

THE PROPENSITY TO PAY DIVIDENDS: THE CASE OF THAI LISTED FIRMS

Malinee Ronapat

Department of Finance and Banking, ABAC School of Management
Assumption University

ABSTRACT

This paper investigates the propensity to pay dividends of the listed firms in the developing capital market of Thailand. It adopts similar methodology to Fama and French (2001) and explores the propensity to pay dividends given the particular characteristics of firms. These characteristics include profitability, investment opportunities and size. The findings suggest that the propensity to pay dividends slightly decline in pre-crisis, largely decline during crisis, but is resumed later in post-crisis period.

INTRODUCTION

Firms with profitability have choices of either paying their profit as dividends or keeping them as earnings to make investment in the future. However, dividends are normally taxed at higher rate than interest payment. Despite this fact, some firms still pay dividends (Black 1976). Fama and French (2001) called this the propensity to pay dividends.

Dividends could be viewed as a cushion during bad times, or when stock prices fall (Lintner 1956, Gwilym, Morgan and Thomas 2000). Also dividends provide investors with some control over the management of firms, thus, reducing agency costs. Dividend payments provide information to investors on the current and future performance of the firm, external financing, as well as the true value of firms (Bhattacharya 1979, 1980; Asquith and Mullins 1983; John and Williams 1985; Miller and Rock 1985; Richardson, Sefcik and Thomas 1986; Healey and Palepu 1988).

However, recently, Fama and French (2001) showed that the propensity to pay dividends of the listed firms in the US has declined by showing that listed firms with given characteristics have lower propensity to pay dividends. This lower propensity results in lower percentage and number of firms that pay dividends (payers) in the market.

Therefore it is important to investigate whether this propensity to pay dividends has been lowered or is higher in Thailand amongst the dividend payers. Two important questions are raised: how has the propensity changed before and after the crisis, and how have the

changes in propensity affected the dividend pattern. This paper endeavors to investigate and answer these questions.

This paper applied the secondary data technique, thus, publicly listed firms on the SET (Stock Exchange of Thailand) were selected. Listed firms were classified depending on their dividend action in time t (present time) and $t-1$ (last period). The discussion on the propensity to pay dividends of the dividend payers applied the summary statistics technique.

This paper is organized as follows: (1) literature review (2) methodology (3) analysis and discussion (4) conclusion and implication.

LITERATURE REVIEW

It is suggested by many researchers that dividend policy and dividend payment behaviour are affected by the characteristics which are profitability, investment opportunities and size of the listed firms (Tobin 1958; Gordon 1962, 1963; Higgin 1972; Fazzari, Hubbard, and Peterson 1988; Fama and French 1995, 1997, 1998, 1999, 2001; La Porta et al 2000; Wetherilt and Weeken 2002).

Given these characteristics, Fama and French (2001) investigated further and found that listed firms in the US have lower willingness or so called propensity to pay dividends. They added that firms with characteristics of payers, high profitability (Y_t) and low investment opportunities (E_t and dA_t), tend not to pay dividends.

Their summary statistics results suggested that the lower propensity to pay results from explosion of new lists and the changing nature of new and existing firms (Fama and French 2001). Investors are more willing to hold the shares of growth firms with low or even negative profitability. They, however, suggested that firms become less likely to pay dividends, whatever their characteristics (Fama and French 2001).

Thailand: Asian Economic Crisis

Commencing in Thailand, the Asian Economic Crisis affected most of the economies of South East Asia. The performance of firms listed on the Stock Exchange of Thailand, strong depreciation in the exchange rate, high level of financial instability and credit downgrading all created unfavorable investment environment in Thailand since 1997, thus, influencing the performance of listed firms, their characteristics and dividend policies. Large number of firms faced financial distressed and omitted paying out dividends.

METHODOLOGY

This paper applies causal research methodology which investigates the propensity to pay dividend of listed firms in the market using secondary data technique. Summary statistics are used to group listed firms into 4 dividend groups (1) payers (2) non-payers (3) former payers (4) never paid firms. While (1) payers are firms with positive dividends in time t , non-payers are firms with no dividend in time t , (3) former payers are firms that do not pay dividend in time t but have paid in previous years, and (4) never paid firms are firms that have never paid dividends. New lists are firms which were listed in time t . Later, (1) payers and (2) non-payers in the last period ($t-1$) are categorized according to their dividend payment behavior in the present period (t). For payers they are categorized into (1.1) payers that continue to pay

dividends (1.2) payers that stop paying dividends and (3) payers that delist. For non-payers they are categorized into (2.1) non-payers that start paying dividends (2.2) non-payers that do not pay dividends and (2.3) non-payers that are delisted (Fama and French 2001).

