LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU *PEER REVIEW*
KARYA ILMIAH : JURNAL ILMIAH*

Judul Karya Ilmiah (artikel) : Firm characteristics and capital structure adjustments

Jumlah Penulis : 2 orang

Status Pengusul : penulis pertama/~~penulis ke 2 /penulis korespondensi~~**

Identitas Jurnal Ilmiah :
a. Nama Jurnal : Investment Management and Financial Innovations
b. Nomor ISSN : 1810-4967(P); 1812-9358(O)
c. Volume, nomor, bulan, tahun : Volume 15, Nomor 2, 2018
d. Penerbit : Business Perspectives
e. DOI artikel (jika ada) : 10.21511/imfi.15(2).2018.12
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Total = (100%)	24			
Nilai Pengusul =				19,43

KOMENTAR/ULASAN PEER REVIEWER

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Kecukupan dan Kemutahiran Data/ Informasi dan Metodologi	Data dan Metodologi sudah sangat baik
Kelengkapan Unsur dan Kualitas Penerbit	Baik

20Juli 2018
Reviewer I,

Prof. Dr. David P. E. Saerang, SE., MCom(Hons)
NIP. 195911281986031005
Unit Kerja : Fakultas Ekonomi dan BisnisUniversitas Sam Ratulangi

* Dinilai oleh dua Reviewer secara terpisah
** Coret yang tidak perlu
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d. Kelengkapan unsur dan kualitas terbitan/jurnal (30%)	7,2			5,80
Total = (100%)	24			
Nilai Pengusul =				19,33

KOMENTAR/ULASAN PEER REVIEWER

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Ruang lingkup dan Kedalaman Pembahasan	Artikel memiliki kedalaman yg baik dalam membahas masalah riset
Kecukupan dan Kemutahiran Data/ Informasi dan Metodologi	Data dan metodologi telah diproses dan disimpan dengan tepat dan baik
Kelengkapan Unsur dan Kualitas Penerbit	Penerbit memiliki kualitas yg baik

20 Juli 2018
Reviewer 2**

Prof. Dr. Rasman Soleman, SE., M.Si., Ak. CA
NIP. 195905221987031001
Unit Kerja : Fakultas Ekonomi dan Bisnis Universitas Khairun

* Dinilai oleh dua Reviewer secara terpisah
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Total = (100%)	24			18,12
Nilai Pengusul =				8

KOMENTAR/ULASAN PEER REVIEWER

Kelengkapan dan kesesuaian unsur isi jurnal	Baik
Ruang lingkup dan Kedalaman Pembahasan	Baik
Kecukupan dan Kemutahiran Data/ Informasi dan Metodologi	Baik
Kelengkapan Unsur dan Kualitas Penerbit	Baik

20 Juli 2018
Reviewer 3,

Prof. Dr. Bambang Subroto, SE., MM., Ak.
NIP. 195212311978031012
Unit Kerja : Fakultas Ekonomi dan Bisnis Universitas Brawijaya

* Dinilai oleh dua Reviewer secara terpisah
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a. Kelengkapan unsur isi artikel (10%)	2,4			2
b. Ruang lingkup dan kedalaman pembahasan (30%)	7,2			7
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	7,2			7
d. Kelengkapan unsur dan kualitas terbitan/jurnal (30%)	7,2			6,5
Total = (100%)	24			
Nilai Pengusul =				22,5

KOMENTAR/ULASAN PEER REVIEWER

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Kelengkapan Unsur dan Kualitas Penerbit	Sangat baik

20Juli 2018
Reviewer 4,

Prof. Dr. Paulus Kindangen, SE., SU., MA.
NIP. 195503041981031001
Unit Kerja : Fakultas Ekonomi dan Bisnis Universitas Sam Ratulangi

* Dinilai oleh dua Reviewer secara terpisah
** Coret yang tidak perlu
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Firm characteristics and capital structure adjustment”

by Pontoh Winston 23

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“Firm characteristics and capital structure adjustment”

AUTHORS	Winston Pontoh https://orcid.org/0000-0003-3123-7919 Novi Swandari Budiarso https://orcid.org/0000-0002-5832-0117

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Winston Pontoh (Indonesia), Novi Swandari Budiarso (Indonesia)

FIRM CHARACTERISTICS AND CAPITAL STRUCTURE ADJUSTMENT

Abstract

The adjustment for the firm capital structure is unclear from perspectives of trade-off theory, pecking order theory, life cycle theory, market timing theory, and free cash flow theory, since many research findings contradict each other. Adjustments for the capital structure are complex, since the conditions for each firm are different. The objective of this study is to provide empirical evidence of how firms adjust capital structure in relationship with maturity in context of trade-off, pecking order, free cash flow, and market timing theory. In terms of hypotheses testing, this study conducts logistic regression analysis with 138 Indonesian public firms as the sample in the observed period from 2010 to 2015. To distinguish the results, this study controls the sample by size and age based on the median. The study reports that preferences for the source of funds based on the cost of capital, internal conflict, and firm maturity indicate adjustments for the firm capital structure. Based on Indonesian firms, the form of capital structure in developing countries can refer to a single model or a combination of the trade-off model and pecking order model, as well as market timing.

Keywords capital structure, mature, trade-off, pecking order, market timing, free cash flow

JEL Classification G32, G34, G41

INTRODUCTION

The studies of Myers (1984) about the puzzle of the firm capital structure are remaining until now, especially in the field of corporate finance, as many research findings contradict each other in the context of firm preferences for equity and debt. Capital structure is flexible depending on the conditions of a firm; therefore, theories such as trade-off, pecking order, and free cash flow are applied conditionally (Myers, 2001). Similar to Asquith and Mullins (1986) in the context of signaling, Zingales (2000) also emphasizes that it is difficult to identify how firms choose sources of funds to establish their capital structures in the case when outsiders look the firms as a "black box".

The findings regarding capital structure vary; the circumstances and characteristics of firms differ in each case. Modigliani and Miller (1958) applied trade-off theory as the basic explanation for capital structure; the assumption was based on the idea that firms as tax-payers look for tax shields and set their proportional debts to obtain benefits, with the perception that profit in the current period as a determinant of taxable income will decrease as the cost of debt interest increases. Reversely, Sunder and Myers (1999) find that firms and in particular mature firms should prefer the pecking order model for their capital structure rather than the trade-off model; in other words, firms should finance their investment by internal funding or retained earnings first, followed by debt. Hovakimian, Opler, and Titman (2001) suggest that

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Hryhorii Skovoroda lane, 10, Sumy, 40022, Ukraine

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Winston Pontoh, Associate Professor, Faculty of Economics and Business, Sam Ratulangi University, Indonesia.

