PREDICTION OF FINANCIAL DISTRESS, MACRO FACTORS ON STOCK PRICES DURING PANDEMIC COVID

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ABSTRACT

The purpose of this research is to measure financial distress in the Trading, Services and Investment Industries with the category of Investment Sub-Companies for the 2017–2020 period. The period of this research is the period before and after the pandemic so that in this research we can analyze industries that have successfully survived the ongoing crisis. in a fairly long period and is global. This research uses a quantitative approach. The variables in this research are the financial distress, Macro Aspects of Stock Prices. The sample of this research was 12 company financial statements during the 2017 - 2020 period with a total of 60 observations processed. In selecting the sample, purposive sampling method was used to collect panel data. From the calculation of the Bankruptcy Potential using the Altman Z Score for the Investment Company Sub-Sector, there are 2 companies in the unsafe category because the Z value < 1.68, namely Kresna Graha Investama Tbk (KREN) and Charnic Capital Tbk (NICK) while the remaining 10 companies with a Z value > 2.67 in the safe category. The two independent variables are the financial distress, Macro Factors simultaneously affect stock prices with a value (F.statistic) <0.05. Analyze condition of financial distress Kresna Graha Investama Tbk (KREN) company whose condition is not safe category both before and after the pandemic. And Charnic Capital Tbk (NICK) with a Z score becomes unsafe after the pandemic. And some of company have trend performance decrease after pandemic.

Keywords: Financial Distress, Macro Factors, Stock Price

INTRODUCTION

Indonesia has experienced several phases of crisis, starting with the crisis that occurred in 1998 and caused several companies to collapse. Some time later, Indonesia began to rise and improve so that economic growth was relatively stable. And in the middle of 2019 there was another economic crisis caused by Covid 19 in Indonesia as well as countries around the world. Many companies are experiencing financial difficulties due to Covid 19 and do not get the opportunity to be able to sell their products so they use assets and capital to survive during the pandemic. However, the company's inability to replace the capital and assets used during several periods of the pandemic caused the company's finances to become unstable.

The decline in economic conditions during a crisis will lead to unstable company conditions and many companies closed and caused unemployment so that people's purchasing power decreased and goods were not absorbed in the market and worse the condition of the Indonesian economy. In this research will see the influence of the two factors above the financial distress and macro factors on the company's stock price.

To see the effect of macro factors and market value on financial distress in previous studies looking for information on whether there is an effect of accounting data, market values and macroeconomic factors on the financial distress in an industry.(Hernandez Tinoco & Wilson, 2013).

So for the community of shareholders, it is necessary to examine whether some of the above factors have an impact on the value of public investment which is reflected in the value of the company's shares. The above opinion was also conveyed by previous researchers John Y. Campbell, Jens Hilscher, and Jan Szilagyi (2010) several other studies the measurement financial distress using the Ohlson (1980) and Altman (1968) Z-Score associated with stocks, such as research conducted by Dichev (1998), Gric and Lemmon (2002) and Ferguson and Shockley (2003). Avramov et al. (2007) and Avramov et al. (2009) by using a more accurate risk measure to get a more accurate picture of stocks with low performance.

The research that will be conducted is positivism research by comparing other similar studies there are several differences, among others, this research the influence of macro factors, financial distress, market value and stock prices before the pandemic and after, especially in companies engaged in investment management. . And the research was conducted specifically on sectors related to public investment funds, namely the Investment Company Sub-Sector.

THEORITICAL REVIEW

Financial Distress and Bankruptcy

1. Financial Distress

Financial distressis a condition that is used as a reference to predict the bankruptcy of an industry and the condition of the company's acceptance of operational activities is not adequate to meet all current debts.(Kazemian et al., 2017) said that financial distress is a stage where the financial health of an industry begins to decline to the bankruptcy process. Companies that have the ability to

predict the possibility of financial difficulties, the company can take risk prevention efforts for the possibility of bankruptcy more quickly so that bankruptcy is expected to be avoided. And anticipatory steps can be taken to avoid it. Almilia & Kristiadji (2003) in (Kusumawati & Herbenita, 2020) said several parties who need information on the prediction of potential bankruptcy, among others:

- Debitor. The parties included are banks, cooperatives, and other parties whose operational activities are related to the provision of loans or credit in order to avoid credit problems that can cause losses.
- Investors. For those who are going to invest in an industry, they really need information on the financial condition of the industry. So by predicting the financial risk of an industry, investment losses can be avoid.
- Regulatory bodies such as OJK. The process of monitoring and calculating risk from financial institutions that are under their supervision is required so that appropriate decision analysis can be carried out on these financial institutions with the aim of protecting investors.
- Government. In an effort to create a safe investment climate in Indonesia, it is necessary to be able to predict the bankruptcy of companies so that they can maintain the level of investor confidence
- Auditors. Can provide information related to the condition of a company, so that users of that information can predict the financial effects of the company and the company's prospects in the future.

