THE EXAMINING THE CAPITAL STRUCTURE DETERMINANTS: EMPIRICAL ANALYSIS OFREAL ESTATE AND PROPERTY INDUSTRY IN INDONESIA

by Hamdi Agustin , Sri Indrastuti Amries Rusli Tanjung

THE EXAMINING THE CAPITAL STRUCTURE DETERMINANTS: EMPIRICAL ANALYSIS OFREAL ESTATE AND PROPERTY INDUSTRY IN INDONESIA

Hamdi Agustin[1], Sri Indrastuti[2], Amries Rusli Tanjung[3]

[1,2]Faculty of Economics, Universitas Islam Riau.Pekanbaru, Indonesia

[3]Faculty of Economics, University of Riau.Pekanbaru, Indonesia

Email: [1]hamdiagustin@eco.uir.ac.id, [2]sriindrastuti@gmail.com

ABSTRACT

This research investigates the effect capital structure on the leverage decision of real estate and Property Company listed on the Indonesia Stock Exchange (IDX) .The population consists of 45 property and Real Estate Company. The study 29 sample because of difficulty in getting the data. The period under study is from 2010 to 2015. The data are taken from property and real estate company annual reports. In this study using panel data and analysis using pooled ordinary least square (OLS).The results showed that all coefficients are significant for LEV variable. The finding showed that TAG variable is inconsistent with the trade-off theory otherwise SIZE variable is consistent with the trade-off theory. ROA has a positive effect on LEV. This indicates that consistent with the pecking order theory. RISK variable is inconsistent with the agency theory.

INDTRODUCTION

Determining the optimal capital structure is a very great issue in the financial literature (Amjad etal., 2012). This research is important because the capital structure is one measure of the level of investor confidence in the company. The better the capital structure owned, the more investors will invest, but conversely the weaker the capital structure owned, the investor will consider making decisions in their investments. By knowing the factors that influence the company's capital structure, management is expected to be more careful in financing investments made in the future, as well as better understanding the risks that will arise as a result of financing decisions to be taken.

The purpose of determining capital structure is to ensure the lowest cost of capital and maximize the welfare of shareholders. The capital structure aims to find the optimal combination of capital elements that must exist to achieve maximum returns for shareholders. From the past empirical studies, it is conclude that industrial classification is an important determinant of capital structure. Capital structure decision among h sampled different industries investigated was significantly varied. This is due to the various industries subject to have various degrees of risks and characteristics. Industries have the power to influence the internal firm characteristics and will directly influence the capital structure.

In previous literature, a lot of work is done on determining the factors which influence the capital structure of non-financial sectors. A number of factors were studied in this regard which would have influence on the capital structure of any organization. This paper examines the explanatory power of the theories proposed in the financial literature to explain the variations in capital structures across companies. In particular, this study analyzes the capital structure determinants of the companies loaded on Indonesia Stock Exchange (IDX).The industrial sector that will be used in this study is real estate and Property Company listed on the Indonesia Stock Exchange with the reason because this industrial sector is an industry that is always developing in the Indonesian market. In addition, property company products are a safe and highly profitable form of investment.

LITERATURE REVIEW

Based on MM theory, three theories are developed. There are the trade-off theory. Second pecking order theory (Myers & Majluf, 1984) and third, agency theory (Jensen & Meckling, 1976). The pecking-order theory (Myers, 1984; Myers & Majluf, 1984) suggests that the choice of capital structure is driven by the magnitude of information asymmetry that occurs between people inside the company and outside investors.

Capital structure policy involves an exchange between risk and return is the use of more debt increase the risk borne by the shareholders. However greater use of debt will usually cause it to occur higher return on equity. Therefore, optimal capital structure must reach a balance between risk and returns so as to maximize the company's stock price. Companies generally study the situation, draw conclusions about optimal capital structure and determine a target capital structure (target capital structure). If the debt ratio is below the target level, the company will raise capital by issuing debt, while if the debt ratio is a ton target, then what will be used is equity. Circumstances can change with changing conditions management usually has a specific structure that is a reference. Determination of capital structure will involve an exchange between risk and return ie using debt in a larger amount will increase the risk borne by shareholders. However, using more debt in general will increase the estimated return on equity.

