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DEBT POLICY & PERFORMANCE OF STATE-OWNED COMPANIES IN INDONESIA.

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Abstract

Research aims: this reseacrh aim to explores the factors influencing debt policy in "red-license plate" companies in Indonesia from 2010 to 2020.
Design/Methodology/Approach: the methods used empirical studies to achieve the study's objectives.
Research findings: The first analysis result showed that their debt policy significantly determined by collateral value of assets, profitability, company size, business risk, liquidity. However, those factors are partly clarified the policies; whereas, other factors outside the observation defined the rest. The result of the second analysis meanwhile showed that the debt policy has significant negative impact on the company performance both long-term and short-term period.
Theoretical Contribution/Originality: Several research strategies that may be useful in this respect are discussed, and a typology of constructs is proposed on the basis of this analysis is STDP, LTDP, and TDP are as latent variables; CVA, POFIT, SIZE, BR, GO, and LIQ are construct variables.
Practitioners/Policy Implications: The first stage of analysis is intended to examine the factors influencing debt policy, both total debt policy, short term debt policy, and long-term debt.
Research Limitations/Implications: This paper has two main objectives. First, it explores the factors influencing debt policy in "red-license plate" companies in Indonesia from 2010 to 2020. Second, it examines the impacts of debt policy on the company's financial performance during that period. The rest of this paper elaborates upon the related literature. We will next explain the methods used to achieve the objectives of the study. Furthermore, it further describes the results of research and discussion and winds up with conclusions and suggestions.
Keywords: Debt Policy, Capital Structure, Financial Performance, Stated-Owned Companies

Introduction

Issues concerning state-owned companies (BUMN) have massively been discussed throughout Indonesia in the past decade. During democracy event i.e. Presidential Election of 2014-2019, multidimensional issues relating to stated-owned companies grew to be hot topic on each candidate's campaign. Moreover, they have been the subject in the candidate debate event organized by General Election Commissions (KPU). It does not stop there; the tension of their problems is getting higher from time to time, particularly when some of them are involved in a scandal, as well as being used as a means of remuneration of the elected president

and vice president for the success team and the political campaign participants. People who are instrumental in winning their president and vice president are given strategic positions in these "red-license plate" companies (another term for BUMN in Indonesia).

As early stated, the problems of these "red-license plate" companies are very complex. The two most highlighted problems are debt policy and company performance. Statistics from the Ministry of Finance of the Republic of Indonesia shows that as of 2020, the total debt of all companies has exceeded IDR 6,637.18 trillion (US$ 472.92 billion), while its total assets are IDR 9,241.72 trillion (US$ 658.50 billion). This means that their ratio of debt to total assets has exceeded 71.82%. The average debt per company is IDR 62.03 trillion (US$ 4.42 billion), with an average total asset of IDR 86.37 trillion (US$ 6.15 billion). Compared to 2010, their debt has increased by 252.81% or the average of around 22.98% per year. The development of their debt over the last 11 years is described in Figure 1a.

a. Debt-to-Assets Ratio Average   b. Z-Score Average
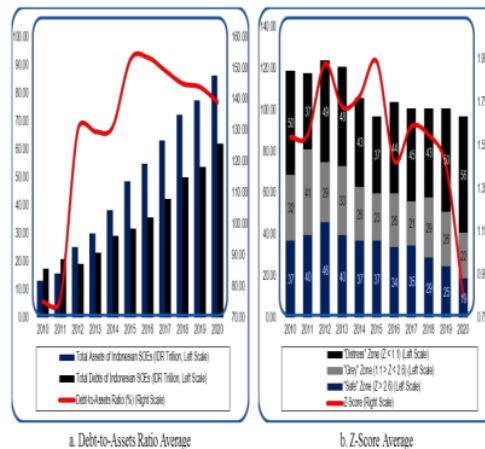
Figure 1. Debt-to-Assets Ratio Average and Z-Score Average (2010-2020)

In contrast to the debt problem, the performance of "red-license plate" companies is very bad from year to year. In Figure 1b, it can be seen that the average z-score is below 1.60 or is in the 'gray' zone, meaning that unless their condition gets very serious attention very soon, it will lead them to bankruptcy. From 2010 to 2020, their average z-score tends to decrease from year to year. Specifically, the number of companies in the 'safe' zone is decreasing, while those in the "distress" zone are increasing from year to year. The companies in the "gray" zone also tend to decrease. However, the decrease is not because some of them have managed to enter the 'safe' zone but have fallen into the "distress" zone.

