IMPACTS OF DIVIDEND POLICY ON PRICES OF STOCKS OF VIETNAMESE FIRMS

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The objective of decision to pay dividend as well as other financial decisions is to maximize the firm value. Under normal conditions, this objective may be realized by increases in the firm stock price. The paper aims at clarifying effects of dividend policy on market prices of Vietnamese firms reflected in changes in the stock prices after dividend payment is declared. To determine whether the current dividend policy is suitable or not, the paper also examines connections between dividend policy and internal factors of the firm.

Keywords: Dividend, dividend policy, stock prices, internal factors

1. Introduction

The objective of financial decisions in general, and decisions on dividend policy in particular, is to maximize values of the firm value and owners' assets. Under normal conditions, this objective may be realized by increases in the stock price caused by decisions to pay dividend. This is a great challenge to the firm managers because there are different and even contradictory arguments about impacts of dividend policy on the firm value. Generally, these arguments either support or refute such impacts.

- Dividend policy has no effect on the firm value: In 1961, Merton Miller and Franco Modigliani (M&M) publicized their theory, that is, dividend policy has no effect on the firm value. Their theory is based on three important assumptions: an efficient capital market, the rational behavior of investors and the absence of asymmetric information.

An efficient capital market implies the absence of taxes, transaction costs, agency costs, and difference in terms of taxes between dividend and capital gain. Investors' rational behavior means that investors want to maximize their asset value without wondering if it comes from dividend or capital gain. The absence of asymmetric information implies that firm managers and outside investors acquire similar information, and investors therefore know everything about future profit and cash flow of the firm.

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Additionally, M&M assume that investment policy of the firm has been set. They therefore maintain that value of a firm is determined only by investment decisions, and impacts of some dividend policy may be totally offset by other forms of financing, such as issue of more shares to offset the total dividend payment.

- Dividend policy has great effects on firm value: Many financial researchers agree with M&M argument about a perfect world with three aforementioned assumptions, but they maintain that many imperfections exist in the market. As a result, the argument about effects of dividend policy on the firm value has been directed towards imperfections of the market, such as presence of taxes (Brav et al., 2008); common tendency in which investors worry about risk and prefer cash dividend to capital gain (Gordon, 1963); asymmetric information and signaling effects of the dividend policy (Brav, Graham, Harvey & Michealy, 2005); agency costs (Jensen & Meckling, 1976); firm's life cycle (Fama & French, 2001; Denis & Osobov, 2008).

Various theoretical and empirical researches also suggest that the dividend policy should be linked closely with conditions in the capital market, and more importantly, based on internal factors of the firm, such as the size (Fama & French, 2001; Denis & Osobov, 2008); the profitability of the current year (Al-Malkawi, 2007); the financial structure (Duha Al-Kuwari, 2009); and growth opportunities (Fama & French, 2001), etc.

It is apparent that effects of the dividend policy have aroused a lot of controversy among researchers. Empirical studies have been carried out in many countries to provide answers to the question of the effects of dividend policy on the firm's value and stock prices. Different levels of development of capital markets and macroeconomic conditions lead to different effects of the dividend policy on the firm's value. This paper tries to find an answer to this question in case of Vietnamese firms by examining changes in stock prices as from the dividend announcement. To estimate whether dividend policies adopted by the firms are suitable or not, the paper explores connections between their dividend policies and internal factors.

2. Effects of dividend policy on prices of stock of Vietnamese firms

a. Data and methodology:

(i) Data: Before 2006, the number of listed companies was very small and information about their dividend was not sufficient. The paper, therefore, only examines dividend policies of companies that listed their share in 2006 – 2009 and publicized their dividend policies in 2007 – 2010, and focuses on dividend payments made in cash.

The sample comprises 88 firms listed on the HoSE before Dec. 31, 2006 and data about dividend in the years 2006-2009 were publicized by those firms in 2007-2010. The numerical data are about:

- Earnings per share of the 88 firms in the years 2006 – 2009.

- Total dividend paid by the 88 firms in 2006 – 2009 (some of them only paid two or three times a year) and disclosures of dividend took place in 2007 – 2010.