2. Bankruptcy

Bankruptcy is one of the impacts of the financial distress process. Bankruptcy is a series of processes that begin with problems in paying off short-term debt and ultimately lead to financial failure, one of which is reflected in the accumulation of debts that cannot be repaid. A company is said to be in bankruptcy, when there is a condition that the income received cannot cover the existing costs, the value of the cash flow received is currently less than the obligations it has, so that the company's profit received is less than the cost of capital. Predictions of potential bankruptcy by management need to be analyzed so that prevention / mitigation plans can be carried out against risks that endanger the industry so that solutions can be immediately found to fix them.

Altman Z-score

Z-score by Altman is a bankruptcy potential model that is widely used in management to estimate when an industry will face bankruptcy. The following is the Altman method used to analyze bankruptcy capabilities(Altman et al., 2017):

$$Zi = 0.012\ X1 + 0.014\ X2 + 0.033\ X3 + 0.006\ X4 + 0.999\ X5$$

Information:

Zi = Total z-score
X1 = Net Working Capital / Total Assets
X2 = Retain Earning / Total Assets
X3 = EBIT / Total Assets
X4 = Market Value of Equity / Total Debt
X5 = Total Sales / Total Assets

The classification results from the above calculations are as follows:

Safe zone = $Z > 2.67$

Zone of gray or gray = $1.81 < Z < 2.67$

Distress zone = $Z < 1.81$

Macro Factor

The influence of macro factors is an external factor that can affect the company's activities carried out by producers, consumers, the banking world, the government, and the business world. Investors who can analyze future macroeconomic conditions will be able to make the right strategic decisions regarding the investment they will make. The reason for using the macroeconomic area as a research variable is because changes in macroeconomic variables quickly affect stock prices. The second reason for the existence of macroeconomic variables is unavoidable and affects not only a few companies but also many companies listed on the IDX(Megawati & Salim, 2019).

Stock price

Bagi (Brigham & Houston, 2013) argues that "the wealth of shareholders is determined by the price of the shares they own". So that the share price of the industry needs to be optimized in order to provide maximum profit for the owner of the share. (Jogiyanto 2013) also stated "The stock price in the capital market is formed from the mechanism of demand and supply of shares in a certain period that occurs in the capital market".

From the opinions of the researchers above, it can be concluded that the stock price comes from the demand and supply mechanism in stock trading which generally uses the closing price. A stock price that is considered attractive if it can provide benefits in the form of capital gains and a good image for the industry makes it easier for the industry to get investors.

RESEARCH METHOD

The research was conducted using quantitative methods that apply the theory of positivism philosophy with the research stages starting with the process of collecting research data in the form of secondary data on company financial statements and followed by testing and quantitative analysis to test the research hypotheses. This research applies a descriptive approach with the aim of explaining the object of research and the results. .

Meanwhile, the framework of thinking functions as a guide and a reflection of the flow of thinking that will be used as the basis for the formulation of the hypothesis in Figure 1.1.

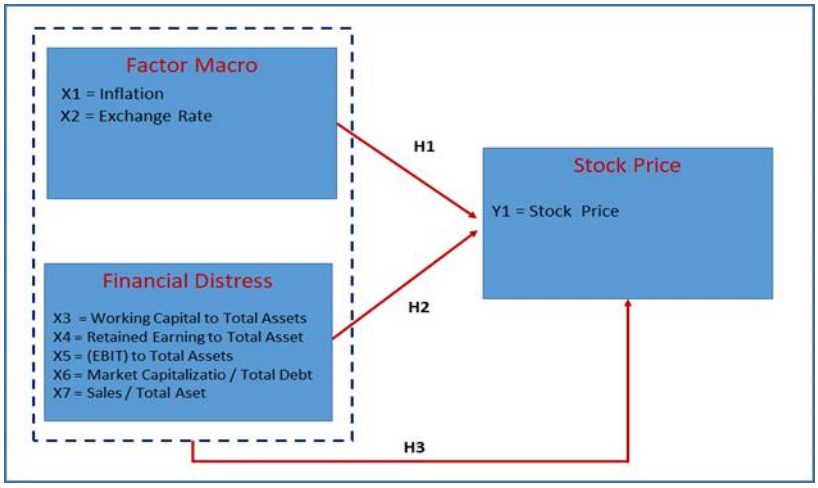

Figure 1.1. Research Model

In this research, the hypothesis is formulated partially or simultaneously, namely:

H1 : There is an influence of macro factor variables on stock prices
H2 : There is an effect of the financial distress on stock prices
H3 : Is there an influence of macro factors, the financial distress on stock prices

In this research using several variables with the dependent variable (Y) being the stock price while the independent variable (X) in the form of a component variable for calculating the potential for financial distress using the Altman Z Score consisting of Working Capital / Total Assets, Earnings on Hold / Total Assets, EBIT / Total Assets, Market Capitalization / Total Debt, Sales Value / Total Assets. And the second independent variable is the macro factor that uses the inflation rate and exchange rate.

