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Equity Market Timing Approach in IPO and Rights Issue of Companies in Indonesia

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Abstract: The aim of this study is to analyse the effect of equity market timing on the issuance of new shares and capital structures in companies, excluding those in the financial sector, that conducted Initial Public Offerings (IPOs) and rights issues (RIs) in Indonesia from 1990 to 2014. The study took a sample of companies with less than 100% leverage that had experienced delisting and relisting. The results were obtained at the time of an IPO (i.e. the time of a new shares issuance through go public), RI (the time of a new shares issuance as a rights issue), and RI+1 (one year after the rights issue) and capital structure. There was an effect of equity market timing on the issuance of new shares at IPO+1 (1 year after the IPO), IPO+2, RI+2, RI+3 and RI+4, but the companies issued a small number of new shares and raised the funds they lacked by issuing new debt to obtain an optimal capital structure. These results add to the findings that the market timing theory and trade-off theory are not mutually exclusive.

Keywords: IPO; Rights Issue; Equity Market Timing.

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Introduction

Equity market timing is closely related to the cost of capital equity. This relationship must be considered in corporate funding policies (Loughran & Ritter, 1995; Jegadeesh, 2000; Baker & Wurgler, 2002). Based on the results of research summarised by Baker and Wurgler (2002), there are three results. First, in favourable market conditions (overvalued), companies tend to issue new shares as opposed to new debt, while in unfavourable market conditions (undervalued), companies tend to repurchase shares. Second, companies issue new shares when investors place more emphasis on a consideration of their earnings prospects and the management's assessment of market conditions, with the latter being either overvalued or undervalued. Third, most managers issue new shares in favourable market conditions (overvalued).

Favourable market conditions occur when the market value of equity is relatively greater than the book value, meaning the cost of equity capital is lower. Favourable market conditions can arise for a number of reasons. First, capital markets are inefficient, which affects the movement of stock prices, thereby making them difficult to predict; this in turn leads to stock

prices being either overvalued or undervalued (Asri, 2013). Second, issuers and investors act rationally; however, investors may make erroneous share purchases (adverse selection) (Baker & Wurgler, 2002). Third, issuers act rationally while investors act irrationally, causing mispricing; that is, stocks are overvalued or undervalued in relation to their fair value.

This study was motivated by inconsistency in the results of previous studies conducted both in Indonesia and other countries. Research conducted in Indonesia by Miswanto (2015) and Susilawati (2012) produced the finding that equity market timing had a positive effect on new stock issuances and negatively affected capital structure. Felicia and Saragih (2015) found that equity market timing had a positive effect on new stock issuances but no effect on capital structure. Sawitri and Suhari (2009) and Setyawan (2011), meanwhile, found that equity market timing had no effect on capital structure.

Baker and Wurgler's (2002) research conducted in a foreign country yielded the finding that in the United States, equity market timing has a positive effect on the issuance of new shares and a negative effect on capital structure. Mahajan and Tartaroglu (2008) showed that in G7 countries, with the exception of Japan, equity market timing has a positive effect on the issuance of new shares. Bougatef and Chichti (2010) produced findings that equity market timing has a positive effect on the issuing of new shares in France and Tunisia. Celik and Akarim (2013) found that in Turkey, equity market timing does not affect the issuance of new shares and capital structure.

This study took a sample of companies that conducted Initial Public Offerings (IPOs) and Rights Issues (RIs). Companies were selected for inclusion in the sample if, despite having conducted both IPOs and RIs, investors were unaware as to the actual condition of the company even though it had issued a prospectus. This can lead to adverse selection and mispricing. In companies that conduct RIs, old shareholders are already aware of the state of the company and have the opportunity to buy shares in advance using preemptive rights; however, they face a dilemma. On the one hand, if they buy shares, they have to contend with a potential scenario in which the company's future conditions are not as expected. On the other hand, if they do not buy shares, the increase in shares issued leads to a reduction in their proportion of ownership in the company (dilution).

This research provides empirical evidence of the importance of determining the right time (timing) for the issuance of new shares in order to secure relatively cheap capital costs. Based on this description, the study aims to analyse the effect of equity market timing on new share issuance and capital structure in non-financial companies that conducted IPOs from the time of the IPO to IPO+5, and in companies that conducted RIs ranging from RI to RI+5 in Indonesia.

Literature Review and Hypotheses Development

Theories of capital structure that are widely known today are the theories of trade-off, pecking order and market timing (Huang & Ritter, 2005; 2009). Trade-off theory explains

how a company will attempt to balance its funding costs using debt and equity in order to develop an optimal capital structure to secure tax savings but also avoid liquidity problems and agency conflicts (Stiglitz, 1969; Kraus & Litzenberger, 1973). An over-reliance on debt leads to asset substitution that can result in agency conflict between a company's managers and debt holders (Jensen & Meckling, 1976). In contrast, too much equity can lead to a high level of free cash flow which itself generates agency conflict between managers and shareholders (Jensen, 1986).

