4 (X2) + 3,3 (X3) + 0,6 (X4)

In this analysis model there are 3 categories of corporate bankruptcy, namely:

a. If the Z value < 1.81, the company is declared as an unhealthy company and has the potential to experience a fairly high risk of bankruptcy.

b. If 1.81 < Z < 2.99 then the company is declared as a company prone to bankruptcy.

c. If Z > 2.99 then the company is declared as a healthy company.

#### State Equity Participation (PMN)

State Equity Participation is the process of separating state assets into capital in companies, whether BUMN, BUMS, foreign companies, or companies owned by international institutions. State Equity Participation (PMN) is also said to separate state assets from the State Revenue and Expenditure Budget (APBN) or determine company reserves or other sources to be used as capital for State-Owned Enterprises (BUMN) or other limited liability companies, and managed in a corporate manner.

With this separation, once the state makes an investment in a company, it becomes the wealth of the Business Entity. State Equity Participation in the context of establishment or participation in BUMN according to the explanation in Article 4 paragraph (2) Letter b of the BUMN Law, sourced from the State Revenue and Expenditure Budget, including in the APBN, includes APBN projects managed by BUMN or state receivables from BUMN which are used as Equity Participation, Capitalization of Reserves, namely the addition of paid-in capital originating from reserves and other sources, the category of which the source is asset revaluation gain.

Such separation is one of the characteristics of a legal entity. Where the concept of a company as a legal entity whose assets are separated from shareholders. State equity participation in BUMN and Limited Liability Companies is sourced from the State Revenue and Expenditure budget, capitalization of reserves and other sources. Every State Equity Participation or additional State Equity Participation into BUMN and Limited Liability Company whose funds originate from the State Revenue and Expenditure Budget as referred to in Article 2 paragraph (1) letter a shall be stipulated by a government regulation. Meanwhile, in article 5, the State may make capital participation for the establishment of BUMN or Limited Liability Company, State Equity Participation in Limited Liability Companies in which there are no State-owned shares, and additional State Equity Participation in BUMN or Limited Liability Companies in which there are already shares owned by the State.

Sources of funds for State Equity Participation (PMN) are fresh funds, state-owned goods, state receivables from BUMN or limited liability companies, state-owned shares, and other state assets. BUMN that get PMN at least one of the conditions are BUMN with good management systems and directors who obey the law. It is hoped that the PMN to BUMN can improve the performance of BUMN. One of the objectives of granting PMN is the existence of high assets, optimal capital structure and good financial performance. The objectives of State Equity Participation (PMN) are to first realize the general welfare of the community, save the national economy, improve capital structure and increase the business capacity of BUMN and Limited Liability Companies (PT). The forms of State Equity Participation (PMN) are cash, namely the government gives some money to BUMN, the conversion of government debt means that the government converts BUMN debt and share or asset grants, namely the government gets a share or asset grant from another party to establish a new BUMN.

#### Theory of State-Owned Enterprises (BUMN)

BUMN is a State-Owned Enterprise in the form of a Limited Liability Company (PERSERO) as referred to in Government Regulation Number 12 of 1998 and Public Company (PERUM) as referred to in Government Regulation Number 13 of 1998. State Owned Enterprises (BUMN) is one of the perpetrators of this activity. An important economy in the national economy, which together with other economic actors, namely the private sector and cooperatives, is the embodiment of the form of economic democracy that we will continue to develop gradually and sustainably. BUMN is a business entity whose entire or most of its capital is owned by the state through direct participation originating from separated state assets. Persero is a BUMN in the form of a limited liability company whose capital is divided into shares which are wholly or at least 51% (fifty one percent) of the

shares are owned by the Republic of Indonesia whose main purpose is to pursue profit. Public Company (PERUM) is a BUMN whose capital is entirely owned by the state and is not divided into shares, which aims for public benefit in the form of providing high quality goods and or services and at the same time pursuing profits based on company management principles.

# > BUMN Health Level

Analysis of the company's health level and the company's financial condition can be a managerial tool for making decisions and can be used to evaluate the decisions that have been taken by management. In Article 4 (1) the Soundness Level is determined based on the performance assessment for the relevant financial year which includes the assessment of the Financial Aspects, Operational Aspects, and Administrative Aspects, with Indicators and Rating Weights for each BUMN Financial Services in the Insurance and Guarantee Services Business Sector.