Profitability

Companies that have high profitability have a greater incentive to attract investors to invest their capital. Investors are very interested in the profitability of a company. Companies with high profitability will reduce the level of risk faced by investors. Thus, high profitability of the company will guarantee a favorable investment in the form of high returns in the future and high stock dividends. The profitability of a company can be used to predict the company's ability to profits in the future. Myers (1984) found evidence that companies prefer to use capital from retained earnings rather than from debt or from issuing shares.

Most of the empirical studies support the pecking order theory. The research results (Ellili & Farouk, 2011;Afza & Hussain, 2011; Alves & Ferreira, 2011; Siringoringo, 2012; Danistyaningrum & Gandakusuma ,2012 and Amjad etal.,2012) show the negative influence between profitability and the capital structure. While, the research results (Aggarwal, 1994) show the positive influence between profitability and the capital structure.

Current Ratio

Liquidity can have a significant negative or positive effect on capital structure. Companies that can immediately return their debts will get the trust of creditors to issue large amounts of debt. According to the pecking order theory, companies with high liquidity will issue less debt, because the liquidity balance will be used by companies as a source of investment financing. But companies with high liquidity can also have high debt ratios, because this company has sufficient ability to get debt, especially short-term.

The research results (Afza&Hussain, 2011; Guneyetal., 2011; Mishra &Tannous,2010 and Sharifetal., 2012) show the negative influence between current ratio and the capital structure. While, the research results (Yu, 2000 and Ozkan, 2001) show the positive influence between current ratio and the capital structure.

Size

Leverage is expected to be positively influenced by size. The size of the company has an important role in determining the choice of capital structure to be used by the company. Companies with larger size have access to get funding sources from various sources, so to get loans from creditors is easier because large size companies have greater probability than small companies, conversely smaller scale companies will face more uncertainty, because small companies faster negative effect on sudden changes. Therefore large companies have a greater degree of leverage than smaller companies. Large

companies tend to have varied capital structure choices and are less at risk for bankruptcy.

The research results (Ellili & Farouk, 2011; Siringoringo, 2012; Sanistyaningrum & Gandakusuma ,2012; Guney et al., 2011;Amjad etal.,2012 and Sharif et al., 2012)show the positive influence between size and the capital structure. While the research results (Shah & Khan, 2007 and Mishra & Tannous, 2010) show the negative influence between size and the capital structure.

Tangibility

Companies with higher liquidation values will have higher debt. Conversely, intangible assets such as good will can lose its market value quickly in conditions of financial distress. Companies that have more tangible assets generally have higher liquidation values, although the specificity of assets can produce results with some distortion. In general, companies with a higher proportion of tangible assets will tend to be in mature industries so that the risk is smaller, which leads to higher financial leverage. Companies that have many assets that can be used as collateral such as real estate companies or transportation companies have a high portion of debt compared to companies that rely more on the human capital of their employees or who rely on other brands or intangible assets. Companies that specialize or rely on intangible assets will borrow less.

The research results (Gropp &Heider, 2010; Yang et al., 2010; Voutsinas & Werner, 2011 and Guney et al., 2011) show the positive influence between tangibility and the capital structure.While,the research results (Jõeveer, 2006; Daskalakis & Psillaki, 2008; Gill et al., 2009 andAfza & Hussain, 2011),show the negative influence between tangibility and the capital structure.

Risk

Risk is a business risk can be interpreted a situation or factor that may have a negative impact on a company's operations. risk is the basic risk that the company has in addition to financial risk in addition to the company's risk due to the use of debt. There are two factors in business risk.