The trend of the debt of 'red-license plate' companies which is increasing from year to year, while their performance is decreasing,

indicates that their debt policy has so far been inversely proportional to performance. This indication clearly contradicts the MM theory (Modigliani F and Miller M.H., 1958),with No Tax, which states that the performance (value) of a company does not depend on debt policy. In addition, these indications are also irrelevant to MM theory (Modigliani F and Miller M.H., 1963), with taxes and the agency theory (Jensen M.C and Meckling W.H., 1976) These theories argued that debt policy affected company performance because interest payments can reduce taxes, minimize the costs of financial distress, minimize agency costs, minimize information asymmetry, and minimize opportunistic managers. However, these indications may be in accordance with the explanation from the theory of trade-off and pecking orders (Stewart C. Myers and Nicholas S. Majluf, 1984), In the perspective of trade-off theory, the use of debt will provide benefits at a certain point (optimum point) i.e., the point of balance between costs and benefits. However, if the use of debt increases, the company will face bankruptcy problems. Meanwhile, from the perspective of pecking-order theory, debt policy is inversely related to company performance.

This paper has two main objectives. First, it explores the factors influencing debt policy in "red-license plate" companies in Indonesia from 2010 to 2020. Second, it examines the impacts of debt policy on the company's financial performance during that period. This study is different from others, that empirical studies on debt policy are almost entirely conducted on non-state-owned companies, while BUMN are very rare. This is because the majority of them are private (non-public) companies, so their data is difficult to access. Consequently, their knowledge of financing behavior is relatively small. Besides, this study highlights BUMN in Indonesia, which are different from BUMN in other countries.

BUMN in Indonesia are very inherent in political interests, which are entirely under the control of the Minister of State-Owned Enterprises of the Republic of Indonesia, while BUMN in other countries may be less inherent in political interests because they are under the control of a professional holding, for instance the National Treasury Berhad (Malaysia) and Tamasek (Singapore). Therefore, this study is expected to provide a significant contribution to the financial literature, especially regarding debt policy of BUMN. Furthermore, it is also expected to be able to provide implicative suggestions to support the sustainable improvement of BUMN performance.

The rest of this paper elaborates upon the related literature. We will next explain the methods used to achieve the objectives of the study. Furthermore, it further describes the results of research and discussion and winds up with conclusions and suggestions.

The literature referenced is higes Development (Quantitative)

This study employs a combined method approach with data spanned over the last ten years (2010-2020). Both of the question is answered by a quantitative method that analyzes with the BUMN of financial performance data that is explores the factors influencing debt policy in "red-license plate" companies in Indonesia from 2010 to 2020. Second, it examines the impacts of debt policy on the company's financial performance during that period including The average (D/E) ratio of total debt to total assets (TDP) per company. Data Analysis emplys descrivtive statistics on a financial perfomance indicators, and linear regression analysis tat is employed to determine the effect of debt structure on a statistics from the Ministry of Finance and the Ministry of BUMN(Pao Hsiao Tien; et.all, 2003). Document analysis is very useful for understanding the overt and hidden values in policies and the programs where that was implemented.(Leavy P, 2014)

Research Methods

The data covers all non-financial BUMN in Indonesia from 2010 to 2020. Their number reaches 135 companies, consisting of 32 manufacturing companies (23.70%) and 135 non-manufacturing companies (76.30%). Of these, the majority (88.15%) is private (non-public) companies, and only 16 companies (11.85%) are public companies. Consequently, their financial data is not available in a comprehensive manner and tends to be difficult to find. Hence, we employ several students on a part-time basis to collect data manually (hand collecting), done by visiting their official website one by one to find their financial reports and annual reports. Moreover, we also access their data through statistics from the Ministry of Finance and the Ministry of BUMN. The data used are the annual data in the income statement and balance sheet.

