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Dividend Premiums and Dividend Payment Decisions in Thailand

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Abstract. The paper aims to measure investors' demand for dividends in Thailand and to examine whether the demand for dividends can be linked link to firms' decisions to pay dividends. Positive dividend premiums show that investors in Thailand exhibit a preference for dividends, even though dividend incomes can be taxed more heavily than capital gains in Thailand. After controlling for the effect of the 1997 Asian Crisis, there is the evidence to support the catering theory of dividends.

Keywords: Dividends, Dividend Premiums, Catering Theory of Dividends

1. Introduction

A dividend is the distribution of firms' profits to stockholders, and is one of the returns provided to stockholders besides capital gains and various rights. There are many competing hypotheses that try to explain the dividend payment of firms. This paper aims to examine the dividend theory by focusing on investors' demands regarding dividends, which is known as the catering theory of dividends, as proposed by Baker and Wurgler (2004a). In catering theory, the investors' demands can be measured by the difference of the natural logarithm of a market-to-book ratio between dividend-paying firms and non-paying firms. The measurement is usually known as a dividend premium.

In order to examine whether there is an impact of dividend premiums on the dividend paying decision, the propensity to pay a dividend would be gathered based on the work of Fama and French (2001). The logit model will be estimated for the period between 1992 and 1999 in order to estimate the expected percentage of firms paying dividends. The propensity to pay a dividend will then be the difference between the actual and expected percentage of firms paying dividends.

After obtaining information on the propensity to pay dividends and dividend premiums, a regression model will be employed to examine the relationship between these two factors. Furthermore, an alternative regression model after controlling for the impact from Asian crisis is also provided to mitigate the impact of the Asian crisis, which can alter the relationship between propensity to pay dividends and dividend premiums.

2. The Dividend Theory

Modigliani and Miller (1958) proposed the idea that capital structure is irrelevant—different levels of debt financing have no effect on firm value. Also, the cost of capital is irrelevant to the capital structure. These authors then continued with another proposition—that the dividend policy was also irrelevant (Miller and Modigliani, 1961); that dividends had no effect on a firm's value. According to Miller and Modigliani, low dividend payments will lead to higher capital gains in the future, and rational investors should not prefer dividends to capital gains. Therefore, dividend policy is also irrelevant.

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Although it is still questionable which theory of dividend is correct, many empirical studies have shown an average dividend payment decline. Fama and French (2001) have discussed declining dividends regarding the change in firm characteristics in the stock exchange. Firms' characteristics such as profitability, size, and growth opportunity were seen to have a relationship with dividend payout. They also discussed the lower propensity to pay dividends according to management's decisions. Management that generally hold stock options might prefer capital gains over dividends. This leads to the decision to keep profits for reinvestment for future capital gain. DeAngelo et al. (2009) have shown that the decline in dividends might be the result of concentration: high dividend-paying firms continue to pay them while low dividend-paying firms stop paying.

Baker and Wurgler (2004a) proposed the catering theory, which explains that firms will adjust dividend payout based on investors' demands. They gauged investors' demands for dividends in four different ways. One of those measurements was the dividend premium, which was measured by the difference between the market-to-book ratio of dividend paying firms and non-payers. Li and Lie (2006) extended the catering theory by including decreases and increases in existing dividends. They found that the decision to change the dividend and the magnitude of the change depend on the premium that the capital market places on dividends. They also found that the stock market reactions to dividend changes depend on the dividend premium. In a later study, Li and Zhao (2008) found that the dividend premium had a significantly positive effect on the dividend decision, even after controlling for firm risk and year dummy. They also found that firms with more problems with information asymmetry were less likely to pay dividends. Hoberg and Prabhala (2009) included the idiosyncratic risk factor with the catering variable to explain the propensity to pay dividends. They found that the significance in the relationship between propensity to pay dividends and the catering variable, addressed by many previous researches, had declined after including idiosyncratic risk. In other words, the catering variable can significantly explain the propensity to pay dividends when there is no consideration of idiosyncratic risk.

Studies on the catering theory of dividends outside the U.S. have shown mixed results. Ferris et al. (2006), for example, found evidence for the catering incentives of dividends in the UK. However, Denis and Osobov (2008) found that the declining dividends in Germany and France should be associated with firm size, growth, and profitability, while the catering variable plays little role. Von Eije and Megginson (2008) studied the catering theory for 15 countries in the European Union and found no evidence to support the catering theory in those countries.

3. Data and Methodology

The data were collected from all listed firms on the Stock Exchange of Thailand from 1992 to 2009. The information gathered from each firm includes annual dividend per share, earnings before interests and taxes, book value of total assets, stock price, number of outstanding shares, book value of total liabilities, and book value of total equities. The firms in financial industries were excluded because of their unique characteristics. Firms with incomplete data were also excluded from the sample.

