

นโยบายการจ่ายเงินปันผล ความต้องการของนักลงทุนวิสาหกิจ ตลาดหลักทรัพย์แห่งประเทศไทย

The Importance of Dividends in Declining Markets: The Case of Thailand

Adriano Prates do Amaral and Mohsen Hatami

บทคัดย่อ

บทความนี้เป็นการนำเสนอหลักฐานเชิงประจักษ์ที่เกี่ยวข้องของการจ่ายเงินปันผลในตลาดไทย จากผลการศึกษาได้แสดงให้เห็นว่านักลงทุนได้ให้ความสนใจนโยบายการจ่ายเงินขององค์กร และองค์กรที่มีการจ่ายเงินปันผลมีผลการดำเนินงานยอดเยี่ยมทั้งในช่วงเศรษฐกิจซบเซาและเฟื่องฟู นั่นหมายความว่าผู้ถือหุ้นชาวไทยต้องการหุ้นที่จ่ายเงินปันผลได้แม้ในช่วงเศรษฐกิจไม่ดี ความต้องการของนักลงทุนมิได้เป็นตัวผลักดันให้เกิดขึ้นแต่เกิดจากโอกาสที่จะได้รับเงินปันผลในช่วงเศรษฐกิจตกต่ำ ผลการวิจัยได้ยืนยันว่านโยบายการจ่ายเงินปันผลมีส่วนเกี่ยวข้องกับผลักดันให้องค์กรต้องจ่ายเงินปันผล และนับได้ว่าเป็นอีกส่วนหนึ่งของการศึกษาการจ่ายเงินปันผลต่อไป

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Abstract

We present empirical evidence on the relevance of dividends in the Thai market. The study outcome reveals that investors are not indifferent regarding firms payout policy, and dividend-paying firms have a superior performance during both declining and advancing markets, but with a clear advantage for the first type. That is, Thai shareholders prefer dividend-paying stocks more in periods where the economy is not performing well. The results are not driven by investors' preference for large and profitable firms, which in average pay larger dividends, but rather by the prospect of receiving dividends during economic downturns. The findings confirm that dividend payout policy is not irrelevant in the Thai context and provide important insights on the motivations firms have to pay dividends, further advancing the understanding of the dividend payout "puzzle".

Keywords: dividend policy, investors' preferences, business cycle, Thai financial market

Introduction

The objective of this study is to replicate, in a Thai market context, the paper *Do Dividends Matter More in Declining Markets?*, by Kathleen Fuller & Michael Goldstein, originally published in the Journal of Corporate Finance, 2011.

Fuller and Goldstein (2011) draw attention to the gap of studies focusing on when dividends are more relevant for investors. Specifically, they attempt to answer whether “*dividend-paying firms outperform non-dividend-paying firms by more when the market declines than when the market is increasing*”.

According to the authors, the answer is yes, dividends do matter more in declining markets. Furthermore, their results are significant for a series of robustness tests for risk, book to market, time period, and the magnitude of the market variations. In general, their findings confirm the expectation that investors prefer dividend-paying stocks over non-dividend-paying stocks according to the market fluctuations.

Fuller and Goldstein (2011) build on De Angelo and De Angelo (2006, 2007). They argue that, opposite to Miller and Modigliani (1961) conclusions that dividends are essentially irrelevant, payout policy affects stockholder wealth. They show that is that for dividends to be considered irrelevant, they must be consistently irrelevant under all possible situations, something that is frequently undermined by empirical studies. De Angelo and De Angelo (2007) further add that since Miller and Modigliani (1961) restrict payouts to an optimal level, their irrelevance model does not take

into consideration managerial behavior and how it affects a firm's payout policy.

The assumption that investors prefer dividend paying stocks during declining markets is further backed by the cash flow and signaling theories of dividends. The free cash flow approach developed by Easterbrook (1984) and Jensen (1986) says that dividends are used by firms in order to align managers, stockholders and bondholders' objectives, particularly by forcing the companies to submit themselves to market scrutiny, in this way reducing agency costs.

