

Financial Flexibility and Business Risk Effect on Capital Structure: Insight from Indonesian Energy Listed Companies

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Abstract: This study aims to examine the effect of financial flexibility, business risk, and asset structure on the capital structure of companies listed on the Indonesia Stock Exchange. A total of 33 Energy Sector Companies became the object of research from 2012 to 2020. To analyze the data, this study used a causal method with a panel regression model. Financial flexibility has a positive effect on the company's capital structure, while business risk has a negative effect. Lastly, asset structure has no effect. This study shows that companies with high financial flexibility will tend to choose debt financing. Meanwhile, high business risk will make companies more inclined to choose equity financing. This is in line with the Pecking order theory.

Keywords: Financial Flexibility, Business Risk

Introduction

Capital structure as a combination of debt and equity is an important part of management because it is related to the company's financial condition. The company's management determines its capital structure in such a way that the selection of a combination of debt and equity is in optimal proportions by considering the different costs and benefits. Wrong decisions regarding capital structure can lead to financial difficulties and ultimately bankruptcy (Alipour, Mohammadi, & Derakhshan, 2015). The company's capital structure decisions can be made by considering financial flexibility (Brounen, Jong, & Koedijk, 2006; Alipour, Mohammadi, & Derakhshan, 2015; Margaretha & Ginting, 2016; Agustiawan, Efni, & Gusnardi, 2021), business risks (Friend & Lang, 1988; Eldomiaty, 2007; Abor & Biekie, 2009; Alipour, Mohammadi, & Derakhshan, 2015), and asset structure (Al-Najjar & Taylor, 2008; Viviani, 2008; Teker, Tasseven, & Tukel, 2009; Alipour, Mohammadi, & Derakhshan, 2015; Sofat & Singh, 2017).

A high level of asset structure indicates that the tangible assets of a company are large. With this large number of tangible assets, it is easier for companies to obtain external funding sources. Financial flexibility which shows the availability of adequate internal funds can also cause companies to tend not to rely on external funding so that the use of debt can be reduced. Companies with high business risk will also be inclined to avoid debt to prevent the possibility of bankruptcy. In addition, companies that have high business risks tend to have difficulty obtaining external funding.

This study aims to analyze the effect of financial flexibility, business risk, and asset structure on the capital structure of Energy Sector Companies on the Indonesia Stock Exchange. This sector is the object of research because this industry is one of the main sources of state revenue and the driving force of the national economy. In addition, this industry requires large funds so it is worth analyzing the determinants of its capital structure.

Literature Review

Modigliani-Miller (MM) Theory

The basic theory of capital structure was first established by Modigliani and Miller (1958). This theory explains that the company's capital structure is not relevant to the value of the company and does not affect the company's cost of capital. Firm value is not caused by the composition of the capital structure or a combination of debt and equity of a company but by the impact of the investment made by the company and the company's operational activities in generating profits (Modigliani & Miller, 1958). As in Sudana (2011) to support their opinion, Modigliani and Miller put forward several assumptions, namely (1) the capital market is in perfect condition, (2) the expected value of the probability distribution for all investors is the same, (3) companies can be grouped into the same classes of risk, and (4) there is no corporate income tax. Modigliani and Miller then reviewed their previous theory and incorporated tax factors into their theory as a determinant of capital structure. In this second theory, Modigliani and Miller (1963) explain that paying taxes to the government means that there is a cash outflow. The use of debt can provide tax savings to the company due to the incurrence of interest costs. Thus, it can be interpreted that the company should use debt as much as possible because the value of the company increases along with the increase in the amount of debt (Brigham & Ehrhardt, 2005). Miller (1977) extends Modigliani and Miller's model to consider the impact of personal taxes and argues that corporate taxes overestimate the benefits of using debt. Modigliani and Miller's theory is based on strong and unrealistic assumptions, so it should be noted that the implication of this theory as a general effect of debt on firm value is not a precise relationship (Brigham & Ehrhardt, 2005).