The study covers the period of January 1990 to December 2002 (thirteen years). Only firms that are listed on the Stock Exchange of Thailand are included in the sample. These firms must provide full information on their financial statements (income statements and balance sheet) and trading information. The sample contains financial data of firms by calendar year on the total assets, total liabilities, common equities, average stock prices, shares outstanding, income before extraordinary items, interest expenses, dividend yields, dividend per share, preferred dividends, preferred stock value, par value and market capitalisation at the end of year t to obtain values for Y_t , E_t and dA_t . Y_t is a proxy for common stock earnings or profitability. E_t represents earnings before interest that exceed investment outlays and dA_t is the change in assets which represents the investment opportunities or asset growth (Fama and French 2001).

ANALYSIS AND DISCUSSION

Empirical Findings

Patterns in the payment of dividends are explored from 1990 to 2002. In 1990, 84.2 percent of listed firms paid dividends. The percentage of payers rose to its peak of 90.6 percent in 1992 and fell gradually to 71.5 percent in 1997. The percentage of payers fell to 28.4 percent in 1998. This figure was recorded a year after the Asian crisis. However, the percentage of firms paying dividends recovered slightly in 1999 (29.9 percent) and rose to 46.4 percent by 2002. However, the percentage of firms paying dividends in 2002 (46.4 percent) was well below the 1990 level (84.2 percent) (table 1).

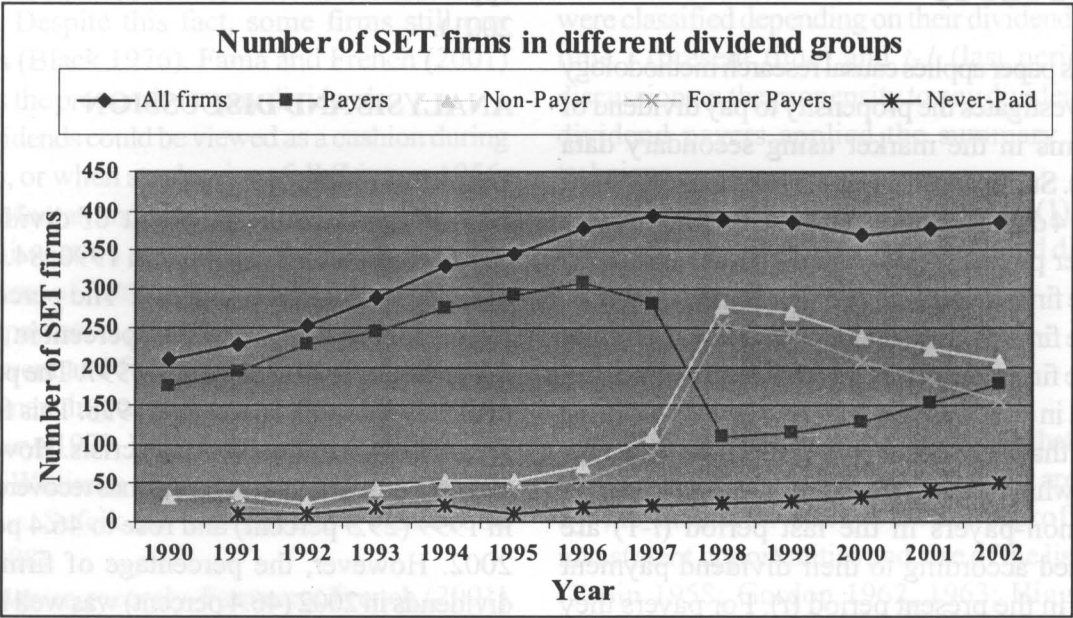
Table 1: Counts and Percentage of SET firms in Different Dividend Groups

Counts of													
SET firms	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
All Firms	209	228	254	288	328	344	378	393	388	385	368	376	386
New Lists		45	38	33	38	23	34	4	3	4	11	7	20
Percent of													
SET firms	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Payers	84.2	84.6	90.6	85.1	83.8	84.3	81.0	71.5	28.4	29.9	35.3	40.7	46.4
Non-Payer	15.8	15.4	9.4	14.9	16.2	15.7	19.6	28.5	71.6	70.1	64.9	59.3	53.6
Former-Payer		10.1	5.1	8.0	9.5	12.8	14.6	22.9	65.2	62.9	56.5	48.7	40.2
Never-Paid		5.3	4.3	6.9	6.7	2.9	5.0	5.6	6.4	7.3	8.4	10.6	13.5
New Lists		19.7	15.0	11.5	11.6	6.7	9.0	1.0	0.8	1.0	3.0	1.9	5.2
New Lists													
that Pay		82.2	73.7	51.5	52.6	82.6	73.5	50.0	33.3	0.0	27.3	57.1	20.0

