Determinants of Debt Policy for Public Companies in Indonesia

Hasan MUKHIBAD¹, Subowo SUBOWO², Denis Opi MAHARIN³, Saparuddin MUKHTAR⁴

Received: April 01, 2020 Revised: April 17, 2020 Accepted: May 07, 2020

Abstract

This research seeks to determine the influence of investment opportunity set (IOS); profitability (Return on Assets - ROA), liquidity, business risk and firm size on debt policy. We used 42 manufacturing companies registered on the Indonesian Stock Exchange (Bursa Efek Indonesia) as object research. We used purposive sampling method to determined samples, consider the period observation from 2012 to 2016, and produce 168 units analysis. Data analysis uses the multiple regressions with the SPSS tools. The results of the study found that companies' debt policies in Indonesia are negatively affected by the liquidity. Investment opportunity set (IOS) has negative effect on debt policy. Meanwhile, ROA, Return on Invested Capital (ROIC), and firm size of a company has no impact on debt policy. These findings indicate that Indonesian manufacture companies do not see the high investment opportunity set and profitability as a policy basis for increasing debt. Moreover, the high profitability also does not cause companies to increase their debt ratio. Our study indicates that Indonesian manufacture companies use internal funds to fund their investment. This finding is a concern for creditors, as they can now see the ability of the companies, and especially their performance, in determining their credit policies.

Keywords : Business Risk, Investment Opportunity Set, Profitability, Liquidity; Manufacture Companies, Firm Size

JEL Classification Code: M41, G23, G32

1. Introduction

The Indonesian economy is currently improving. One of the indicators to measure the performance of the economy is gross domestic product (GDP). Indonesia’s GDP has shown a steady increase over the last 10 years. This ever-increasing economic growth creates the potential for companies to increase the scale of their businesses. Companies can use funding sources that come from capital or debt, to realize this increase in their businesses. This means that there is a tendency for an increase in the companies’ debt, due to an increase in the economy (Gajurel, 2011; Buvanendra, Sridharan and Thiyagarajan, 2016; Rodrigues et al., 2017; Bokpin, 2009; Mahmud, 2003). Therefore, capital structure is one of the important policies for management in the corporate financial management (Nguyen, Bui, & Pham, 2019; Nguyen & Nguyen, 2020).

This also applies in Indonesia. In the second quarter of 2017, there were 19 companies that issued bonds (Maulana, 2017). In 2018, the Indonesian Stock Exchange recorded that seven companies were planning to issue debt obligations in the form of bonds and sukuk, with a total value of 13.76 trillion Rp (Wareza, 2018). The President Director of the Indonesian Securities Rating Agency (PEFINDO) stated that the majority of the bond issuances were by banking and corporate financing companies. However, starting in 2017, the portion of the non-financial sector that issued bonds increased. This condition does not improve investors’ trust toward companies in Indonesia. Moody's report titled “Risks from Leveraged Corporates Grow as Macroeconomic Conditions Worsen” revealed that Indonesia and India are two of 13 countries in the Asia Pacific region that have the highest risk of default (Osmorsa, 2019). This means that...
companies in Indonesia have the potential to fail to make their debt payments.

The proof of this statement is the failure to pay by the Transindo Taxi Express Company, which caused its bond rating to decrease from BB to D. Also failing to meet their debt payments were PT. Tiga Pilar Sejahtera Food Tbk., PT. Sariwani Agricultural Estate Agency (SAEA), PT. Sunprimas Nusantara Financing (SNF Finance), PT. Asuransi Jiwasraya, PT. Kawasan Industri Jababeka Tbk., (KIJA) and PT. Delta Merlin Dunia Textile (DMDT) (Sugianto, 2019). This requires companies to pay attention to, and to evaluate, their ability to repay any debt they enter into.