One of the most dominant risks is changes in demand for goods and services produced by companies. If the change is positive, and demand increases, then business risk will decrease. Conversely, if market demand decreases, either due to business competition or changes in general economic conditions, the risk factor for investors will increase significantly. When a company's risk factors are considered to be increasing due to outside factors which are beyond the control of the company, then the possibility to attract new investors is very limited.The research results (Danso & Adomako, 2014) show the negative influence between risk and the capital structure.

DATA AND METHODS

The population consists of 45 property and Real Estate Company. The study 29 sample because of difficulty in getting the data. The period under study is from 2010 to 2015. The data are taken from property and real estate company annual reports. This study using panel data and analysis using pooled ordinary least square to test capital structure of property and real estate company, the following model is estimated:

$$LEV_{it} = \square_0 + \square_1 * TAG_{it} + \square_2 * SIZE_{it} + \square_3 * ROA_{it} + \square_4 * LIQ_{it} + \square_5 * RISK_{it} + e_{it}$$

where

LEV_{it} : Leverage that total debt to total assets of campany i in period t,

TAG_{it} : fixed assets to total assets

$SIZE_{it}$: natural logarithm of total assets

ROA_{it} : net income to total assets

LIQ_{it} : current assets to current liabilities

$RISK_{it}$: $\sigma EBIT$ to total assets

RESULT AND FINDING

Table 1 presents the ordinary least square. When we test for heteroscedasticity using Breusch-Pagan test, we find that we can reject the null hypothesis of equal variances. We find that TAG, SIZE, ROA, LIQ AND RISK are significant for LEV variable.

Table 1 Ordinary least square
Dependent Variable: *LEV*

Variable	Coef.	p-value
Constan	0.728	0.000***
TAG	-0.182	0.011**
SIZE	0.158	0.027**
ROA	0.371	0.001***
LIQ	-0.202	0.005***
RISK	-0.225	0.036**
R-squared	0.441	
Adjusted R-squared	0.194	
Prob > F	0.0000	
Number observation	174	

***, ** and * denote significance at the 1%, 5% and 10% level, respectively, p-value in parentheses

The finding showed that TAG negative effect on LEV. The results are inconsistent with the trade-off theory. Asset structure is a comparison between fixed assets and total assets owned by a company that can determine the amount of fund allocation for each component of assets. The higher the

structure of the company's assets shows the higher the company's ability to get long-term debt guarantees. Companies with high asset structures tend to choose to use funds from outside parties or debt to fund their capital needs. The result is consistent with previous research study conducted by Jõeveer (2006), Daskalakis and Psillaki (2008), Gill et al. (2009) and Afza and Hussain (2011).

The finding showed that SIZE positive influence on LEV. These results are consistent with the trade-off theory in which the SIZE of large company tend to use more debt in comparison small company. One important factor that is considered when making decisions relating to capital structure is the size of the company. Large companies have more ability and flexibility to access external sources of funds so they tend to increase debt. Large companies will require greater funding, fulfillment of those needs, an alternative is used is by using debt. The result is consistent with previous research study conducted by Elliliand Farouk (2011), Siringoringo (2012), Sanistyaningrum and Gandakusuma (2012), Guneyetal. (2011), Sharifetal. (2012).

ROA has a positive effect on LEV. This indicates that companies that have a large level of profit will have a greater source of internal funding so that this will affect the decision of the company's capital structure which is where in financing its business activities, such as developing products or the need for investment financing, allows companies to tend to choose to use their own capital that is from internal funds first, such as in retained earnings as a profit generated by the company rather than using external funds so that the level of debt used by the company is relatively low and will minimize the risk of bankruptcy and high capital costs. This result is consistent with the pecking order theory explains that the companies will first use internal funds over external funds to finance all of its funding activities. The result is consistent with previous research study conducted by Aggarwal (1994).

The result showed that LIQ negative influence on LEV. This suggests that the level of current assets has a significant influence on the ability of company to provide activities production. The result related toAfzaand Hussain (2011), Guneyetal. (2011), Mishraand Tannous (2010) and Sharifetal. (2012).