DISCUSSION

From the calculation results of Altman Z Score for the 12 companies that are members of the Trade, Services and Investment sector; Investment Company Sub-Sector, when compared to indicators for the safe zone category, $Z > 2.67$ while $Z < 1.68$, the unsafe category shows that there are 2 companies in the unsafe category because the Z value < 1.68, namely Kresna Graha Investama Tbk (KREN) and Charnic Capital Tbk (NICK).

Table 1.1 Summary of Stock Prices, Calculation of Financial Distress Period 2016 – 2020

No	Code	Emiten	Year	Stock Price / Unit (Y)	Working Capital/Total Aset (X1)	Retained Earning / Total Asset (X2)	EBIT / Total Asset (X3)	Market Capitalization / Total Debt (X4)	Total Sales / Total Asset (X5)	Potential Financial Distress (Z)	Average Potential Financial Distress (Z)	Inflation (X6)	Kurs (X7)
1	ABMM	ABM	2016	2.03	-0.07	-0.05	0.01	20.79	1.82	1.94	14.37	3.02%	13,436
2		Investama	2017	2.30	0.12	-0.08	0.00	24.45	1.51	1.66		3.61	13,548
3		Tbk	2018	2.27	0.12	0.00	0.08	35.17	1.10	1.32		3.13%	14,481
4			2019	1.53	0.05	0.01	0.01	0.02	1.44	1.44		2.72%	13,901
5			2020	760.00	0.06	-0.09	-0.07	10,689.30	1.36	65.50		1.68%	14,105
6	BHIT	MNC	2016	144.00	0.03	0.01	0.02	222,304.40	4.29	1,338.11	951.42	3.02%	13,436
7		Investama	2017	96.00	0.02	0.01	0.01	142,226.12	4.16	857.52		3.61	13,548
8		Tbk	2018	62.00	0.03	0.01	0.02	100,867.83	3.83	609.04		3.13%	14,481
9			2019	64.00	0.02	0.02	0.04	150,691.95	3.61	907.76		2.72%	13,901
10			2020	66.00	0.01	0.02	0.03	173,440.62	4.02	1,044.66		1.68%	14,105
11	BMTR	Global	2016	615.00	0.05	0.25	0.03	815,140.76	2.35	4,893.20	3,006.47	3.02%	13,436
12		Mediacom	2017	590.00	0.18	0.24	0.03	617,405.30	2.56	3,706.99		3.61	13,548
13		Tbk	2018	242.00	0.08	0.25	0.05	234,292.70	2.48	1,408.24		3.13%	14,481
14			2019	348.00	0.08	0.29	0.08	417,448.83	2.33	2,507.03		2.72%	13,901
15			2020	290.00	0.14	0.30	0.06	419,034.52	2.67	2,516.89		1.68%	14,105
16	BNBR	Bakrie &	2016	500.00	-1.31	-0.92	-0.52	3,846,874.94	3.16	23,084.36	10,314.01	3.02%	13,436
17		Brothers	2017	500.00	-1.25	-2.56	-0.17	4,485,636.33	2.96	26,916.72		3.61	13,548
18		Tbk	2018	50.00	-0.02	-1.39	-0.09	89,103.70	4.29	538.89		3.13%	14,481
19			2019	50.00	0.01	-1.33	0.05	86,858.02	4.44	525.57		2.72%	13,901
20			2020	50.00	-0.09	-1.44	-0.06	83,138.95	5.70	504.50		1.68%	14,105
21	BRMS	Bumi	2016	63.00	-0.25	0.01	-0.43	3,678.97	495.11	516.67	342.75	3.02%	13,436
22		Resources	2017	62.00	0.24	-0.80	-0.29	5,244.16	173.32	204.60		3.61	13,548
23		Minerals	2018	47.00	-0.03	-1.15	-0.15	6,994.98	584.40	625.76		3.13%	14,481