Source: SET (1990, 1993, 1996, 1999, 2002a)

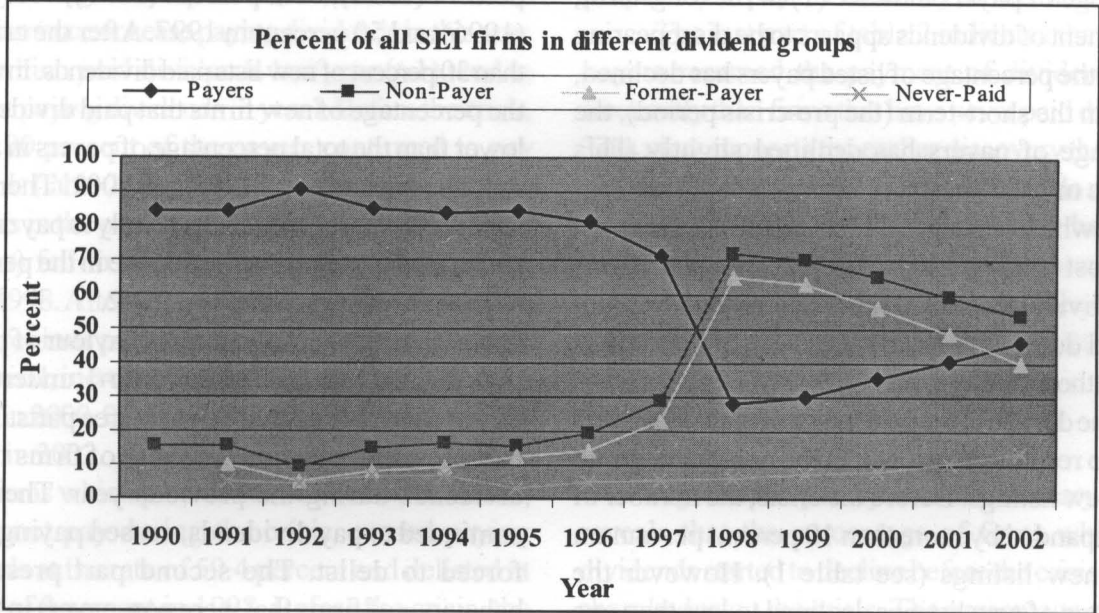
Note: Payers paid dividends in time t while non-payers did not. Non-payers are divided into two sub-groups, namely, former payers (firms that do not pay in time t but paid in the previous year) and firms that have never paid dividends. New lists are firms which were listed in time t and new lists that paid dividends are classified as payers.

Figure 1: The Number of SET Firms in Each Group



Source: Developed for this study

Figure 2: Percentage of All SET Firms in Different Dividend Groups



Source: Developed for this study

The number of listed firms increased sharply from 200 firms in 1990 to about 400 firms in 1997. Table 1 indicates that the number of listed firms in the sample declined to below 400 immediately after the crisis. This figure increased slightly and stood at 386 firms in 2002. However, the current number of listed firms is still below the figure for 1997. The number of firms paying dividends increased from almost 200 in 1990 to more than 300 firms in 1996. However, the rate of increase in the number of payers has declined. The number of firms which pay dividends has partly recovered although it was still below 200 firms in 2002.

The number of firms which did not pay dividends before the crisis (the figure was less than 100) was consistently less than the number of payers. However, the number of firms which did not pay dividends rose sharply from 112 in 1997, to a peak of 280 in 1998. This figure has declined slowly since 1998, although it remained slightly above 200 in 2002. Fama and French (2001) suggested that firms which do not pay dividends can be classified into two groups, former payers and firms which have never paid dividends. Former payers are firms that do not pay dividends in the present year (time t) but paid dividends in a previous year. Figure 1 indicates that the number of former payers (before and after the crisis) is similar to the number of non-payers. In addition, the number of firms which have never paid dividends was relatively small in 1990. The number of non-payers and former payers increased sharply in 1997 and peaked in 1998

(see figure 1). This increase in the number of non-payers and former payers can be attributed to the Asian Economic Crisis. Indeed, a strong decline in the number of firms which pay dividends also appears to result from the crisis.