Pecking Order Theory

Pecking Order Theory was developed by Myers and Majluf (1984) who said that there was no optimal composition of capital structure. This theory explains that the company has a sequence in making funding decisions starting from funding within the company (internal) to funding outside the company (external) in determining the capital structure. According to Myers and Majluf (1984), the sequence of funding starts from funds originating from retained earnings, then comes from debt, and finally comes from the issue of new shares. This means that funding starts from sources of funds that are low-risk or the cheapest for the company.

Trade-off Theory

Trade-off Theory explains that there is an optimal composition of capital structure determined by creating a balance between tax effects, agency costs, and bankruptcy costs (Alipour, Mohammadi, & Derakhshan, 2015). According to Chiang, Cheng, and Lam (2010) companies with high levels of profit prefer having higher debt because the use of debt can provide benefits in the form of tax savings effects. After all, debt causes interest payments. Interest payments will reduce the amount of taxable income so that it can save the company in paying taxes and the value of the company is expected to increase. This indicates that the company can continue to use debt as long as it provides greater profits for the company. Companies are not advised to increase the portion of the debt if the use of debt no longer provides benefits to the company.

According to Abor and Biekie (2009) in agency theory, conflicts often occur between shareholders and debt holders and between shareholders and managers. Agency costs can arise from the issuance of debt (Jensen & Meckling, 1976). An increase in debt causes an increase in conflict between the two or in other words an increase in agency costs. The increase in agency costs is due to the potential loss that will be experienced by debt holders. Under these conditions, supervision of the company by debt holders will increase. The optimal capital structure of a firm can be determined by agency costs. To reduce the agency costs, the optimal structure of ownership and debt must be determined (Jensen & Meckling, 1976).

Capital Structure

A capital structure is a composition of debt and equity. According to Sjahrial (2008), capital structure is a balance between the use of loan capital consisting of permanent short-term debt, long-term debt and own capital consisting of preferred stock and common stock. The company requires a large amount of capital to fund activities and the company's expansion activities. Companies need to make decisions in determining where the source of funds will come from which will be used to carry out their business activities.

Fulfilling the funding needs of a company can be done in several ways. Based on the source, funding can be divided into two, namely internal funding (from within the company) and external funding (from outside the company). Funding from internal companies can be obtained from retained earnings and depreciation costs, while funding from external companies can be obtained from debt funding through loans and capital funding through the issue of new shares.

Although theoretically the optimal capital structure can be determined, in practice it is difficult to estimate the structure with certainty (Brigham & Houston, 2001). When debt is added to the capital structure it can provide benefits to the company. Companies whose sources of funds come from debt can enjoy the benefits of a tax reduction on their debt (Stretcher & Johnson, 2011). Debt will be beneficial if it is at a low level because in addition to providing tax protection due to interest costs, debt is also a cheaper source of funding compared to capital funding through the issuance of new shares.

The situation will be different when the debt portion of the company is too high. Having high debt can cause companies to experience financial difficulties (Sofat & Singh, 2017). The higher the level of debt owed by the company, the company will be more financially depressed, which can result in bankruptcy. Therefore, the decision regarding the selection of the right funding to fund the company is very crucial because it reflects the financial position of the company.

Consideration of the best and most efficient funding alternatives is absolutely done by the management. Companies need to find a composition of capital structure that does not harm various parties such as investors, creditors, and the company itself. Companies can have an optimal capital structure if the preparation of the capital structure is carried out carefully and appropriately. According to Chandra *et al.*, (2019) the most optimal capital structure is a condition where the cost of capital charged and the risks faced reach a minimum level. According to Stretcher and Johnson (2011), the optimal capital structure is a condition where the use of debt reaches the point where the value of the company is maximized (maximizing shareholder wealth).

Based on this, the capital structure is a vital issue for a company, so in making decisions it is necessary to consider many things because the good or bad capital structure will have an impact on the company's financial position. The ability of financial flexibility, the level of business risk, and the structure of assets owned are three factors that have a role in determining the composition of the capital structure of the company.