In Article 4 concerning the Assessment of the Health Level of BUMN engaged in non-financial services, it is distinguished between BUMN engaged in infrastructure, hereinafter referred to as Infrastructure BUMN and BUMN engaged in non-infrastructure, hereinafter referred to as NonInfrastructure BUMN. Infrastructure BUMN is a BUMN whose activities are providing goods and services for the benefit of the wider community, whose business fields include generation, transmission or distribution of electricity, procurement and or operation of supporting facilities for goods or passenger transportation services, either by sea, air or train, roads and toll bridges, docks, seaports or rivers or lakes, airports and airports and dams and irrigation (SK Minister of BUMN No: Kep-100/MBU/2002, 2022).

The BUMN Health Level is determined based on an assessment of the company's performance for the relevant financial year which includes an assessment of the Financial Aspects, Operational aspects and Administrative aspects. The procedure for assessing the health level of BUMN of Non-Financial Services, is viewed based on the Financial aspect seen by the Total weight. The total weight of the Infrastructure BUMN (Infra) is 50 and the Non-Infrastructure BUMN (Non-Infra) is 70. The indicators are assessed and their respective weights. In this financial aspect assessment, the indicators assessed and their respective weights are as shown in Table 2.1 below. Health Level Assessment is classified into:

BUMN HEALTH LEVEL						
Kategori	Predikat	Nilai (Skor)				
Sehat	AAA	>95				
Sehat	AA	$80 < TS \le 95$				
Sehat	А	$65 < TS \le 80$				
Kurang Sehat	BBB	$50 < TS \le 65$				
Kurang Sehat	BB	$40 < TS \le 50$				
Kurang Sehat	В	$30 < TS \le 40$				
Tidak Sehat	CCC	$20 < TS \le 30$				
Tidak Sehat	CC	$10 < TS \le 20$				
Tidak Sehat	С	$TS \le 10$				

## Table 2.1 Category of BUMN Health Level

Source: Decree of the Minister of BUMN No: Kep-100/MBU/2002, 2022

The procedure for calculating the health level of BUMN in detail based on the Decree of the Minister of BUMN No: Kep-100/MBU/2002 is presented in Appendix 1 of this thesis proposal. The assessment of the BUMN Health Level according to this decision is only applied to BUMN if the results of the accountant's examination of the company's annual financial calculations are declared with "Ungualified" "Reasonable qualifications or With Exceptions" qualifications from public accountants or the Financial and Development Supervisory Agency. The BUMN Health Level Assessment is determined annually in the ratification of the annual report by the General Meeting of Shareholders or the Minister of BUMN for Public Companies.

The total weight of the BUMN health level needs to be known how good the company's financial performance is. The total weight is at 100, while the total weight for the financial aspect of BUMN is 50 for infrastructure and 70 for non-infrastructure. Sutrisno (2013:34) explains that in order to obtain the final results to determine the health level of BUMN, the weights from the financial aspect are made equivalent results. The assessment of the financial aspect to be equivalent is to divide the final result of the weighting of the 8 ratios by 50% for infrastructure BUMN and 70% for non-infrastructure. This BUMN health is made by the ministry of finance and the ministry of State-Owned Enterprises simultaneously to see whether or not a BUMN company is healthy, whether it is from an Infrastructure BUMN or a Non-Infrastructure BUMN (Kep 100/MBU/2002, 2022).

## Kinds of Financial Ratios

## • Profitability

Profitability is said to be a profitability analysis, for shareholders will see the profits to be received in the form of dividends (Sartono, 2016). Where the higher the profitability, the more interested investors will be to own the company's

shares so that this will have an impact on increasing the company's share price. Thus, this study focuses on the factors that affect profitability and the effect of profitability on firm value. According to Kasmir (2018: 196) the profitability ratio is a ratio to assess the company's ability to seek profit. This ratio also provides a measure of the effectiveness of a company's management. This is indicated by the profit generated from sales and investment income. How to measure profitability ratios, which reflect the net result of financial policy and operational decisions.