Pecking order theory explains how a company is most likely to finance its activities according to a hierarchy (sequence). The company would thus turn first to retained earnings, followed by long-term debt or bonds, hybrid bonds, and the issuing of new stock as a last resort due to a fear that asymmetric information can result in underpricing (Myers & Majluf, 1984; Myers, 2001). This theory assumes that managers act in accordance with the wishes of shareholders and ignore the differences in interests between old and new shareholders. It also assumes that shareholders are passive and that they act rationally by amending their portfolios if they are not in accordance with company policy (Myers, 2001).

Market timing theory explains that a company's capital structure is the cumulative result of its efforts in the past to determine when is the right time to enter the market (Baker & Wurgler, 2002). Based on this theory the company will issue new shares if the market conditions are favourable (overvalued) and will repurchase shares if the market conditions are unfavourable (undervalued) (Baker & Wurgler, 2002).

Hypotheses Development

Based on the market timing theory, a company performs a new share issuance if the market conditions are favourable and it repurchases shares in unfavourable market conditions (Baker & Wurgler, 2002). Favourable market conditions are expected to produce an increase in the value of the market to book ratio. This increase in the market to book ratio encourages companies to issue new shares through both IPOs and RIs (Rajan & Zingales, 1995; Pagano, Panetta, & Zingales, 1998; Hovakimian, Opler, & Titman, 2001).

The effect of equity market timing on the issuance of new shares can occur because companies issue new shares in favourable market conditions (Baker & Wurgler, 2002) or hot market conditions (Alti, 2006). In hot market conditions, it is expected that the market to book ratio is high, meaning that companies will issue a greater number of new shares than are needed to satisfy their funding requirements (Alti, 2006). Alti (2006), Mahajan and Tartaroglu (2008) and Miswanto (2015) found that the market to book ratio of the previous year had a positive effect on the emission of new shares.

Measurements using the market to book ratio of the previous year can be expected in favourable market conditions when the company issues new shares to the company who did the IPOs and RIs. In companies that conduct IPOs, investors do not have sufficient information, while in those that conduct RIs, investors are faced with the

dilemma of whether or not to buy shares. If they buy shares, investors worry about whether the company will become unprofitable, while if they do not buy shares, their ownership will be diluted. Based on this explanation the following hypotheses are formed.

H_1: *Equity market timing has a positive effect on the issuance of new shares in companies conducting IPOs.*

H_2: *Equity market timing has a positive effect on the issuance of new shares in companies conducting RIs.*

The issuance of new shares increases the amount of own capital and total assets at the same time as decreasing leverage. This decrease in leverage occurs when companies issue new shares in favourable market conditions and demonstrates the influence of market timing on equity capital structure (Baker & Wurgler, 2002). This is supported by the results of research by Alti (2006), Mahajan and Tartaroglu (2008), Bougatef and Chichti (2010) and Miswanto (2015), all of whom found that the previous year's market to book ratio had a negative effect on changes in leverage.

Measurements using the market to book ratio of the previous year can be expected in favourable market conditions when the company issues new shares, causing book equity and total assets to increase and leverage to decrease. Based on this explanation the following hypotheses are formed.

H_3: *Equity market timing has a negative effect on capital structure for companies that conduct IPOs.*

H_4: *Equity market timing has a negative effect on capital structure for companies that conduct RIs.*

Research Method

Research Sample

The sample in this study comprised companies in the non-financial sector that conducted IPOs and RIs during the period 1990–2014. The inclusion criteria were as follows: companies with leverage of less than 100%, that had no prior experience of delisting and relisting, and that had submitted audited financial reports to the Indonesia Stock Exchange (formerly the Jakarta Stock Exchange).

Research and Measurement Variables

The dependent and independent variables in this study were set in accordance with Baker and Wurgler (2002). Net equity $issue_t$ (NEI_t) was used to measure new stock

issuance and the delta of book leverage ($DBL_{t-(t-1)}$) was used to measure capital structure. The main independent variable is market to book ratio$_{t-1}$ (MB_{t-1}), which was used to measure favourable market conditions. The control variables consisted of tangibility$_{t-1}$ ($TANG_{t-1}$), profitability$_{t-1}$ ($PROF_{t-1}$), size$_{t-1}$, and leverage from the previous year. For a company that conducted an IPO, the previous year's leverage was measured using BL_{t-1}, while for a company that undertook an RI, it was measured using $DBL_{(t-1)-(t-2)}$. All of the variables were measured as percentages (%), except for MB_{t-1} and size$_{t-1}$. The measurement of variables was conducted using the formula:

NEI_t = [{(book equity$_t$ – retained earning$_t$)} – (book equity$_{t-1}$ − retained earning$_{t-1}$)}] : total assets$_t$

