LEVERAGE, FINANCIAL DISTRESS AND PROFIT GROWTH: THE ROLE OF TAX SHIELD

Tigor Sitorus (University of Bunda Mulia)

Jeremia Ade Christian (University of Bunda Mulia)

Email: sitorus_tigor@yahoo.com

Abstract—The purpose of this study is to develop an empirical research model of the relationship between Leverage, Financial Distress and Growth of profit By Proposing Tax Shield as a mediator variable and trying to understand the influence of financial distress and leverage towards tax shield and profit growth, also to understand the influence of tax shield on profit growth. This research was conducted on Food And Beverage Companies Listed On The Indonesia Stock Exchange in the period 2011 – 2015, and observational data of about 40 types of data obtained from financial statements. This research uses a type of quantitative research and the data was tested by Structural Equation Model analysis techniques. The results of this research show that leverage has negative significant influence on profit growth, and it has positive significant influence on tax shield; furthermore, financial distress has negative significant influence on profit growth, and it has positive significant influence on tax shield, and tax shield has positive significant influence on profit growth, so we may conclude that tax shield may act as a mediator variable.

Keywords—Tax shield, Leverage, Financial distress, Profit growth

I. INTRODUCTION

Every company that carries out business activities, in addition to expecting optimal profits, also expects to increase its capital and wealth, and therefore, every owner of a company who invests its capital is hoping to get its capital back quickly; besides that, investors also expect results or profits from their business activities to provide welfare for the owners and all their employees. In reality, when operating a business, the company is always supported by loans from outside the company in addition to the capital itself and from the reserve funds that have been formed after gaining profits; this has an impact on the company's capital structure.

Capital structure is very important for the company because it involves the policies that will be put in place for the use of sources of funds to produce maximum profit. The source of capital can be obtained from the capital provided by the owner of the company, as well as the capital obtained from the loan to the bank. Financial managers must be able to maximize the capital owned by the company, as a guideline to support every decision that will be taken by management and owners to use the existing capital.

Many companies listed on the Indonesian Stock Exchange rely for the running of the company's business on the capital owned by the company. The greater the capital owned by the company, the easier it will be for the company to develop production, expansion, and increase the capacity of the profits obtained. In running the operational activities, each company requires a large investment with large funding needs as well as being able to produce high quality products so that they can remain superior and can survive in business competition. In this case, a limitation of funds or capital becomes one of the inhibiting factors for the company's growth into a large company, because it is impact to ratio of leverage that will influence net profit (Kamaliah et al., 2009) and if the company does not succeed in obtaining maximum profits and cannot obtain a capital loan that is used to finance company obligations both short and long term, the company can be said to be experiencing financial distress (Ufo, 2015; Emrinaldi, 2007).

One phenomenon that is of concern in this study is the current earnings growth in Indonesia in the last five years, 2011 – 2015. In general, referring to the Central Bureau of Statistics (BPS) records, Indonesia's economic growth in 2015 was 4.79 percent which was the lowest six years last one. The sluggishness of the global economy in recent years has slowed the economic growth of many countries. The main cause of the slowdown in economic growth in 2015 was a drop in household consumption. Throughout 2015, household consumption grew only 4.96 percent. This figure is lower than the previous two years, when it reached 5.43 percent in 2013 and 5.16 in 2014. The decrease in household consumption is inseparable from rising food prices. The high price of food makes people reduce shopping. This has an impact on the profit growth of manufacturing companies that have experienced a decline over the past five (5) years. (http://www.idx.co.id). This can be seen from the

current year's profit growth for the past five (5) years in manufacturing companies.

Table 1 Growth of manufacturing company profits from 2011 to 2015 (in million IDR)

No	Company	2011	2012	2013	2014	2015
1	PT Indofood CBP Sukses Makmur Tbk	1.174.174	1.307.740	3.416.635	5.146.323	1.193.595
2	PT Indofood Sukses Makmur Tbk	4.891.700	4.779.400	3.416.600	5.229.500	3.709.500
3	PT Mayora Indah Tbk	483.486	744.428	1.013.558	409.619	1.250.233
4	PT Multi Bintang Tbk	969.772	1.171.229	865.944	794.883	496.909
5	PT Ultrajaya Milk Industry & Trading Company Tbk	128.359	353.432	325.127	283.061	523.101
6	PT Nippon Indosari Corporindo Tbk	263.711	192.412	149.149	115.932	99.775
7	PT Tiga Pilar Sejahtera Food Tbk	126.906	211.197	310.394	371.370	379.032
8	PT Delta Djakarta Tbk	151.715	213.421	270.498	288.499	192.045

Sources : http://www.idx.co.id

Based on the data mentioned above, it can be seen that the manufacturing companies over the last five years have experienced a decrease in profit instability per year and a tendency to decline. The decline in profitability of the company must be overcome immediately, if this problem continues, eating the company's goal of increasing owner's wealth is not achieved and investor trust in investing capital will be reduced because it is considered that the company does not perform well and will go bankrupt.