The indicators used are:

#### 1. ROE (Return On Equity)

Return On Equity (ROE) as a result of return on equity or Return On Equity or profitability of own capital is a ratio to measure net profit after tax with Kasmir's own capital (2019: 206). Defining This ratio shows the efficiency of the use of own capital. The higher the value of this ratio, the better. This means that the position of the owner of the company is getting stronger, and vice versa.

#### 2. ROA (Return On Assets)

ROA is one of the profitability ratios used to measure the effectiveness of the company in generating profits by utilizing its total assets (Pontooring, 2017). ROA is also a multiplication between the net income margin factor and asset turnover by the company, while asset turnover shows how far the company is able to create sales from its assets. If one of these factors increases or both, the ROA will also increase.

#### ➤ Liquidity

The decision to use the Liquidity ratio, the company already knows that it must have a high level of liquidity indicating the company has a number of current assets that are ready to pay off its short-term debt. Thus, the company can avoid financial distress. Periansya (2015) explains that the liquidity ratio is the ratio used to meet short-term financial obligations. So it can be said that the liquidity ratio is the company's ability to meet the company's short-term obligations. A company that is able to fulfill its financial obligations on time means that the company is in a liquid state, and the company is said to be able to meet its financial obligations on time if the company has payment instruments or current assets that are greater than its current liabilities or short-term debt. Conversely, if the company cannot immediately fulfill its financial obligations when billed, it means that the company is in an illiquid state.

## 1. Cash Ratio

Cash Ratio is a ratio that reflects the position of the company's cash and cash equivalents to cover current liabilities or short-term debt. The calculation of the cash ratio is cash divided by total current liabilities.

## ➤ Leverage

Leverage ratio is a comparison between the amount of debt in the company with total assets. Leverage ratio is the ability of a company to meet its debt obligations with the amount of assets it has. A company has a high leverage value if the total assets owned by the company are less than the total assets of its creditors. Therefore, the use of the leverage ratio will be able to see if the company is healthy or not. The higher the leverage ratio, the higher the risk of default to creditors.

# > Capital Expenditure (Investment Growth)

Investment is an activity to invest in the hope of getting a profit or return in the future. This investment can also be said as an activity of placing funds or other valuable assets in certain instruments within a certain period of tim.

# > Frame of Thought

From theoretical studies and previous studies as well as published journals, researchers are interested in exploring the variables of BUMN soundness, State Equity Participation, Profitability, Liquidity, Leverage and Capital Expenditure as independent variables and financial distress variables as dependent variables. The following is the framework of thinking of this research:



# III. RESEARCH HYPOTHESIS

A hypothesis is a provisional conjecture or a provisional answer and still has to be proven true.

1) Effect of BUMN Health Level on Financial Distress for SOEs in Indonesia for the period 2016 - 2020

2) The Effect of State Equity Participation on Financial Distress in BUMN in Indonesia

3) The effect of profitability on financial distress in BUMN in Indonesia for the period 2016 - 2020

4) The effect of liquidity on financial distress in BUMN in Indonesia for the period 2016 - 2020

5) The effect of leverage on financial distress in BUMN in Indonesia for the period 2016 - 2020

6) The effect of Capital Expenditure on financial distress in BUMN in Indonesia for the period 2016 – 2020

# IV. DISCUSSION RESULT

Descriptive statistics is a statistical test where this test aims to see the distribution of data from the variables used in the study (Samuel, 2016). Based on table 4.1. It is known that the variables used in this study according to the Jarque Bera test show that all are normally distributed as indicated by the Jarque Bera value which is smaller than 5%, except for the Debt Asset to Ratio (DAR) variable.