Novi Swandari Budiarso, Lecturer, Faculty of Economics and Business, Sam Ratulangi University, Indonesia

firms normally apply pecking order model in the short term rather than trade-off model, while the firms are more profitable or under agency problem. Furthermore, Jensen (1986) proves that free cash flow theory contributes in establishing the firm capital structure in a trade-off model, in particular when shareholders have a conflict of interest with managers in the allocation of free cash and considering the use of debt as a control device for managers in spending the funds. Additionally, Baker, and Wurgler (2002), Hovakimian, Hovakimian, and Tehranian (2004), and Elliott, Kant, and Warr (2008) show that market prices also have a role in establishing the firm capital structure, which refers to market timing and at once triggers the pecking order model.

The Republic of Indonesia is a developing country and also an emerging market in Southeast Asia. Most public firms in Indonesia use debt to finance their operations or investments where the sources of those debts predominantly come from national banking, which is owned by the state or private sector. Limited to the sample, after controlling characteristics such as size and age, public firms in Indonesia show a unique condition whereby they have lower long-term debt ratios on average. The dataset for this study indicates that smaller and younger firms with higher debt have only 40% long-term debt. Weijermars (2012) justifies that firms that have over 50% debt ratios can be referred to as firms with higher debt, and those below 50% can be referred to as firms with lower debt. Most public firms in Indonesia appear to have the tendency to use less debt, but this evidence is not sufficient to prove whether these firms have reached maturity; they, therefore, apply the pecking order model rather than trade-off model in establishing their capital structure.

This study clarifies how firms adjust their capital structure in a relationship with long-term debt policy to provide empirical evidence regarding theories of trade-off, pecking order, free cash flow, and market timing. This study proceeds as follows. Section 1 reviews the relevant literature and develops the hypothesis. Section 2 presents the sample, variable definitions, and regression models. Section 3 discusses the results and findings. Last section concludes the findings of this study and discloses the limitations for further studies.

1. LITERATURE REVIEW

1.1. The relationship of profitability and the long-term debt ratio in the context of trade-off theory, free cash flow theory, and pecking order theory

Profitability is a factor that can affect firm policy in determining capital structure both in context of trade-off theory and pecking order theory (Sunder & Myers, 1999; Hovakimian, Opler, & Titman, 2001; Chen, 2004; Elliott, Kant, & Warr, 2008; Mirza, Rehman, & Zhang, 2016). DeAngelo, DeAngelo, and Stulz (2006), and Fairchild, Guney, and Thanatawee (2014) confirm that higher profits indicate that firms have reached maturity.

Myers (2001) explains that the trade-off model is effective given an assumption of higher firm profitability. Myers (2001) shows that firms with higher profitability normally have higher income, which can be used as the basis of income tax. In such conditions, Modigliani and Miller (1958) and Myers (2001) similarly suggest that firms can take on more debt with the objective of using it as a tax shield, but should consider the financial distress caused by debt. Supporting those results, Zingales (2000) also suggests that firms should consider the financial distress costs of debt while determining the capital structure. Sunder and Myers (1999) also argue that beside of tax benefits from the point of view of trade-off theory, firms face the risk of financial distress when they have overcapacities of debt. Considering the balance of costs and benefits of debt, Hovakimian, Opler, and Titman (2001) find that firms normally apply pecking order model in the short term, but then tend to move on to trade-off model, while the firms are more profitable or under agency problem. In the context of free cash flow theory, Jensen (1986) emphasizes that under circumstances of conflict, the shareholders should force managers to finance investments with debt to control how they plan and allocate funds. Supporting the findings of Jensen

(1986), Myers (2001) also explains that the trade-off model often occurs in cases where insiders or managers have incentives to behave inappropriately with respect to the objectives of shareholders.

Sunder and Myers (1999) argue that most mature firms prefer the pecking order model to establish their capital structure. Myers (2001) and Rodrigues, de Moura, Santos, and Sobreiro (2017) confirm that the pecking order model is also effective in assumptions where firms have higher profitability. Under pecking order theory, Myers (2001) assumes that firm insiders exhibit obedient behavior and make decisions in line with the objectives of shareholders, i.e., maximizing the wealth of shareholders. Myers (2001) explains that under the pecking order model, more profitable firms normally have large internal funds that create the tendency to reduce debt, while less profitable firms have the tendency to increase debt to finance investment. Chen (2004) finds that most firms in the People's Republic of China are more mature and prefer the pecking order model to establish their capital structure. Chen (2004) confirms that most Chinese firms allocate capital in sequence according to pecking order as follows: retained earnings, equities, and long-term debt. Similarly, Güner (2016) reports that most Turkish firms form their capital structure based on pecking order theory. Lourenço and Oliveira (2017) also report that most Portuguese firms are adopting the pecking order theory, since these firms tend to reduce debt when profitability increases. However, Rodrigues, de Moura, Santos, and Sobreiro (2017) find that most firms in Latin America relative to US firms prefer to combine the trade-off model and pecking order model, as markets in these countries are imperfect. Rodrigues, de Moura, Santos, and Sobreiro (2017) report that market imperfections in Latin American emerging countries are similar to those in developing countries. Zeitun, Temimi, and Mimouni (2017) report that most of the firms in the Gulf Corporation Council (GCC) tend to follow trade-off theory during and after the crises in 2008, since these firms have lower profitability and, therefore, do not have many internal funds for financing. Hovakimian, Opler, and Titman (2001) explain that if firms have high profits, they will start to accumulate retained earnings and reduce debt, but firms that have low profits increase debt. At this point, Hovakimian, Opler, and Titman (2001) suggest that firms consider adopting the pecking order model in the short run and increase debt ratios over target debt in the long run, as predicted by the trade-off model.

Based on these reviews, the study suspects that a change in profitability will change the long-term debt ratio in the context of trade-off theory, free cash flow theory, and pecking order theory. This study uses return on assets as proxy for profitability and states the hypothesis for testing the relationship between profitability and long-term debt ratio as follows:

Ha_1: There is a relationship between return on assets and long-term debt ratio.

1.2. The relationship of retained earnings to the total assets ratio and long-term debt ratio in the context of trade-off theory, free cash flow theory, and pecking order theory

Based on Generally Accepted Accounting Principles (GAAP), retained earnings is reported as the accumulation of current profit and profits of past periods, which has become a basic element of dividend policy for shareholders. DeAngelo, DeAngelo, and Stulz (2006) confirm that the retained earnings to total assets ratio symbolizes the maturity of firms. Moreover, DeAngelo, DeAngelo, and Stulz (2006) confirm that a large retained earnings to total assets ratio normally reflects that firms are prosperous, which make them able to distribute earnings as the dividend in a term to maximize the wealth of shareholders. In addition, Grullon, Michaely, and Swaminathan (2002) show that mature firms normally show stability in profitability, because these firms have fewer investments with large available cash, whereas firms at the growth level are more identical with many positive investments, but lower amounts of free cash. Grullon, Michaely, and Swaminathan (2002) also find that some of the firms might be at the transition level, because at this point, these firms show characteristics resembling those of mature firms.