A trend that has emerged since the crisis is that the number of firms that have never paid dividends accounts for an increasingly larger share of the non-payer group (see figure 1). It appears that firms that were listed between 1997 and 2002 are more likely to have never paid dividends. Also most of the non-payers (former payers are the majority of this group) were forced to cease paying dividends due to financial distress arising from the crisis. This view is consistent with the findings of Fama and French (2001). Former payers are likely to be distressed and have not paid dividends in time t . However, it remains to be seen whether non-payers and former payers will pay dividends in the future.

As stated earlier, the percentage of firms which paid dividends decreased from 84.2 percent in 1990 to 46.4 percent in 2002. Before the Asian Economic Crisis (1990-1996), the percentage of payers declined slightly from 84.2 percent in 1990 to 81.0 percent in 1996. However, the percentage of payers fell sharply from 71.5 percent to 28.4 percent during 1997 and 1998. In 1999, the percentage of payers increased slightly to 29.9 percent. Indeed, the percentage of payers has continued to rise and stood at 46.4 percent in 2002. This figure is about 20 percent higher than the figure recorded during the crisis, although it remains

about 40 percent lower than 1990. The trends in the percentage of payers indicate (1) in the long-term, the payment of dividends appears to be disappearing because the percentage of listed payers has declined, and (2) in the short-term (the pre-crisis period), the percentage of payers has declined slightly. This outcome may be an early indicator of the financial collapse which occurred in 1997, and (3) in the short-term (post-crisis period), the percentage of firms paying dividends has rebounded from the low point recorded during the crisis and may rise to pre-crisis levels in the future.

The decline in the percentage of dividend payers may also result from growth in the non-payer group due to new listings. Before the crisis, the number of firms expanded by more than 10 percent per annum due to new listings (see table 1). However the percentage of new listings declined to less than one percent of the total number of listed firms during the crisis and currently stands at about 5.2 percent. Table 1 indicates that some newly listed firms paid dividends, although the percentage of these firms fluctuated between 1990 and 2002. The percentage of new firms that paid dividends stood at 82.2 percent (1991),

73.3 percent (1992), 51.5 percent (1993), 52.6 percent (1994), 82.6 percent (1995), 73.5 percent (1996) and 50 percent in 1997. After the crisis, less than 30 percent of new lists paid dividends. In addition, the percentage of new firms that paid dividends was lower than the total percentage of payers in all years with the exception of 1998 and 2001. Therefore, it appears that new firms are less likely to pay dividends and this partly explains the decline in the percentage of payers between 1990 and 2002.

Table 2 presents the dividend behaviour of payers in year $t-1$ and non-payers in year $t-1$ undertaken in time t . The table is divided into three parts. The first part presents behaviour in year t of firms that paid dividends during the previous year. These firms continued to pay dividends, ceased paying or were forced to delist. The second part presents the behaviour of firms that were non-payers in time $t-1$. These firms commenced paying dividends, remained a non-payer, or were delisted from the stock exchange. The last part shows the percentage of non-payers that commenced paying dividends in time t . The table also indicates if these firms were former payers, or if they have never paid dividends.

Table 2: What Happens in Year t to SET Firms that Do and Do not Pay Dividends in Year $t-1$

What Happens in Year t to Firms that Pay Dividends in Year $t-1$												
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Continue to Pay	78.4	88.1	93.0	93.5	91.3	91.4	81.7	38.4	75.5	89.6	92.3	95.4
Stop Paying	13.1	6.7	5.7	6.1	6.2	6.6	17.0	59.4	23.6	5.2	6.9	3.9
Delist	0.6	0.5	0.0	0.0	0.4	0.3	0.0	3.0	0.0	3.5	0.0	0.0
What Happens in Year t to Firms that Do Not Pay Dividends in Year $t-1$												
Start Paying	54.5	91.4	45.8	55.8	35.8	16.7	24.3	0.9	11.2	8.9	11.7	12.1
Do not Pay	12.1	2.9	54.2	44.2	62.3	83.3	64.9	94.6	84.2	83.3	84.9	82.5
Delist	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.4	4.1	1.3	2.2
Percent of Non-Payers in Year $t-1$ that Start Paying in Year t												
All Non-Payers ($t-1$)	54.5	91.4	45.8	55.8	35.8	16.7	24.3	0.9	11.2	8.9	11.7	12.1
Former Payers	63.6	11.4	29.2	7.0	15.1	20.4	1.4	27.7	8.6	10.0	9.6	0.0
Never Paid	33.3	20.0	70.8	37.2	1.9	13.0	0.0	0.0	0.0	0.4	1.7	0.0

Source: SET (1994, 1997, 2000, 2002a)

Note: Firms that continue to pay were payers in year $t-1$ and continue to pay dividends in time t . Firms that cease paying dividends are firms that were payers in time $t-1$, but non-payers in time t . Firms that delist are firms that were payers in time $t-1$ but delisted in time t .