Financial Flexibility

Financial flexibility reflects the company's ability to adapt to unexpected or sudden needs and opportunities that occur in the future. According to Rapp, Schmid, and Urban (2014), financial flexibility is the company's ability to access and restructure its financing with minimum costs. In order for a company to be able to meet its needs and respond to every opportunity in unforeseen conditions, it is necessary to have sufficient capital available. Managers in the company know that a good capital supply is necessary for stable operations and is a significant factor because it determines the company's long-term success (Brigham & Houston, 2001).

Companies with a high level of financial flexibility tend to have less debt because the company will try to increase the flexibility of the company by minimizing the need for external financing (Beattie, Goodacre, & Thomson, 2006). This means that if a company has a sudden need or a profitable investment opportunity arises, then the company does not need to seek external funding. Companies with a high level of financial flexibility tend to experience a lower impact in the event of a crisis than companies with a low level of financial flexibility (Bancel & Mittoo, 2011).

Determining the capital structure can be seen from the level of financial flexibility owned by a company. Therefore, one of the ways when companies can maintain financial flexibility is to adjust the proportion between its own debt and capital (Murti, Achsani, & Andati, 2016). In other words, companies need to consider various factors to determine the optimal composition of the capital structure.

Companies with a high level of financial flexibility have low debt levels relevant to the pecking order theory which says that managers will prefer internal financing over external financing. Financial flexibility is the determinant key of optimal capital structure (Brounen, Jong, & Koedijk, 2006). Empirical evidences by Alipour, Mohammadi, & Derakhshan (2015); Margaretha & Ginting, (2016); and Agustawan, Efni, & Gusnardi, (2021) reveal that financial flexibility has a negative effect on the capital structure of a company. Based on this description, the hypothesis is formulated as follows:

H₁: Financial flexibility has a negative effect on the company's capital structure.

Business Risk

Business risk can be defined as the risk that will be experienced by the company due to uncertain profits and the nature of the business itself. According to Brigham and Houston (2001), business risk is the uncertainty in predicting the level of return on assets (ROA) in the future. Companies that experience problems in liquidity are very likely to enter a period of financial difficulty (Fahmi, 2016). If this happens, the company has a high risk of default. The risk of default refers to the probability that the interest and principal of the loan will not be paid in the promised amount on the due date or will not be paid at all (Ross, Westerfield, & Jordan, 2002).

Business risk is said to be one of the main factors in determining the company's capital structure (Abor & Biekpie, 2009). Determining the composition of the wrong capital structure can bring the company into financial difficulties. Companies that have a high level of business risk have a high probability of default. The trade-off theory explains that companies that have a high level of business risk so that they have a high probability of going bankrupt should not have a lot of debt (Wiwattanakantang, 1999).

Companies with a high level of business risk tend to avoid using external funding and rely more on company internal funding to prevent bankruptcy (Alipour, Mohammadi, & Derakhshan, 2015). This is in line with the pecking order theory that companies with a high level of business risk will reduce the use of external funds in the form of debt. The smaller the business risk a company has, the debt will increase because the company tends to be trusted by outsiders to lend funds (Hendra & Rowena, 2021).

Based on the explanation above, with increasing business risk, companies tend to reduce the use of debt and the other way around if the business risk decreases. The company will reduce the use of debt due to the level of risk. A high business has a high probability of bankruptcy risk as well. Therefore, companies must find and determine the optimal capital structure that can balance debt and equity. Business failure can be minimized if a company has a good proportion of capital structure. Empirical evidences by researches by Friend & Lang, (1988); Eldomiaty, (2007); Abor & Biekpe, (2009); Alipour, Mohammadi, & Derakhshan, (2015) reveal that business risk has a

negative effect on the company's capital structure. Based on this explanation, the second hypothesis proposed is:

H₂: Business risk has a negative effect on the company's capital structure.

Asset Structure

In addition to financial flexibility and business risks faced by the company, asset structure is the other factor to be considered by management in determining the composition of the capital structure. Assets are resources owned and used to achieve company goals. Assets are defined as resources that have the potential to provide benefits to the company in the future. According to Hanafi and Halim (2016), resources capable of generating cash inflows or the ability to reduce cash outflows can be referred to as assets.