DeAngelo, DeAngelo, and Stulz (2006) show that the controversy around retained earnings arises when insiders or managers view the funds contained in retained earnings as free cash, which

is available to put in certain investments. Jensen (1988), Aivazian, Ge, and Qiu (2005), and Fairchild, Guney, and Thanatawee (2014) explain that basic concept for free cash flow begins when firms with large free cash plan to expand other profitable investments; however, in the case of moral hazard, managers reversely tend to spend those free cash on unprofitable investments, which becomes source of conflict with shareholders. Myers (2001) emphasizes that free cash flow theory generally is an applicable theory to mature firms that have a tendency for overinvestment and triggers the trade-off model. Under trade-off theory and free cash flow theory, Jensen (1986), Aivazian, Ge, and Qiu (2005), and Barclay and Smith (2005) similarly suggest that firms should use debt for funding additional investments and at the same time play the role to avoid overinvestment, which underlies conflict of interest between managers and shareholders.

Based on these reviews, this study assumes that the retained earnings to total assets ratio basically shows the same behavior as other profitability ratios [illegible] for trade-off theory, free cash flow theory, and pecking order theory. In the context of trade-off theory and free cash flow theory, the higher retained earnings to total assets ratio will make mature firms accumulate debt to avoid internal conflict. The other assumptions are based on conditions where those firms are at a growth level and where these firms still have many positive investment opportunities and prefer to finance it with debt at low cost. The hypothesis for testing the relationship between the retained earnings to total assets ratio and long-term debt ratio is stated as follows:

Ha_2: There is a relationship between retained earnings to total assets ratio and long-term debt ratio.

1.3. The relationship of asset structure/tangibility and long-term debt ratio in the context of trade-off theory, free cash flow theory, and pecking order theory

Ideally, firms obtain long-term debt, because it is needed to finance long-term investments with the aim to increase profits (Diamond, 1991; Diamond & He, 2014). Rodrigues, de Moura, Santos, and Sobreiro (2017) confirm that most of the firms in the United States use long-term debt to finance their investments. Rajan and Zingales (1995), and Mirza, Rehman, and Zhang (2016) confirm that increasing fixed assets in asset structure shall increase firm collateral on debt, which can be used to offset the risk of debt. Grullon, Michaely, and Swaminathan (2002) confirm that at the mature or transition level, as their investment opportunities are getting smaller, firms tend to have large free cash in line with increasing retained earnings. These circumstances are reasonable and acceptable, because firms at the mature level generally have good corporate governance in identifying their needs and managing performance (Garengo, Nudurupati, & Bititci, 2007). Moreover, Grullon, Michaely, and Swaminathan (2002) show that firms at the growth level normally have many options for profitable investments, as they are still striving to achieve profit target level; it is, therefore, difficult to retain earnings, resulting in lower free cash.

Fama and French (2002), and Frank and Goyal (2003) clarify that a negative relationship between investment and debt is consistent with trade-off theory and pecking order theory in cases where firms are concerned about the risks and costs of debts for funding investments. Under free cash flow theory, Barclay and Smith (2005) clarify that shareholders use debt as an effective solution to avoid overinvestment by managers, because debt can force managers to be more critical in planning capital expenditures. Aivazian, Ge, and Qiu (2005) also suggest that firms should use debt when financing investments as a device to control managers for overinvestment and at the same time solve the problem of conflicts of interest with shareholders. Sunder and Myers (1999) argue that while shareholders and managers have the same goal on maximizing firm value, most of the mature firms shall apply pecking order to establish capital structure and they will have access to more retained earnings for financing additional investments rather than relying on debt financing.

Based on these reviews, this study assumes that the change in asset structure/tangibility will change the long-term debt ratio in the context of trade-off theory, free cash flow theory, and pecking or-

der theory. For mature firms, this study assumes that increasing asset structures/tangibility will decrease the use of debt, because these firms have a tendency to use internal funds, whereas growth firms prefer to use debt for financing investments, as well as to avoid internal conflicts. The hypothesis for testing the relationship between asset structure/tangibility and the long-term debt ratio is stated as follows:

Ha_3: There is a relationship between asset structure and long-term debt ratio.

1.4. The relationship of the dividend payout ratio and long-term debt ratio in the context of trade-off theory, free cash flow theory, and pecking order theory

Generally, established firms have a tendency to distribute dividends, because they have reached the optimum amount of retained earnings, while growth firms have the tendency to retain the earnings rather than distributing it as dividends, as they need it for re-investment to achieve profit targets (DeAngelo, DeAngelo, & Stulz, 2006). Fairchild, Guney, and Thanatawee (2014) show that firms with increasing dividends normally have the large portion of retained earnings over total equity or total assets.

As Grullon, Michaely, and Swaminathan (2002) define firms at the growth level identically close to expanding firms, then, it explains why they have lower retained earnings. Easterbrook (1984), Jensen (1986), and Brav, Graham, Harvey, and Michaely (2005) suggest that in the case when firms obtain more debt, shareholders should simultaneously demand the insiders to increase the dividend. Easterbrook (1984), Jensen (1986), and Brav, Graham, Harvey, and Michaely (2005) confirm that when there is the impact of shareholder's demand, then, the market will capture it as a signal of existence of the internal conflict between shareholders and managers, which, then, triggers the trade-off model. Similarly, Sunder and Myers (1999), Grullon, Michaely, and Swaminathan (2002), and Strebulaev and Yang (2013) confirm that firms that distribute more dividends on shareholders normally have lower debt ratios.

Based on these reviews, this study assumes that the change in dividend payout ratio will change the long-term debt ratio both for mature and growing firms in the context of trade-off theory, free cash flow theory, and pecking order theory. The hypothesis for testing the relationship between dividend payout ratio and long-term debt ratio is stated as follows:

Ha_4: There is a relationship between dividend payout ratio and long-term debt ratio.

1.5. The relationship of share price and long-term debt ratio in the context of trade-off theory, pecking order theory, and market timing theory

There are controversies regarding market timing theory in the finance field. Baker and Wurgler (2000) find that most firms have a tendency to use their own equities as a source of funds to finance their operations and investments before the period when their shares in capital markets have lower returns. Furthermore, Baker and Wurgler (2000) clarify that firms use their own equities as a source of funds in periods when their shares have higher returns and use debt as a source of funds in periods when their shares have lower returns. In their next study, Baker and Wurgler (2002) imply that the essence of market timing is issuing new shares when they command higher market prices, while, at the same time, lowering the debt ratio. But, Frank and Goyal (2004) argue that capital structure cannot be explained by market timing theory, since much of the empirical evidence is not adequate to explain the assumptions of this theory.