3.1 The Dividend Payment Decision

The dividend payment decision, measured by the propensity to pay dividends, as defined by Fama and French (2001), is the difference between the actual percentage of firms paying dividends and the expected percentage of firms paying dividends. If the propensity to pay dividends is positive, it implies that there are more firms paying dividends than expected. The expected percentage of firms paying dividends was estimated based on the logit model. The explanatory variables are the firm's characteristics, including the percent rank of firm size, profitability measured by earnings before interest and taxes divided by the book value of assets, the growth rate of assets, and the market-to-book ratio computed by the market value of equity plus the book value of liability divided by the book value of assets. The logit model is as follows:

$$pr(Payer_i = 1) = Logit\left\{ b_0 + b_1 \%RANK_i + b_2\left(\frac{E}{A}\right)_i + b_2\left(\frac{dA}{A}\right)_i + b_2\left(\frac{M}{B}\right)_i + \varepsilon_i \right\} \quad (1)$$

The above equation is used to obtain a separate estimate for each year from 1992 to 1999. The Fama-Macbeth coefficient was obtained through the average of the coefficient of each year in order to obtain the final logit model. Thereafter, the final logit model was used to estimate the expected number of firm paying dividends.

3.2 Dividend Premium

Catering incentives are a gauge for measuring investors' demand for dividends. Baker and Wurgler (2004a) proposed four ways to measure catering incentives. Among the four measurements, they gave most importance to dividend premiums, computed from the difference of the natural logarithm of the average market-to-book ratio between firms paying dividends and non-payers. In order to obtain the dividend premiums, the sample was divided into two groups, the group of firms paying dividends and the group of non-payers. Each year, the book-value weighted average of the market-to-book ratio of each group was computed and the difference of the natural logarithm of those averages would then be the dividend premium.

3.3 Relationship between Dividend Premiums and Dividend Payment Decisions

The following regression model was employed to examine the relationship between dividend premiums and dividend payment decisions.

$$\Delta PTP_t = a + bDP_{t-1} + cD_{crisis,t} + \varepsilon_t \quad (2)$$

ΔPTP_t is the change in propensity to pay dividends and DP_{t-1} is the lagged dividend premium. An abnormal economic condition similar to the crisis period could create structural changes, which could be either temporary or permanent. Therefore, the effect of the Asian crisis should be controlled by introducing a dummy variable representing the years of the crisis (1997-1999) as D_{crisis}. If the coefficient of the DP_{t-1} is statistically significant, with a positive sign, it shows the direct relationship between the lagged dividend premium and the change in propensity to pay dividends. This means that when investors show higher demand for dividends, it could affect the firm's decision to pay dividends as a positive change in the propensity to pay dividends, meaning that more firms are paying dividends than expected. The implication is that a higher demand for dividends could be the catering incentive for managers to decide to pay dividends.

4. Analysis and Result

According to the descriptive statistics for 1992-1996, which is the period before the Asian crisis, the percentage of firms paying dividends was relatively high. During the Asian crisis in 1997, the percentage of firms paying dividends declined significantly. Fewer than 50% of firms paid dividends during that period. After the recovery, the percentage of firms paying dividends was around 70%.

Table 1 reports the coefficients of the logistic regressions or logit models, which are estimated based on equation 1. The overall significance of the logit models for each year was examined using the likelihood ratio. Each logit model is statistically significant at the 5% level. The expected signs of the logit coefficients are consistent with Baker and Wurgler (2004b), except the growth rate of total assets. The expected sign of the growth rate should be negative because growing firms should pay few or even no dividends as they would like to retain funds for reinvestment and to stimulate growth. This phenomenon may be a unique characteristic for emerging markets, or even for Thailand. However, this is not surprising, as some investors believe that well-operating firms could maintain a high growth rate, even while paying dividends.

Table1. Result of the logistic regressions

Year	Constant	%RANK	Asset Growth	E/A	M/B	LR-stat
1992	1.085	2.782	6.46	33.901	-1.769	10.744**
1993	0.923	0.347	0.06	21.46	-0.28	25.514**
1994	0.972	0.687	-0.027	19.11	-0.415	28.237**
1995	0.357	-0.302	1.311	25.017	0.021	51.385**
1996	0.374	0.267	0.479	17.345	-0.023	35.268**
1997	-1.472	2.043	-1.067	8.738	-0.055	49.288**
1998	-1.148	0.803	1.384	8.038	-0.169	45.345**

1999	-0.79	0.949	2.605	16.64	-0.974	92.881**
Average	***0.0376***	***0.947***	***1.400***	***18.781***	***-0.458***	

***Significant at 5%*

The Fama-Macbeth coefficients were computed by the average of coefficients from the logit models and reports on the bottom line of table 1. These coefficients were used to estimate the expected percentage of firms paying dividends for the entire sample period (1992-2009). The expected percentage looks consistent with the actual percentage, except for the period around 1997-2002, which could be because of the effect of the Asian crisis. The propensity to pay dividends can be obtained by the difference between the actual and expected percentage of firms paying dividends.