Companies that have high assets have more assets to be used as collateral to pay debts in the event of bankruptcy, so they will have a greater ability to attract more debt (Alipour, Mohammadi, & Derakhshan, 2015). External funding in the form of debt will provide benefits to the company in the form of tax reductions due to interest costs. Based on this, the cause of companies tends to use more debt in the hope of increasing company profits. Another advantage, if the company has high assets that it does not experience difficulties if they want to make a loan.

Companies that have high assets can use their assets as collateral to obtain debt from external sources. This is in line with the trade-off theory which explains that a company with more tangible assets will have a high level of debt because the company has many assets that can be used as collateral to pay debts so that the company will have the ability to use more debt (Sofat & Singh, 2017).

Companies with high assets are more trustworthy in obtaining loans from outside parties compared to companies with low asset levels. This is because the risk of bankruptcy is lower and still has collateral for debt in the form of assets owned (Alipour, Mohammadi, & Derakhshan, 2015). Empirical evidences by Al-Najjar & Taylor, (2008); Viviani, (2008); Teker, Tasseven, & Tukul, (2009); Alipour, Mohammadi, & Derakhshan, (2015); and Sofat & Singh, (2017) show that the asset structure has a positive effect on the company's capital structure. Based on this description, the following hypothesis can be formulated:

H₃: Asset structure has a positive effect on the company's capital structure.

Methods

The research method is causal research with a panel regression model. The data collection technique used in this research is a documentary study. The data used in this study is secondary data in the form of annual reports from each company taken from: www.idx.co.id. The population in this study is the Energy Sector Companies on the Indonesia Stock Exchange, amounting to 69 companies. The sampling technique was purposive sampling with the criteria of companies that had an IPO before 2012 and were not suspended during the analysis period so that a total of 33 samples of companies were obtained.

Measurement of financial flexibility as in Alipour, Mohammadi, & Derakhshan, (2015) is by comparing retained earnings to the company's total assets. Business risk variables are calculated by using the standard deviation of return on assets (ROA) (Alipour, Mohammadi, & Derakhshan, 2015). Furthermore, the asset structure is measured by comparing the total fixed assets with the company's total assets (Sofat & Singh, 2017).

Findings

Descriptive Statistical Analysis

Table 1 presents the results of descriptive statistics for all variables used in this study. Based on Table 1, the standard deviation of financial flexibility of 0.9468278 shows the varying ability of companies in the Energy Sector Companies on the IDX to adapt to unexpected needs and opportunities in the future. There are companies in this sector that are able to guarantee profit persistence (minimum business risk value is 0.0083). Averagely, the company has fixed assets as much as 0.659473 times compared to its total assets. From the overall data, the highest DER value is 34.0556 indicates that there are also companies that use high debt in carrying out operating activities and the company's sources of capital tend to be very dependent on outside parties.

Table 1. **Summary of Descriptive**

Variable	Minimum	Maximum	Mean	Std. Deviation
FLEX	-9.3679	1.0576	-.024425	.9468278
RISK	.0083	.6811	.089495	.1087838
ASST	.0701	.9793	.659473	.1823034
DER	-15.8173	34.0556	1.810407	4.1149816

Univariate Test

Table 2 presents the results of the correlation test. The matrix aims to show univariate associations between two variables. The correlation between the dependent variable and the regressor variable (ASST, RISK, FLEX) shows that the large asset structure and small business risk correlate with the debt-based capital structure. It is just that financial flexibility (FLEX) does not have a significant correlation with capital structure.

This study uses a Variance Inflation Factor (VIF) approach to determine the violation of multicollinearity between independent variables. Each variable that has a VIF below 10 indicates that there is no multicollinearity violation.