The importance of debt policy is the reason researchers link debt policy and performance (Nguyen & Nguyen, 2020) and result findings are mixed (Qayyum & Noreen, 2019). Kyissima, Xue and Aebid (2019); Tallab (2014); Desmintari and Yetty (2015); Haron (2016); and Vătavu (2015) find that company performance has a negative effect on debt ratio. Meanwhile, Serghiescu and Vaidean (2014); Murtiningtyas (2012); and Panda and Nanda (2018) find that debt ratios have a positive influence on company performance.

Scholars also use Investment Opportunity as a factor affecting debt policy. However, the conclusion of the relationship between IOS and debt policy is inconsistent. Dalbor and Upneja (2004) identify growth opportunities as proxies for explaining debt policy for firms. Fityiah and Hidayat (2011); Skinner (1993); Dalbor and Upneja (2004); Hikmah et al. (2019); and Surya and Rahayuningsih (2012) show that the results of the Investment Opportunity Set (IOS) have a significant negative effect on debt. However, Marfuah (2014); Dalbor and Upneja (2004), and Nguyen et al. (2019) found a positive relationship between IOS and debt.

The mixed findings of previous research are the reason for conducting this research. We focus on firms in Indonesia because Indonesia has a high investment risk. In addition, Indonesia is a developing country, and has a large investment potential (Osmorsa, 2019). The focus of our study is manufacturing firms, because this sector has a high impact on Indonesia's economic growth (Handriani & Robiyanto, 2018).

2. Literature Review

This research is based on the pecking order theory, the trade-off theory, and the signaling theory. The pecking order theory states that when a company needs sources of funding for its activities, the first thing selected and used is the company’s internal funds, then debt, and the last one is issuing more shares, based on the increasing risks involved (Abdullah & Pok, 2015; Gómez et al., 2015). According to the pecking order theory, companies consider that the use of debt has a smaller risk than raising funds by a new stock issuance (Narita, 2012). The trade-off theory explains that a company’s capital structure is determined by the balance of its strengths and weaknesses that arise due to the use of debt (Surya & Rahayuningsih, 2012; Salehi et al., 2017). The signaling theory talks about managements’ actions giving clues or information to external parties about a company’s condition (Karina & Khaﬁd, 2015).

An increasingly good level of profitability is a sign that a company is experiencing growth. Growing companies maximize the opportunities that exist to continue to grow. The goal of a growing company is to increase its profits or earnings. An increase in profits will result in an increase in internal funds, so that these funds can be used as a source of corporate funding. Profitability is used to assess the company’s efforts to make a profit (Utama & Khaﬁd, 2015). Companies with high profits will take on less debt (Narita, 2012; Surya & Rahayuningsih, 2012; Natasia & Wahidahwati, 2015).

Our data show that a decline in profitability is followed by an increase in debt. Companies with high profitability generate large cash flows and as a result, sufﬁcient net income to be used as a source of internal ﬁnancing (Jóźwiak, Marszalek, & Sekula, 2015). Based on the pecking order theory, there is a sequence for making funding decisions. The main priority is retained earnings, then debt, and subsequently stock issues. If proﬁtability is low, then the company will borrow funds from external parties. Based on the lowest level of risk, which is debt, then the company will select debt as an external funding source. This is in line with research conducted by Murtiningtyas (2012), Surya and Rahayuningsih (2012), Desmintari and Yetty (2015), Natasia and Wahidahwati (2015); Purwohandoko, (2017) and Haron (2016) who all found that profitability has a negative influence on debt policy. The first hypothesis, based on the explanation above, is:

\[ H_1: \] Profitability has a significant negative effect on debt policy.

Firm size illustrates the magnitude of the company’s operational activities. Firm size is often connected with the amount of assets owned by a company (Narita, 2012). Large companies are deemed to be safe if they obtain funding from external sources because they have a great deal of money. Our data illustrate the relationship between firm size and debt policies: when there is an increase in the size of the company, it is followed by an increase in the company’s debt. Large companies often offer greater collateral guarantees (Haron, 2016). Based on the signaling theory, a large collateral guarantee can be a sign that a company is capable of repaying its external loans. Aside from that, large companies usually publish financial reports, which show information about their performance to external
parties. This is in line with research conducted by Surya and Rahayuningsih (2012), Bernice et al., (2015), Haron (2016), and Nguyen et al. (2019) who showed that firm size has a positive effect on debt policy. The second hypothesis, based on the explanation above, is:

\( H_2: \) Firm size has a positive effect on debt policy.