Furthermore, the payment of dividends reduces free cash flow available for managers to invest in suboptimal projects. According to Fuller and Goldstein (2011), when the economy suffers a downturn there is more pressure for the reduction of waste in non-value adding projects plus there is a even higher need for the minimization of agency problems, and companies that pay dividends are perceived as less risky and wealthier than companies that do not pay.

This hypothesis is in some ways similar to the signaling approach proposed by Bhattacharya (1979), John and Williams (1985), and Miller and Rock (1985). These authors view dividends as a form encountered by managers, which have privileged information about the company financial situation, to signal investors about the financial health of firms.

The basic argument is that companies that pay dividends signal they are able to continue paying in the future. That is, they are not under financial distress. Because financial distress will

affect companies more intensely during periods of economic downturns, the payment of dividends is seen as a positive signal during declining markets, revealing firms that pay it are capable to survive the unfavorable period and, possibly, prosper after the economy recovers.

However, even if it is possible to prove that investors prefer dividend paying stocks during declining markets, it is still possible that this preference just indicates a general inclination for investing in stocks of larger firms, perceived as being of higher “quality”, and these firms are generally the ones that pay dividends. For instance, Allen et al. (2000) argue that the companies that pay dividends are exactly the ones that have sounder financial condition. That is, better firms pay dividends.

According to them, there is a clientele that would prefer to purchase stocks of better companies, in the expectation that those companies will continue to operate in the future, no matter if they pay or not dividends. Thus, it is necessary to control for this quality aspect in the empirical analysis in order to separate what is preference for dividend paying companies and what is purely a preference for higher quality firms.

Because this study intends to replicate Fuller and Goldstein (2011) using Thai market data, the Thai stock market conditions are relevant to the analysis and may affect the final result. According to Napompech (2010), in the period between 1997 and 2008 the percentage of companies in Thailand that pay dividends rose from approximately 25% to 74%.

That is a remarkable difference to the information found for United States, where approximately 50% of firms pay dividend (Fuller and Goldstein, 2011). Consistent with Allen et al (2000), Thai companies paying dividends revealed to be of higher quality and larger size. Due to this disequilibrium between paying and non dividend-paying firms, a control for firm quality becomes even more important in the Thai market scenario.

Data and Methodology

The research will use data from the SETSMART database of the Stock Exchange of Thailand (SET). This source was found to be appropriate due to the availability of monthly data, essential to the completion of the study. The period under examination starts in January 2008 and ends in December 2012, including 60 months in total. For each individual company was gathered monthly or quarterly information on dividends payout, stock price, stock return, market capitalization, and share volume, book value of equity, ROE, ROA and beta.

Dividend payout was included on a monthly basis. A firm was considered to be dividend-paying if dividend payout was recorded for a given month. Firms that did not have a record of dividend payout in a given month were considered as non-dividend paying for that month. Only firms that presented complete information covering all the period under examination were included in the research. In total, 421 firms fulfilled data requirements to participate in the study.

In order to determine if the market is advancing or declining, we used the SET index

returns for the 60-month period. In this regard, we consider an *advancing market* when SET index return is positive in a given month. When the SET index return is negative, the market is considered to be a *declining market* for that specific month. Information about the 3-month Thai Treasury Bond was collected from the Thai Bond Market Association (Thai BMA) website.

The summary statistics in Table 1 show the general profile of dividend paying and non dividend-paying firms in Thailand during the period

under study. From the total 60 months in the study, 32 where of *advancing market* (positive return of SET index) and 28 of *declining market* (negative return of SET index). Out of a total of 30, 215 firm-months in the period, 21,574 (71.4%) where dividend paying and 8641 (28.6%) non-dividend paying.