From the description of the phenomena mentioned above, the purpose of this study in general is to develop an empirical research model of the relationship between leverage, financial distress and profit growth by proposing tax shield as a mediator, and specifically: 1) to understand the effect of leverage on profit growth; 2) to understand the effect of financial distress on profit growth; 3) to understand the leverage effect on tax shield; 4) to understand the effect of financial distress on tax shield; 5) to understand the effect of tax shield on profit growth.

II. LITERATURE REVIEW

A. Leverage

Financial leverage, according to Subramanyam and Wild (2010), is a measurement of the relationship between total assets and ordinary equity capital used to fund assets. For companies that successfully use leverage, a high financial leverage ratio increases returns on equity but the other side decrease profitability (Nousheen and Arshad Hasan, 2013). In line with this, the risk associated with changes in profitability is higher if the financial leverage ratio is higher. Debt To Equity is one of the ratios used to measure the level of debt usage in a company. Debt To Equity ratio shows the ability of own capital to finance the debt held by the company (Sari and Budiasih, 2014). According to Sunarjanto and Anggraeni (2007), the Debt To Equity ratio is the ratio between long-term debt and the company's share capital. Based on this, the Debt To Equity ratio is the ability of own capital owned by the company in fulfilling its obligations. According to Gitman and Zutter (2012), the Debt To Asset Ratio is a measurement that measures the proportion of total assets funded through the company's creditors.

B. Financial Distress

According to Fachrudin (2008), financial distress can be described from two extreme points, namely short-term liquidity difficulties to insolvable difficulties. Short-term financial difficulties are usually short-term, but can develop into severe problems. Indicators of financial difficulties can be seen from the analysis of cash flow, company strategy analysis, and company financial statements. Also according to Plat and Plate in Fahmi (2013) financial distress is defined as a stage of decline in financial conditions that occur before the occurrence of bankruptcy or liquidation. Financial distress begins with the inability to fulfill financial obligations, especially short-term obligations including liquidity obligations, and also includes liabilities in the solvency category (Almilia and Kristijadi, 2003). From the two theories above, it can be concluded that financial distress is a financial problem faced by a company, and is one sign that the company is bankrupt.

C. Tax Shield

Tax shield or tax protection, according to Ross, Stephen et al. (2012), is the amount of tax that should be paid annually without debt minus the amount of tax paid if with debt. The tax shield is a reduction in taxable income for individuals or companies that is achieved through recognising mortgage interest expenses, medical expenses, social contributions, amortisation, and shrinkage. This deduction reduces the taxpayer's taxable income for a given year or defers income tax in the coming years. Tax protection lowers the average tax that is owed by an individual taxpayer or company.

D. Profit Growth

According to Suwardjono (2008: 464) profit is interpreted as a reward for the efforts of companies to produce goods and services. This means that profit is an excess of income over costs (total costs that have production and delivery of goods / services) (Suwandika and Ida Bagus Putra Astika, 2013), while profit growth is a change in the percentage increase in profits earned by the company. A good profit growth implies that the company has good finances, which in turn will increase the value of the company, because the amount of dividends to be paid in the future depends on the condition of the company (Sitorus & Elinarty, 2017).

According to Agnieszka and Beata Sadowska (2011), profit growth is influenced by several factors, among others: the size of the company, the age of the company, the level of leverage, the level of sales, changes in past earnings.

According to previous theory and the results of research, we may build a proposition that a tax shield is a tax protection concept that is carried out by companies to reduce costs, so if the tax shield increases, the company's profits will grow significantly (Ross, Stephen et al., 2012).