Table 2. **Correlation Matrix**

	DER	ASST	RISK	FLEX	VIF
DER	1				
ASST	0.2420*	1			1.04
RISK	-0.1294*	-0.1807*	1		1.93
FLEX	0.0283	0.0497	-0.6792*	1	1.88

Hypothesis Testing

The regression model of this study was first tested for classical assumptions, including multicollinearity, normality (Jarque-Berra test), autocorrelation (Wooldridge test), and heteroscedasticity (Wald Test). Then, the reliability of the estimation model was also tested with the Chow test, Breusch Pagan LM test, and Hausman test. Overall, the panel regression model used is the Fixed Effects panel model. Because there is an autocorrelation problem, the standard errors in the Fixed Effects panel are clustered using the White-Test approach.

For the problem of reliability of the estimation model, Table 3 shows the value of the correlation coefficient (R^2) is 0.16. This value indicates that the capital structure can be explained by the three independent variables by 16.8 percent and the rest is explained by other factors which are not examined. The F value is indicated by the number 3.55, which means that the regression model in this study is feasible to be used as a research model.

Table 3. Panel Regression Results

	Beta	Standard Error
FLEX	0.36**	0.13
RISK	-9.551*	5.029
ASST	2.434	3.545
Constant	1.069	2.4
BP LM test (X^2)	1.95***	
Hausman Fixed (X^2)	8.99***	
Year Dummy	Yes	
R^2	0.168	
<i>F-Value</i>	3.55***	

*Notes: *, **, *** indicate a significance level of 10%, 5%, and 1%*

Meanwhile, for the regression test of each hypothesis, Table 3 displays that financial flexibility has a positive relationship with capital structure ($\beta= 0.36$; $SE=0.13$). This means that on every increase in financial flexibility, the capital structure also changes and has a tendency to a debt capital structure. Econometrically, in every increase of one unit in financial flexibility, the company's capital structure will change to debt financing by 0.36%.

Companies with high financial flexibility signify the availability of adequate capital so they tend to require less debt financing. This is in accordance with the pecking order theory which states that companies have a funding order in making financing decisions (Kontesa, 2015). The flexibility of the company's financing indicates large access to financing. With this great access, the company will choose cheaper financing. Theoretically, debt financing is cheaper financing. Hence, with high financial flexibility, companies will tend to increase debt financing.

Meanwhile, business risk has a negative impact on capital structure ($\beta= -9.551$; $SE=5.029$). This means that with every increase in business risk, the capital structure also changes significantly and leans towards equity capital structure or avoiding debt financing. Econometrically, for every one unit increase in business risk, the company's capital structure will change to equity financing and reduce debt financing by 9.55%.

The results obtained from this test indicate that business risk influences capital structure, only at a significance level of 10%. Energy Sector Companies on the IDX with high business risks do not always avoid using external funds or rely more on internal funding. This is because the company still needs and uses external funding sources to carry out its operations. The optimal proportion of capital structure can be achieved when the company can balance the amount of debt and equity used. When a balance occurs, the use of debt can have a tax-saving effect (trade-off theory). In addition, increasing the debt portion can reduce agency costs because it increases external monitoring from creditors to management. Therefore, every management action tends to improve the company's welfare.

As an additional note, the last major variable in this study, namely asset structure, does not have a significant effect on capital structure. This means that changes in the asset structure will not significantly change the size of the capital structure.

Overall, this analysis aims to examine how significant the influence of financial flexibility, business risk, and asset structure have on the company's capital structure. Based on Table 3, the form of a multiple linear regression equation can be built as follows:

$$Y' = 1.069 + 0.36X_1 - 9.551X_2 + 2.434X_3 + e$$

Conclusion

The test results show that financial flexibility has a positive influence on the company's capital structure, while business risk has a negative influence. Lastly, asset structure has no effect. The limitation in this study lies in the measurement of capital structure which uses total debt as a whole so that it cannot show the dominant amount of long-term debt and the object of this research is limited. Some suggestions for further research are to use the long-term debt for measuring capital structure, to expand the object of research, and to consider growth rate variables that are thought to influence financing decisions because companies with fast growth rates tend to need external funds.

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