24		Tbk	2019	49.00	-0.12	-1.42	0.00	6,502.60	139.48	178.33		2.72%	13,901
25			2020	78.00	-0.03	-1.50	0.01	19,661.64	70.49	188.37		1.68%	14,105
26	KREN	Kresna	2016	468.00	0.47	0.31	0.13	14.63	4.55	4.65	1.37	3.02%	13,436
27		Graha	2017	530.00	0.60	0.33	0.14	14.09	0.72	0.82		3.61	13,548
28		Investama	2018	655.00	0.55	0.34	0.21	13.29	0.49	0.58		3.13%	14,481
29		Tbk	2019	500.00	0.61	0.30	0.05	10.76	0.37	0.45		2.72%	13,901
30			2020	84.00	0.54	0.29	-0.07	2.61	0.30	0.32		1.68%	14,105
31	MLPL	Multipolar	2016	347.00	0.12	0.19	0.01	236,645.89	1.35	1,421.23	805.61	3.02%	13,436
32		Tbk	2017	145.00	0.07	0.17	-0.09	116,863.21	1.17	702.35		3.61	13,548
33			2018	74.00	0.05	0.13	-0.09	99,328.62	1.15	597.12		3.13%	14,481
34			2019	85.00	0.01	0.09	-0.06	128,737.72	1.24	773.66		2.72%	13,901
35			2020	71.00	-0.06	0.05	-0.06	88,694.44	1.53	533.69		1.68%	14,105
36	NICK	Charnic	2016	100.00	0.30	0.15	0.17	14.25	6.53	6.62	-1.29	3.02%	13,436
37		Capital Tbk	2017	100.00	0.25	0.02	0.08	1.16	8.85	8.86		3.61	13,548
38			2018	143.00	0.62	0.09	0.08	88.13	11.29	11.82		3.13%	14,481
39			2019	300.00	0.54	0.17	0.09	68.95	10.39	10.80		2.72%	13,901
40			2020	270.00	0.42	0.15	-0.03	102.09	-45.18	-44.52		1.68%	14,105
41	PEGE	Panca	2016	93.00	0.57	0.39	0.06	0.41	16.56	16.56	33.99	3.02%	13,436
42		Global	2017	139.00	0.66	0.46	0.08	0.75	12.39	12.40		3.61	13,548
43		Kapital Tbk	2018	175.00	0.69	0.30	0.08	2.20	12.82	12.83		3.13%	14,481
44			2019	220.00	0.79	0.35	0.05	4.51	23.40	23.42		2.72%	13,901
45			2020	136.00	0.94	0.39	-0.01	12.26	104.75	104.74		1.68%	14,105
46	PLAS	Polaris	2016	406.00	0.08	0.08	-0.06	0.07	9.48	9.47	34.29	3.02%	13,436
47		Investama	2017	50.00	0.08	0.07	-0.07	0.01	3.06	3.05		3.61	13,548
48		Tbk	2018	50.00	-0.06	0.03	0.00	0.04	13.39	13.37		3.13%	14,481
49			2019	50.00	-0.12	0.06	0.00	0.04	52.18	52.13		2.72%	13,901
50			2020	50.00	-0.13	0.05	-0.01	0.04	93.54	93.45		1.68%	14,105
51	POOL	Pool	2016	1.79	0.80	0.12	0.03	0.01	-45.49	-45.43	858.47	3.02%	13,436
52		Advista	2017	4.05	0.93	0.19	0.25	0.27	4.17	4.19		3.61	13,548
53		Indonesia	2018	5.08	0.67	0.18	-0.04	0.03	4,325.56	4,321.24		3.13%	14,481
54		Tbk	2019	156.00	0.77	-0.38	-0.68	6.24	-2.00	-1.98		2.72%	13,901
55			2020	50.00	0.70	-0.63	-0.17	10.38	14.28	14.32		1.68%	14,105
56	SRTG	Saratoga	2016	3.50	0.03	0.48	0.24	1,643.44	3.96	13.84	227.28	3.02%	13,436
57		Investama	2017	3.58	-0.10	0.62	0.12	2,236.73	712.31	725.03		3.61	13,548
58		Sedaya Tbk	2018	3.80	-0.14	0.50	-0.30	2,483.79	344.04	358.59		3.13%	14,481
59			2019	3.62	-0.11	0.64	0.28	2,528.98	4.28	19.47		2.72%	13,901
60			2020	3.43	-0.08	0.74	0.25	2,547.82	4.16	19.46		1.68%	14,105