Alti (2006), Alti and Sulaeman (2012) also confirm that market timing is related to the plan for expenditures, where firms issue new shares at a lower cost of equity or higher return. Brendea (2012) clarifies that on providing more benefits for shareholders, the managers should have a better understanding in identifying good moment for issuing new shares at low cost. Hovakimian, Hovakimian, and Tehranian (2004) and Elliott, Kant, and Warr (2008) confirm that market timing will lead the firm capital structure into pecking order model, as it reduces debt ratios at the time their share mar-

Table 1. Summary of hypotheses development

Independent variables	Sign	Theories				Firm conditions
		Trade-off	Pecking order	Free cash flow	Market timing	
ROA	+	√	–	√	–	Mature under conflict
	–		√	–	–	Mature firm
RETA	+	√	–	√	–	Mature under conflict or growth
	–		√	–	–	Mature with less investments
Tang	+	√	√	√	–	Growth level under conflict
	–	√	√	–	–	Mature or considering the risks and costs
DPR	+	√	–	√	–	Mature under conflict
	–		√	–	–	Mature or growth
PRICE	+	√		–	–	Conditional
	–	–	√	–	√	Conditional

Notes: This table summarizes the hypotheses development of this study based on relevant theories. Dependent variable is long-term debt ratio (LTD), calculated by the ratio of total long-term debts to total assets and measured by a dummy, where 1 for firms with higher debt, and 0 for firms with lower debt. ROA is ratio of net profit to total assets. RETA is ratio of retained earnings to total assets. Tang is ratio of total fixed assets to total assets. DPR is ratio of dividends per share to earnings per share. PRICE is measured by the closing price at the end of the year after corporate action.

ket prices are overvalued. Reversely, Hovakimian, Hovakimian, and Tehranian (2004) and Elliott, Kant, and Warr (2008) confirm that the debt ratio tends to increase while share market prices are undervalued. Alti (2006) reports that investors put their preferences more for mature firms in the capital market, since they normally have lower asymmetric information with more certain returns. Based on this review, this study assumes that the change in share price will change the long-term debt ratio in the context of trade-off theory and pecking order theory. The hypothesis for testing the relationship of share price and long-term debt ratio is stated as follows:

Ha_5: There is a relationship between share price and long-term debt ratio.

Table 1 presents a summary of the theories to develop the hypothesis for each relationship between the independent variable and dependent variable.

2. RESEARCH METHOD

Table 2 presents a sample drawn from the Indonesia Stock Exchange (www.idx.co.id) over the period from 2010 to 2015. This study applies purposive sampling technique to get 138 Indonesian listed firms as the sample. To be included as a sample for this study, a firm should meet the following criteria: having publicly published audited financial report, having provided a complete performance report, and not being a delisted firm. This study excludes the finance sector and property, real estate, and construction sector from the sample, since these sectors have their own characteristics for running a business and, therefore, have different accounting policies and financial report structures.

Table 2. Sample

Sectors	Sample	Observed data
Agriculture	9	54
Mining	13	78
Basic industry and chemicals	31	186
Miscellaneous industry	18	108
Consumer goods industry	16	96
Infrastructure, utilities, and transportation	12	72
Trade, service, investment	39	234
Total	138	828

Notes: This table reports the sample of this study. The sample is drawn from the Indonesia Stock Exchange applying (www.idx.co.id) over the period from 2010 to 2015 by applies purposive sampling technique. This study excludes the finance sector and property, real estate, and building construction sector from the sample since these sectors have their own characteristics for running a business and therefore have different accounting policies and financial report structures.

This study uses a sample of Indonesian firms in which dependent variables and independent variables are represented in Indonesian currency or the Rupiah (Rp). This study uses the long-term debt ratio as a dependent variable, which is calculated by the ratio of total long-term debts to total assets (symbolized by LTD) and measured by a dummy

based on the median as cut-off point, which divides the sample into firms with higher debt (code 1) and firms with lower debt (code 0).

The independent variables for this study are: profitability or return on assets (symbolized by ROA), calculated by the ratio of net profit to total assets; retained earnings to total assets ratio (symbolized by RETA), calculated by retained earnings divided by total assets; asset structure or tangibility (symbolized by Tang), calculated by the ratio of total fixed assets to total assets; dividend payout ratio (symbolized by DPR), calculated by the ratio of dividends per share to earnings per share; and share price (symbolized by PRICE), measured by the closing price at the end of the year after corporate action, such as stock splits, dividend announcements, rights issues, etc.

This study also controls the sample based on firm size and firm age to distinguish the results. The firm size is calculated by the natural logarithm of total assets and cut off by the median in a term to get larger firms and smaller firms. The firm age is the difference between the current year of observation (year 2015) and the established date of each firm and also cut off by the median, which separates older firms and younger firms. As a result of calculation, this study finds that the median for firm size is 14.76, while the median for firm age is 32.5 years.

This study conducts logistic regression analysis for hypotheses testing at a significance rate of 0.05. To confirm the regression fit model, this study tests the chi-square value as the formal procedures in logistic regression by Hair, Black, Babin, and Anderson (2010) and Kleinbaum and Klein (2010) to determine whether model is fit (insignificant at 0.05) or the model is not fit (significant at 0.05). The regression model for this study is written as follows:

$$LTD_{dummy} = \alpha + \beta_1 ROA + \beta_2 RETA + \\ + \beta_3 TANG + \beta_4 DPR + \beta_5 PRICE + \varepsilon.$$

3. RESULTS AND DISCUSSION

3.1. Descriptive statistics

Descriptive statistics present a description of the characteristics of firms according to variables used in this study during the observation period. Table 3 shows that larger and older firms with lower debt have the highest mean for return on assets, the retained earnings to total assets ratio, the dividend payout ratio, and share price, among other firm categories. The results indicate that these firms seem to adopt the pecking order model, and they have, therefore, reached the mature level, as reflected by their retained earnings to total assets ratio. These firms also have higher profits and are, therefore, able to distribute higher dividends to their shareholders; as a result, they have higher market prices in the capital market.