The catering incentives were measured by dividend premiums in order to gauge the investors' demand for dividends, as proposed by Baker and Wurgler (2004a). Table 2 reports the book-value weighted average of market-to-book ratio between firms paying dividends and non-payers. The dividend premium is the difference between the natural logarithm of those averages. The value of dividend premium tends to be positive, especially during the most recent periods. The result is opposite that of the dividend premiums in the U.S., as reported by Baker and Wurgler (2004b), as the dividend premium in the U.S. tends to be negative. The results in Thailand are surprising because there are tax disadvantages for dividends, where the dividend incomes are taxed while the capital gain taxes are exempted. Investors in Thailand show higher demand for dividends, as they prefer to pay more for the stocks of firms paying dividends relative to non-payers, making the positive dividend premium, even though the dividend incomes could be taxed intensively. This phenomenon could be attributed to the fact that investors in Thailand might be more risk-averted and more conservative. They prefer dividends, even if they are taxed and make lower after-tax returns.

Table2. Dividend premium in Thailand during 1992-2009

Year	Market-to-book ratio		Dividend Premium	Year	Market-to-book ratio		Dividend Premium
	Payers	Non-Payers			Payers	Non-Payers	
1992	1.57	1.56	0.0107	2001	1.12	1.07	0.0402
1993	1.95	4.50	-0.8390	2002	1.20	1.02	0.1595
1994	1.78	2.18	-0.2017	2003	1.75	1.43	0.2055
1995	1.55	1.60	-0.0294	2004	1.53	1.09	0.3433
1996	1.25	1.13	0.1030	2005	1.49	1.14	0.2677
1997	1.28	0.94	0.3163	2006	1.39	1.01	0.3218
1998	1.26	1.02	0.2095	2007	1.47	0.99	0.3985
1999	1.19	1.28	-0.0699	2008	1.11	0.77	0.3619
2000	1.12	1.09	0.0279	2009	1.30	0.93	0.3335

Table 3 reveals the results of the regression analysis based on equation 2. The signs of the coefficient are as expected. The coefficient of dummy variable is negative and significant, which could be interpreted as the negative effect of the Asian crisis on the propensity to pay dividends. In other words, during the Asian crisis the percentage of firms paying dividends would be below that expected. The coefficient of the lagged dividend premium is positive and statistically significant. This could be evidence for catering incentives for dividend payments in Thailand, even though the result is not strong, as indicated by Baker and Wurgler (2004b). Furthermore, compared to the original regression, the adjusted r-square is obviously higher and the F-test of the overall significance reveals that the regression model is statistically significant as a whole.

Table3. Result of the regression analysis with dummy variable

	Model 1 (M/B included)	Model 2 (M/B excluded)
Constant	1.22	1.33
DP_{t-1}	4.63	3.26
(t-stat)	$(1.82)^1$*	$(1.39)^1$
D_{crisis}	-11.09	-10.83
(t-stat)	$(-1.95)^1$*	$(-1.96)^1$*
Adjusted R^2	0.258	0.257

F-stat	3.79**	3.77**
Durbin-Watson	1.64	1.61

[1]The test statistics is robust to heteroskedasticity and serial correlation.
*Significant at 10%; ** Significant at 5%

5. Conclusion

This paper aims to examine the catering theory of dividends, as proposed by Baker and Wurgler (2004a), in Thailand. First, the expected number of firms paying dividends was estimated using logistics regression using firm characteristics as explanatory variables. For the catering incentives, the dividend premium was gathered to gauge the investors' demands for dividends. The dividend premium was mostly positive, which is in contrast with previous research in the U.S. which showed a negative dividend premium. This positive dividend premium in Thailand reveals that investors there prefer dividends and shows higher demands for firms that pay dividends. The findings are surprising because in Thailand, dividend incomes are taxed while capital gain taxes are exempted. This could be attributed to the characteristics of investors in Thailand, who are more risk-averted and conservative. Therefore, investors in Thailand prefer dividends because they are certain, while the potential capital gains are uncertain. This finding partly supports the "bird-in-hand" proposition in Thailand.

The results of the regression after controlling for the Asian crisis reveals a positive relationship between propensity to pay dividends and catering incentives, and the results are statistically significant. This can be concluded that the catering effect of dividends has existed in Thailand. Investors in Thailand prefer dividends and show demands by paying relatively higher prices for the stocks of firms paying dividends, as shown by positive dividend premiums. These positive dividend premiums would be catering incentives for managers to pay dividends in order to satisfy the investors' demands, as measured by the positive change in propensity to pay dividends, or more firms will pay dividends than expected.

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