Table 1 Summary Statistics

	Non-Dividend Paying	Dividend Paying
<i>All Markets (60 months)</i>		
Monthly Volume	90,667,804	332,841,579
Price	7.94	42.63
Market Cap.	4,258,800,273	21,330,416,740
Dividend Yield	-	7.57
Number of Obs.	8,641	21,574
<i>Advancing Markets (32 months)</i>		
Monthly Volume	104,342,250	367,602,841
Price	8.96	45.06
Market Cap.	4,363,727,049	22,959,456,905
Dividend Yield	-	7.82
Number of Obs.	5,109	12,437
<i>Declining Markets (28 months)</i>		
Monthly Volume	71,770,399	282,552,699
Price	6.75	38.45
Market Cap.	2,666,672,795	19,079,164,252
Dividend Yield	-	7.06
Number of Obs.	3,532	9,137

Market capitalization of dividend paying firms was about five times larger than non-dividend paying firms when considering all markets together. The situation is similar when only *advancing*

markets are taken into consideration. However, the analysis of *declining markets* show that market capitalization of dividend paying stocks is about seven times higher than non-dividend paying stocks in that case.

According to the type of market, monthly volume is 3.3 to 3.8 times larger for dividend paying compared to non-dividend paying firms. Additionally, the price of shares is also higher for dividend paying firms, about five times in each market condition. Besides market capitalization, there are not significant changes between *advancing* and *declining market* situations. In general, the results confirm the expectation that dividend paying firms are larger than non-dividend paying firms (Allen et al, 2000 and De Angelo and De Angelo, 2006).

In order to carry out the empirical analysis and determine if dividend-paying stocks outperform non-dividend-paying stocks in *declining markets*, the study will apply panel data regressions each month for every firm.

The study controls for firm and month fixed-effects. As in Harris et al. (2001) and Cuny et al. (2009), this approach controls for the specific firm and period effects of omitted cross-firm and cross-month variations, such as variations in risk, discount rates, management quality, corporate governance and agency costs.

A fixed-effects approach also takes into consideration within-firm and within-month variations, with the coefficient estimates of the explanatory variables measuring a time-series relationship in place of a pure cross-sectional approach. For every table, p -values are reported by *, **, *** , denoting statistical significance at the 0.10, 0.05, and 0.01 levels, respectively.

The regression model will assume the form: (1)

$$r_{it} - r_{ft} = \alpha_{it} + \gamma_{it}\beta_t + \mu_{it}Ln(Mktcap)_t + \eta_{it}Ln(BVEquity)_t + \phi_{it}Profitability_t + \delta_{it}DIV_t + \varepsilon_{it}$$

Where $r_{it} - r_{ft}$ is the return on a stock in month t minus the three-month T-bill return for the same month t . The control variables are: β is the firm's beta measured for month t , $Ln(Mktcap)$ is the natural log of the firm's market capitalization for month t , $Ln(BVEquity)$ is the natural log of the firm's book value of equity for month t . The main coefficient of interest is DIV , an indicator variable that equals one if the firm is classified as a dividend-paying firm in month t and zero if the firm is classified as a non-dividend-paying firm in month t .

Empirical results

Overall results

Table 2 below presents the overall results for the evidence that investors prefer dividend-paying stocks to non-dividend-paying stocks during *declining markets*. The outcome show that that dividend-paying outperform non-dividend-paying firms by 0.26% per month during the period of study, for all markets together. The result is significant at the 5% level.

Table 2 also shows that results will vary when we consider the differences between *advancing* and *declining markets*. During *advancing market* periods (positive SET index return), dividend-paying firms have a worse performance than non-dividend-paying firms of about 0.85%. On the other hand, dividend-paying firms have a better performance than non-dividend-paying stocks by 2.07% during periods of *declining markets*

(negative SET index return). Both movements are significant at the 5% level.

Table 2 Average return for both advancing and declining markets

	All firm-months	Non-dividend paying (%)	Dividend paying (%)	Difference (%)
All Markets	2.10	1.92	2.18	-0.26 **
Advancing Markets	5.63	6.24	5.39	0.85 **
Declining Markets	-2.84	-4.33	-2.26	-2.07 **
Difference on differences				2.92 ***

*** Indicates t-test is significant at the 1% level

** Indicates t-test is significant at the 5% level

* Indicates t-test is significant at the 10% level

Applying a difference-on-differences approach to the results, it is possible to infer that during the period from January 2008 to December 2012 dividend-paying stocks had a performance that is 2.92% higher in *declining markets* than in *advancing markets*, when compared to non-dividend-paying firms. This difference is significant at the 1% level.