Table 2 shows the likelihood that payers and non-payers of the last period ($t-1$) will continue to pay, commence or cease paying dividends in this year. Firms which paid dividends last year ($t-1$) tend to continue paying dividends in year t . Before the crisis, almost 90 percent of the payers continued to pay dividends (table 2). In 1997, however, the percentage of payers in the previous year ($t-1$) that continued to pay (in t) fell to 81.7 percent and to 38.4 percent during 1998. After the crisis, the percentage of payers in the previous period, that continued to pay in the next period, increased to 75.5 percent in 1999, 89.6 percent in 2000, 92.3 percent in 2001 and finally 95.4 percent in 2002.

Firms which paid dividends before the crisis, but did not pay during the crisis, ceased paying dividends at the rate of 59.4 percent and delisted at the rate of 3 percent in 1998. Before the crisis, the percentage of payers that ceased paying dividends was about 10 percent per annum. However, this figure rose to 17 percent in 1997 and peaked at 59.4 percent in 1998. In addition, the percentage of payers that delisted in the next period (t) was less than one percent per annum before the crisis, but rose to 3 percent in 1998. Finally, after the crisis, a greater proportion of firms which paid dividends continued doing so while less ceased paying and delisted. This indicates that the market is recovering.

Firms that did not pay dividends in the last period commenced paying at the rate of 91.4 percent in 1991 and 45.8 percent in 1992. This indicates that the vast majority of firms possessed a high propensity to pay, or resumed paying dividends at this time. However, this figure fell to 35.8 percent in 1994 and to less than one percent in 1998. Finally, after the crisis, this figure increased to above 10 percent, although, it is still lower than the percentage of non-payers that commenced paying dividends before the crisis. In summary, less firms re-commenced paying dividends after the crisis.

Before the crisis, non-payers appeared less willing to commence paying dividends in the next period (decreasing their propensity to pay dividends). The percentage of non-payers that continued to avoid this payment in the next period also supports this finding (see table 2). After 1993, a large proportion of non-payers continued to avoid paying dividends, even though it was still several years before the crisis. In addition, only 0.9 percent of non-payers commenced the payment of dividends in 1998. This figure increased to 12.1 percent in 2002, indicating

that the market was recovering and also shows a high propensity to pay dividends by former non-payers.

The last part of table 2 indicates that, former payers resumed the payment of dividends more frequently than firms that have never paid dividends. This view supports the earlier discovery that former payers omit the payment of dividends but do not intend to cease the payment on a permanent basis. The summary of statistical analysis by Fama and French (2001) suggests that former payers are distressed firms which ceased paying dividends to preserve their cash.

SYNOPSIS

A preliminary analysis of the summary statistics reveals that the percentage of firms which paid dividends started to decline before the crisis, and fell sharply during the crisis. The percentage of payers rose slightly after the crisis, but remains much lower than the level recorded before the crisis. It also appears that payers were less likely to continue the payment of dividend during the crisis. The analysis suggests that the propensity to pay dividends of existing payers is lower.

As stated earlier, the percentage of non-payers has increased over time and increased sharply immediately after the crisis. Most of the non-payers were former payers which were forced to avoid the payment of dividends due to the crisis. In addition, it appears that non-payers were less willing to re-commence paying dividends. This supports the proposed explanation for the observed decline in the percentage of payers; non-payers are less likely to re-commence paying dividends. Consequently, the total number of payers is smaller and represent a smaller proportion of the total number of firms.

Many new firms were listed on the SET before the crisis and a large proportion of these firms did not pay dividends. The percentage of new firms that paid dividends was less than the percentage of listed firms that paid dividends, in most years (see table 1). Therefore, new lists usually do not pay dividends and the denominator (total number of listed firms) is increasing over time, while the numerator (the total number of payers) is becoming smaller leading to a decline in the percentage of payers.