$DBL_{t-(t-1)}$ = $BL_t - BL_{t-1}$

BL_t = book debt$_t$: total assets$_t$

BL_{t-1} = book debt$_{t-1}$: total assets$_{t-1}$

MB_{t-1} = market equity$_{t-1}$: book equity$_{t-1}$

$TANG_{t-1}$ = property, plant, and equipment$_{t-1}$: total assets$_{t-1}$

$PROF_{t-1}$ = earning before interest, tax, and depreciation$_{t-1}$: total assets$_{t-1}$

size$_{t-1}$ = Ln sales$_{t-1}$

$DBL_{(t-1)-(t-2)}$ = $BL_{t-1} - BL_{t-2}$

BL_{t-2} = book debt$_{t-2}$: total assets$_{t-2}$

The research data were obtained from the Indonesia Stock Exchange (formerly the Jakarta Stock Exchange). For companies that conducted IPOs, the research data ranged from the pre-IPO year up to IPO+5, and for companies that conducted RIs, the data covered the period from the pre-rights issue up to RI+5. Prior to testing the hypotheses, we tested for robustness and classic assumptions. A robustness test was conducted because, following an IPO or rights issue, companies take various corporate actions, namely issuing bonus shares, stock dividends and stock splits, which leads to an increase in the number of shares. The robustness of the data was thus tested by adjusting the stock market price due to the increase in the number of shares. The results of the robustness test show that MB_{t-1} has the same value as before the adjustment was made. The classic assumption test was performed to obtain the best linear unbiased estimate of the regression analysis results.

Hypotheses 1 and 3 for companies conducting IPO were tested using regression equations 1 and 3, while hypotheses 2 and 4 for companies that conducted RIs used regression equations 2 and 4. The control variable of $DBL_{(t-1)-(t-2)}$ was used in the hypotheses 2 and 4 tests respectively to avoid the occurrence of autocorrelation (Gujarati & Porter, 2009). The hypotheses 1 and 3 tests used BL_{t-1} because financial statement data for those companies conducting an IPO were available one year before the IPO was held (Baker & Wurgler, 2002). A hypothesis is declared supported if the results of the regression analysis have a probability value below 5%. The hypothesis testing in this study was conducted per period with no comparison between the test results of each period when stating whether a hypothesis is supported or unsupported. This was to determine whether, after the IPO or RI, favourable market conditions affect companies issuing new shares such that leverage declines.

$$NEI_t = b_0 + b_1MB_{t-1} + b_2TANG_{t-1} + b_3PROF_{t-1} + b_4SIZE_{t-1} + b_5BL_{t-1} + e_t \quad \text{..... (1)}$$

$$NEI_t = b_0 + b_1MB_{t-1} + b_2TANG_{t-1} + b_3PROF_{t-1} + b_4SIZE_{t-1} + b_5DBL_{(t-1)-(t-2)} + e_t \quad \text{..... (2)}$$

$$DBL_{t-(t-1)} = b_0 + b_1MB_{t-1} + b_2TANG_{t-1} + b_3PROF_{t-1} + b_4SIZE_{t-1} + b_5BL_{t-1} + e_t \quad \text{..... (3)}$$

$$DBL_{t-(t-1)} = b_0 + b_1MB_{t-1} + b_2TANG_{t-1} + b_3PROF_{t-1} + b_4SIZE_{t-1} + b_5DBL_{(t-1)-(t-2)} + e_t \quad \text{..... (4)}$$

Result and Discussion

Descriptive Statistics

Table 1 Descriptive Statistics of Companies Conducting IPOs

Dependent Variable NEI_t						
	IPO	IPO+1	IPO+2	IPO+3	IPO+4	IPO+5
NEI_t	29.6631	1.4407	2.7416	2.4879	2.0600	1.6778
	(17.1432)	(4.8330)	(7.4052)	(5.9759)	(5.9351)	(5.0462)
MB_{t-1}	3.0366	2.3382	1.9779	1.8787	1.8355	1.5963
	(3.3464)	(1.5905)	(1.5357)	(1.8180)	(1.7847)	(1.6622)
$TANG_{t-1}$	40.7161	35.1407	36.6365	36.7249	37.7177	36.4790
	(27.1753)	(24.2164)	(24.5332)	(24.0855)	(23.6846)	(23.5146)
$PROF_{t-1}$	14.9592	12.7141	12.0348	10.9937	11.0742	11.6249
	(10.9177)	(7.9687)	(8.7149)	(9.1396)	(9.8852)	(9.1198)
$SIZE_{t-1}$	11.2673	11.4236	11.4691	11.4501	11.4885	11.5065
	(0.8359)	(0.7720)	(0.8140)	(0.8187)	(0.8344)	(0.8086)
BL_{t-1}	55.2786	38.3541	41.3082	42.7452	45.9622	46.4747
	(20.6605)	(18.1011)	(18.2357)	(19.9694)	(21.5135)	(22.6326)
N	293	275	248	226	205	186

The first row contains the mean values
The second row, with figures in brackets, shows the standard deviation values

Table 2 Descriptive Statistics of Companies Conducting IPOs

Dependent Variable $DBL_{t-(t-1)}$						
	IPO	IPO+1	IPO+2	IPO+3	IPO+4	IPO+5
$DBL_{t-(t-1)}$	-16.8353	2.7722	1.7525	3.3940	1.2427	2.1022
	(15.3429)	(9.2584)	(9.1185)	(9.3411)	(8.2873)	(9.3721)
MB_{t-1}	3.0540	2.3112	1.9936	1.9277	1.8305	1.5793
	(3.3513)	(1.5863)	(1.5404)	(1.8497)	(1.7056)	(1.6327)
$TANG_{t-1}$	40.8559	34.8390	36.0628	37.31993	37.7580	37.1802
	(27.2557)	(24.2641)	(24.1069)	(23.5181)	(22.9082)	(23.7196)
$PROF_{t-1}$	15.0193	12.5613	12.1921	11.2686	11.8341	11.5149
	(10.9225)	(7.9539)	(8.3160)	(8.7275)	(7.9102)	(9.2380)
$SIZE_{t-1}$	11.2833	11.4150	11.4846	11.4940	11.5190	11.4907
	(0.8238)	(0.7718)	(0.7939)	(0.7862)	(0.8247)	(0.8304)
BL_{t-1}	55.1745	38.5712	41.8158	43.8051	46.4207	46.9896
	(20.2255)	(18.0327)	(17.7745)	(19.3305)	(21.1775)	(22.2972)
N	291	274	244	222	201	194