Source: Processed Data

Analyze condition of financial distress before and after the pandemic, it is divided into 2 periods, before the pandemic is 2017-2018 and after the pandemic is the period 2019-2020 which can be seen in detail in Table 1.2. If we compare the two periods, there is Kresna Graha Investama Tbk (KREN) company whose condition is not safe both before and after the pandemic. And company Charnic Capital Tbk (NICK) with a Z score becomes unsafe after the pandemic. And some of company have trend performance decrease after pandemic.

Table 1.2 Summary of Stock Prices, Calculation of Financial Distress Before the 2017-2018 Pandemic and After the 2019-2020 Pandemic

No	Kode	Emiten	Year	Working Capital/Total Aset (X1)	Retained Earning / Total Asset (X2)	EBIT / Total Asset (X3)	Market Capitalization / Total Debt (X4)	Total Sales / Total Asset (X5)	Potential Financial Distress (Z)	Trend Performance
1	ABMM	ABM	2017-2018	0.12	-0.04	0.04	29.81	1.31	1.49	2153%
2		Investama	2019-2020	0.06	-0.04	-0.03	5,344.66	1.40	33.47	
3	BHIT	MNC	2017-2018	0.03	0.01	0.01	121,546.97	4.00	733.28	33%
4		Investama	2019-2020	0.02	0.02	0.03	162,066.29	3.81	976.21	
5	BMTR	Global	2017-2018	0.13	0.25	0.04	425,849.00	2.52	2,557.61	-2%
6		Mediacom	2019-2020	0.11	0.29	0.07	418,241.67	2.50	2,511.96	
7	BNBR	Bakrie &	2017-2018	-0.63	-1.98	-0.13	2,287,370.01	3.62	13,727.80	-96%
8		Brothers	2019-2020	-0.04	-1.38	0.00	84,998.49	5.07	515.04	
9	BRMS	Bumi	2017-2018	0.10	-0.98	-0.22	6,119.57	378.86	415.18	-56%
10		Resources	2019-2020	-0.08	-1.46	0.00	13,082.12	104.98	183.35	
11	KREN	Kresna	2017-2018	0.33	0.18	13.69	0.60	0.70	1.16	-67%
12		Graha	2019-2020	0.57	0.29	-0.01	6.68	0.34	0.39	
13	MLPL	Multipolar	2017-2018	0.06	0.15	-0.09	108,095.92	1.16	649.73	1%
14		Tbk	2019-2020	-0.03	0.07	-0.06	108,716.08	1.38	653.68	
15	NICK	Charnic	2017-2018	0.43	0.05	0.08	44.65	10.07	10.34	-263%
16		Capital Tbk	2019-2020	0.48	0.16	0.03	85.52	-17.40	-16.86	
17	PEGE	Panca	2017-2018	0.67	0.38	0.08	1.48	12.60	12.62	408%
18		Global	2019-2020	0.86	0.37	0.02	8.39	64.08	64.08	
19	PLAS	Polaris	2017-2018	0.01	0.05	-0.04	0.02	8.22	8.21	786%
20		Investama	2019-2020	-0.13	0.06	-0.01	0.04	72.86	72.79	
21	POOL	Pool	2017-2018	0.80	0.18	0.10	0.15	2,164.86	2,162.72	-100%
22		Advista	2019-2020	0.73	-0.51	-0.42	8.31	6.14	6.17	
23	SRTG	Saratoga	2017-2018	-0.12	0.56	-0.09	2,360.26	528.17	541.81	-96%
24		Investama	2019-2020	-0.10	0.69	0.26	2,538.40	4.22	19.47	

Further analysis is carried outpanel data regression.Panel data is data obtained from cross-sectional data which is observed repeatedly on the same object but at different times. So that the trend of the object observed in a certain time can be obtained.

In processing secondary data obtained from the data collection process, then the data is processed using MS. Excel to present descriptive analysis in the form of making tables and graphs. Meanwhile, statistical data processing activities are used with statistical software EVIEWS version 9.

Panel Data Regression MethodThere are three approaches that can be used obtained The Random Effects method is the best.

After determining the use of the best model is the Random Effect model, then a hypothesis test analysis is carried out to see the effect of the independent variable on the dependent variable by using either partially by using the t-statistical test and Simultaneous F test.

Table 1.3.Random Effect Test Results

REM

Dependent Variable: Y
Method: Panel EGLS (Cross-section random effects)
Date: 12/28/21 Time: 23:01
Sample: 2016 2020
Periods included: 5
Cross-sections included: 12
Total panel (balanced) observations: 60
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	13984.04	71.52848	195.5030	0.0000
X1	-0.082322	0.277795	-0.296340	0.7682
X2	37.16456	159.5546	0.232927	0.8167
X3	-123.1833	91.07480	-1.352551	0.1821
X4	100.3981	306.4022	0.327668	0.7445
X5	-9.10E-05	0.000101	-0.897731	0.3735
X6	0.118806	0.083190	1.428119	0.1592
X7	-113.4223	32.63239	-3.475757	0.0010

Effects Specification

	S.D.	Rho
Cross-section random	0.000000	0.0000
Idiosyncratic random	352.3243	1.0000

Weighted Statistics

R-squared	0.293794	Mean dependent var	13894.20
Adjusted R-squared	0.198728	S.D. dependent var	382.3085
S.E. of regression	342.2189	Sum squared resid	6089916.
F-statistic	3.090413	Durbin-Watson stat	1.937717
Prob(F-statistic)	0.008440		

Unweighted Statistics

R-squared	0.293794	Mean dependent var	13894.20
Sum squared resid	6089916.	Durbin-Watson stat	1.937717

Based on the output results above, there is a regression equation as follows:

Y = + 1X1 + 2X2 + 3X3 + 4X4+ 5X5+ 6X6+ 7X7+ e

Then the regression equation is obtained as follows:

Stock Price =13984.04 - 0.082322 (Working Capital / Total Assets) + 37.16456 (Profit on Hold / Total Assets) - 123.1833 (EBIT / Total Assets) + 100.3981 (Market Capitalization / Total Debt) - 9.10E-05 (Sales Value / Total Assets) + 0.118806 (Inflation Rate) – 113.4223 (Interest rate)