- Payout ratio in 2006 -2009 of 88 firms equals total dividend payment per year for a share divided by earnings per share.

- Date of dividend announcement for the last payment of the year by firms in the aforementioned period.

- Prices of stock in the 9–day period, from Day 1 just before the day the last dividend payment for the year is announced to Day 8 after the announcement day

Of 88 surveyed firms, 60 paid dividend in cash in 2006. This figure was 75 in 2007, 72 in 2008, and 74 in 2009. Their payout ratios were different from one another as shown in Table 1

Firms that announced dividend payment in cash were divided into four groups:

- Firms with very high payout ratio: 70% and above

- Firms with high payout ratio: from 50% to 70%

Table 1: Dividend payment in cash by 88 surveyed firms

Payout ratio*	<10%	10% - 20%	20% - 30%	30% - 40%	40% - 50%	50% - 60%	60% - 70%	70% - 80%	80% - 90%	≥ 90%
2006	2	9	12	10	11	9	3	2	2	0
2007	1	3	11	23	13	12	5	6	0	1
2008	2	0	3	6	9	15	12	6	7	9
2009	3	5	10	11	15	8	9	5	3	5

Source: Firms grouped by the author according to their payout ratios

- Firms with medium payout ratio: from 30% to 50%

- Firms with low payout ratio: below 30%

(ii) Methodology: To examine how dividend announcements affect the stock prices, event study method was employed as follows:

- Names for days before and after announcement: Day 0 is the day just before the announcement day, Day 1 is the announcement day, Days 2 – 8 are days after the announcement.

- Data about prices of each surveyed stock allowed calculation of percentage of accumulative changes in the price during days before and after the announcement day. Specifically, changes in cumulative ratio of stock price as percentage can be calculated as follows:

$$CR_t = \frac{P_t + D}{P_{t-1}} - 1 + CR_{t-1}$$

with $CR_0 = 0$, $CR_1 = \frac{P_1 + D}{P_0} - 1$ ...

where CR_t is changes in cumulative ratio as percentage on day t (t = 1, 2... 8) compared with the day 0; P_t is the closing price of the stock on day t; P_{t-1} is the closing price of the stock on day t-1; and D is dividend if t falls on ex-right days, and D = 0 in other days.

We calculate changes in stock price as percentages based on the mean of changes (as percentages) in prices of all surveyed stocks.

Calculating corresponding cumulative changes as percentages in the VNIndex in days observed of each stock is similar to calculation of changes in stock price mentioned above. The next step is to calculate the average cumulative changes of the VNIndex in order to compare them with changes in average cumulative prices of each group of stock.

Calculating the cumulative abnormal return (CAR) of groups of stocks is based on calculation of differences in changes in cumulative average prices of each group of stocks (aka cumulative average rate of return of the group of stocks) as compared with corresponding changes in cumulative average value of the VNIndex (or cumulative average rate of return of the market). If the difference is positive, the decision to pay cash dividend makes the market value of the firm increase and vice versa. If the difference approximates zero, the dividend policy has no effect on the stock price. Difference degrees reflect increases or decreases in the stock price when dividend payment is declared after market trend is modified.

We then estimate the signaling effect of the dividend payment on the stock price, determining if a difference in price exists between different dividend payments, and comparing changes in cumulative average prices of each group with the cumulative average price of the market.

b. Trend of changes in prices since the announcement day:

Table 2 shows the number of firms enjoying some increase in price in certain days compared with the day 0 (the day before the announcement day). Except for 2008, remaining years witnessed increases in prices of stock of over 60% of firms during and after the day they declared dividend payment in cash.

Table 2: Stocks experiencing changes in prices as from dividend announcement

Year	Stocks experiencing increases						Firms announcing dividend payment
	Announcement day		Day 2		Day 3		
2006	35	61%	37	65%	36	63%	57*
2007	33	44%	33	44%	31	41%	75
2008	51	71%	50	69%	48	67%	72
2009	54	73%	55	74%	48	65%	74

Source: Author's calculations based on price of stocks of surveyed firms
(* In 2006, 60 out of 88 firms declared cash dividend but three of them did not specify the announcement day.)