Table 3 also shows that smaller and younger firms with higher debt have the highest mean of long-term debt and tangibility, but they also have the lowest mean for return on assets and the dividend payout ratio. The results indicate that these firms finance their long-term investments with long-term debt, as predicted by trade-off theory. In terms of financing preferences, they must endure high debt interest expenses, which leads to decreasing prof-

Table 3. Descriptive statistics

Firm categories	Variables	Minimum	Maximum	Mean
1	LTD	0.05	1.41	0.27
	ROA	–0.29	0.46	0.08
	RETA	–0.43	1.10	0.26
	Tang	0.01	0.88	0.38
	DPR	0.00	2.04	0.24
	PRICE	50.00	22,950.00	3,255.43
2	LTD	0.01	0.14	0.07
	ROA	–0.06	0.72	0.16
	RETA	–0.10	0.79	0.45
	Tang	0.16	0.92	0.37
	DPR	0.00	1.82	0.43
	PRICE	173.00	62,050.00	12,508.73

Table 3 (cont.). Descriptive statistics

Firm categories	Variables	Minimum	Maximum	Mean
3	LTD	0.02	0.85	0.31
	ROA	–0.31	0.23	0.04
	RETA	–1.94	1.80	0.07
	Tang	0.01	0.85	0.38
	DPR	–4.51	2.24	0.11
	PRICE	51.00	18,050.00	2,885.49
4	LTD	0.00	0.29	0.07
	ROA	–0.14	0.51	0.11
	RETA	–0.49	0.72	0.27
	Tang	0.09	0.83	0.27
	DPR	0.00	4.35	0.39
	PRICE	50.00	50,750.00	6,877.71
5	LTD	0.00	4.83	0.26
	ROA	–1.28	3.47	0.06
	RETA	–26.74	1.31	–0.74
	Tang	0.00	0.99	0.43
	DPR	0.00	1.83	0.11
	PRICE	35.00	5,000.00	618.06
6	LTD	0.00	0.20	0.05
	ROA	–0.18	0.46	0.08
	RETA	–1.21	1.33	0.28
	Tang	0.02	0.91	0.23
	DPR	0.00	1.90	0.23
	PRICE	67.00	132,500.00	4,586.63
7	LTD	0.00	2.13	0.40
	ROA	–0.38	0.21	0.02
	RETA	–2.70	0.42	–0.33
	Tang	0.00	0.96	0.47
	DPR	–0.14	0.35	0.02
	PRICE	50.00	3,175.00	701.75
8	LTD	0.00	0.20	0.04
	ROA	–0.35	0.97	0.06
	RETA	–2.94	0.77	0.06
	Tang	0.00	0.89	0.27
	DPR	0.00	1.22	0.08
	PRICE	50.00	13,900.00	899.19

Notes: This table reports descriptive of this study. Dependent variable is long-term debt ratio (LTD), calculated by the ratio of total long-term debts to total assets and measured by a dummy, where 1 for firms with higher debt, and 0 for firms with lower debt. ROA is ratio of net profit to total assets. RETA is ratio of retained earnings to total assets. Tang is ratio of total fixed assets to total assets. DPR is ratio of dividends per share to earnings per share. PRICE is measured by the closing price at the end of the year after corporate action. The firm categories are: (1) larger and older firms with higher debt; (2) larger and older firms with lower debt; (3) larger and younger firms with higher debt; (4) larger and younger firms with lower debt; (5) smaller and older firms with higher debt; (6) smaller and older firms with lower debt; (7) smaller and younger firms with higher debt; (8) smaller and younger firms with lower debt

its and small dividends paid to shareholders. As a result of paying small dividends, their share prices have a tendency to decrease. Similarly, smaller and older firms with higher debt also show similar behaviors, where more than half of their long-term investments are financed by long-term debt, which leads to the lowest retained earnings and share prices.

3.2. Robustness

The study checks the robeestness for the result of analysis by using –2 log likelihood, Hosmer and Lemeshow test, and Omnibus test. Table 4 shows that Chi-square (CS) values by Hosmer and Lemeshow's goodness of fit (GOF) test on the model for each firm categories are insignificant at

0.05, which means that the model fits with data. The differences for Chi-square value (ΔCS) on the model for each firm categories based on Omnibus test are significant at 0.05, which means that including independent variables in regression equation shall decrease the –2 log likelihood and fix the model into the fit model.

3.3. Larger and older firms with higher debt

Under the assumption that the retained earnings to total assets ratio has the same behavior as return on assets, Table 4 shows that negative and significant effect of this variable indicates that firms are adjusting capital structure from trade-off model to pecking order model, which is consistent with Sunder and Myers (1999), Hovakimian, Opler, and Titman (2001), Myers (2001), Chen (2004), and Elliott, Kant, and Warr (2008). As in Sunder and Myers (1999) and Myers (2001), this result shows that firms are becoming profitable, which indicates that they have reached maturity, and, at this level, these firms slowly start to decrease debt and replace it with internal funds for financing any additional investments.

Consistent with Grullon, Michaely, and Swaminathan (2002), the insignificant effect of asset structure or tangibility in Table 4 indicates that firms do not have many investments, which indicate maturity. The insignificant effect by dividend per share in Table 4 supports the result for the retained earnings to total assets ratio, which indicates that these firms do not have the tendency towards under conflict of interest as proposed by Easterbrook (1984), Jensen (1986), Myers (2001), Aivazian, Ge, and Qiu (2005), and Barclay and Smith (2005). Although share price has negative sign, but the result shows that market timing is insignificant of determining capital structures for firms, which is inconsistent with Baker and Wurgler (2000), Baker and Wurgler (2002), Hovakimian, Hovakimian, and Tehranian (2004), Alti (2006), Elliott, Kant, and Warr (2008), Alti and Sulaeman (2012), and Brendea (2012).

3.4. Larger and older firms with lower debt

Table 4 shows that positive effect on dependent variable indicates that firms are adjusting capital structure from pecking order model to trade-off model, as suggested by Modigliani and Miller (1958), Jensen (1986), Jensen (1988), Hovakimian, Opler, and Titman (2001), and Myers (2001). The result also confirms that firms have reached the maturity level, which is consistent with Grullon, Michaely, and Swaminathan (2002), and DeAngelo, DeAngelo, and Stulz (2006).