The first row contains the mean values
The second row, with figures in brackets, shows the standard deviation values

Tables 1 and 2 show that at the time of the IPO, the companies issued a large number of new shares totalling 29.6631%, which reduced leverage by 16.8353%. After the IPO, i.e. from IPO+1 to IPO+5, companies issued new debt and also conducted a small-scale new share issuance in balanced proportions.

Tables 3 and 4 shows that at the time of their RIs, the companies issued a large number of new shares totalling 27.4939%, enabling them to reduce leverage by 10.2103%. Following the RIs, i.e. from RI+1 to RI+4, the companies issued both new debt and shares in small amounts and in balanced proportions. By RI+5, the companies had reduced their issuance of new debt to a very small amount, i.e. 0.4981%.

Table 3 Descriptive Statistics of Companies Conducting RIs

Dependent Variable NEI_t						
	RI	RI+1	RI+2	RI+3	RI+4	RI+5
NEI_t	27.4939	2.3533	3.2191	2.0381	2.2077	2.6994
	(19.8644)	(9.5408)	(12.4115)	(9.9325)	(8.7008)	(8.2109)
MB_{t-1}	2.2727	1.7180	1.5848	1.4041	1.4686	1.2808
	(2.3049)	(1.7013)	(1.4501)	(1.1407)	(1.2863)	(1.0832)
$TANG_{t-1}$	41.9843	39.2738	40.0671	39.0617	38.6180	39.6091
	(24.7589)	(23.5497)	(23.1434)	(23.1407)	(23.8400)	(22.5939)
$PROF_{t-1}$	10.2406	9.9724	10.9152	11.2961	10.6654	11.1041
	(8.8900)	(7.7968)	(9.2100)	(9.6998)	(8.9842)	(9.1114)
$SIZE_{t-1}$	11.5558	11.7021	11.8122	11.8746	11.9046	11.9328
	(0.8537)	(0.7948)	(0.7898)	(0.8211)	(0.7812)	(0.7733)
$DBL_{(t-1)-(t-2)}$	2.7708	-10.4878	1.7885	0.6665	1.5776	0.3518
	(13.5381)	(19.5890)	(9.9168)	(10.6603)	(10.6425)	(11.5053)
N	174	170	155	142	125	115

The first row contains the mean values
The second row, with figures in brackets, shows the standard deviation values

Table 4 Descriptive Statistics of Companies Conducting RIs

Dependent Variable $DBL_{t-(t-1)}$						
	RI	RI+1	RI+2	RI+3	RI+4	RI+5
$DBL_{t-(t-1)}$	-10.2103	1.7718	1.0268	1.0344	1.3799	-0.4981
	(20.1579)	(9.5867)	(10.0467)	(9.3566)	(9.3566)	(7.1800)
MB_{t-1}	2.2523	1.7155	1.5848	1.4041	1.3617	1.2894
	(2.2750)	(1.6966)	(1.4501)	(1.1407)	(1.1396)	(1.0892)
$TANG_{t-1}$	41.8126	39.3966	40.0671	39.0617	38.6171	40.0905
	(24.8318)	(23.5353)	(23.1434)	(23.1407)	(23.6797)	(23.3955)
$PROF_{t-1}$	10.2840	9.9359	10.9152	11.2961	10.2928	11.5667
	(9.2756)	(7.7885)	(9.2100)	(9.6981)	(8.1964)	(10.3222)
$SIZE_{t-1}$	11.5305	11.6940	11.8122	11.8746	11.8828	11.9400
	(0.8550)	(0.7994)	(0.7898)	(0.8211)	(0.8159)	(0.7827)
BL_{t-1}	2.4671	-10.5261	1.7885	0.6665	1.3644	0.1045
	(13.4456)	(19.5377)	(9.9168)	(10.6603)	(10.4766)	(10.1790)
N	180	171	155	142	122	109

The first row contains the mean values
The second row, with figures in brackets, shows the standard deviation values

Regression Analysis Results

Table 5 shows that at the time of the IPO, IPO+1 and IPO+2, MB_{t-1} had a positive effect on NEI_t. This finding is in accordance with those of Baker and Wurgler (2002), Hogfeldt and Oborenko (2005), Alti (2006), Mahajan and Tartaroglu (2008) and Miswanto (2015). These results support hypothesis 1. The findings indicate that at the time of the IPO, IPO+1 and IPO+2, there was an effect of equity market timing on new share issuance.