Figure 1 shows the trend of changes in the cumulative prices as from the announcement day. It is apparent that a dividend policy that leads to increases in stock prices on the announcement day will make the price rise on day 2 or 3 compared with the day 0 and rise much higher as compared with the day before it. Firms suffering falls in price as from the announcement day also enjoy some rises on days that follow. Generally, the price tends to increase after the announcement day. A year-by-year examination shows that:

In 2006, the group of firms with high payout ratio experienced an inexplicable change in price (the increase went up slightly in the first three days and fell to 0% on the fourth day and below 0% on the fifth day before going up again afterward) while other groups witnessed a steady increase day by day. Stocks with very high payout ratio enjoyed the highest increase while stocks with medium payout ratio also gained some increase.

In 2007, stocks with very high payout ratio maintained their high positions on the chart when their prices rose remarkably for days. Stocks with high payout ratio failed to do so when their cumulative average return only rose slightly after day 8. Stocks with low and medium payout ratios suffered falls in prices right after the announcement of dividend payment.

In 2008, the financial crisis caused most firms to suffer decreases in their profits and even great losses. Stocks of firms that declared dividend payment, however, enjoyed remarkable rises. Several firms decided to pay dividend regardless of losses (group N/A) with the result that their stock prices increased on the announcement day and the next day. The prices fell afterward and rose again to achieve the same cumulative increases as other groups after the observed 8-day period. Stocks with high payout ratios maintained their price increases while the stocks with the highest payout ratios enjoyed a steady but slower rise in comparison with other groups.

In 2009, there was a marked difference between these groups: firms that decided to pay high dividend enjoyed larger increases in their stock prices while groups of stock with low payout ratios only gained smaller increases.

In those four years, three groups of stocks (with medium, high and very high payout ratios) enjoyed some increases in their prices as from the announcement day. Stocks with the highest and medium ratios gained the highest increases in cumulative prices in days after the announcement while stocks with low payout ratio suffered some decrease from Day 2 to Day 6 before gaining some increase in two days afterward.

In short, in spite of differences in price increases over the years between groups of stocks, the ones with very high payout ratios usually enjoyed steady increases in their prices after declaration of dividend payment. Reaction of the stock prices shows that dividend payments usually send positive signals to the market.

c. Cumulative abnormal return as from the announcement day:

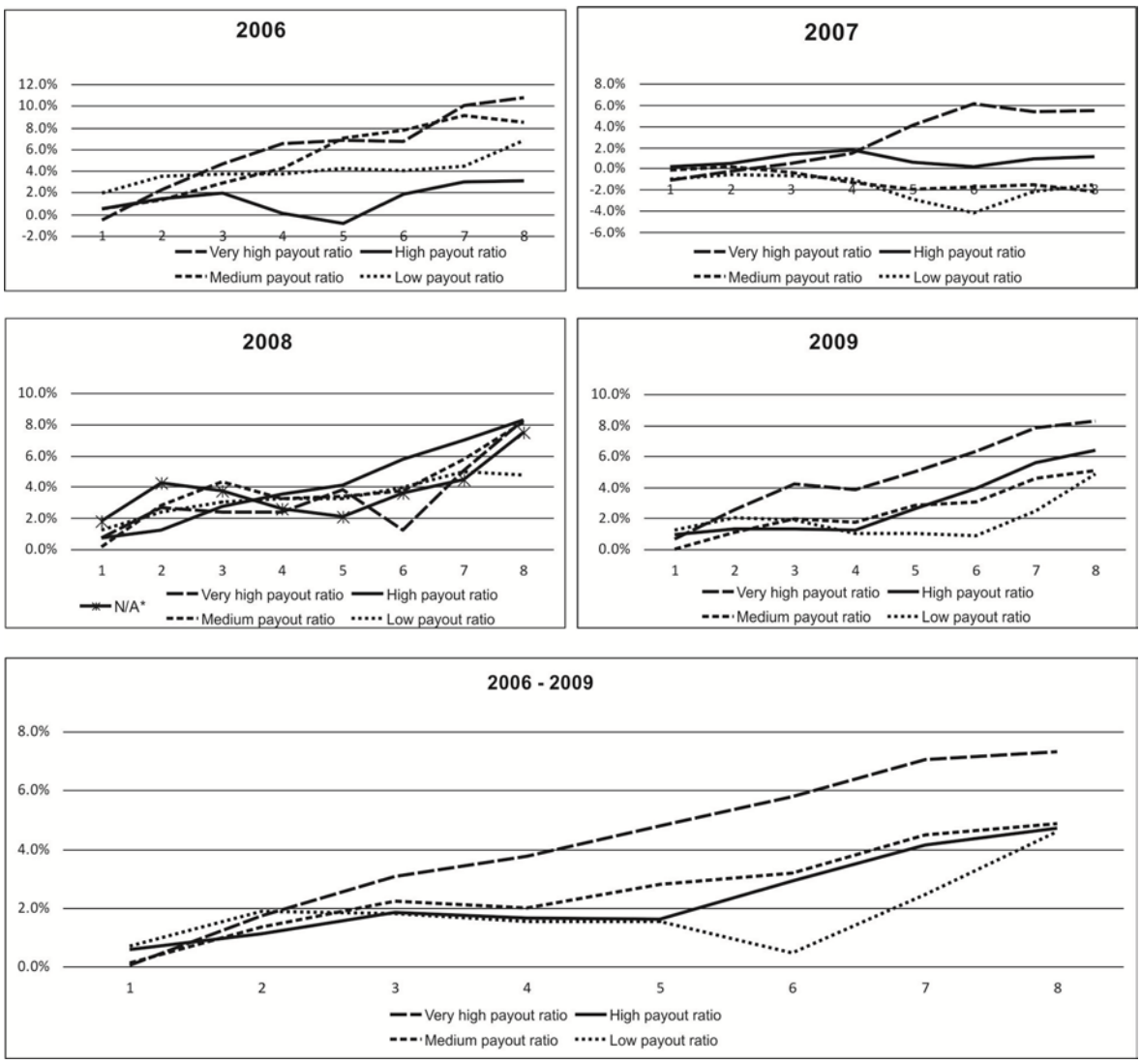

Figure 1: Trends of changes in cumulative price by groups of stocks as from the announcement day

Source: Author's calculations based on price of stocks of surveyed firms

It is worth noting that the price behavior of stocks in the Vietnam's stock market is usually related closely to the market behavior. To estimate changes in prices caused by the dividend policy, therefore, we should adjust the market trend. Data in Table 3 about the cumulative abnormal return (CAR) of groups of stocks (equaling changes in average cumulative prices of each stock group minus changes in average cumulative market index) reveals two noticeable points:

CAR is positive for all groups of stocks, except for the group with high payout ratio in 2006 and the group with a low one in 2007.

Except for the year 2008 and the group of high ratio in 2006, the CAR was directly proportional to the payout ratio.

In 2006, only the group with the high payout ratio gained a cumulative average rate of return that was lower than the market cumulative average return. All other groups, including the ones with medium and low payout ratios, gained return rates that were higher than the market

Table 3: CAR of groups of dividend as from the announcement day

	2006			2007		
Payout ratio	**Group of stocks**	**Market**	**CAR**	**Group of stocks**	**Market**	**CAR**
Very high	10.79%	4.48%	6.31%	5.41%	-7.43%	12.84%
High	3.1%	4.69%	-1.56%	1.1%	-9.22%	10.31%
Medium	8.5%	4.59%	3.92%	-2.2%	-5.30%	3.09%
Low	6.8%	4.41%	2.36%	-1.5%	0.32%	-1.85%
	2008			2009		
Very high	4.8%	0.54%	4.22%	8.25%	0.07%	8.18%
High	8.26%	2.42%	5.85%	6.41%	-0.69%	7.10%
Medium	8.1%	-0.60%	8.71%	5.07%	-1.24%	6.30%
Low	8.2%	-1.02%	9.26%	4.83%	-1.91%	6.74%
N/A*	7.5%	-7.49%	14.98%			

Source: Author's calculation

return. The group with the highest payout rate gained the largest cumulative average return.