The finding showed that RISK negative effect on LEV. This suggests that with an increase in risk it will have an impact on the acquisition of high corporate profits as well so that with high corporate profits will reduce corporate loans in the form of debt. The company's business risk affects the ability to pay debts. The result is inconsistent with previous research study conducted by Danso and Adomako (2014).

CONCLUSION
In this research, we examine the determinants of capital structure of property and Real Estate Company. The period under study is from 2010 to 2015.Wefindthat that TAG negative effect on LEV. The result are inconsistent with the trade-off theory in which a higher fixed to total assets ratio ensures higher level of security, thus offering more value to liquidate assets in case of

bankruptcy SIZE positive influence on LEV. These results are consistent with the trade-off theory in which the ASSETS of large company tend to use more debt in comparison small company. ROA has a positive effect on LEV. This indicates that firms with high profitability tend to use lower levels of debt to finance its funding activities. Company with high accumulation profitability would prefer to use internal funds than external funds LIQ negative influence on LEV. This suggests that the level of current assets has a significant influence on the ability of company to provide activities production.RISK negative effect on LEV. This suggests that with an increase in risk it will have an impact on the acquisition of high corporate profits as well so that with high corporate profits will reduce corporate loans in the form of debt.

REFERENCES

Afza, T., & Hussain, A. (2011). Determinants of capital structure across selected manufacturing sectors of Pakistan. International Journal of Humanities and Social Science, 1(12), 252-262.

Aggarwal, R. (1994). International differences in capital structure norms: an empirical study of large European companies.Management International Review, 34, 5-18.

Alves, P. F. P., & Ferreira, M. A. (2011). Capital structure and law around the world. Journal of Multinational Financial Management, 21, 119–150.

Amjad, S., Bilal., & Tufail, S. (2012), Determinants of capital structure: what can be the determinants of capital structure of banking sector of Pakistan?. Proceedings of 3rd International Conference on Business Management. School of Business and Economics University of Management and Technology, Lahore, Pakistan

Danso, A. & Adomako, S. (2014). The financing behaviour of firms and financial crisis,

Managerial Finance, 40(12), 1159–1174.

Daskalakis, N., & Psillaki, M. (2008). Do country or firm factors explain capital structure? Evidence from SMEs in France and Greece. Applied Financial Economics, 18(2), 87-97.

De Jong, A., Kabir, R., & Nguyen, T. T. (2008). Capital structure around the world: the roles of firm and country-specific determinants. Journal of Banking & Finance,32(9), 1954-1969.

Ellili, N.O.D., & Farouk, S. (2011). Examining the capital structure determinants: empirical analysis of companies traded on Abu Dhabi stock exchange. International Research Journal of Finance and Economics, 67, 82-96.

Fama, E. F., & French, K. R. (1998). Testing trade- off and pecking order predictions about dividends and debt. Review of financial studies, 15(1), 1-33.

Gill, A., Biger, N., Pai, C., & Bhutani, S. (2009). The determinants of capital structure in the service Industry: evidence from United States. The Open Business journal, 2: 48-53.

Gropp, R., & Heider, F. (2010). The determinants of bank capital structure. Review of Finance,14(4), 587-622.

Guney, Y., Li, L., & Fairchild, R. (2011). The relationship between product market competition and capital structure in Chinese listed firms. International Review of Financial Analysis,20(1), 41-51.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: managerial behavior, agency costs and ownership structure. Journal of financial economics, 3(4), 305-360.

Jõeveer, K. (2006). Sources of capital structure: Evidence from transition countries. [CERGE-EI Working Paper No. 306.].

Mishra, D., & Tannous, G. (2010). Securities laws in the host countries and the capital structure of US multinationals.International Review of Economics & Finance,19(3), 483-500.

Myers, S. C. (1984). Capital Structure Puzzle: National Bureau of Economic Research Cambridge, Mass, USA.