Table 5 Regression Analysis Results of Companies Conducting IPOs

Dependent Variable NEI_t						
	IPO	IPO+1	IPO+2	IPO+3	IPO+4	IPO+5
C	99.4886	4.8782	2.7966	10.3979	-1.6575	-8.2656
	(0.0000)	(0.2868)	(0.7075)	(0.0848)	(0.7886)	(0.1712)
MB_{t-1}	0.7725	0.4957	0.9778	0.1792	0.1043	0.1373
	(0.0091)	(0.0085)	(0.0061)	(0.4417)	(0.6661)	(0.5718)
$TANG_{t-1}$	-0.0586	0.0092	0.0477	0.0027	0.0451	0.0408
	(0.0931)	(0.4456)	(0.0128)	(0.1017)	(0.0113)	(0.0095)
$PROF_{t-1}$	0.2971	0.0271	-0.0023	0.0770	0.0566	-0.0260
	(0.0014)	(0.4796)	(0.9690)	(0.1068)	(0.2149)	(0.5701)
$SIZE_{t-1}$	-7.1610	-0.6136	-0.3166	-1.0698	0.0256	0.6400
	(0.0000)	(0.1529)	(0.6579)	(0.0598)	(0.9645)	(0.2633)
BL_{t-1}	0.1168	0.0456	0.0015	0.0507	0.0196	0.0253
	(0.0194)	(0.0117)	(0.9597)	(0.0231)	(0.3539)	(0.1594)
R^2	0.1415	0.0516	0.0631	0.0524	0.0574	0.0711
F	9.4619	2.9249	3.2718	2.4326	2.4248	2.7551
	(0.0000)	(0.0137)	(0.0071)	(0.0360)	(0.0368)	(0.0200)
N	293	275	248	226	205	186

The first row shows the regression coefficient values
The second row, with figures in brackets, shows the probability values

Table 6 Regression Analysis Results of Companies Conducting RIs

Dependent Variable NEIt						
	RI	RI+1	RI+2	RI+3	RI+4	RI+5
C	147.8949	-0.7032	4.0929	-26.3716	13.9982	8.9392
	(0.0000)	(0.9467)	(0.7878)	(0.0329)	(0.2498)	(0.4492)
MB_{t-1}	2.1679	2.1763	2.1049	1.7013	1.3990	1.0633
	(0.0000)	(0.0000)	(0.0021)	(0.0219)	(0.0265)	(0.1288)
$TANG_{t-1}$	-0.0347	0.0557	-0.0124	0.0707	-0.0457	0.0386
	(0.4612)	(0.0571)	(0.7744)	(0.0624)	(0.1642)	(0.2605)
$PROF_{t-1}$	-0.3601	-0.1003	0.1719	-0.2084	-0.2038	-0.1650
	(0.0134)	(0.2874)	(0.1371)	(0.0328)	(0.0278)	(0.0594)
$SIZE_{t-1}$	-10.4593	-0.1342	-0.5205	2.1572	-0.8283	-6161
	(0.0000)	(0.8826)	(0.6849)	(0.0390)	(0.4142)	(0.5353)
$DBL_{(t-1)-(t-2)}$	0.2302	0.0285	0.3125	-0.0049	-0.0292	0.1473
	(0.0134)	(0.4346)	(0.0024)	(0.9513)	(0.6948)	(0.0269)
R^2	0.4081	0.1946	0.1275	0.0898	0.0940	0.1068
F	23.1639	7.9253	4.3528	2.6841	2.4695	2.6073
	(0.0000)	(0.0000)	(0.0010)	(0.0240)	(0.0363)	(0.0288)
N	174	170	155	142	125	115

The first row shows the regression coefficient values
The second row, with figures in brackets, shows the probability values

Table 6 shows that at the time of the RI, RI+1, RI+2, RI+3 and RI+4, MB_{t-1} had a positive effect on NEI_t. This finding is in accordance with those of Baker and Wurgler (2002), Hogfeldt and Oborenko (2005), Alti (2006), Mahajan and Tartaroglu (2008) and Miswanto (2015). These results support hypothesis 2. The findings indicate that at the time of the RI, RI+1, RI+2, RI+3 and RI+4, there was an influence of equity market timing on new share issuance.

Table 7 Regression Analysis Results of Companies Conducting IPOs

Dependent Variable $DBL_{t-(t-1)}$						
	IPO	IPO+1	IPO+2	IPO+3	IPO+4	IPO+5
C	-54.5702	-3.0492	7.1481	12.7818	5.9239	-7.1665
	(0.0000)	(0.7305)	(0.4435)	(0.1868)	(0.4920)	(0.5011)
MB_{t-1}	-0.9643	-0.1607	0.1537	0.3438	0.3312	-0.0142
	(0.0000)	(0.6556)	(0.7063)	(0.3360)	(0.3737)	(0.9747)
$TANG_{t-1}$	0.0424	0.0244	0.0105	0.0330	-0.0203	-0.1674
	(0.1084)	(0.2907)	(0.6637)	(0.2152)	(0.4261)	(0.5526)
$PROF_{t-1}$	-0.1856	0.1060	-0.1890	-0.1417	-0.2558	-0.1034
	(0.0081)	(0.1505)	(0.0136)	(0.0691)	(0.0019)	(0.2175)
$SIZE_{t-1}$	5.7614	0.7020	-0.0493	-0.5117	-0.0499	1.4184
	(0.0000)	(0.3991)	(0.9559)	(0.5700)	(0.9502)	(0.1629)
BL_{t-1}	-0.4218	-0.1037	-0.0768	-0.0868	-0.0198	-0.1125
	(0.0000)	(0.0033)	(0.0415)	(0.0155)	(0.5087)	(0.0008)
R^2	0.3888	0.0486	0.0478	0.0536	0.0607	0.0634
F	36.2615	2.7071	2.3886	2.4444	2.5200	2.5445
	(0.0000)	(0.0197)	(0.0387)	(0.0352)	(0.0309)	(0.0296)
N	291	274	244	222	201	194

