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STOCK MARKET REACTIONS TO DIVIDEND ANNOUNCEMENTS IN FIRMS WITH HIGH OWNERSHIP CONCENTRATION

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Stock Market Reactions to Dividend Announcements in Firms with High Ownership Concentration

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Abstract

This study investigates the stock market reaction to cash dividend announcements where companies exhibit high ownership concentration. The paper uses data from the Jamaica and Trinidad & Tobago Stock exchanges because the levels of ownership concentration on these two exchanges are among the highest in the world, and as such present unique environments to further advance the large literature on the information content of dividend announcements. The extremely high levels of ownership concentration would suggest low levels of information asymmetry and agency costs, and therefore little information content to dividend announcements and little need for dividend payments as either monitoring or bonding mechanisms. As such one would expect little market reaction to dividend announcements on these two exchanges.

We document a statistically significant positive market reaction to dividend announcements in Jamaica. This finding may suggest that at least in this market owners place some value on dividends beyond their informational content, and a need for a richer explanation of the role of dividends beyond that suggested by the Information Content and Agency Costs perspectives on corporate dividend policy. We find no statistically significant market reaction to dividend announcements in Trinidad and Tobago which suggests that, consistent with the Information Content and Agency Costs perspectives, dividend announcements provide little new information to these investors; hence prices do not react to dividend announcements. We are inclined to interpret those results with caution due to the presence of thin trading on the Trinidad and Tobago Stock Exchange.

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1. Introduction

The "dividend puzzle" or the question as to why companies distribute dividends when these are often taxed heavier than capital gains, remains a subject of debate and research in the Financial Economics literature. There are two dominant explanations for why firms pay dividends and the impact of dividends on stock prices. One explanation, known as the Signaling or Information Content Hypothesis (Litner, 1956; John and Williams, 1985) is based on market imperfections due to information asymmetry between owners (investors) and managers. In an organizational context where there is separation between ownership and management, managers are construed as having better information about the current and future financial position of the firm than the owners (investors). Therefore, dividend announcements signal or convey valuable information to the market since they are seen as reflecting management's expectations about current and future cash flows. The second explanation focuses on the agency costs that arise from a separation between ownership and management. Jensen and Meckling (1976) argue that the separation of ownership and management creates a principal agent relationship between shareholders and managers, and agency costs arise from the conflicts of interest between principals and agents. Crockett and Friend (1988) argue that shareholders are not sufficiently well informed to know whether or not management is acting in their best interests. Agency theory posits that the dividend mechanism provides an incentive for managers to reduce the costs related to the principal/agent relationship. One way to reduce agency costs is to increase dividends. Paying larger dividends reduces the internal cash flow subject to management discretion and forces the firm to seek more external financing. Raising costly capital outside subjects the firm to the scrutiny of the capital market for new funds and reduces the possibility of sub-optimal investment. This monitoring by outside suppliers of funds of capital also helps to ensure that managers act in the best interest of shareholders. Thus dividend payments may serve as a means of monitoring or bonding management performance.

These views on the functioning of the modern corporation are based on the assumption of widely dispersed ownership originally developed in the seminal contribution of Berle and Means (1932). Berle and Means (1932) suggest that ownership of the modern corporation is so widely dispersed across many shareholders that no block of shareholders owns a large enough stake to exercise control over the management of the corporation. In effect, ownership and management had become separated in the modern corporation. This view of the corporation has spawned a voluminous literature on the objectives of these dominant managers and the implications for the efficiency of the firm. The seminal contributions of Baumol (1959), Penrose (1959), Marris (1964), Williamson (1964) and Galbraith (1967) all address this issue.

La Porta et al (1998) find that in contrast to the Berle and Means view of the corporation which is dominant in the Anglo Saxon context, 57% of firms around the world have a dominant shareholder (a shareholder who has more than 20 percent ownership interest in the company.). The implication is that information asymmetry between management and owners (investors), and the agency costs of the separation between ownership and management are likely to be lower for firms with at least one dominant shareholder which may have major implications for firm behavior.