E. Methods

This research uses quantitative methods (Husein, 2008), namely research that uses numbers and statistical data that aims to explain phenomena. The Operational of Variables in this study includes three variables: dependent variable (Y), intermediary variable and independent variable. In this study, the dependent variable is profit growth, namely an excess of income over costs devided by the past income (Suwardjono, 2008: 464); the intermediary variable, in this study, is tax protection or tax shield, which means the amount of tax that should be paid annually without debt minus the amount of tax paid if with debt (Ross, Stephen et al., 2012); the independent variables (X), in this study, are: leverage and financial distress, while leverage is the Debt To Equity ratio which is the ratio between long-term debt and the company's share capital (Sunarjanto and Anggraeni 2007), and financial distress is a stage of decline in financial conditions that occurs before the occurrence of bankruptcy or liquidation (Plat and Plate in Fahmi, 2013). The population and samples for this study are the companies listed on the Indonesian Stock Exchange in the food and beverage sector (http://www.idx.co.id), as mentioned in Table 1. The sample is 40 observational data obtained from the multiplication of eight companies over five years of observation. Finally, the analysis technique in this study is the quantitative path analysis (SEM) model using AMOS 22,00 program (Pardede and Manurung, 2015: 60).

III. RESULTS AND DISCUSSION

A. SEM Test

In this study, a model of fit was tested to test the feasibility of the model used.

Table 2 Model Testing Results

No	Goodness of Fit Index	Cut Off Value	Result	Criteria
1	X2 Chi Square (df=)	<a, df	0,000	Fit
2	CMIN/DF	≤ 2,00	0,000	Fit
3	GFI	≥ 0,90	1,000	Fit
4	CFI	≥ 0,95	1,000	Fit
5	IFI	≥ 0,90	1,000	Fit
6	RMSEA	≥ 0,08	0,395	Fit
7	NFI	≥ 0,90	1,000	Fit

Source: Results of AMOS 22.0

Based on the data table above, it can be concluded that the overall model used in this study meets the criteria for goodness of fit.
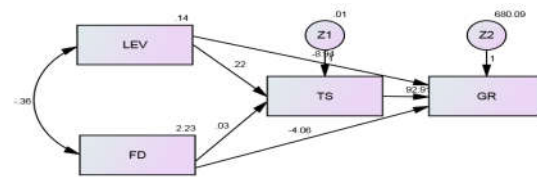
Source: AMOS 22.00

Fig. 1. SEM Model Full Line Diagram

Table 3 The Influence of Variables

Variables			Estimate	S.E.	C.R.	P	Label
TS	◄---	LEV	.220	.052	4.204	***	Accepted
TS	◄---	FD	.027	.013	2.076	.038	Accepted
GR	◄---	TS	92.914	45.211	2.055	.040	Accepted
GR	◄---	FD	-4.063	3.883	-1.046	.295	Rejected
GR	◄---	LEV	-8.944	17.792	-.503	.615	Rejected

Source : Output of AMOS 22.0

Based on Figure 1 and Table 3, the authors derived a mathematical model for this research as below:

$$GR = -8,944 \; LEV - 4,06 \; FD + 92,9 \; TS \qquad (1)$$

$$TS = 0,22 \; LEV + 0,027 \; FD \qquad (2)$$

Notes:

TS= tax shield, Lev=leverage, GR=profit growth, FD=financial distress

B. Hypothesis testing

Based on the table, a description of the hypothesis testing is given below:

1) Influence of leverage on profit growth (hypothesis-1=H1)

Testing the effect of leverage variables on earnings growth has a p-value of 0.615, namely greater than α, 0.05; it can be concluded that Ho is accepted and H1 is rejected which means leverage has a negative effect on earnings growth with a beta coefficient of -8.944. Because the beta coefficient has a negative value, it means that the leverage variable has a movement that is not in line with the profit growth variable. This means that if leverage decreases by 1 unit, then profit growth will decrease by -8,944 units,

2) Influence of leverage on tax shield (hypothesis-2=H2)

Testing the effect of leverage variables on the tax shield has a p-value of 0,000 which is smaller than α, 0.05; it can be concluded that Ho is rejected and H2 is accepted which means that leverage has a positive effect on tax shield with a beta coefficient of 0.220. Because the beta coefficient has a positive value, it means that

the leverage variable has a directional movement with the tax shield variable. This means that if the leverage increases by 1 unit, then the tax shield will increase by 0.220 units.