The first row shows the regression coefficient values
The second row, with figures in brackets, shows the probability values

Table 8 Regression Analysis Results of Companies Conducting RIs

Dependent Variable $DBL_{t-(t-1)}$						
	RI	RI+1	RI+2	RI+3	RI+4	RI+5
C	-2.3204	21.6919	20.9656	20.3924	24.7328	-14.9771
	(0.9108)	(0.0466)	(0.1296)	(0.1000)	(0.0458)	(0.1525)
MB_{t-1}	-1.5190	-1.7614	-0.3567	-0.6879	-0.1956	-0.2917
	(0.0192)	(0.0001)	(0.5584)	(0.3533)	(0.7872)	(0.6409)
$TANG_{t-1}$	-0.0191	-0.0642	0.0024	0.0861	0.0640	0.0200
	(0.7470)	(0.0341)	(0.9494)	(0.0246)	(0.0724)	(0.4924)
$PROF_{t-1}$	-0.2007	-0.0384	-0.2518	-0.1860	-0.2682	-0.1368
	(0.2389)	(0.6940)	(0.0169)	(0.0579)	(0.0112)	(0.0458)
$SIZE_{t-1}$	-0.0495	-1.1753	-1.3988	-1.6555	-1.9260	1.3111
	(0.9779)	(0.2102)	(0.2298)	(0.1144)	(0.0619)	(0.1335)
$DBL_{(t-1)-(t-2)}$	-0.4200	0.0232	-0.1132	0.0073	0.0665	-0.1778
	(0.0003)	(0.0539)	(0.2180)	(0.9278)	(0.4102)	(0.0090)
R^2	0.1039	0.1426	0.0721	0.0985	0.1301	0.1141
F	4.0339	5.4885	2.3142	2.9731	3.4702	2.6528
	(0.0017)	(0.0001)	(0.0466)	(0.0140)	(0.0058)	(0.0268)
N	180	171	155	142	122	109

The first row shows the regression coefficient values
The second row, with figures in brackets, shows the probability values

Table 7 shows that at the time of the IPO, MB_{t-1} had a negative effect on $DBL_{t-(t-1)}$. This finding is in accordance with the findings of Baker and Wurgler (2002), Alti (2006) and Miswanto (2015). These results support hypothesis 3. The findings indicate that at the time of the IPO, there was an influence of equity market timing on the capital structure.

Table 8 shows that at the time of the RI and RI+1, MB_{t-1} had a negative effect on $DBL_{t-(t-1)}$. This finding is in accordance with the findings of Baker and Wurgler (2002), Alti (2006) and Miswanto (2015). These results support hypothesis 4. The findings indicate that at the time of the RI and RI+1, there was an influence of equity market timing on capital structure.

At the time of the IPO, RI and RI+1 there was an influence of equity market timing on the issuance of new shares and capital structure. At the time of the IPO and RI, favourable market conditions influenced the companies to issue a large volume of new shares, 29.6631% and 27.4939% respectively, leading to a fall in leverage of 16.8353% and 10.2103% respectively. This decrease in leverage has an implication in the form of a tendency for the capital structure to decline.

At the time of RI+1, the market conditions were of benefit to the companies issuing new shares by the amount of 2.3533%, yet they were not able to raise the funds needed to issue new debt of 1.7718%. The issuance of new shares and the issuance of new debt are able to reduce the capital structure.

At the time of IPO+1, IPO+2, RI+1, RI+2, RI+3 and RI+4, there was an influence of equity market timing on the issuance of new shares. At the time of IPO+1, IPO+2, RI+1, RI+2, RI+3 and RI+4, market conditions remained profitable, but the companies issued small amounts of new shares and new debt in balanced proportions. This was due firstly to the effect of the favourable market conditions at the time of the IPO and RI in terms of influencing the companies to issue large numbers of new shares, in excess of the volumes they needed to satisfy their funding requirements (Alti, 2006).

Second, the companies tried to adjust their capital structures to an optimal level (Xu, 2009) in a gradual manner (Surwanti, 2015). Third, the majority shareholders of the company are concentrated (Hogfeldt & Oborenko, 2005). In Indonesia, the majority shareholders of companies are concentrated in the form of institutional ownership, accounting for an ownership level of 70.5621% (Pamungkas, Haryono, Djuminah, & Bandi, 2017). This shows that decisions to use equity market timing in issuing new shares are determined more by majority shareholders than management (Novelina, 2008).