		Arus		Cash									
	Zscore	Kas	Arus kas	Ratio _	CR_1	ROE_1	ROA_1	DER_1	DAR_1	Ebitda_1	Capex_1	PMN	Kesehatan
		Investasi	Operasi	1									BUMN
		-	-	-	-	-	-	-		-			
Mean	3.658145	95647.17	3813.923	87.61405	60.95622	833.6689	832.1362	68.42838	20.52784	4155.871	139.2357	1.110811	86.16486
		-											
Median	1.063800	9554.000	4.040000	44.04000	105.0700	3.660000	1.440000	17.40000	13.22000	3.750000	14.25000	0.000000	89.00000
Maximum	60.08295	120.9000	708.0200	275.5700	341.4000	23.99000	10.82000	167.7400	71.97000	745.0900	936.8600	11.00000	184.4900
		-	-	-	-	-	-	-		-			
Minimum	0.022400	808460.0	61665.00	5832.000	6534.000	12746.00	8990.000	4000.000	0.000000	158180.0	1.140000	0.000000	7.570000
Std. Dev.	10.23521	175068.9	12294.52	972.9354	1096.909	2564.223	2097.429	665.8659	21.68077	26025.58	289.5567	2.769154	23.29543
		-	-	-	-	-	-	-		-			
Skewness	4.885879	2.485583	3.746428	5.788635	5.779417	3.467689	2.597406	5.789606	0.690369	5.832767	2.029794	2.636308	1.009031
Kurtosis	26.72149	9.241917	16.48319	34.69443	34.62370	14.94429	8.816363	34.70060	2.138694	35.02351	5.469342	8.980411	12.83734
Jarque-Bera	1014.719	98.16412	366.8233	1755.296	1747.734	294.0967	93.75824	1755.968	4.082778	1790.784	34.80759	97.99727	155.4706
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.129848	0.000000	0.000000	0.000000	0.000000
		-	-	-	-	-	-	-		-			
Sum	135.3514	3538945.	141115.2	3241.720	2255.380	30845.75	30789.04	2531.850	759.5300	153767.2	5151.720	41.10000	3188.100
Sum Sq.													
Dev.	3771.341	1.10E+12	5.44E+09	34077718	43315561	2.37E+08	1.58E+08	15961588	16922.02	2.44E+10	3018350.	276.0557	19536.37
Observations	37	37	37	37	37	37	37	37	37	37	37	37	37

Table 4.1 Descriptive Analysis

Cash flow (-) means that there is a period of investment that has problems with liquidity. Cash Ratio (-) variable, if viewed based on the average results on the Cash Ratio (CR) variable, the company is in a debt position. Current Ratio (-) the company has difficulty in liquidity and the company is losing money. Return On Assets (ROA) (-) IPO companies are still at a loss, Debt to Equity Ratio (DER) (-) companies experience debt that is greater than the assets owned by the company, then Debt to Assets Ratio (DAR) (+) company debt 20 % of assets for an average valuation, Ebitda (-) of companies that are losing operating profit are losing money, Capex is 13.29% in terms of investment spending, and State Equity Participation (PMN) on average exceeds capital, then

seen from the Health Level variable BUMN at number 86 is said to be in the "Good" category. This assessment is for technical and administrative groups so that the financial condition of BUMN is covered for administrative techniques, the model does not experience autocorrelation, multicollinearity is below 10%, heteroscedasticity does not experience interference.

# ➢ Multicollinearity Test

Based on Table 4.2. it is known that all the independent variables used have a Value Inflation Fluctuation (VIF) value of less than 10, so that all the independent variables used do not experience multicollinearity disorders.

	Coefficients <sup>a</sup>								
		Unstanda	ardized	Standardized					
		Coefficients		Coefficients			<b>Collinearity Statistics</b>		
Model		В	Std. Error	Beta	t	Sig.	Tolerance	VIF	
1	(Constant)	3.900	1.865		2.091	.046			
	Cash Ratio 1	004	.000	376	-8.448	.000	.648	1.544	
	ROE 1	008	.000	-2.051	-24.944	.000	.189	5.279	
	ROA 1	.005	.000	.967	14.427	.000	.285	3.508	
	DER 1	.017	.001	1.132	16.651	.000	.277	3.606	
	DAR 1	044	.020	094	-2.261	.032	.738	1.355	
	Ebitda 1	-6.227E-5	.000	158	-3.572	.001	.652	1.534	
	CAPEX 1	002	.001	046	-1.109	.277	.734	1.362	
	PMN	.004	.137	.001	.031	.976	.930	1.075	
	Kesehatan BUMN	016	.020	037	841	.408	.645	1.551	
a.	Dependent Variable: Zscore								

Table 4.2 Multicollinearity Test

The cash ratio is conservative in that there is a company's ability to be able to cover debt in the short term compared to other ratios, because the cash ratio only calculates short-term current assets which are considered the most liquid. While how to measure it by comparing the components contained in the balance sheet, such as current assets with total current passive or short-term debt.