3) Influence of financial distress on profit growth (hypothesis-3=H3)

Testing the effect of financial distress variables on earnings growth has a p-value of 0.295, namely greater than α, 0.05; it can be concluded that Ho is accepted and H3 is rejected, which means financial distress has a negative effect on earnings growth with a beta coefficient of -4.063. Because the beta coefficient has a negative value, it means that the financial distress variable has a movement that is not in line with the profit growth variable. This means that if financial distress decreases by 1 unit, then profit growth will decrease by -4,063 units,

4) Influence of financial distress on tax shield (hypothesis-4=H4)

Testing the effect of financial distress variables on the tax shield has a p-value of 0.038 which is smaller than α, 0.05; it can be concluded that Ho is rejected and H4 is accepted which means financial distress has a positive effect on tax shield with a beta coefficient of 0.027. Because the beta coefficient has a positive value, it means that the financial distress variable has a direction with the tax shield variable. This means that if financial distress decreases by 1 unit, then tax shield will decrease by 0.027 units.

5) Influence of tax shield on profit growth (hypothesis-5=H5)

Testing the effect of tax shield variables on earnings growth has a p-value of 0.04 which is smaller than α, 0.05; it can be concluded that Ho is rejected and H5 is accepted which means the tax shield has a positive effect on earnings growth with a beta coefficient of 92.914. Because the beta coefficient has a positive value, it means that the tax shield variable has the same direction as the profit growth variable. This means that if the tax shield increases by 1 unit, then the profit growth will increase by 92.914 units.

6) Direct, indirect and total influence

Influence analysis is done to see how strong the influence of variables is with other variables both directly and indirectly. The results of the testing of direct, indirect and total influence on AMOS 22.0 are as follows:

TABLE 4 DIRECT, INDIRECT AND TOTAL INFLUENCE

	Direct Influence			Indirect Influence			Total Influence		
	FD	LEV	TS	FD	LEV	TS	FD	LEV	TS
TS	.361	.731	.000	.000	.000	.000	.361	.731	.000
GR	-.216	-.119	.370	.134	.271	.000	-.082	.152	.370

Sources: Amos 22.00

Based on observations in Table 4, the direct effect of financial distress on tax shield is 0.361, the direct effect of leverage on tax shield is 0.731, the direct effect of financial distress on profit growth is -0.216, the direct effect of leverage on profit growth is -0.119 and the direct influence of tax shield on profit growth is 0.370. In Table 4, the indirect effect of financial distress on tax shield is 0,000, the indirect effect of leverage on tax shield is 0,000, the direct effect of financial distress on profit growth is 0,134, the indirect effect of leverage on profit growth is 0,271 and the indirect influence of tax shield on profit growth of 0,000.

Based on observations in Table 4, the effect of total financial distress on tax shield is 0.361, the effect of total leverage on tax shield is 0.731, the effect of total financial distress on profit growth is -0.82, the effect of total leverage on profit growth is 0.152 and the effect of total tax shield on profit growth is 0.370.

IV. CONCLUSION

The profit growth is not influenced significantly by all the independent variables like leverage and financial distress; this means that even if leverage and financial distress increased, the Profit growth would not increase. This supports the results of previous research conducted by Soo Cheong (2010) and also Shamaileh and Salim. M. Khanfar (2014) which states that leverage does not directly influence the company's current profit and Ufo (2015) and Emrinaldi (2007) which states that financial distress has a negative effect on the company's current profit.

Tax shield is influenced significantly by all the independent variables like leverage and financial distress; this means that if leverage and financial distress increased tax shield would increase too. This supports the results of previous research conducted by Xin-Dan Li (2015) and also Jang and Tang (2009), which states that tax protection has a positive relationship with leverage and financial distress.

Profit growth is influenced by tax shield as a mediator variable. This evidence proves that direct influence of the independent variables may not affect the dependent variables, so we may conclude that tax shield may act as a mediator variable. This supports previous research conducted by Kemsley (2002) which states that tax shield has a positive effect on profit growth in a company.

For academic implications, this study suggests the need to develop an empirical research model of the relationship between leverage, financial distress and growth of profit By proposing tax shield as a mediator variable, and for further research, it is hoped that the research period can be added and the sample used from other sectors like property and other variables like growth of sales.

For managerial implications, this study suggests that companies need to consider maximising the use of loan

funds obtained from third parties to be able to increase revenue and company profit growth, such as adding company assets, using funds for acquisitions for a new company, and others and increase the use of assets or funds that have fixed costs to increase the level of income.

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