Fourth, the old shareholders (incumbents) worry about their ownership becoming diluted if the company issues large amounts of new shares, which can cause dilution even if the old shareholders obtain a transfer of profits from new shareholders (Hogfeldt

& Oborenko, 2005). Fifth, for companies carrying out RIs, the old shareholders face a dilemma; that is, if they do not buy the shares offered, this may lead to a dilution, but if they do buy the shares offered, they will be concerned about whether or not the future prospects of the company will be as expected.

These findings add to the previous findings, namely to the application of capital structure theory, in that the theories of trade-off, pecking order and market timing are not mutually exclusive. In this research, it was found that the trade-off theory and market timing theory are not mutually exclusive. This is shown by the results of the research, namely that at the time of IPO+1, RI+1, RI+2, RI+3 and RI+4, there was an influence of equity market timing on new share issuance, but the companies nevertheless undertook a small issuance of new shares in a bid to adjust their capital structure to an optimal level. This is in accordance with the trade-off theory. The companies adopted this policy because, at the time of the IPO and RI, they issued large amounts of new shares totalling 29.6631% (Table 1) and 27.4939% (Table 2).

The results of this study add to the results of previous studies by Cotei and Farhat (2009) and Serrasqueiro and Nunes (2010) which showed that the trade-off and pecking order theories are not mutually exclusive. Miswanto (2015) demonstrated that the pecking order theory and market timing are not mutually exclusive.

Conclusion

At the time of the IPO, RI and RI+1, there was an effect of equity market timing on the issuance of new shares and capital structure. At the time of IPO+1, IPO+2, RI+2, RI+3 and RI+4 there was an effect of equity market timing on the issuance of new shares. This finding adds to the previous findings, namely the application of capital structure theory, in that the theories of trade-off, pecking order and market timing are not mutually exclusive. This study adds to the findings of previous studies in terms of identifying that trade-off theory and market timing theory are not mutually exclusive. Previous studies found that trade-off theory with pecking order theory, and pecking order theory with market timing, were not mutually exclusive.

At the time of IPO+1, IPO+2, RI+1, RI+2, RI+3 and RI+4, stock prices were relatively high, but there was a greater opportunity for obtaining capital gains in the short term. As stock prices tend to increase, this was therefore a good time for short-term investors to invest in shares. Long-term investors, in contrast, should invest at IPO+3 and RI+5 because the stock price is relatively the same as the book value, while in the short term the stock price tends to be relatively stable.

This study has the limitation of using a sample of companies in Indonesia. In order for subsequent research to obtain more comprehensive results, companies in ASEAN or South East Asia should be included in the sample.

Appendix

Table 9 Regression Analysis Results for Data Robustness Test of Companies Conducting IPOs

Dependent Variable NEI_t						
	IPO	IPO+1	IPO+2	IPO+3	IPO+4	IPO+5
C	99.4886	4.8078	2.8314	9.6430	-1.8397	-9.3321
	(0.0000)	(0.2933)	(0.7096)	(0.1133)	(0.7692)	(0.1261)
MB_{t-1}	0.7725	0.4893	0.7030	-0.0590	0.0291	-0.0361
	(0.0091)	(0.0058)	(0.0410)	(0.7988)	(0.9179)	(0.8987)
$TANG_{t-1}$	-0.0586	0.0089	0.0478	0.0267	0.0452	0.0407
	(0.0931)	(0.4580)	(0.0129)	(0.1050)	(0.0114)	(0.0097)
$PROF_{t-1}$	0.2971	0.0287	0.0123	0.0893	0.0588	-0.0294
	(0.0014)	(0.4508)	(0.8318)	(0.0590)	(0.1959)	(0.6446)
$SIZE_{t-1}$	-7.1610	-0.6088	-0.3021	-0.9853	0.0473	0.7478
	(0.0000)	(0.1555)	(0.6790)	(0.0860)	(0.9359)	(0.1963)
BL_{t-1}	0.1168	0.0457	0.0046	0.0528	0.0210	0.0259
	(0.0194)	(0.0115)	(0.8768)	(0.0176)	(0.3175)	(0.1492)
R^2	0.1415	0.0540	0.0471	0.0501	0.0566	0.0695
F	9.4619	3.0724	2.3923	2.3212	2.3874	2.6896
	(0.0000)	(0.0103)	(0.0384)	(0.0442)	(0.0395)	(0.0227)
N	293	275	248	226	205	186

The first row shows the regression coefficient values
The second row, with figures in brackets, shows the probability values

Table 10 Regression Analysis Results for Data Robustness Test of Companies Conducting RIs