The Decline in Propensity to Pay Dividends

Fama and French (2001) suggested that given the characteristics of firms, they will be less likely to pay dividends (Fama and French 2001). Therefore,

it is important to investigate changes in propensity to pay dividends of listed firms since 1991. Three factors are considered to identify the propensity to pay dividends. Y_t is a proxy for common stock earnings (representing the profitability), E_t represents earnings before interest that exceed investment outlays and dA_t is the change in assets (representing investment opportunities and asset growth) (Fama and French 2001).

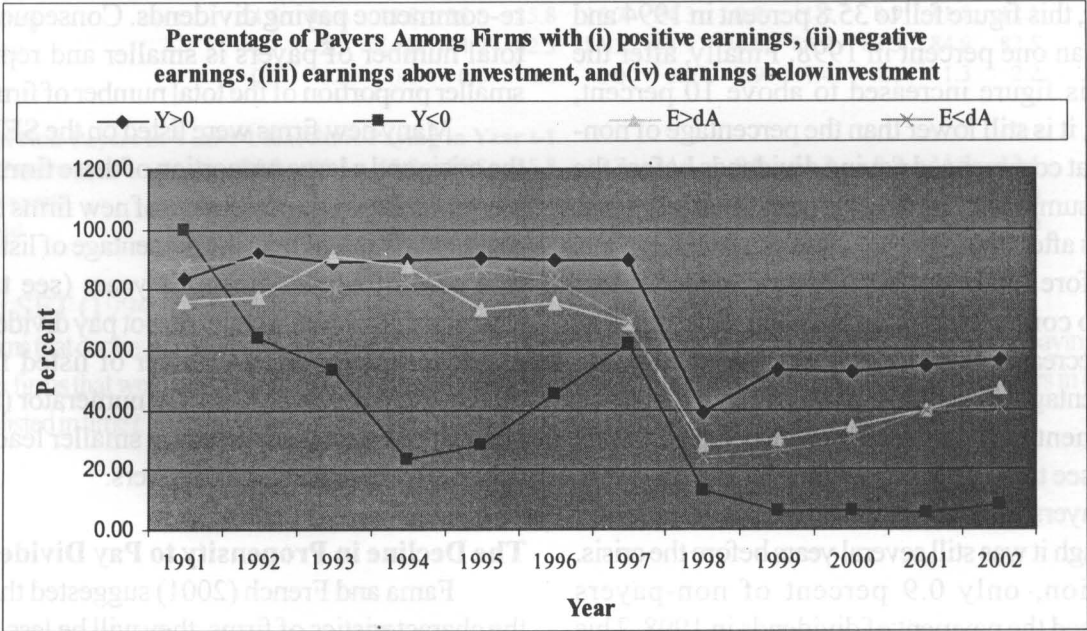
A firm's propensity to pay dividends is expressed by a time series plot in figure 3. This figure shows the percentage of dividend payers among (1) firms with positive common stock earnings ($Y>0$) (2) firms with negative common stock earnings ($Y<0$) (3) firms with earnings before interest that exceed investment outlays ($E_t>dA_t$) and (4) firms with earnings before interest which are lower than investment outlays ($E_t<dA_t$) (Fama and French 2001). Firms with earnings before investment, which are higher than the growth in their assets have low investment opportunities and are low growth firms. Likewise, firms with earnings before investment which are lower than changes in their assets, are considered growth firms (Fama and French 2001).

Figure 3 indicates that most firms with positive common stock earnings (83.93 percent) paid dividends in 1991 and 100 percent of firms with negative earnings also paid dividends. In addition, 91.7 percent of firms with $Y>0$ paid dividends in 1992

although this figure declined after 1992. This figure fell to its minimum level in 1998, when only 38.19 percent of firms with positive earnings paid dividends. Furthermore, in 1999, 13.10 percent of firms with negative earnings paid dividends. Importantly, the percentage of firms with positive earnings that paid dividends almost doubled from 39.19 percent in 1998 to 56.7 percent in 2002. This analysis suggests that firms with positive earnings exhibited a small decline in the propensity to pay dividends before the Asian Economic Crisis (96.95 percent to 91.26 percent). During the crisis, (1997 to 1998), firms with $Y_t>0$ exhibited a substantial decline in the propensity to pay dividends (89.92 percent in 1997 to 39.19 percent in 1998). It appears that firms with positive earnings were not willing to pay dividends during the crisis. Firms with negative earnings were also less willing to pay dividends during the crisis. However after the crisis, the propensity to pay dividends of these groups has increased. The propensity to pay of firms with $Y_t>0$ increased from 39.19 percent in 1998 to 56.7 percent in 2002, while the propensity to pay of firms with $Y_t<0$ increased from 5.76 percent in 1999 to 7.78 percent in 2002. In short, the firms in the sample are more willing to pay dividends if they have positive earnings, or negative earnings after the crisis. This finding was also supported by the descriptive statistics.