Regressions results

Table 3 presents the overall results similarly to

Table 2, this time using the regression model presented in section 2. One important difference is that while returns on Table 2 are the total return on stocks, returns on Table 3 are equal to $r_{it} - r_{ft}$, that is, the return on stocks minus the three-month Treasury-bill return. Because of this, returns on *advancing markets* are expected to present negative values, since investors value more dividend paying stocks during *declining markets* periods (Fuller and Goldstein, 2011).

Table 3 Regression, overall results

	Intercept	Beta	Ln(MkCap)	Ln(BVEquity)	DIV
Declining Markets	-0.1104**	-0.0552***	0.0114***	-0.0119**	0.0266***
Advancing Markets	-0.1736***	0.0287***	0.0216***	-0.0201***	-0.0158**

*** Indicates t-test is significant at the 1% level

** Indicates t-test is significant at the 5% level

* Indicates t-test is significant at the 10% level

Table 3 reveals that the coefficient for DIV is greater in declining market months, 0.0266, than

in *advancing market* months, -0.0158 . The results confirm those of Table 2, that during *declining markets* periods, dividend-paying stocks outperform non-dividend-paying stocks. That is, in general investors value dividend-paying firms more during *declining markets*. To further investigate this phenomenon, it is also possible to study whether the effects become stronger when the decline increases.

Table 4 presents the effect of the

magnitude of markets movements on the dividend versus non-dividend paying relation. In order to measure such movements, large movements of SET index are defined as those greater than 5%, and small movements of SET index as being between 0% and 5%. It is expected that the coefficient for *DIV* will monotonically increase as the SET Index return decreases.

Table 4 Magnitude of the market movement

	Intercept	Beta	Ln(MkCap)	Ln(BVEquity)	DIV
Declining Markets					
Small Negative Movements	-0.0968***	-0.0188***	0.0096**	-0.0171	0.0253**
Large Negative Movements	-0.1211**	-0.1334***	0.0134***	-0.0085	0.0172**
Advancing Markets					
Large Positive Movements	-0.1974***	0.0522***	0.0204***	-0.0137**	-0.0121
Small Positive Movements	-0.1442***	0.0173***	0.0244***	-0.0233***	-0.0059

*** Indicates t-test is significant at the 1% level.

** Indicates t-test is significant at the 5% level

* Indicates t-test is significant at the 10% level

The outcomes run according to expectation for the first three results. However, *DIV* in *declining markets, large negative movements*, is smaller than for *declining markets, small negative movements*, a result that is opposite to that found in Fuller and Goldstein (2011). Furthermore, *DIV* results are non-significant for *advancing markets* outcomes. Although in general terms the results confirm that dividend-paying stocks are preferred during *declining markets*, the lack of significance in the first two steps and the reverted result make the interpretation difficult for Table 4.

Even though the regressions for Tables 2, 3 and 4 already control for the firm beta, size and the book value of equity, it is still possible, as

highlighted by Allen et al. (2000), that the results are only a reflection of the preference of investor for stocks from better companies, which are the ones that pay dividends. That is, there is a quality effect that is not controlled by the model. In order to test whether quality has a significant impact on the results; the data is divided in two parts, as seen in Table 5, below. Return-on-Assets (*ROA*) is selected as a proxy of firms quality, and a low *ROA* would indicate lower “quality” firms, while a high *ROA* would signal a firm of higher “quality”.

Thus, if the previous results are only measuring the fact that better companies pay dividends and worse companies do not, it is expected that, once the data is divided in high and

low *ROA*, the results previously encountered will

not hold.