Liquidity can be used to assess whether a company can fulfill its obligations. Obligations that can be fulfilled properly will reduce the number of outstanding obligations. Ghasemi and Razak (2016) and Kurniawan and Khaferid (2016) interpreted liquidity as a company’s ability to pay off its debts. Our provisional conjecture is that the trend in liquidity has decreased every year, and this has been followed by an increase in the level of debt. This illustrates the negative relationship of liquidity with debt. Based on the pecking order theory, when the level of retained earnings is high, then these funds can be used to finance the company’s activities. These retained earnings can also be used to pay off corporate debts so that they can be reduced. Research conducted by Natsia and Wahidahwati (2015), and Haron (2016) showed that liquidity has a negative effect on debt policy. This happens as a result of the company being able to pay its debts, so the level of debt will reduce. However, Vijayakumaran and Vijayakumaran (2019) found that leverage has a positive effect on debt ratio. The third hypothesis, based on the explanation above, is:

\( H_3: \) Liquidity has a negative effect on debt policy.

Every decision taken by a company always has some risk attached to it. A company that is in financial difficulties faces a business risk. This can be due to uncertain conditions in the business environment, which may affect the company’s profitability and income (Alnajjar, 2015). The trade-off theory considers the balance between the benefits and costs of certain actions, so that in determining the debt policy, we must consider the benefits against the cost of the debt plus the interest incurred, so that the company does not experience financial difficulties because of the excessive costs. The greater the business risks are, the lower the corporate debt will be, and vice versa (Haron, 2016). This happens because the increased level of debt will result in increased interest costs, which places a heavy burden on the company’s finances and can cause financial difficulties. To avoid becoming bankrupt, the company must reduce its debt. The studies by Murtiningtyas (2012) and Haron (2016) both found that business risk has a negative influence on debt policy. The fourth hypothesis is:

\( H_4: \) Business risk has a significant negative effect on debt policy.

Investments can allow companies to develop, but to determine the correct level of investment, in the right form, requires careful consideration. The IOS is a decision about investments, in the form of the utilization of corporate assets, for investment choices that will affect the value of the company in the future (Giriati, 2016). According to Abor and Bokpin (2010), IOS as related to the current expenditure, the expected return, and value in the future as a result of the investment decision, has an impact on the value of the company. A company that invests successfully is a company that is well run, so that it is able to grow, and this is considered to be good by external parties. This can affect the company’s share price so that the value of the company increases, because its value reflects its performance. Growing companies can increase their value so that they generate greater profits or earnings (Suryani & Khaferid, 2016). Improved performance will result in better profits or earnings, so that the earnings obtained can be used to finance the company’s activities.

The explanation is in line with the pecking order theory about the order of funding, which is retained earnings, debt, and then stock issues. High corporate earnings result in high retained earnings, so that these can be used to fund the development of the company. When internal funds are sufficient, then the company will reduce its use of debt. However, when the IOS is low, it indicates that the company is not growing and internal funds are also low because of the reduced company profits. In this case, the best funding option is debt since debt is safer than a stock issue. The explanation is found in the research by Fitriyah and Hidayat (2011) who stated that the IOS negatively affects debt policy. Meanwhile, Panda and Nanda (2018) found that the relationship between investment opportunities and debt ratios was negative if using a sample of chemical firms, goods firms, food and agro, textile and transportation companies. In construction, machinery, and metal firm, the relationship between investment opportunities and debt ratio is positive. However, Nguyen et al., (2019) found that growth opportunities had a positive impact on structure capital. The fifth hypothesis, based on the explanation above, is:

\( H_5: \) The investment opportunity set has a significant negative effect on debt policy.