Return On Equity (ROE) is a Profitability Ratio that measures a company's ability to generate profits. ROE is an important measurement for potential new investors because it is to find out how efficiently a company manages to fund operations in a company.

Return On Assets (ROA) is able to assess the company's ability to earn a profit from the assets used. Ratio is a value that is very useful when you want to evaluate a company.

Debt to Equity Ratio (DER) is the ratio of debt to capital, so the amount of debt and equity in the company must be balanced. This ratio is an important component in the company.

Debt to Assets Ratio (DAR) is this ratio used to measure the number of assets financed by debt. This ratio is the ability to settle all long-term obligations, usually if the company's debt ratio is less than 0.5 times, then most of the company's assets are the result of the cost of equity.

Ebitda is Earning Before Interest, Taxes, Depreciation, and Amortization. Ebitda is commonly used to measure the financial performance of a company.

Capital Expenditure/CaPex the planned allocation of money is usually in the form of a budget to acquire fixed assets that have an economic useful life of more than one accounting period, such as warehouses or land, which will become company assets.

Based on Table 4.2, the multicollinearity test was carried out with the aim of knowing whether in a regression model there was a correlation between independent variables (Ghozali, 2016). To find the presence or absence of multicollinearity in the regression model, it can be seen from the tolerance value and the value of the variance inflation factor (VIF). Tolerance value measures the variability of the selected independent variables that cannot be explained by other independent variables.

This test can be known by looking at the tolerance value and the value of the variance Inflation Factor (VIF). Testing can be done by looking at the Tolerance and Variance Inflation Factor (VIF) values in the regression model. The decision-making criteria related to the multicollinearity test, if the VIF value is < 10 or the Tolerance value is > 0.01, it is declared that there is no multicollinearity (Ghozali, 2016).

#### Heteroscedasticity Test

Based on Figure 4.1, it shows that the Z-Score model does not experience heteroscedasticity disorders but can see discrete data at two points.



Fig 4.1. Heterescedasticity test

Based on Figure 4.1 Heteroscedasticity Test, by looking at the scatterplot graph above, it can be seen that the points spread randomly, and are spread both above and below the number 0 (zero) on the Y axis. It can be concluded that there are no symptoms of heteroscedasticity in the regression model. used.

# Coefficient of Determination

Coefficient of Determination based on Table 4.3. It is known that Adjust R Squared is 0.953889, meaning that the ability of the independent variable to explain changes in the dependent variable is 95.39%. The model is classified as having a good fit, there are only less than 4% of the dependent variable that cannot be explained by the independent variable.

#### ► F Uji test

Based on Table 4.3. it is known that the results of the F test are 83,74725 and are significant at the 1% level of significance as indicated by the probability value of 0.0000. which means that the financial distress regression model is at least influenced by one independent variable.

#### ➤ t Uji test

The financial distress model is as follows:

-0.003952 (Cash Ratio) + - 0.008187 (ROE) + 0.004719 (ROA) + 0.017395 (DER) + -0.044454 (DAR) + -6.23E-05 (Ebitda) + -0.001638 (Capex) + 0.004236 (PMN) + -0.016468 (State-Owned Enterprises Health Level) = 3.899864.

# Where: C= Constanta

CR= Cash Ratio ROE= Return On Equity ROA= Return On Assets DER= Debt to Equity Ratio DAR= Debt to Assets Ratio Ebitda Capex= Capital Expenditure PMN=State Equity Participation

#### > BUMN Health Level

Based on Table 4.3. It is known that significant variables in influencing financial distress are cash ratio, Return On Equity (ROE), Return On Assets (ROA), Debt to Equity Ratio (DER), Debt to Total Assets Ratio (DAR) and Ebitda. And the variables that are not significant are Capital Expenditure (capex), State Equity Participation (PMN) and the soundness of BUMN.