In the case of Jamaica (95%) of the firms listed on the Jamaica Stock Exchange have a dominant shareholder who is represented either in management and/or on the board of directors., while in the case of Trinidad and Tobago, all of the publicly listed firms have a dominant shareholder who is represented either in management and/or on the board of directors. These levels of ownership concentration are higher than any reported in the 120 countries studies by LaPorta (1998), and thus represent extreme examples of ownership concentration in publicly traded companies. As such these markets represent a unique context to explore the Information and Agency Costs perspectives on corporate dividend policy. In the context of high ownership concentration and representation in management, one would expect low levels of information asymmetry and agency costs, and therefore dividend announcements should have little impact on stock prices as they should at best send a weak signal to the market (given that owners already have access to the information), and that there would be little need to use dividends to minimize agency costs. If stock prices in

these markets react to dividend announcements it would suggest that owners at least in these markets place some value on dividends beyond their informational content, and a need for a richer explanation of the role of dividends beyond that suggested by the Information Content and Agency Costs perspectives on corporate dividend policy. The findings should have some implications for corporate financial policy in emerging markets including those of Asia, Africa and Latin America where dominant shareholders are also the norm.

The remainder of the paper is structured as follows: the next section presents a literature review, section 3 the empirical framework, section 4 provides details on the data employed, results are discussed in section 5 and conclusion follow in section 6.

2. Literature Review

The dividend puzzle has ignited an enormous amount of applied research testing whether dividend announcements influence stock price behavior. The majority of studies have documented a positive relationship between dividend announcements and stock price movements. The studies of Charest (1978), Aharony and Swary (1980), Woolridge (1982), Divecha and Morse (1983), Dielman and Oppenheimer (1984), Eades et al (1985), Kalay and Loewenstein (1985), Aharony et al (1988), Ghosh and Woolridge (1988), Bajaj and Vijh (1990), Eddy and Seifert (1992), Bernheim and Wantz (1995), Dyl and Weigand (1998), Nissim and Ziv (2001) and Lie (2005), Akbar and Baig, 2010, Shah, 2011 generate findings that are consistent with the Information Content or dividend signaling hypothesis,. That is, dividend announcements lead to stock price changes where dividend increases lead to price increases and dividend decreases lead to price declines. The findings of Easton and Sinclair (1989), Bernartzi (1997), and Akbar and Baig, 2010 show little support for the information content of dividends, and are notable exceptions in the literature.

The afore-discussed empirical studies all focused on Anglo Saxon markets and as studies encompassed Europe and the rest of the world the results have been more varied. Easton (1991) found evidence to support the signaling hypothesis for firms listed on the Australian Stock Exchange, Beer (1993) found no evidence for the signaling hypothesis on the Belgian Stock Exchange, Conroy et al (2000) rejected the information content of dividends hypothesis for firms traded on the Tokyo Stock

exchange, while Hara and Nguyen (2005) found empirical support for the information content of divideinds hypothesis., Gurgal (2003) find support for the hypothesis in the case of the Austrian stock market and McClusky et al (2006) find support for the hypothesis on the Irish stock market. None of these studies explore the issue of the ownership concentration and the possible impact on information asymmetry and agency costs as a causative mechanism underlying the reaction of stock prices to dividend announcements. This paper, therefore, contributes to the debate through exploring how investors react to firm dividend news in the context of extreme levels of ownership concentration and by extension low levels of information asymmetry and agency costs. To the best of our knowledge, this is the first study to analyze this question in this context.

3. Empirical Approach

We test the market reaction of stock prices to dividend declarations using the event study methodology. The market is indifferent to dividend announcements if there are no statistically significant abnormal average returns – AR – as a result of the news. In addition, the cumulative average abnormal returns – CAR for all the time windows and the dividend announcements should be statistically insignificant. Lastly, there should be no statistically significant difference in the response of stock prices to various dividend announcements. This ultimately invalidates the ICH/signaling hypothesis as commonly presented.