3. Research Methods and Materials

The population of this study consisted of 143 manufacturing companies listed on the Indonesian Stock Exchange (IDX). We observed the population for three years. The sample of the research was determined based on purposive sampling. The process of selecting the samples is shown in Table 1 below:
Table 1: Research Samples’ Selection Process

<table>
<thead>
<tr>
<th>Explanation</th>
<th>Beyond Criteria</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing companies listed on the IDX</td>
<td></td>
<td>143</td>
</tr>
<tr>
<td>Manufacturing companies that have complete financial data to calculate variables in the research during the study period.</td>
<td>(28)</td>
<td>115</td>
</tr>
<tr>
<td>Manufacturing companies that issue financial statements that expire on December 31, during the study period.</td>
<td>(2)</td>
<td>113</td>
</tr>
<tr>
<td>Manufacturing companies that issue financial statements using the Indonesian rupiah.</td>
<td>(27)</td>
<td>86</td>
</tr>
<tr>
<td>Manufacturing companies that made profits before tax, or experienced profits in the year of observation.</td>
<td>(28)</td>
<td>58</td>
</tr>
<tr>
<td>Data Outlier</td>
<td>(16)</td>
<td>42</td>
</tr>
<tr>
<td>Number of company samples</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Period of observation</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Number of analysis units</td>
<td></td>
<td>168</td>
</tr>
</tbody>
</table>

Source: Secondary data processed 2020.

Table 2: Summary of Research Variable

<table>
<thead>
<tr>
<th>Variables</th>
<th>Definition</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt Assets Ratio</td>
<td>One of the external funding sources used by a company to finance its funding needs (Surya &amp; Rahayuningsih, 2012)</td>
<td>DAR= Total Asset Total Debt (Hartoyo et al., 2014; Mahardika et al., 2014)</td>
</tr>
<tr>
<td>Profitability</td>
<td>The ability of a company to generate profits or earnings (Utama &amp; Khafid, 2015)</td>
<td>ROA= Operating Profit Total Asset (Karina &amp; Khafid, 2015)</td>
</tr>
<tr>
<td>Firm Size</td>
<td>Amount of assets contained in a company (Narita, 2012)</td>
<td>Ln. Total Asset (Ng et al., 2012; Surya &amp; Rahayuningsih, 2012)</td>
</tr>
<tr>
<td>Liquidity</td>
<td>The ability of a company to pay off its debts (Ghasemi &amp; Razak, 2016; Kurniawan &amp; Khafid, 2016)</td>
<td>CR= Current Assets Current Liabilities (Kurniawan &amp; Khafid, 2016)</td>
</tr>
<tr>
<td>Business Risk</td>
<td>Business risks occur because a company is experiencing financial difficulties (Gómez et al., 2015).</td>
<td>ROIC= NOPAT MODAL (Brigham &amp; Houston, 2013)</td>
</tr>
<tr>
<td>Investment Opportunity Set</td>
<td>Decisions about investments, in the form of utilizing the assets owned by a company that will have an impact on the company’s value in the future (Giriati, 2016)</td>
<td>Market to Book Value Assets (MBVA) = [Assets-Total Equity + (outstanding share sheet x closing price)] : Total Assets (Fitriyah &amp; Hidayat, 2011)</td>
</tr>
</tbody>
</table>

This study examined five independent variables that influenced the dependent variable. The dependent variable in this research was debt policy. The independent variables in this research were profitability, firm size, liquidity, business risk, and the investment opportunity set. The summary of the variables in this study can be seen in Table 2 below:

The data collection technique used the documentation technique. The data analysis technique used a multiple linear regression. This study also tested the classical assumption, which consisted of a normality test (Kolmogorof-Smirnov’s test), multicollinearity test, autocorrelation test (runs test), and a heteroscedasticity test (glacial test). This study uses the multiple linear regression equation as follows:

\[ \text{DAR} = \alpha - \beta_1 \text{PROF} + \beta_2 \text{UKU} - \beta_3 \text{LIK} - \beta_4 \text{RISK} - \beta_5 \text{SKI} + \epsilon \]