Table 4. Logistic regression results for firm capital structures

Independent variables	Firm categories							
	1	2	3	4	5	6	7	8
Constant	2.909	–2.909	–1.236	1.236	0.922	–0.922	–4.662	4.662
ROA	–2.135	2.135	–7.634*	7.634*	–0.714	0.714	–0.775	0.775
RETA	–2.068*	2.068*	–1.218	1.218	–1.592*	1.592*	–0.611*	0.611*
Tang	–0.507	0.507	1.897*	–1.897*	0.461*	–0.461*	3.408*	–3.408*
DPR	–0.889	0.889	–0.785	0.785	–0.032	0.032	–3.046	3.046
PRICE	–0.111	0.111	0.301*	–0.301*	–0.102	0.102	0.472*	–0.472*
CS	15.341**	15.341**	12.871**	14.632**	11.529**	13.191**	12.036**	12.036**
ΔCS	32.525*	32.525*	48.587*	48.587*	61.686*	61.686*	43.800*	43.800*
PV***	72.2%	72.2%	71.4%	71.4%	76.5%	76.5%	79.4%	79.4%

Notes: This table reports the results of logistic regression on firm capital structure for this study. Dependent variable is long-term debt ratio (LTD), calculated by the ratio of total long-term debts to total assets and measured by a dummy, where 1 for firms with higher debt, and 0 for firms with lower debt. ROA is ratio of net profit to total assets. RETA is ratio of retained earnings to total assets. Tang is ratio of total fixed assets to total assets. DPR is ratio of dividends per share to earnings per share. PRICE is measured by the closing price at the end of the year after corporate action. CS is Chi-square value by Hosmer and Lemeshow test. ΔCS is differences of Chi-square value based on Omnibus test. The firm categories are: (1) larger and older firms with higher debt; (2) larger and older firms with lower debt; (3) larger and younger firms with higher debt; (4) larger and younger firms with lower debt; (5) smaller and older firms with higher debt; (6) smaller and older firms with lower debt; (7) smaller and younger firms with higher debt; (8) smaller and younger firms with lower debt. The figures of ***, **, and * indicate predicted value (PV), statistical insignificance at 0.05, and statistical significance at 0.05.

Descriptive statistics show that firms have better performance than other firms; the positive sign and significance of retained earnings to total assets ratio in Table 4 indicates that firms have tendencies under internal conflict for additional investments in the context of free cash flow theory as proposed by Jensen (1986), Myers (2001), Aivazian, Ge, and Qiu (2005), Barclay and Smith (2005). The insignificant dividend payout ratio in Table 4 reflects that although firms have tendencies under conflict, they do not emphasize the solution on dividend payment, as proposed by Easterbrook (1984), Jensen (1986), and Brav, Graham, Harvey, and Michaely (2005). The insignificance of share price in Table 4 also shows that market timing is not a determinant for capital structure of these firms, which is inconsistent with Baker and Wurgler (2000), Baker and Wurgler (2002), Hovakimian, Hovakimian, and Tehranian (2004), Alti (2006), Elliott, Kant, and Warr (2008), Alti and Sulaeman (2012), and Brendea (2012).

3.5. Larger and younger firms with higher debt

Table 4 shows that negative significant effect of return on assets indicates that firms are adjusting capital structure from trade-off model to pecking model which is consistent with Sunder and Myers (1999), Hovakimian, Opler, and Titman (2001), Myers (2001), Chen (2004), Elliott, Kant, and Warr (2008), Güner (2016), Lourenço and Oliveira (2016). Table 4 shows that insignificant effect of the retained earnings to total assets ratio indicates that firms are not at a mature level, as suggested by Grullon, Michaely, and Swaminathan (2002), but its sign still supports pecking order model as proposed by DeAngelo, DeAngelo, and Stulz (2006). Moreover, the insignificant effect of dividend payout ratio in Table 4 supports the result for return on assets, which indicates that firms are not experiencing conflict in the context of free cash flow theory, as proposed by Easterbrook (1984), Jensen (1986), Myers (2001), Aivazian, Ge, and Qiu (2005), Barclay and Smith (2005).

Table 4 shows that positive and significant effect of tangibility confirms that firms still have more options for additional long-term investments, which makes them tend toward a position of growth, as proposed by Grullon, Michaely, and Swaminathan (2002). Regardless of the internal conflict, the positive sign of tangibility in Table 4 reflects that firms are concerned with risks and costs of debt rather than equities for funding investments, as suggested by Fama and French (2002) and Frank and Goyal (2003). The positive and significant effect of share price in Table 4 shows that market timing does not play a role in determining capital structure for these firms, so this result is inconsistent with Baker and Wurgler (2000), Baker and Wurgler (2002), Hovakimian, Hovakimian, and Tehranian (2004), Alti (2006), Elliott, Kant, and Warr (2008), Alti and Sulaeman (2012), and Brendea (2012). This result shows that firms prefer debt financing rather than equity financing, because equities have a higher cost as predicted by Zingales (2000), Hovakimian, Opler, and Titman (2001), Elliott, Kant, and Warr (2008). These results also indicate that firms conditionally adjust their capital structure to trade-off model in a term to increase their profit.

3.6. Larger and younger firms with lower debt

Table 4 shows that positive and significant of return on assets indicates that firms are adjusting capital structure from pecking order model to trade-off model, as suggested by Modigliani and Miller (1958), Jensen (1986), Jensen (1988), Hovakimian, Opler, and Titman (2001), Myers (2001), Mirza, Rehman, and Zhang (2016), Zeitun, Temimi, and Mimouni (2017). The insignificant effect of retained earnings on total assets ratio in Table 4 confirms that firms are not at mature level, but close to growth level, as proposed by Grullon, Michaely, and Swaminathan (2002), and DeAngelo, DeAngelo, and Stulz (2006).

The positive sign of return on assets in Table 4 indicates existence of internal conflict in firms, as proposed by Jensen (1986), Myers (2001), Aivazian, Ge, and Qiu (2005), Barclay and Smith (2005). The insignificant effect of dividend payout ratio in Table 4 reflects that firms do not use dividends to solve conflicts, as suggested by Easterbrook (1984), Jensen (1986), Brav, Graham, Harvey, and Michaely (2005); its positive sign does little support for the existence of internal conflict in firms. The negative and significant effect of tangibility in Table 4 reflects that firms are concerned about

risks and costs of debt in funding investments; the result is, therefore, acceptable from the perspective of both trade-off theory and pecking order theory, as suggested by Fama and French (2002), Frank and Goyal (2003).

Table 4 shows that capital structure for these firms is more complex, since their share prices have a negative sign and are significant with respect to long-term debt ratios. The result shows that market timing significantly determines capital structure so that firms follow pecking order model, as proposed by Baker and Wurgler (2000), Baker and Wurgler (2002), Hovakimian, Hovakimian, and Tehranian (2004), Alti (2006), Elliott, Kant, and Warr (2008), Alti and Sulaeman (2012), Brendea (2012).

The results for larger and younger firms with lower debt indicate that these firms adjust their capital structure conditionally either by pecking order or trade-off model to control the managers and investment activity. Under these circumstances, these firms finance their investments flexibly both with debt and equity. The results on tangibility and share price indicate that financing on investments is dominated more by equities through market timing, as suggested by Alti (2006), Alti and Sulaeman (2012).

3.7. Smaller and older firms with higher debt

Table 4 shows that negative and significant effect of retained earnings ratio shows that firms adjust capital structure with pecking order model as suggested by Sunder and Myers (1999), Hovakimian, Opler, and Titman (2001), Myers (2001), Chen (2004), and Elliott, Kant, and Warr (2008). There are three important questions for these firms: (1) are these firms under internal conflict? (2) have these firms reached a mature level? and (3) why do these firms keep using debt to finance their investments?