Dependent Variable NEI_t						
	RI	RI+1	RI+2	RI+3	RI+4	RI+5
C	147.8949	-0.7032	4.4064	-25.1946	13.6845	8.9700
	(0.0000)	(0.9467)	(0.7733)	(0.0412)	(0.2599)	(0.4475)
MB_{t-1}	2.1679	2.1763	1.9953	1.9454	1.8174	1.3138
	(0.0000)	(0.0000)	(0.0054)	(0.0165)	(0.0204)	(0.1253)
$TANG_{t-1}$	-0.0347	0.0557	-0.0113	0.0690	-0.0509	0.0372
	(0.4612)	(0.0571)	(0.7948)	(0.0676)	(0.1223)	(0.2775)
$PROF_{t-1}$	-0.3601	-0.1003	0.1732	-0.2090	-0.1828	-0.1417
	(0.0134)	(0.2874)	(0.1377)	(0.0318)	(0.0426)	(0.1018)
$SIZE_{t-1}$	-10.4593	-0.1342	-0.5052	2.0787	-0.7866	-0.6116
	(0.0000)	(0.8826)	(0.6954)	(0.0469)	(0.4373)	(0.5382)
$DBL_{(t-1)-(t-2)}$	0.2302	0.0285	0.3054	0.0012	-0.3889	-0.1487
	(0.0134)	(0.4346)	(0.0031)	(0.9880)	(0.5986)	(0.0257)
R^2	0.4081	0.1946	0.1171	0.0931	0.0974	0.1072
F	23.1639	7.9253	3.9540	2.7932	2.5690	2.6169
	(0.0000)	(0.0000)	(0.0021)	(0.0196)	(0.0303)	(0.0283)
N	174	170	155	142	125	115

The first row shows the regression coefficient values
The second row, with figures in brackets, shows the probability values

Table 11 Regression Analysis Results for Data Robustness Test of Companies Conducting IPOs

Dependent Variable $DBL_{t-(t-1)}$						
	IPO	IPO+1	IPO+2	IPO+3	IPO+4	IPO+5
C	-54.5702	-3.2341	7.6897	12.8516	7.3896	-7.5270
	(0.0000)	(0.7150)	(0.4160)	(0.1891)	(0.3972)	(0.4828)
MB_{t-1}	-0.9643	-0.0047	0.2185	0.2308	0.5427	-0.0842
	(0.0000)	(0.9888)	(0.6064)	(0.5167)	(0.1842)	(0.8713)
$TANG_{t-1}$	0.0424	0.0255	0.0102	0.0325	-0.0192	-0.0168
	(0.1084)	(0.2676)	(0.6717)	(0.2218)	(0.4507)	(0.5506)
$PROF_{t-1}$	-0.1856	0.0988	-0.1890	-0.1333	-0.2615	-0.1027
	(0.0081)	(0.1780)	(0.0127)	(0.0842)	(0.0013)	(0.2468)
$SIZE_{t-1}$	5.7614	0.6910	-0.1038	-0.5090	-0.2046	1.4569
	(0.0000)	(0.4066)	(0.9085)	(0.5763)	(0.8010)	(0.1552)
BL_{t-1}	-0.4218	0.1037	-0.0768	-0.0844	-0.0157	-0.1127
	(0.0000)	(0.0033)	(0.0410)	(0.0181)	(0.5956)	(0.0007)
R^2	0.3888	0.0479	0.0483	0.0513	0.0654	0.0635
F	36.2615	2.6952	2.4146	2.3375	2.7281	2.5500
	(0.0000)	(0.0214)	(0.0368)	(0.0430)	(0.0209)	(0.0293)
N	291	274	244	222	201	194

The first row shows the regression coefficient values
The second row, with figures in brackets, shows the probability values

Table 12 Regression Analysis Results for Data Robustness Test of Companies Conducting RIs

Dependent Variable $DBL_{t-(t-1)}$						
	RI	RI+1	RI+2	RI+3	RI+4	RI+5
C	-2.3204	21.6912	21.2642	19.6289	25.3698	-14.3664
	(0.9108)	(0.0466)	(0.1236)	(0.1120)	(0.0405)	(0.1712)
MB_{t-1}	-1.5190	-1.7614	-0.5908	-1.1852	-0.8511	-0.5378
	(0.0192)	(0.0001)	(0.3538)	(0.1429)	(0.3055)	(0.4606)
$TANG_{t-1}$	-0.0191	-0.0462	0.0023	0.0844	0.0656	0.0202
	(0.7470)	(0.0341)	(0.9522)	(0.0262)	(0.0645)	(0.4861)
$PROF_{t-1}$	-0.2007	-0.0384	-0.2436	-0.1778	-0.2509	-0.1386
	(0.2389)	(0.6940)	(0.0209)	(0.0682)	(0.0181)	(0.0398)
$SIZE_{t-1}$	-0.0495	-1.1753	-1.4089	-1.5612	-1.9431	1.2681
	(0.9779)	(0.2102)	(0.2257)	(0.1357)	(0.0586)	(0.1474)
$DBL_{(t-1)-(t-2)}$	-0.4200	0.0232	-0.1129	0.0054	0.0657	-0.1749
	(0.0003)	(0.5395)	(0.2182)	(0.9466)	(0.4124)	(0.0102)
R^2	0.1039	0.1426	0.0753	0.1070	0.1375	0.1169
F	4.0339	5.4885	2.4263	3.2605	3.6969	2.7271
	(0.0017)	(0.0001)	(0.0379)	(0.0082)	(0.0039)	(0.0235)
N	180	171	155	142	122	109

The first row shows the regression coefficient values
The second row, with figures in brackets, shows the probability values

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