With the partial t test hypothesis and F simultaneouslymeuse conditions:

Ho: It is suspected that there is no influence between the independent variables on the dependent variable
H1: It is suspected that there is an influence between the independent variables on the dependent variable

- If the value of Prob.(t.statistic) or (F.statistic) < from 0.05: means that the proposed Ho hypothesis is rejected or it is suspected that there is a significant influence
- If the value of Prob.(t.statistics) or (F.statistics) > from 0.05: means that the proposed Ho hypothesis is accepted or suspected to have no significant effect

Table 1.4.Comparison of Test Results of t Test and F . Test

Model	Adjusted R-Squared	Prob t Statistic dengan Alpha = 0.05			Compare t Test with Score Alpha	Prob F Statistic dengan Alpha = 0.05		Compare FTest with Score Alpha
Random Effect	0.19%	Working Capital/Total Aset (X1)	-0.29634	Tidak Signifikan	Uji t dengan Membandingkan Nilai Prob.(t.statistic) > Nilai Alpha 0.05 Secara partial semua variabel tidak berpengaruh terhadap Harga Saham	Nilai Prob.(F.statistic) = 0.008440	Signifikan	Uji F dengan Membandingkan Nilai Prob.(F.statistic) 0.008 < Nilai Alpha 0.05 Secara simultan Financial Distress dan Faktor Makro berpengaruh terhadap Harga Saham
		Laba Ditahan / Total Aset (X2)	0.232927	Tidak Signifikan				
		EBIT / Total Aset (X3)	-1.352551	Tidak Signifikan				
		Market Capitalization / Total Hutang	0.327668	Tidak Signifikan				
		Nilai Penjualan / Total Aset (X5)	-0.897731	Tidak Signifikan				
		Inflation (X6)	1.428119	Tidak Signifikan				
		Kurs (X7)	-3.475757	Tidak Signifikan				

Based on Table 1.4, it is obtained that t sig > 0.05 for all variables and Prob F sig < 0.05 so that it can be concluded that all variables have no effect on financial distress separately, but will have a significant effect if used together.

CONCLUSION

Based on the calculation of the financial distress using the Altman Z Score in the Trade, Services and Investment sector; There are 2 investment companies sub-sector in the unsafe category because the Z value < 1.68, namely Kresna Graha Investama Tbk (KREN) and Charnic Capital Tbk (NICK). For the highest rank for the safe category with a calculation of the Z value > 2.67, namely Bakrie & Brothers Tbk with a Z value of10,314.01.

From the multiple linear equations, the results of the Stock Price equation =13984.04 - 0.082322 (Working Capital / Total Assets) + 37.16456 (Profit on Hold / Total Assets) - 123.1833 (EBIT / Total Assets) + 100.3981 (Market Capitalization / Total Debt) - 9.10E-05 (Sales Value / Total Assets) + 0.118806 (Inflation Rate) – 113.4223 (Interest rate).

So, it can be concluded that the increase in stock prices can be caused if there is an increase Retained Earnings / Total Assets, Market Capitalization / Total Debt and influenced by rising inflation. While the decline in stock prices was due to an increase in Working Capital / Total Assets, EBIT / Total Assets, Interest Rates.

Of the seven independent variables, all variables in financial distress and macro factors are thought to have an effect on stock prices if tested simultaneously but each variable has no effect separately (partial).

SUGGESTION

Based on the variable components used in the prediction of potential bankruptcy in the Altman Z Score calculation, it can beIt is recommended to reduce the risk of bankruptcy, the company can increase active assets and working capital so that it can become a reserve for the company to pay debts in the event of a less conductive economic condition. The increase in income obtained through company activities and good stock performance can reduce the risk of bankruptcy.

If the company's financial performance is good, the company has the ability to overcome the impact of rising inflation and exchange rates. The inflation rate in Indonesia tends to be stable and in 2020 tends to decline below 2% but the exchange rate tends to be unstable so companies need to anticipate transactions using foreign currencies, for example hedging forward rate to anticipate unstable currency that will use in future transaction.

BIBLIOGRAPHY

Agrawal, K., & Maheshwari, Y. (2016). Predicting financial distress: revisiting the option-based model.

Anggraini, D. (2016). Financial Distress Model Prediction for Indonesian Companies.

Africa, L. (2016). Financial distress for bankruptcy early warning by the risk analysis on go-public banks in Indonesia.Journal of Economics, Business, and Accountancy | Venture, 19, 259-270.

Ashraf, S., GS Félix, E., & Serrasqueiro, Z. (2019). Do Traditional Financial Distress Prediction Models Predict the Early Warning Signs of Financial Distress?Journal of Risk and Financial Management.