The research variables consist of two types, namely independent and dependent variables. These variables are specifically presented in table 1.

Table 1. Research Variable, Symbol, and Their Measurement

Variable	Symbol	Measurement
Collateral value of assets	CVA	Fixed asset / total assets * 100
Profitability	PROF	Operating income / total sales * 100
Company size	SIZE	Log_total assets
Business risk	BR	STDev of operating income / total sales * 100
Growth opportunity	GO	Total sales growth
Liquidity	LIQ	Current asset / current liability * 100
Short term debt policy	STDP	Current liability / total assets * 100
Long term debt policy	LTDP	Long term liability / total assets * 100
Firm performance	FP	Z-Score Altman

The data analysis model was carried out through two stages. The first stage of analysis is intended to examine the factors influencing debt policy, both total debt policy, short term debt policy, and long-term debt policy. This analysis was carried out by structural equation modeling (SEM). The specific models we developed for this analysis are:
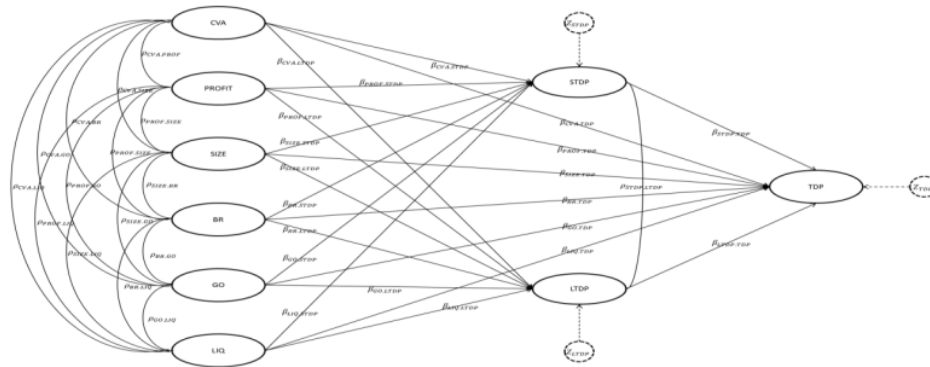
Figure 2. Structural Equation Modeling

Where: STDP, LTDP, and TDP are as latent variables; CVA, POFIT, SIZE, BR, GO, and LIQ are construct variables; ρ is a correlation coefficient; β is slope; and Z is residual error.

The second stage of analysis aims to examine the impact of debt policy on company performance (Amran, 2020). This analysis was performed with autoregressive distributed lag (ARDL). The specific models developed for this analysis are:

$$FP_{i(0)} = \alpha + \beta_{TDP}TDP_{it(-1)} + s \qquad\qquad Model\ 1$$
$$FP_{i(0)} = \alpha + \beta_{STDP}STDP_{it(-1)} + \beta_{LTDP}LTDP_{it(-1)} + s \qquad Model\ 2$$

Description:
1. Symbol i represents the observed companies;
2. Symbol t(0) represents data for the current year;
3. Symbol t(-1) represents data prior to the current year;

All dependent variables use data from the current year (t (0)), while all independent variables use data prior to the current year (t (-1)). This is based on the fact that a policy made this year is based on data from the previous year (past data).

Results and Discussion

Summary Statistics

Table 2 presents summary statistics. The research data is not balanced in every year of observation. The number of companies observed throughout the observation year varied, which was caused by the addition and reduction in the number of members of BUMN companies. For example, in 2010 their number was 121 companies and in 2020 there were 93 companies. These additions and reductions were triggered by several factors, including the establishment of a new company and/or the purchase or control of ownership of another company, the sale or disposal of ownership of the old company, and/or because it has been dissolved or liquidated. Apart from being unbalanced, the research data also looks very extreme in every observed variable (see Table 2, panel A).