Where:
- DAR = Debt Policy
- PROF = Profitability
- UKU = Firm Size
Table 3: Descriptive Analysis

<table>
<thead>
<tr>
<th>Description</th>
<th>DAR</th>
<th>ROA</th>
<th>Ln Size</th>
<th>Liquidity</th>
<th>Risk</th>
<th>IOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>0.423</td>
<td>0.155</td>
<td>12.253</td>
<td>2.426</td>
<td>0.162</td>
<td>1.674</td>
</tr>
<tr>
<td>Minimal</td>
<td>0.131</td>
<td>0.026</td>
<td>11.109</td>
<td>0.957</td>
<td>0.011</td>
<td>0.201</td>
</tr>
<tr>
<td>Maximum</td>
<td>0.994</td>
<td>0.655</td>
<td>13.963</td>
<td>8.089</td>
<td>0.513</td>
<td>5.634</td>
</tr>
<tr>
<td>St. Dev</td>
<td>0.178</td>
<td>0.102</td>
<td>0.695</td>
<td>1.384</td>
<td>0.094</td>
<td>1.147</td>
</tr>
</tbody>
</table>
a further increase in 2015 to 12.55%. Whereas its level of
debt was 30.7% in 2012, it experienced a decrease in 2013 to
28.1%. In 2014 it experienced another decline to 22.1% and
in 2015 it dropped to 21%. PT. Arga Karya Prima Industry
Tbk., increased in size in 2012 to 12.23%, in 2013 it grew to
12.32%, in 2014 to 12.35%, and in 2015 to 12.46%. Whereas
the level of debt in 2012 was 50.8%, this dropped to 50.6%
in 2013, in 2014 it rose to 53.5% and in 2015 experienced an
increase to 61.6%.

Table 4 shows that liquidity has a negative effect on debt
policy. Liquid companies are companies that are capable
of meeting their obligations. Liquidity is the ability of a
compny to pay its debts (Kurniawan & Khafid, 2016). Based
on the pecking order theory, a company that has increased its
liquidity has increased its ability to pay its debts, and thus
reduce the level of its debt. This is due to the company being
able to meet its need for funds from its retained earnings
and to meet its debt repayments. The results of this research
support the research conducted by Natasia and Wahidahwati
(2015) and Haron (2016) who found that liquidity has a
negative effect on debt policy. However, these findings reject
Tailab (2014) and Mahmud (2003)industry class, and firm-
specific factors in three Asian countries, Japan, Malaysia,
and Pakistan. Firm-specific factor studies include firm’s
growth, size, assets composition, profitability, operating
leverage, and dividends. The study covers a period of 10
years (1989-1998), who believed that liquidity had a positive
effect on debt.

The results of this study also found that the business
risk has no negative effect on debt policy. The business
risk occurs because the company is experiencing financial
difficulties (Gómez et al., 2015). The researchers assume
the fourth hypothesis is rejected because companies change their
views of risk; it is usually associated with negative aspects
that are thought to be disadvantageous or uncertain, but there
may be positive opportunities that could bring benefits to the
companies (Gitosudarmo & Basri, 2014). Gitosudarmo and
Basri (2014) thought that companies, which could anticipate
uncertainty in the future, would make maximum use of it
because the inherent risk in dividing wealth into that which
may be consumed and that which will be invested is expected
to result in an increase in wealth in the future. When the level
of business risk is high, it raises the level of debt and when
the business risk is low, then follows a decrease in the level
of debt.