Al-Hadi, A., Chatterjee, B., Yaftian, AM, Taylor, G., & Monzur Hasan, M. (2019). Corporate Social Responsibility Performance, Financial Distress and Firm Life Cycle: Evidence from Australia.International Accounting eJournal.

Altman, EI, Iwanicz-Drozdowska, M., Laitinen, EK, & Suvas, A. (2017). Financial Distress Prediction in an International Context: A Review and Empirical Analysis of Altman's Z-Score Model. Journal of International Financial Management and Accounting, 28(2), 131–171. https://doi.org/10.1111/jifm.12053

Boissay, F., Claessens, S., & Villegas, A. (2020). Tools for managing banking distress: historical experience and lessons for today.

Boots (2021). Corona and banking-A financial crisis in slow motion? An evaluation of the policy options.

Boubaker, S., Hamza, TT, & Vidal-García, J. (2016). Financial Distress and Equity Returns: A Leverage-Augmented Three-Factor Model.Capital Markets: Asset Pricing & Valuation eJournal.

Bruno, V., & Shin, HS (2020). Currency Depreciation and Emerging Market Corporate Distress.Manag. Sci., 66, 1935-1961.

Campbell, JY, Hilscher, JD, & Szilagyi, J. (2011). Predicting financial distress and the performance of distressed stocks. Journal of Investment Management.

Cerchiello, P., Nicola, G., Rönnqvist, S., & Sarlin, P. (2018). Deep Learning for Assessing Banks' Distress from News and Numerical Financial Data.Political Economy - Development: Political Institutions eJournal.

Chiaramonte, L., & Casu, B. (2017). Capital and liquidity ratios and financial distress. Evidence from the European banking industry.British Accounting Review, 49, 138-161.

Dewi, A., & Hadri, M. (2017). Financial distress prediction in Indonesia companies: finding an alternative model.Russian Journal of Agricultural and Socio-Economic Sciences, 61, 29-38.

Dudley, E., & Yin, QE (2018). Financial distress, refinancing, and debt structure.Journal of Banking and Finance, 94, 185-207.

Feyen, EH, Alonso Gispert, T., Kliatskova, T., & Mare, DS (2021). Financial Sector Policy Response to COVID-19 in Emerging Markets and Developing Economies.Journal of Banking and Finance, 106184.

Gao, P., Parsons, C., & Shen, J. (2016). The Global Relations between Financial Distress and Equity Returns.SPGMI: Compustat Fundamentals (Topic).

Geng, R., Bose, I., & Chen, X. (2015). Prediction of financial distress: An empirical study of listed Chinese companies using data mining.euros. J. Opera. Res., 241, 236-247.

Gul, FA, Khedmati, M., Lim, EK, & Navissi, F. (2018). Managerial Ability, Financial Distress, and Audit Fees.Accounting Horizons, 32, 29-51.

Hernandez Tinoco, M., & Wilson, N. (2013). Financial distress and bankruptcy prediction among listed companies using accounting, market and macroeconomic variables. International Review of Financial Analysis, 30, 394–419. https://doi.org/10.1016/j.irfa.2013.02.013

Horváthová, J., & Mokrisová, M. (2018). Risk of Bankruptcy, Its Determinants and Models.
Idrees, S., & Qayyum, A. (2018). The impact of financial distress risk on equity returns: A case study of non-financial firms of Pakistan Stock Exchange.

Imran, M., Wu, M., Qi, H., Kwado, S., & Antwi (2019). Interplay Between Macroeconomic Factors and Equity Premium : Evidence Pakistan Stock Exchange.

Kasmir, Financial Statement Analysis, (Jakarta: PT Raja Grafindo Persada, 2019) Khukmiyah, Susanti

Kazemian, S., Shauri, NAA, Sanusi, ZM, Kamaluddin, A., & Shuhidan, SM (2017). Monitoring mechanisms and financial distress of public listed companies in Malaysia. Journal of International Studies, 10(1), 92–109. https://doi.org/10.14254/2071-8330.2017/10-1/6

Kholisoh, SN, & Dwiarti, R. (2020). The Analysis of Fundamental Variables and Macro Economic Variables in Predicting Financial Distress.Management Analysis Journal, 9, 81-90.

Kim, SY (2018). Predicting hospitality financial distress with ensemble models: the case of US hotels, restaurants, and amusement and recreation.Service Business, 12, 483-503.

Kristanti, FT, & Herwany, A. (2017). Corporate Governance, Financial Ratios, Political Risk and Financial Distress: A Survival Analysis.Risk Management eJournal.

Kusumawati, R., & Herbenita, H. (2020). Analysis of the Effect of Financial Ratios and Company Size on Financial Distress Conditions (Study on Basic and Chemical Industry Companies on the Indonesia Stock Exchange 2014-2017). 2020(2018), 197–202.

Li, Z., Crook, JN, & Andreeva, G. (2017). Dynamic prediction of financial distress using Malmquist DEA.Expert System. App., 80, 94-106.