Dependent Variable: ZSCORE							
Method: Panel Least Squares							
Date: 07/09/22 Time: 20:09							
Sample: 2016 2020							
Periods included: 5							
Cross-sections included: 12							
Total panel (unbalanced) observations: 37							
Variable	Coefficient	Std. Error	t-Statistic	Prob.			
С	3.899864	1.865108	2.090959	0.0461			
CASH_RATIO_1	-0.003952	0.000468	-8.447590	0.0000			
ROE_1 -0.00818		0.000328	-24.94362	0.0000			
ROA_1	0.004719	0.000327	14.42673	0.0000			
DER_1	0.017395	0.001045	16.65105	0.0000			
DAR_1	-0.044454	0.019665	-2.260530	0.0321			
EBITDA_1	-6.23E-05	1.74E-05	-3.572356	0.0014			
CAPEX_1 -0.001638		0.001476	-1.109262	0.2771			
PMN	0.004236	0.137152	0.030889	0.9756			
KESEHATAN_BUMN	-0.016468	0.019584	-0.840881	0.4078			
R-squared	0.965417	Mean deper	ndent var	3.658145			
Adjusted R-squared	0.953889	S.D. depend	S.D. dependent var				
S.E. of regression	2.197854	Akaike info	Akaike info criterion				
Sum squared resid	130.4252	Schwarz cri	Schwarz criterion				
Log likelihood	-75.80854	Hannan-Qu	Hannan-Quinn criter.				
F-statistic	83.74725	Durbin-Wa	tson stat	1.522461			
Prob(F-statistic)	0.000000						

Table 4.3. Analysis Regresion	n dependent	Financial	Distress
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The time difference in capital expenditures in Table 4.3, must go through a transmission mechanism through ebitda, the average State Equity Participation (PMN) is small, so it is not significant. From the multiple linear regression equation above, it can be explained as follows:

- 1. The constant value (a) has a positive value of 3,900. A positive sign means that it shows a unidirectional influence between the independent variable and the dependent variable. This shows that if all independent variables which include BUMN Health Level (X1), State Equity Participation (X2), Profitability (X3), Liquidity (X4) Leverage (X5), and Capital Expenditure (X6) are 0 percent or do not experience changes, then the coefficient value is 3.900.
- 2. The regression coefficient value for the BUMN Health Level variable (X1) is -0.01648. This value shows a negative effect (opposite direction) between the variables of BUMN Health Level and Financial Distress. This means that the BUMN Health Level variable has increased by 1%.
- 3. The value of the regression coefficient for the State Equity Participation variable (X2) is 0.0042. This value shows a positive effect.
- 4. The value of the regression coefficient for the Profitability variable (X3), Cash Ratio has a positive value of 0.0039. ROE has a negative value of -0.0081, ROA has a positive value of 0.0047. Liquidity variable (X4) increased by 1%. Variable Leverage (X5) DER is 0.0173, DAR is -0.044, and Variable Capital Expenditure (X6) is -0.0016.

# V. CONCLUSION

Whereas it was concluded that BUMN experienced financial problems initially from investment assignments, return on capital or liquidity difficulties and indebtedness due to increasing debt. The solution that can be done by BUMN is to release some assets to make finances better and be balanced with the ease of obtaining funding and also the assignment to good land and generate profits so that BUMN are categorized as healthy.

## SUGGESTIONS

Based on the results and discussion of the research obtained, it is hoped that further research can be developed even better by following the existing suggestions, namely:

- 1) Overall, the results show that the financial problems of BUMN are influenced by the cash ratio, Return On Assets (ROA), Return On Equity (ROE), Debt to Equity Ratio (DER), Debt to Assets Ratio (DAR), Ebitda. The biggest regression coefficient is the Debt to Assets Ratio (DAR) because the debt is too much and burdens the BUMN finances at a time when the cash ratio is not strong enough to make a big enough profit. There is a problem in the adequacy of the return on capital, meaning that the BUMN received an expansion assignment in a business field that is not large enough to generate profits, meaning that it can be assigned to a less profitable place and the BUMN received assistance from the State Capital Participation (PMN) which is small and insignificant and on the basis of the assignment and paid to pay off large debts.
- 2) The second finding, State Equity Participation (PMN) does not affect the ability of BUMN get out of financial problems, for that if the government gives an assignment, the government must provide a very large State Equity Participation (PMN).
- 3) The health level of BUMN does not affect the resolution of BUMN financial problems, this is because the measurement of the BUMN health level is too much loaded outside of the BUMN financial problems, namely performance and administrative problems. Performance and administrative reports can cover financial problems so that by measuring the health level of BUMN, BUMN look healthy when compared to only measuring financial performance.
- 4) Further research is suggested to add the research prediction model used and the addition of financial variable ratios which may further strengthen the results of financial distress research.

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