Table 2. Summary Statistics

	N	Min	Max	Mean	STDev.	Skewness	Kurtosis
Panel A. Data Original							
TDP (%)	1158	3.51	1,528.93	74.49	92.66	7.99	91.33
STDP (%)	1158	1.75	915.44	49.39	73.22	7.11	67.71
LTDP (%)	1158	0.00	658.66	25.11	37.64	8.06	106.31
SIZE (Log_Total Assets)	1158	-2.52	3.20	0.26	0.96	0.35	-0.10
Total Assets (IDR Till.)	1158	0.00	1,587.94	25.30	120.99	9.05	93.50
CVA (%)	1158	2.80	99.16	52.17	25.62	-0.07	-1.08
LIQ (%)	1158	0.01	35.09	1.93	2.33	6.15	62.14
GO (%)	1131	-452.53	23,927.36	44.06	679.77	33.02	1,152.67
BR (%)	1154	0.00	48,174.08	306.13	2,073.96	16.29	332.34
PROF (%)	1144	-29,085.08	89.02	-51.17	1,035.42	-23.92	614.19
Panel B. Free Data Outliers							
TDP (%)	1113	5.59	210.33	61.74	36.34	1.31	2.77
STDP (%)	1118	1.75	184.19	39.40	30.10	1.40	2.62
LTDP (%)	1093	0.51	116.78	22.80	20.78	1.55	2.54
SIZE (Log_Total Assets)	1158	-2.52	3.20	0.26	0.16	0.35	-0.09
Total Assets (IDR Till.)	1061	0.00	47.22	4.85	3.63	0.75	2.54
CVA (%)	1158	0.86	99.16	52.17	25.62	-0.07	-1.08
LIQ (%)	977	-7.46	7.49	0.77	0.02	-0.20	2.47
BR (%)	1061	0.00	47.22	4.85	6.63	0.75	2.54
GO (%)	930	0.00	36.83	6.76	5.69	0.88	2.11
PROF (%)	1065	-67.86	69.09	10.35	9.77	-0.68	2.06

The total debt of state-owned companies (non-financial) during the observation period tends to increase from year to year, with an average growth rate of 15.84% per year. The total debt of all companies until 2020 has reached IDR 2,458.49 trillion. This amount has increased to 308.10% from 2010 (IDR 602.42 trillion). The average ratio of total debt to total assets (TDP) per company is 74.49% per year. However, the majority of them are below this average value (skewness = +7.99) with almost the same debt ratio between one another (kurtosis = 91.33). The company with the highest total debt ratio was PT Merpati Nusantara Airlines (1528.93%, in 2020) (*Merpati Pailit*, 2022), while the lowest was PT Indonesia Asaham Aluminum (3.51%, in 2013) (*Indonesia Siap Ambil Alih Teknologi-Manajemen Inalum*, 2013). Compared to short-term debt and long-term debt (LTDP), the ratio of short-term debt to total assets (STDP) has an

average value that is higher than the ratio of long-term debt to total assets (LTDP) (i.e., 49.39% vs. 25.11%). However, the growth rate of LTDP is higher than that of STDP (18.27% vs. 12.69%). The company with the highest short-term debt ratio was PT Iglas (915.44%, in 2017) and the lowest was PT Indonesia Asahan Aluminum (1.75%, in 2013), while the company with the highest long-term debt ratio was PT Merpati Nusantara Airlines (658.66%, in 2013) and the lowest was Perum Bulog (0.002%, 2015). The majority of state-owned companies have short-term and long-term debt ratios that are lower than the average value, with a very high degree of data similarity.

State-owned companies have various sizes. They start from IDR 3.02 billion (PT Pradnya Paramita, 2011) to IDR 1,587.94 trilion (PT Perusahaan Listrik, 2020). Their total assets tend to increase from year to year with average growth rate of 16.81% per year (*Company Profile*, no date). In 2020, their overall total assets held IDR 4,493.22 trillion or increased up to 318.92% from 2010 (IDR 1,072.57 trillion). Their average total assets are IDR 2,663.63 trilion per year.