In 2007, all dividend payments were postponed until 2008. This was a sensitive period of the market: the market index fell drastically but stocks with high and very high payout ratios sill received positive reactions, and the cumulative average return of these stocks were all positive. As shown in the last column of Table 3, those two groups of stocks gained a CAR higher than 10%. In other words, owners of stocks of these groups gained positive rates of return even though the cumulative average return of the market was deeply negative. Groups of stocks with medium payout ratios could gain a positive CAR because their decreases in cumulative price were lower than the market fall while CAR for stocks with low payout ratios was slightly negative because their cumulative average increases in was lower than the market cumulative average.

Dividends for 2008 were announced in 2009. The market experienced unfavorable fluctuations in the first half of 2009 and a slight recovery by the year's end (VN-Index reached 624.1 – a peak since early 2008 - on Oct. 22, 2009). Table 3 shows that investors appreciated firms that paid dividend regardless of losses (group N/A). The cumulative average increase in prices of this group was rather high while the market fell drastically, which caused its CAR to rise to 14.45%, much higher than those gained by other groups. Of these groups, dividend payment was inversely proportional to increase in stock price: Firms with the lowest payout ratios gained a CAR of 9.26%, twice as high as the CAR gained by the group with very high payout ratios. This was a year when CAR patterns of groups of dividends were much different from ones found in remaining years.

In 2009, cumulative average return gained by all groups of dividends was from 6.3% to 8.18% higher than the market cumulative average price. And the group with very high payout ratios achieved the highest CAR.

3. Were dividend policies of Vietnamese firms linked with their internal factors?

Is the policy to pay high dividend to receive positive reactions from the market as analyzed

above a suitable option for Vietnamese firms? Many foreign researches show that a rational dividend policy should be closely linked with internal factors of the firm, such as growth rate, size, profitability, and financial structure, etc. To draw conclusion about rationality of dividend policies of Vietnamese firms, therefore, the author tested relations between payout ratios of 88 surveyed firms with their internal factors. Table 4 presents signs and significance of test results. Expected signs of factors are based on empirical evidence produced by many foreign researches.

instead of total assets for measuring the size, results showed no remarkable improvement when one case was appropriate to the expected signs and the signs of three remaining cases were in opposition to expected signs (one of them was statistically significant).

Signs of the two scales for profitability of the current year, namely ROA and ROE, were also in opposition to expected signs in all four cases but all of them were not statistically significant. Financial structure and cash in hand had no relation with dividend policy. Only P/B (as a measurement for growth opportunity of the firm)

Table 4: Effects of basis factors of the firm on payout ratio

Basic factor	Representative variable	Expected sign	2006	2007	2008	2009	Year with significance
Size	Total assets	+	-	-	-	-	0/4
	Market capitalization	+	-	+	-	- *	1/4
Profitability	ROA	+	-	-	-	-	0/4
	ROE	+	-	-	-	-	0/4
Financial structure	Debt/ equity capital	+/-	-	+	-	+	0/4
Cash in hand	Cash/ cumulative profit	+	+	+	-	+	0/4
Growth opportunity	P/B	-	-	-*	+	-*	2/4

Source: Author (* significant at 10%)

Table 4 shows that dividend policies of Vietnamese firms in the past few years had no close relation with their internal factors. Most of these relations were reversed and had no statistical significance.

When total assets were used for measuring the size, all four cross-sectional regressions for four years and 88 surveyed firms produced factor coefficients that were of opposite signs to the expected ones and were not statistically significant. When market capitalization was used bore a sign as the expected one in three out of four cases, but only two of them were statistically significant at 10%.

4. Conclusion

Firms paying high dividends always receive positive reactions from the market after the announcement day even if they are suffering losses. This result supports the argument about signaling effect of the dividend policy. The problem is whether or not a firm should try to

pay high dividend in order to reap reward from the market in a short term even if the dividend policy is not based on internal factors of the firm. This might present a high price to pay for the firm because in deciding to pay high dividends to satisfy investors in a short term, the firm may miss or delay good business opportunities, or have to look for new and expensive sources of finance, especially in a capital market that suffers unfavorable fluctuations and only provides local companies with a limited access. The problem of dividend policy, therefore, should be solved by ensuring a more harmonious relation with investment and financing policies in order to achieve long-term benefits for both the firm and the shareholders■

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