This can be seen in PT. Sekar Laut Tbk., which had a
business risk level of 0.062 in 2012; it experienced an
increase to 0.082 in 2013, in 2014 it experienced another
increase to 0.110, and in 2015 it experienced a further
increase to 0.132. The level of debt in 2013 amounted to
0.482, which increased an increase in 2013 to 0.564, and
in 2014 experienced a further increase to 0.592, and
in 2015 it increased again to 0.597. PT Nusantara Inti
Corpora Tbk. had a business risk level of 0.147 in 2012, it
experienced an increase in 2013 to 0.345. During 2014 this
decreased to 0.146 and it experienced an increase to 0.159
in 2015. The debt in 2012 was 0.367, which experienced an
increase in 2013 to 0.475. In 2014, it decreased to 0.450 and
experienced an increase in 2015 to 0.475. The result of this
study is aligned with the research conducted by Surya and
Rahayuningsih (2012), and Sofat and Singh (2017), who all
stated that business risk does not have an influence on debt
policy.

The last indicator that we used to influence the debt policy
was the IOS. This study found that the IOS has a significant
negative effect on debt policy. Giriati (2016) stated that the
IOS is an opportunity or chance for a company to invest so
that it will provide benefits in the future. In line with the
pecking order theory, the choices of funding for the company
are first retained earnings, second is debt, then a share issue.
When the amount of its internal funds is sufficient to enable
the company to finance its activities, then the company
prefers to use those funds, rather than take on extra debt.
However, if the IOS rate is low, then the company can be said
to have experienced little growth. Low growth is believed to
be the first sign of a decline in company earnings (Suryani &
Khafid, 2016). This can result in a decrease in the company’s
retained earnings, and an increase in the company’s debt.

As happened with PT. Sekar Bumi, Tbk., which had
an investment opportunity set (IOS) of 1.707 in 2012, it
experienced a decrease in 2013 to 1.431. In 2014, it rose to
1.920 and in 2015 experienced a decline to 1.705. The level of

---

Table 4: Hypothesis Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Hypothesis</th>
<th>B</th>
<th>Sig</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profitability</td>
<td>Negative</td>
<td>→ Debt</td>
<td>-0.180</td>
<td>0.122</td>
</tr>
<tr>
<td>Size</td>
<td>Positive</td>
<td>→ Debt</td>
<td>0.007</td>
<td>0.594</td>
</tr>
<tr>
<td>Liquidity</td>
<td>Negative</td>
<td>→ Debt</td>
<td>-0.093***</td>
<td>0.000</td>
</tr>
<tr>
<td>Business Risk</td>
<td>Negative</td>
<td>→ Debt</td>
<td>0.034</td>
<td>0.796</td>
</tr>
<tr>
<td>IOS</td>
<td>Negative</td>
<td>→ Debt</td>
<td>-0.030***</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*** Significant at 1%
debt in 2012 was 0.558, this experienced an increase in 2013 to 0.615. In 2014, it fell to 0.529, and in 2015 it experienced an increase to 0.548. PT. Kedaung Setia Industrial, Tbk., had an IOS of 5.933 in 2012, experienced a decline in 2013 to 5.27. In 2014, it dropped to 0.691, and it experienced a further decline to 0.560 in 2015. The debt level in 2012 was 0.446, it experienced an increase in 2013 to 0.609. In 2014 it rose to 0.613, and in 2015 it experienced another increase to 0.781. The result of this study is in line with Fitriyah and Hidayat (2011) who showed the investment opportunity set has a negative influence on debt policy.

6. Conclusions

This study focuses on the factors that influence debt policies. We use liquidity, the investment opportunity set, profitability, and firm size to explain debt policies. Our study finds that corporate debt policies in Indonesia are negatively affected by liquidity and the investment opportunity set. Moreover, this research shows that debt policies are not affected by profitability or firm size. This research only uses limited variables, but our sample covers all the public companies in Indonesia. Thus, our weakness is ignoring corporate governance and economic conditions as variables that may affect the debt policies as suggested by Vijayakumaran & Vijayakumaran (2019). We suggest further research to identify the factors of corporate governance and economic conditions in explaining debt policies in Indonesia.

References