Myers. C, S., & Majluf. N. (1984). Corporate financing and investment decisions when enterprises have information investors do not have.Journal of Finance, :187-221.

Ozkan, A. (2001). Determinants of capital structure and adjustment to long run target: evidence from UK company panel data.Journal of Business Finance and Accounting,28(1 & 2), 175-198.

Sanistyaningrum, L.K., & Gandakusuma, I. (2012). Struktur permodalan bank: studi terhadap 31 bank yang terdaftar di BEJ periode 2006-2010. Manajemen Usahawan Indonesia,41(4), 389-405.

Shah, A., & Khan, S. (2007). Determinants of capital structure: evidence from Pakistani panel data. Int. Rev. Bus. Res. Paper, 3(4), 265-282.

Sharif, B., Naeem, M. A., & Khan, A. J. (2012). Firm's characteristics and capital structure: a panel data analysis of Pakistan's insurance sector. African Journal of Business Management, 6(14), 4939-4947.

Siringoringo, R. (2012). Karakteristik dan fungsi intermediasi perbankan di Indonesia. Buletin Ekonomi Moneter dan Perbankan, 61-83.

Voutsinas, K., & Werner, R. A. (2011). Credit supply and corporate capital structure: Evidence from Japan. International Review of Financial Analysis, 320–334.

Yang, C. C., Lee, C., Gu, Y. X., & Lee, Y. W. (2010). Co-determination of capital structure and stock returns--A LISREL approach: An empirical test of Taiwan stock markets. The Quarterly Review of Economics and Finance, 50(2), 222-233.

Yu, H. C. (2000). Banks capital structure and the liquid asset policy implication of Taiwan.Pacific Economic Review, 5(1), 109-114.

THE EXAMINING THE CAPITAL STRUCTURE DETERMINANTS: EMPIRICAL ANALYSIS OFREAL ESTATE AND PROPERTY INDUSTRY IN INDONESIA

5   pdfs.semanticscholar.org
Internet Source
1%

6   e-repository.unsyiah.ac.id
Internet Source
1%

7   Submitted to Sim University
Student Paper
1%

8   Submitted to Universitas Jenderal Soedirman
Student Paper
1%

9   Chimwemwe Chipeta, Chera Deressa. "Firm and country specific determinants of capital structure in Sub Saharan Africa", International Journal of Emerging Markets, 2016
Publication
1%

10   eprints.ums.ac.id
Internet Source
1%

11   Submitted to University of Wales, Bangor
Student Paper
1%

12   www.lib.kobe-u.ac.jp
Internet Source
1%

13   Submitted to Keller Graduate School of Management
Student Paper
1%

14   Submitted to Universiti Tenaga Nasional
Student Paper
<1%

15 Abdulazeez Y.H. Saif-Alyousfi, Rohani Md-Rus, Kamarun Nisham Taufil-Mohd, Hasniza Mohd Taib, Hanita Kadir Shahar. "Determinants of capital structure: evidence from Malaysian firms", Asia-Pacific Journal of Business Administration, 2020
Publication   <1%

16 www.unisbank.ac.id
Internet Source   <1%

17 Submitted to National University of Singapore
Student Paper   <1%

18 journal.unnes.ac.id
Internet Source   <1%

19 Submitted to Higher Education Commission Pakistan
Student Paper   <1%

20 Submitted to University of Plymouth
Student Paper   <1%

21 uir.unisa.ac.za
Internet Source   <1%

22 ideas.repec.org
Internet Source   <1%

23 Joseph P. H. Fan, Sheridan Titman, Garry Twite. "An International Comparison of Capital Structure and Debt Maturity Choices", Journal of
                                                                           <1%

Financial and Quantitative Analysis, 2011
Publication

24 Gerardo Gómez, Ana Mena Rivas, Edmundo R. Lizarzaburu Bolaños. "The determinants of capital structure in Peru", Academia Revista Latinoamericana de Administración, 2014
Publication

<1 %

Exclude quotes	On	Exclude matches	Off
Exclude bibliography	On		