Similarly, before the crisis, firms with earnings before interest which are higher, or lower than changes

Figure 3: Percentage of Payers Among Firms with (1) Positive Earnings (2) Negative Earnings (3) Earnings above Investment, and (4) Earnings Below Investment



Source: Developed for this research

in their assets (investment) exhibit a slight decline in the propensity to pay dividends from 76.25 percent to 75.43 percent (when $E_t > dA_t$) and 88.59 percent to 83.25 percent (when $E_t < dA_t$). During the crisis, firms with $E_t > dA_t$ and $E_t < dA_t$ exhibited a significant decline in the propensity to pay dividends from 69.01 percent to 28.53 percent and 69.66 percent to 24.36 percent respectively. After the crisis, both types of firms exhibit an increase in the propensity to pay dividends. The propensity to pay of firms with earnings higher than investment increased from 30.2 percent in 1999 to 47.52 percent in 2002. Firms with lower earnings than investment, payers of this group ($E_t < dA_t$) accounted for 26.62 percent in 1998 and this increased to 40.72 percent in 2002 (figure 5.7). These findings suggest that the Asian Economic Crisis also influenced the propensity to pay dividends of listed firms.

CONCLUSION AND IMPLICATION

The results suggest that irrespective of whether firms have high or low profitability and high or low investment opportunities, they demonstrated a lower propensity to pay dividends before the crisis. The propensity to pay dividends of these types of firms, declined significantly during the crisis, although this

has gradually recovered since the downturn. However, the percentage of payers with positive earnings in recent years (2002) has been lower than the figure which was observed before the crisis. This indicates that firms with high profitability and investment opportunities now have a lower propensity to pay dividends than in the past.

The findings from this paper could be used to compare with the existing literature of propensity to pay dividends and provide additional support for findings of Fama and French (2001). The research could also be used as a tool for SET (Stock Exchange of Thailand) and SEC (Securities Exchange Commission) to provide an early detection of an increase, or decrease in the number of payers and non-payers in the market, an upward or downward trend in the payment of dividends and changes in the propensity to pay dividends in the next period.

For investment practice, this research provides a warning system for the firms that may change their dividend paying behaviour. It could also be used a tool for investors in the stock selection process by providing insight on the expected return. It cautions analysts to be aware that the famous Dividend Discount Model (DDM) could possibly be obsolete and they should be seeking for new and better stock valuation methods.