The average total assets per company per year is IDR 25.30 trillion, but the majority of them have total assets less than this average value. Meanwhile, the collateral value of assets (CVA) or also known as the company's asset structure has an average value of 52.17%. This value shows that the composition of the company's assets is almost balanced between fixed assets and non-fixed assets. The average growth of fixed assets is higher than non-fixed assets (16.81% vs. 10.98%). The company with the highest CVA was PT Hotel Indonesia Natour (99.16%, 2016), while the lowest was PT PP Berdikari (2.80%, 2015). However, the majority of them had a CVA above the average value (skewness = -0.07), with values varying greatly from one to another (cutosis = -1.08).

The liquidity level (LIQ) of all state-owned companies tends to decrease from year to year, with an average growth rate of -1.59% per year. The average current ratio per company per year does look safe (current ratio = 1.93 times), but the majority of them have a ratio below the average value (skewness = +6.15) with almost the same liquidity level between one another (kurtosis = 62.14). The most liquid company is PT Indonesia Asaham Aluminum (35.09, in 2013), and the least liquid is PT Kertas Leces (0.006, in 2018).

The level of growth opportunity (GO) of all state-owned companies is very fluctuating, with a downward trend. Their entirety average growth opportunity rate is 6.09% per year. Individually, the average level of growth opportunities per company per year is 44.06%, but the majority of them are lower than the average value (skewness = +33.02), with a very high degree of similarity (kurtosis = 1,152.67). The company with the highest growth opportunity rate is PT Industri Sandang Nusantara (23,927.36%, 2017), while the lowest is PT Pradnya Paramita (-99.70%, 2011).

The business risks of all state-owned companies tend to increase from year to year. The overall average business risk of theirs is 323.95%, with a growth rate of 16.83% per year. Individually, the average business risk per company per year is 306.13%, but the majority are lower (skewness = +16.25), with almost the same level of business risk similarity between one another (kurtosis = 332.34). The company with the highest level of business risk is PT Iglas (48,174.08%), while the lowest is PT TWC BP and RB (0.003%).

The profitability of all state-owned companies is greatly fluctuating from year to year. The average ratio of operating profit to total sales of theirs is 15.18% per year. Individually, the average profitability per company per year is -144.97%, and the majority of them have profitability above this average value (skewness = -14.69) and with a high degree of similarity

(kurtosis = 245.11). The company with the highest profitability is PT Pertamina (89.02%, 2020), while the lowest is PT Industri Sandang Nusantara (- 29,085.08%).

Table 2, Panel A, displays statistics from the original data, which looks very extreme or contains outlier data for each variable(Kazumi Wada, 2020). This can be seen from the standard deviation value, which is greater than the mean value, the skewness value which is far from zero (0), and the kurtosis value which is above 3. Therefore, these data are not suitable for use in the data analysis process with regression models. To overcome this, some outlier data are eliminated, resulting in data that is free from outliers. Statistics for data that are free of outliers are shown in Table 2, Panel B. As a result of this elimination process, the data set is reduced to 751 units or around 6.51% of the total original data set.

Determination of Debt Policy

The results of data analysis using SEM (see Figure 3) show that significant debt policy (TDP) is determined by low CVA (β = -0.337), unprofitable (β = -0.301), small company size (β = -1.167), and illiquidity (β = -11.798), while business risks and growth opportunities are not significant. These factors (especially those that are significant) have a strong correlation (R = 0.650) with moderate explanatory variance (Adj. R2 = 0.419). Specifically, the determination of short-term debt policies (STDP) is different from long-term debt policies (LTDP). There are fewer significant factors determining short-term debt policies, but their correlation and explanatory variance are superior to those of long-term debt policies.
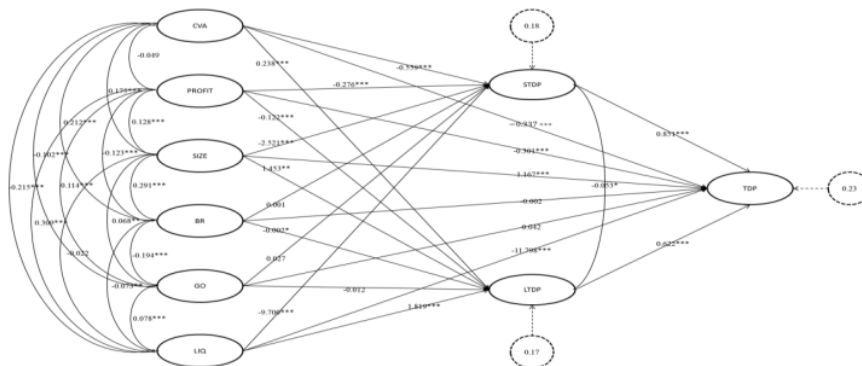