It is assumed that since the beginning, firms have been using debt to finance investment according to trade-off model, and they rely on debt to fund investment, since they have insufficient retained earnings. This assumption indicates that firms are not under internal conflict as proposed by Jensen (1986), Myers (2001), Aivazian, Ge, and Qiu (2005), and Barclay and Smith (2005). The insignificant effect of dividend payout ratio in Table 4 confirms that firms do not use dividends to avoid internal conflict, as suggested by Easterbrook (1984), Jensen (1986), Brav, Graham, Harvey, and Michaely (2005).

It is assumed that investments for these firms are already at optimum points and additional investments are meant to increase future profits. Descriptive statistics in Table 3 show that mean of retained earnings to total assets ratios for these firms is the lowest relative to other firm categories, but the return on assets is high enough among other firm categories, which reflects growth profitability as an effect of optimum investments. As their profitability starts to grow, these firms start to reduce long-term debt, as suggested by Hovakimian, Opler, and Titman (2001), and Myers (2001). Consistent with Grullon, Michaely, and Swaminathan (2002), based on these assumptions, these firms are shown to have reached transition level, since they have similar characteristics with mature firms.

The positive and significant effect of tangibility in Table 4 is still consistent with pecking order model, as suggested by Fama and French (2002) and Frank and Goyal (2003). This result indicates that firms tend to use debt to finance investment activity, as they have insufficient internal funds or retained earnings. Moreover, since these firms have large investments as reflected by means of tangibility, they can use fixed assets as collateral to offset the risk of debt, as suggested by Rajan and Zingales (1995), Chen (2004). The insignificant effect of share price in Table 4 indicates that firms do not establish capital structure by applying market timing, as proposed by Baker and Wurgler (2000), Baker and Wurgler (2002), Hovakimian, Hovakimian, and Tehranian (2004), Alti (2006), Elliott, Kant, and Warr (2008), Alti and Sulaeman (2012), Brendea (2012). The result confirms that as these firms have the lowest share prices relative to other firm categories, debt seems to be the only alternative for financing investment apart from issuing new shares at relatively high cost or taking advantage of undervalued shares, as suggested by Hovakimian, Opler, and Titman (2001), Elliott, Kant, and Warr (2008).

3.8. Smaller and older firms with lower debt

The positive sign of retained earnings to total assets ratio in Table 4 shows that firms are shifting the model of capital structures from pecking order model to trade-off model, as suggested by Modigliani and Miller (1958), Jensen (1986), Jensen (1988), Hovakimian, Opler, and Titman (2001), and Myers (2001). Although the results are insignificant, the signs of other independent variables offer little support to confirm trade-off model. The lowest mean of tangibility indicates that firms do not have many investment opportunities, as they have a high enough retained earnings to total assets ratio and return on assets. These firms tend toward maturity, as proposed by Grullon, Michaely, and Swaminathan (2002). The result in Table 4 shows that the negative and significant effect of tangibility is still consistent in the context of trade-off theory when firms are considering risks or costs of debt, as suggested by Fama and French (2002), and Frank and Goyal (2003). Descriptive statistics in Table 3 show that firms have the lowest mean of debt and the lowest mean of investment. These results indicate that they do not use debt for financing investment if they consider investment is risky or cost of debt to be expensive; otherwise, they use debt to control the managers' behavior on managing earnings on the motive to increase the wealth of shareholders.

Under these assumptions, firms have conflicts of interest, as proposed by Jensen (1986), Myers (2001), Aivazian, Ge, and Qiu (2005), and Barclay and Smith (2005), although dividends are not the main cause of conflict, as suggested by Easterbrook (1984), Jensen (1986), and Brav, Graham, Harvey, and Michaely (2005). Furthermore, since share price has an insignificant effect as shown in Table 4, this indicates that market timing is not a determinant of capital structures on these firms, as proposed by Baker and Wurgler (2000), Baker and Wurgler (2002), Hovakimian, Hovakimian, and Tehranian (2004), Alti (2006), Elliott, Kant, and Warr (2008), Alti and Sulaeman (2012), and Brendea (2012).

3.9. Smaller and younger firms with higher debt

The negative and significant effect of retained earnings to total assets ratio in Table 4 shows that firms are shifting from trade-off model to pecking order model in establishing capital structure, as suggested by Sunder and Myers (1999), Hovakimian, Opler, and Titman (2001), Myers (2001), Chen (2004), and Elliott, Kant, and Warr (2008). Descriptive statistics in Table 3 report that firms have the highest mean of tangibility and the lowest mean of return on assets relative to other firm categories. These results indicate that firms have characteristics like smaller and older firms with higher debt. Based on assumption that investments are optimum, additional investments are objective to increase future profit, and profitability starts to grow; then, decreasing debts in capital structure of firms is consistent with pecking order model, as suggested by Sunder and Myers (1999), Hovakimian, Opler, and Titman (2001), and Myers (2001). Moreover, as they still have some investment opportunities, these firms are shown to be at transition level, which is close to mature level, as proposed by Grullon, Michaely, and Swaminathan (2002).

As these firms have the largest tangibility, the lowest return on assets, and low retained earnings, the positive and significant effect of tangibility indicates some possibilities: (1) firms tend to finance investment by debt when retained earnings are insufficient, as suggested by Fama and French (2002), and Frank and Goyal (2003); (2) firms can pledge assets as collateral to offset risk of debt, as suggested by Rajan and Zingales (1995), and Mirza, Rehman, and Zhang (2016); and (3) firms keep funding investment with debt, because these firms have no tendencies under internal conflict, as proposed by Jensen (1986), Myers (2001), Aivazian, Ge, and Qiu (2005), Barclay and Smith (2005), and Rodrigues, de Moura, Santos, and Sobreiro (2017). The insignificant effect of dividend payout ratio in Table 4 also supports that firms are not under conflict, as proposed by Easterbrook (1984), Jensen (1986), and Brav, Graham, Harvey, and Michaely (2005).

The positive and significant effect of share price in Table 4 confirms that firms are not applying market timing in determining capital structures, as suggested by Baker and Wurgler (2000), Baker and Wurgler (2002), Hovakimian, Hovakimian, and Tehranian (2004), Alti (2006), Elliott, Kant, and Warr (2008), Alti and Sulaeman (2012), and Brendea (2012). This result indicates that firms

prefer debt financing, because equities have low return, as predicted by Zingales (2000), Hovakimian, Opler, and Titman (2001), and Elliott, Kant, and Warr (2008). With respect to these results, it indicates that smaller and younger firms with higher debt adjust capital structure conditionally either by pecking order or trade-off model to increase profit together with retained earnings.