Männasoo, K., Maripuu, P., & Hazak, A. (2017). Investments, Credit, and Corporate Financial Distress: Evidence from Central and Eastern Europe.Emerging Markets Finance and Trade, 54, 677 - 689.

Megawati, N., & Salim, MN (2019). The Effect of Macroeconomic Variables on the Composite Stock Price Index (IHSG). Economic Media, 26(1), 47. https://doi.org/10.25105/me.v26i1.5163

Muigai, RG, & Muriithi, JG (2017). The Moderating Effect of Firm Size on the Relationship Between Capital Structure and Financial Distress of Non-Financial Companies Listed in Kenya.Journal of Functional Analysis, 5, 151.

Ninh, BP, Thanh, TD, & Hong, DV (2018). Financial distress and bankruptcy prediction: An appropriate model for listed firms in Vietnam.Economic Systems, 42, 616-624.

Nin, J., Salbanya, B., Fleurquin, P., Tomas, E., Arenas, A., & Ramasco, JJ (2021). Modeling financial distress propagation on customer-supplier networks.Chaos, 31 5, 053119 .

Nugroho, MN, Arif, D., & Halik, A. (2021). The effect of financial distress on stock returns, through systematic risk and profitability as mediator variables.

Oliveira, M., Kadapakkam, PR, & Beyhaghi, M. (2017). Effects of customer financial distress on supplier capital structure.Journal of Corporate Finance, 42, 131-149.

Oz, IO, & Yelkenci, T. (2017). A theoretical approach to financial distress prediction modeling.Managerial Finance, 43, 212-230.

Panigrahi, C. (2019). Validity of Altman's 'Z' Score Model in Predicting Financial Distress of Pharmaceutical Companies.ERN: Financial Crises (Monetary) (Topic).

Pernamasari, R., Purwaningsih, SB, Tanjung, J., & Rahayu, DP (2019). Good Corporate Governance and Prediction of Financial Distress to Stock Prices: Atman Z Score Approach.International Journal of Economics and Management Studies, 6, 56-62.

Rezende, F., Montezano, RM, & Oliveira, FN (2017). Predicting financial distress in publicly-traded companies.

Roll, SP, & Despard, MR (2020). Income Loss and Financial Distress during COVID-19: The Protective Role of Liquid Assets.Social Science Research Network.

Roulette, C. (2020). Corporate debt stress testing: A global analysis of non-financial corporations.

Sayari, N., & Mugan, CS (2017). Industry Specific Financial Distress Modeling.Business Research Quarterly, 20, 45 - 62.

Sayidah, N., Assagaf, A., & Faiz, Z. (2020). Does earning management affect financial distress? Evidence from state-owned enterprises in Indonesia.Cogent Business & Management, 7.

Shahab, Y., Ntim, CG, Ye, P., Ullah, F., & Fosu, SA (2018). Environmental Policy, Environmental Performance, and Financial Distress in China: Do Top Management Team Characteristics Matter?EnergyRN: Energy Policy (Topic).

Shahwan, TM, & Habib, AM (2020). Does the efficiency of corporate governance and intellectual capital affect a firm's financial distress? Evidence from Egypt.Journal of Intellectual Capital, 21, 403-430.

Staehr, K., & Uusküla, L. (2020). Macroeconomic and macro-financial factors as leading indicators of non-performing loans.Journal of Economic Studies.

Sugiyono, Quantitative, Qualitative, and RnD Research Methods, (Bandung: Alfabeta, 2019)

Sun, J., Li, H., Fujita, H., Fu, B., & Ai, W. (2020). Class-imbalanced dynamic financial distress prediction based on Adaboost-SVM ensemble combined with SMOTE and time weighting.inf. Fusion, 54, 128-144.

Sutra Tanjung, PR, & Anggraini, D. (2020). Financial Distress Prediction of Lippo Group Companies Using Altman and Zmijewski Models.

Schweizer, L., & Nienhaus, A. (2017). Corporate distress and turnaround: integrating the literature and directing future research.Business Research, 10, 3-47.

Schillig, M. (2021). Banking and Finance after COVID-19.King's Law Journal, 32, 49 - 59.

Tinoco, MH, & Wilson, N. (2013). Financial distress and bankruptcy prediction among listed companies using accounting, market and macroeconomic variables.International Review of Financial Analysis, 30, 394-419.

Udin, S., Khan, M., & Javid, AY (2017). The effects of ownership structure on likelihood of financial distress: an empirical evidence.Corporate Governance, 17, 589-612.

Waqas, H., & Md-Rus, R. (2018). Predicting financial distress: Importance of accounting and firm-specific market variables for Pakistan's listed firms.Cogent Economics & Finance, 6.

Zhan, Y., & Yu, X. (2019). Research on Macro Influencing Factors Based on Stock Market Stability.Proceedings of the 2019 Annual Meeting on Management Engineering

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