Figure 3. SEM Output

Regarding short-term debt policy, it is significantly determined by low CVA (Company Voluntary Agreement) (β = -0.559), unprofitable (β = -0.276), small company size (β = -2.521), and illiquidity (β = -9.700). The factors have a strong correlation (R = 0.742), with moderate explanatory variance (Adj. R2 = 0.547). Meanwhile, long-term debt policy is significantly determined by high CVA (β = 0.238), unprofitable (β = -0.122), large company size (β = 1.453), low business risk (β = -0.002), and high liquidity (β = 1.819) (see Table 3, Model 3). However, these factors have a weak correlation with long-term debt policies (R = 0.403), so that they are merely able to explain this policy of 15.6% (Adj. R2 = 0.156), while the majority of them are defined by other factors that are not included in this model.

The negative correlation between CVA and short-term debt policy indicates that this policy is predominantly determined by low CVA. This is very logical, that a low CVA indicates the availability of abundant liquid assets, such as cash and its equivalents, receivables and inventories, all of which can be used as collateral for current liabilities. In general practice, current liabilities are always guaranteed by liquid assets, not tangible fixed assets. In addition, a low CVA can also send a signal to creditors that the company has a high level of liquidity $(r_{CVA.LIQ}=-0.215)$, low business risk $(r_{CVA.BR}=0.069)$, and good growth opportunities well in the future $(r_{CVA.GO}=-0.067$ and $r_{CVA.SIZE}=0.175)$. In contrast, the positive correlation between CVA and long-term debt policy indicates that abundant CVA will be a collateral for creditors or debtholders as abundant CVA indicates a low level of corporate liquidity, high business risk, and low growth opportunities. On the other hand, the majority of state-owned companies in Indonesia (88.15%) are private (non-public) companies. So, the signaling effect due to information asymmetry becomes less relevant. Therefore, the hypothesis of the trade-off theory about the relationship between CVA and debt policy is not relevant for the short-term debt policy of state-owned companies in Indonesia. However, the hypothesis is relevant for long-term debt. In contrast, the hypothesis of the pecking order theory is relevant for short-term debt policies, but irrelevant for long-term debt policies.

The negative correlation between profitability and debt policy, both short term and long term, indicates that the debt policy of dominant state-owned companies is determined by losses or low profitability. In a general context, low profitability implies a higher default risk. However, in the context of state-owned companies, low profitability does not always indicate the risk. Low profitability or unprofitability in these companies can be determined by various factors, including due to certain assignments from the government, such as the assignment of electricity subsidies for PT. PLN (Indonesia's Electricity Company), fertilizer subsidies for PT Pupuk Indonesia, fuel and energy subsidies to PT Pertamina, subsidies credit interest for PT Bank BRI, and so on. Such assignments will indeed be compensated by the government, but generally are not executed in the current year. As a result, these assignments often or even always have a negative impact on accounting profit, which in turn has a negative impact on the availability of internal funds. However, it has a positive impact on the company's liquidity $(r_{PROF.LIQ}=0.309)$, especially the increase in the receivables value. Moreover, if a default risk exists, they have a high probability of getting a bailout so as reducing the worries of creditors or debtholders. Specifically, the low profitability of state-owned companies during this observation period is also not associated with low CVA, business risk, and growth opportunities. Therefore, the hypothesis of the trade-off theory about the relationship between profitability and debt policy, both short term and long term are irrelevant. However, it is relevant to the hypothesis of the pecking order theory.