Table 5 Quality differences

	Intercept	Beta	Ln(MkCap)	Ln(BVEquity)	DIV
Low ROA					
Declining Markets	✓ -0.0936	-0.0387**	0.0152***	-0.0173***	0.0229**
Advancing Markets	-0.2332**	0.0511***	0.0256**	-0.0209**	0.0036**
High ROA					
Declining Markets	✓ -0.1021	-0.0632**	0.0143***	-0.0037*	0.0349***
Advancing Markets	-0.0897**	0.0152***	0.0101**	✓ -0.0055	-0.0204**

*** Indicates t-test is significant at the 1% level.

** Indicates t-test is significant at the 5% level

* Indicates t-test is significant at the 10% level

As shown in Table 5, dividend-paying stocks do have a better performance than non-dividend-paying firms in declining markets for both *low ROA* and *high ROA*, the proxy for firm quality. The *DIV* coefficient for *Low ROA*, *advancing markets* results confirm previous results that investors prefer dividend-paying companies during economic downturn. That is, results are generally robust to the company's quality.

To further test how the firm's quality dimension may impact the results, an additional variable was included in the model in order to

control for quality. The modified model has the following form:

$$r_{it} - r_{ft} = \alpha_{it} + \gamma_{it} \beta_t + \mu_{it} \llbracket \text{Ln}(\text{Mktcap}) \rrbracket_t + \eta_{it} \llbracket \text{Ln}(\text{BVEquity}) \rrbracket_t + \varphi_{it} \llbracket \text{Profitability} \rrbracket_t + \delta_{it} \llbracket \text{DIV} \rrbracket_t + \varepsilon_{it}$$

(2)

Where *Profitability* is a proxy for firm quality or profitability for month *t*. The two proxies utilized were Return on Assets (*ROA*) and Return on Equity (*ROE*).

Table 6 Quality differences: additional variable to control for profitability

	Intercept	Beta	Ln(MkCap)	Ln(BVEquity)	Profitability	DIV
ROA						
Declining Markets	✓ -0.0912	-0.0392**	0.0172***	-0.0157***	0.0072**	0.0198**
Advancing Markets	-0.2521**	0.0503***	0.0223**	-0.0198**	0.0044**	0.0028**
ROE						
Declining Markets	✓ -0.0936	-0.0572**	0.0155***	-0.0031*	0.0056**	0.0314**
Advancing Markets	-0.1024**	0.0164***	0.0097**	✓ -0.0062	0.0036*	-0.0187**

*** Indicates t-test is significant at the 1% level.

** Indicates t-test is significant at the 5% level

* Indicates t-test is significant at the 10% level

As seen in Table 6, even though *ROA* or *ROE* are included into the model, results continue to hold. For both cases, dividend-paying stocks outperform non-dividend-paying stocks in *declining markets*. The results for the *DIV* coefficient are significant at the 5% level. Table 6 indicates that the results do not seem to be driven simply by better firms being more able to pay dividends than non-dividend firms. Clearly, investors have a preference of dividend-paying firms during *declining markets* months.

Conclusion

The analysis of the Thai market confirms Fuller and Goldstein (2011) hypothesis and findings that companies' dividend policies are not irrelevant. More specifically, there is evidence that Thai investors prefer stocks of firms that pay dividends, particularly during periods of market downturn. That is, shareholders in Thailand are not indifferent to dividend policy

Overall, dividend-paying firms in Thailand have a superior performance than non-dividend-

paying firms during *market decline* months. The results are robust when there is a control for firm's quality, meaning that the results are not merely driven by investors' attraction to more profitable and larger firms (which usually pay dividends), but rather by the possibility of receiving those dividends during periods of economic uncertainty.

However, in sharp contrast with Fuller and Goldstein (2011) outcomes, some results did present low statistical significance, or had no significance at all, particularly when the sample had to be subdivided in smaller sub-samples. Thus, it is possible that the sample period used for the study – five years – was not of adequate size. Another drawback related to the short sample-period is that the results found may be specific to that period of time, 2008 to 2012, which was strongly affected by the financial crisis of 2007-2008, and cannot be generalized to other periods of time. To overcome these shortcomings, we suggest that future studies use a longer period of analysis, opening the possibility to control results by comparing different sub-periods.

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