3.10. Smaller and younger firms with lower debt

The positive and significant effect of retained earnings to total assets ratio in Table 4 shows that firms adjust capital structure by following trade-off model, which is consistent with Modigliani and Miller (1958), Jensen (1986), Jensen (1988), Hovakimian, Opler, and Titman (2001), and Myers (2001). The result also shows that since retained earnings to total assets ratio have a significant effect, these firms have a tendency to be more mature, as proposed by Grullon, Michaely, and Swaminathan (2002), and DeAngelo, DeAngelo, and Stulz (2006).

The positive sign of retained earnings to total assets ratio in Table 4 indicates that firms have a conflict between shareholders and managers, as proposed by Jensen (1986), Myers (2001), Aivazian, Ge, and Qiu (2005), and Barclay and Smith (2005). The positive sign of dividend payout ratio in Table 4 indicates internal conflict, although the result confirms that dividends are not an alternative way to solve the conflict, as suggested by Easterbrook (1984), Jensen (1986), and Brav, Graham, Harvey, and Michaely (2005). Consistent with Fama and French (2002), and Frank and Goyal (2003), the negative relationship between tangibility and long-term debt ratio is still consistent from the perspective of trade-off theory in cases where firms prefer equity financing, as they view risks and costs of debt as greater than those of equity.

Moreover, the negative and significant effect of share price in Table 4 confirms that firms are also setting capital structure by applying market timing and then rely on pecking order model, as proposed by Baker and Wurgler (2000), Baker and Wurgler (2002), Hovakimian, Hovakimian, and Tehranian (2004), Alti (2006), Elliott, Kant, and Warr (2008), Alti and Sulaeman (2012), and Brendea (2012). This result supports the negative relationship between tangibility and long-term debt ratio indicating that investment financing of smaller and younger firms with less debt is characterized more by equities rather than debt.

Table 5. Summary of findings for capital structure

Firm categories	Theories				Firm conditions
	Trade-off	Pecking order	Free cash flow	Market timing	
1	–	√	–	–	Mature; less investments
2	√	–	√	–	Mature; under conflict
3	√	√		–	Growth; consider risks and costs
4	√	√	√	√	Growth; under conflict; consider risks and costs
5	–	√	–	–	Transition
6	√	–	√	–	Mature; less investments; under conflict
7	√	√	–	–	Transition
8	√	√	√	√	Mature; under conflict; consider risks and costs

Notes: This table reports the summary of findings of firm capital structure for this study. Dependent variable is long-term debt ratio (LTD), calculated by the ratio of total long-term debts to total assets and measured by a dummy, where 1 for firms with higher debt, and 0 for firms with lower debt. ROA is ratio of net profit to total assets. RETA is ratio of retained earnings to total assets. Tang is ratio of total fixed assets to total assets. DPR is ratio of dividends per share to earnings per share. PRICE is measured by the closing price at the end of the year after corporate action. The firm categories are: (1) larger and older firms with higher debt; (2) larger and older firms with lower debt; (3) larger and younger firms with higher debt; (4) larger and younger firms with lower debt; (5) smaller and older firms with higher debt; (6) smaller and older firms with lower debt; (7) smaller and younger firms with higher debt; (8) smaller and younger firms with lower debt.

3.11. Implications

Tables 5, 6 provide the summary of empirical evidence and theoretical implications for capital structure adjustment by each firm category in the context of trade-off theory, pecking order theory, free cash flow theory, and market timing theory for the case of developing countries based on Indonesian firms. The findings of this study are similar in case of firms in Latin America (Rodrigues, de Moura, Santos, & Sobreiro, 2017) and the case of firms in Gulf Corporation Council (Zeitun, Temimi, & Mimouni, 2017).

Table 6. Theories implications

Debt levels	Firms categories			
	Larger		Smaller	
	Older	Younger	Older	Younger
Higher debt	Mature (PO)	Growth (TO/PO)	Transition (PO)	Transition (TO/PO)
Lower debt	Mature (TO/FCF)	Growth (TO/PO/ FCF/MT)	Mature (TO/FCF)	Mature (TO/PO/FCF/ MT)

Notes: This table reports the theories implications of firm capital structure for this study. TO is trade-off; PO is pecking order; FCF is free cash flow; MT is market timing.

At higher debt levels, older firms, either larger or smaller tend to adjust capital structure according to pecking order model, while younger firms, either larger or smaller, tend to adopt trade-off model and pecking order model, which is, for the most part, triggered by preferences on the cost of capital. Moreover, the evidence shows that free cash flow theory is not applicable to most higher-debt firms in conditions where they shift to pecking order model or combine trade-off model with pecking order model. The evidence shows that mature firms are larger and older firms start adjusting their capital structure based on pecking order model, especially at higher debt levels.

At lower debt levels, most firms tend to adjust capital structure according to trade-off model. According to these results, evidence shows that free cash flow theory is applicable to most firms with lower debt level, which indicates these firms are under the conflict of interests, while they increase the debt level. Uniquely, evidence also shows that for companies that prefer the cost of capital, market timing theory is applicable for younger firms, either larger or smaller; these companies typically combine trade-off model and pecking order model. Moreover, evidence shows that most firms with lower debt are at a mature level, except for larger and younger firms.

CONCLUSION AND LIMITATIONS

Capital structure cannot be viewed from a single perspective. While humans still play the most important role in business operations, organizational behavior reflects the behavior of people inside these organizations. Human behavior is very complex, and thus organizational behaviors are also complex, especially when they adjust the capital structure. Adjustments to firm capital structure depend on firm conditions and can be explained in the context of trade-off theory, pecking order theory, free cash flow theory, and market timing theory. This study finds how firms adjust capital structure in relation to firm characteristics and maturity with 138 Indonesian public firms as the sample for the observed period from 2010 to 2015.

This study reports that firms adjust the capital structure based on preferences for debt or equity as a source of funding. This study finds that preferences for debt or equity are related to the cost of capital. Furthermore, empirical evidence shows that the conflict of interest between shareholders and managers triggers capital structure adjustment in circumstances where the objectives of shareholders and managers do not align. Under such conditions, the form of capital structure can be based on a single model or a combined trade-off model, pecking order model, and market timing approach.

Based on Indonesian firms, this study shows that the existence of long-term debt in the capital structure plays its own role in firms reaching their maturity level, especially in developing countries. Empirical evidence shows that most firms at lower debt levels accelerate to mature levels at a faster rate than most firms at higher debt levels. Based on the findings, this study suggests that further studies should differ-

entiate dividend payers and non-dividend payers to clarify how each of these firms determines their capital structure, as dividends also play a role in the capital structure in the context of free cash flow theory. In addition, future studies should analyze the relevance of income tax and liquidity to confirm the model of the capital structure, whether following the trade-off or pecking order.

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