Company size is negatively correlated with short-term debt policy but is positively correlated with long-term debt policy(Dwilaksono, 2010). This shows that small-sized state-owned companies have easier access to short-term debt, because they have a high level of liquidity, so they have more internal funding. In addition, their high level of liquidity also signals that they have high growth opportunities. However, it is difficult for them to access long-term debt because of the minimum CVA, low profitability, and high business risk. Consequently, the debt issuance cost will be more expensive. Conversely, large companies find it difficult to access short-term debt due to their low liquidity and growth opportunities. However, it is very easy for them to access long-term debt because CVA is abundant, profitable, and lower business risk, which in turn will make their debt issuance costs cheaper. Therefore, the hypothesis of the trade-off theory is irrelevant to short-term debt policies, but relevant to long-term debt policies. Meanwhile, the hypothesis of the pecking order is relevant to short-term debt policies, but not to long-term debt policies.

In general, the debt policy of state-owned companies is not significantly determined by business risk. In a general context, both trade-off and pecking order theories predict a positive relationship between the two, where high business risk will increase the possibility of financial distress. However, in the context of state-owned companies in Indonesia, this prediction is less relevant. State-owned companies have high creditor or debtholders' trust, even when their performance is poor. This is because they are owned by the state and at any time will be bailed out by the government. Therefore, business risk becomes insignificant in determining their debt policy. Specifically, only significant long-term debt policy is determined by business risk, and even at the lowest level of significance (10%). Thus, the hypotheses of the trade-off and pecking order theories about the relationship between business risk and debt policy are only partially relevant.

Growth opportunities are not significant for the debt policy of state-owned companies in Indonesia, both short term and long-term debt policies. Statistically, their level of growth opportunities fluctuates a lot and tends to decrease from year to year. However, we failed to explain these findings. Significant debt policy is determined by the company's liquidity level. Liquidity is negatively correlated with short-term debt policy but did conversely with long-term debt policy. The negative correlation between liquidity and short-term debt policies indicates that these policies are predominantly carried out by less liquid companies to fulfill their liquidity needs. This needs to be done because they lack internal funds.

On the contrary, a positive correlation between liquidity and long-term debt policy indicates that this policy is predominantly carried out by liquid companies. Liquid companies tend to increase long-term (debt) funding, because they have the ability to meet maturing obligations and to avoid short-term (debt) funding to maintain excess liquidity. Thus, the hypothesis of the trade-off theory is not relevant to the short-term debt policy of state-owned companies in Indonesia but is relevant to the long-term debt policy. Meanwhile, the hypothesis of the pecking order is relevant to short-term debt policies, but not to long-term debt policies.

Debt Policy Impact on Performance

In general, debt policy (TDP) negatively affected state-owned companies' performance during this observation period, both short and long term (see Table 3, General Column, Model 1). When they are compared, the negative impact of debt policy is greater on long-term performance (β = -0.376) than the impact on short-term performance (β = -0.315). The correlation of debt policy to company performance is very strong (R = 0.832), with an explanatory variance of up to 67.4% (Adj. R2 = 0.674).

Table 3. ARDL Output

	General		"Distress" Zone		"Gray" Zone		"Safe" Zone	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Long run equation								
TDP	-0.376***	---------	-0.338**	---------	-0.016	---------	-0.206**	-
STDP	--------- -	-0.334***	--------- -	-0.409***	-------- -	-0.282	-------- -	-0.152
LTDP	-------- -	-0.158	-------- -	-0.044	-------- -	-0.029	-------- -	-0.260

			***				***	
Short run equation	-	---------	-	---------	-	---------	-	--------
TDP	-0.315***	---------	-0.367***	---------	-0.215	---------	-0.186	-
STDP	--------- -	-0.366***	--------	-0.333***	--------	-1.681***	--------	-0.453*
LTDP	-------- -	-0.101	--------	-0.275***	--------	-0.164	--------	-0.114
Y	2.222***	2.891***	1.095	1.397	1.675	11.502***	2.712	6.672**
ect_{t-1}	0.471***	0.376***	192**	0.628***	0.850***	0.076	0.592***	0.913***
Cons.	3.538***	3.478***	1.240**	1.903***	1.751***	2.206***	4.535***	4.682***
Memo Items								
R	0.832	0.839	0.895	0.913	0.670	0.860	0.905	0.911
Adj. R^2								
F-statistic	134.23***	109.37***	24.743***	26.192***	3.255*	9.610***	26.809***	27.236***
No. of Obs.	914	885	313	306	236	228	316	303