References

- Asquith, P. & Mullins, D.W. Jr. 1983, 'The Impact of Initiating Dividend Payments on Shareholders' Wealth', *Journal of Business*, vol. 56, no. 1, February, pp. 77-96.
- Bhattacharya, S. 1979, 'Imperfect Information, Dividend Policy, and "The Bird in the Hand" Fallacy', *Bell Journal of Economics*, vol. 10, no. 1, Spring, pp. 259-270.
- Bhattacharya, S. 1980, 'Nondissipative Signaling Structures and Dividend Policy', *Quarterly Journal of Economics*, vol. 95, no. 1, August, pp. 1-24.
- Black, F. 1976, 'The Dividend Puzzle', *Journal of Portfolio Management*, vol. 2, no. 2, Winter, pp. 5-8.
- Brealey, R.A. & Myers, S.C. 2000, *Principles of Corporate Finance*, 6th edition, Irwin McGraw-Hill, London.
- Brigham, E.F., Gapenski, L.C. & Ehrhardt, M.C. 1999, *Financial Management, Theory and Practice*, 9th edition, Dryden Press, Fort Worth, Texas.
- Emory, C.W. 1995, *Business Research Methods*, 5th edition, Irwin, Homewood, Illinois.
- Fama, E.F. & French, K.R. 1995, 'Size and Book-to-Market Factors in Earnings and Returns', *Journal of Finance*, vol. 50, no. 1, March, pp. 131-155.
- Fama, E.F. & French, K.R. 1997, 'Dividends, Debt, Investment and Earnings', *Working Paper*, Graduate School of Management, University of Chicago, Chicago.
- Fama, E.F. & French, K.R. 1998, 'Value versus Growth: The International Evidence', *Journal of Finance*, vol. 53, no. 6, December, pp. 1975-1999.
- Fama, E.F. & French, K.R. 1999, 'Testing Tradeoff and Pecking Order Predictions about Dividends and Debt', *Working Paper*, Sloan School of Management, MIT.
- Fama, E.F. & French, K.R. 2001, 'Disappearing Dividends: Changing Firms Characteristics or Lower Propensity to Pay?', *Journal of Financial Economics*, vol. 60, no. 1, April, pp. 3-44.
- Fazzari, S., Hubbard, R.G. & Petersen, B.C. 1988, 'Financing Constraints and Corporate Investment', *Brookings Papers on Economic Activity*, pp. 1141-1195.
- Gordon, M.J. 1962, *The Investment, Financing and Valuation of the Corporation*, Richard D. Irwin, Homewood, Illinois.
- Gordon, M.J. 1963, 'Optimal Investment and Financing Policy', *Journal of Finance*, vol. 18, no. 2, May, pp. 264-72.
- Healey, P.M. & Palepu, K.G. 1988, 'Earnings Information Conveyed by Dividend Initiations and Omissions', *Journal of Financial Economics*, vol. 21, no. 2, September, pp. 149-275.
- Higgins, R.C. 1972, 'The Corporate Dividend-Saving Decision', *Journal of Financial and Quantitative Analysis*, vol. 7, no. 6, December, pp. 1527-1541.
- John, K. & Williams, J. 1985, 'Dividends, Dilution, and Taxes: A Signalling Equilibrium', *Journal of Finance*, vol. 40, no. 4, September, pp. 1053-1070.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R., 2000, 'Agency problems and Dividend Policies Around the World', *Journal of Finance*, vol. 55, no. 2, June, pp. 859-874.
- Miller, M.H. & Rock K. 1985, 'Dividend Policy Under Asymmetric Information', *Journal of Finance*, vol. 40, no. 4, September, pp. 1,031-1,051.
- Petty, J.W. et al. 2000, *Financial Management*, 2nd edition, Prentice Hall, Sydney, New South Wales.
- Reilly F.K. & Brown K.C. 2000, *Investment Analysis and Portfolio Management*, 6th edition, Harcourt College Publishers, Fort Worth, Texas.
- Reilly F.K. & Norton, E.A. 1999, *Investment*, 5th edition, Dryden Press, Fort Worth, Texas.
- Richardson, G, Sefcik, S.E. & Thompson, R. 1986, 'A Test of Dividend Irrelevance Using Volume Reaction to a Change in Dividend Policy', *Journal of Financial Economics*, vol. 17, no. 2, April, pp. 313-333.
- SET 1990, *Fact Book 1990*, Publication Department, The Stock Exchange of Thailand, Bangkok.
- SET 1993, *Fact Book 1993*, Publication Department, The Stock Exchange of Thailand, Bangkok.
- SET 1994, *Fact Book 1994*, Publication Department, The Stock Exchange of Thailand, Bangkok.
- SET 1996, *Fact Book 1996*, Publication Department, The Stock Exchange of Thailand, Bangkok.
- SET 1997, *Fact Book 1997*, Publication Department, The Stock Exchange of Thailand, Bangkok.

- SET 1999, *Fact Book 1999*, Publication Department, The Stock Exchange of Thailand, Bangkok.
- SET 2000, *Annual Report*, Investor Relations and Communications Department, The Stock Exchange of Thailand, Bangkok.
- SET 2002a, *Annual Report*, Investor Relations and Communications Department, The Stock Exchange of Thailand, Bangkok.
- Tabachnick, B.G. & Fidell, L. 2001, *Using Multivariate Analysis*, 4th edition, McGraw-Hill, New York.
- Ticehurst, G.W. & Veal, A.J. 2000, *Business Research Methods: A Managerial Approach*, Longman, French Forest, New South Wales.
- Tobin, J. 1958, 'Liquidity Preference as Behaviour Towards Risk', *Review of Economic Studies*, vol. 25, no. 67, February, pp. 65-86.
- Wetherilt, V. & Weeken, O. 2002, 'Equity Valuation Measures: What Can They Tell Us?', *Quarterly Bulletin, Bank of England Financial Stability Review*, Monetary Instruments and Markets Division, Winter, pp. 391-403.
- Zikmund, W.G. 2000, *Business Research Methods*, 6th edition, Dryden Press, Fort Worth, Texas.

For further information, please contact:

Dr. Patricia Arttachartya at

Assumption University of Thailand

Ram Khamhaeng Rd., Soi 24, Hua Mak Campus,

Bangkok 10240, Thailand

Tel. 0 2340 4553-59 ext. 1156.