The short-term debt policy (STDP) explicitly has a significant negative impact on company performance, both short-term (β = -0.366) and long-term (β = -0.334) (see General Column, Model 2). The short-term debt policy carried out during this observation period was indeed able to meet liquidity in the current year, but this liquidity was not able to generate positive profits (losses). As a result, the business risks for the following years are increasing, which is accompanied by low liquidity and growth opportunities. Meanwhile, long-term debt policy (LTDP) only has a negative and significant impact on long-term performance. An increase in long-term debt will indeed encourage an increase in CVA and company size. However, it will increase losses due to financial burdens so as reduces company liquidity and increasing business risk. The two debt policies will substantially reduce the company performance (low z-score).

Specifically, the impact of debt policy on company performance varies in each z-score zone. In the 'distress' zone group, debt policy encourages more severe distress (β = -0.338) (see Column "Distress" Zone, Model 1). Short-term debt policy has a negative and significant impact on their short-term and long-term performance, while long-term debt policy only has a negative impact on long-term performance (see Column "Distress" Zone, Model 2). In the 'gray' zone group, debt policy generally does not have a significant impact on company performance. Only short-term debt policies have a negative and significant impact on short-term performance (see 'gray' Zone Column, Model 2). This shows that if the short-term debt policy is not effective and efficient, it can negatively affect the company's solvency, thus, in turn can lead the company to the "distress" zone. Conversely, an increasingly effective and efficient short-term debt policy can boost performance, which in turn will lead the company to the 'safe' zone.

As for the "safe" zone group, company performance is very sensitive to debt policy, especially long-term debt policy towards long-term performance (see Column 'safe' Zone, Model 1, Model 2). Meanwhile, short-term debt policies only have a negative impact on short-term performance. The correlation between debt policy and company performance in this group is very high (R = 0.905), with an explanatory variance reached 77.9%, indicating that debt policy is perilous

for companies. Ineffective and efficient debt policies can lead companies to the 'gray' zone and can even fall into the "distress" zone.

Accordingly, these findings support the hypothesis of the trade-off theory, which states that debt policy is only beneficial when a balance is existed between benefits and costs. However, if the increase in debt exceeds the balance point, then the company will face the bankruptcy risk. Throughout this observation period, the debts of state-owned companies appear to exceed the balance point. Therefore, management and the government (as the owner) need to evaluate the existing debt policies. If existing debts are not effective and efficient, they should be repaid immediately or at least restructured to make them sustainable. Conversely, if debt is urgently needed, it must be resolved prudently.

Conclusion

Determination of debt policy on state-owned companies during this observation period in general (total debt policy/TDP) is significantly determined by the collateral value of assets, profitability, company size, business risk, and liquidity. Specifically, significant short-term debt policy is determined by low CVA, unprofitable, small company size, and illiquidity, with a strong correlation and strong explanatory variance. Meanwhile, significant short-term debt policy is determined by abundant, unprofitable CVA, large company size, low business risk, and high liquidity. Although there are more factors determining long-term debt policy, this policy is dominantly explained by other factors which are not discussed in this study. Short-term debt policies generally support the hypothesis of the pecking-order theory, while the dominant long-term debt policies support the hypothesis of the trade-off theory. However, this proves that no theory can exactly define debt policy or a definite capital structure.

Commonly, state-owned companies have had high debt during this observation period. Therefore, this policy has a significant negative impact on company performance, both short-term and long-term performance. Not only is this negative impact experienced by companies in the "distress" zone, but also by those in the 'gray' zone, even the 'safe' zone. The implication is that company management and the government (as the owners) need to evaluate the existing debt policies. In term of the debts that are not effective and efficient, they should be repaid or at least restructured to make it sustainable. Moreover, regarding debts that performs well, the debt and risk management need to be improved. As for companies that need debt financing, it must be made prudently.

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