An event-period window of ± 10 days on either side of the announcement date was used. This serves to check for evidence of leakage of dividend announcements before the event day (i.e. dividend announcement day) and that is why investors earn abnormal returns before the announcement of dividend announcement day. The regression estimates were generated using 40-day estimation periods from day -11 to day -50. The estimation period is used to predict a model of the share's returns under normal circumstances. The market risk adjusted model is the equation of estimation:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \mu_{it} \qquad (1)$$

where:

α_{it} denotes the intercept term and β_{it} is the parameter estimate.

μ_{it} is an error term

R_{it} represents return on individual stock i and R_{mt} denotes the return on the market calculated as a percentage change of the Caribbean Index in two successive days.

Using the α and β estimates obtained from equation (1) and substituting different market returns during the event window yields expected 'normal' returns, $E(R_{it})$. Under the ICH, investors are presumed to have rational expectations, hence, they price assets based on their expectations of future trend. If investors behave this way, then the expected normal return should result/prevail. Subtracting the expected 'normal' returns from the daily 'actual' stock returns gives the daily abnormal returns (AR). This is mathematically represented as follows:

$$AR_{it} = R_{it} - E(R_{it}) \qquad (2)$$

If the daily abnormal returns are statistically different from zero in the event window, then investors are rational and dividends declared do not affect stock returns. Positive and negative abnormal returns suggest the market is reacting to new information. More specifically, dividend announcements leading to an impact on stock prices can be construed as indicating variations in investors' expectations as a result of the dividend announcement. The hypothesis is tested using t-tests with robust standard errors performed on regressing cumulative abnormal returns on its mean across all companies treated as a group.

4. Data

Our sample is restricted to 31firms on Jamaica Stock Exchange and 21 firms on Trinidad Stock Exchange that paid out dividends in the 2 year period: January 1, 2011 to December 31, 2012. This yielded a total of 15,965 and 9,823 daily stock observations on Jamaica and Trinidad exchange respectively. Each industry was represented in both samples. The dividend announcements news summed to 55: 36 for Jamaica and 19 for Trinidad and Tobago. The information on each firm's daily stock price and dividend announcement was obtained from each country's stock exchange. The Caribbean market index is not quoted but imputed.

5. Empirical Results and Discussion

Table 1 and 2 contains the mean, standard deviation, minimum and maximum abnormal returns for Jamaica and Trinidad and Tobago respectively. The summary statistics are reported for each day in the event window, with day zero indicating the dividend announcement day. Both tables show presence of positive or negative abnormal returns throughout the event window (though Jamaica reveals higher magnitudes). The announcement day depict positive returns for both countries. As for Jamaica, 7 days (a third) in the event window had negative returns and the rest positive (two-thirds). Highest average abnormal return is on day 10 at0.9% while the lowest appears on day 3 at -0.3%. Among the maximum daily abnormal returns, day 10 has the largest abnormal returns of 71.5%. On the other hand of all the minimum daily abnormal returns the least took place on the fourth day (-4) prior to the dividend payment date. The standard deviation of daily abnormal returns ranges from 1.4% and 7.9%.

Table 1: Jamaica's Descriptive Statistics: Event Window Abnormal Returns

Event Day	Mean	Std. Dev.	Min	Max
-10	0.0022	0.0236	-0.0768	0.1059
-9	0.0032	0.0303	-0.0955	0.1355
-8	0.0037	0.0211	-0.0418	0.1272
-7	-0.0016	0.0166	-0.0682	0.0827
-6	0.0015	0.0182	-0.0393	0.1097
-5	0.0009	0.0166	-0.0527	0.0698
-4	0.00004	0.0242	-0.1371	0.0842
-3	-0.0006	0.0145	-0.0702	0.0278
-2	0.0013	0.0215	-0.0642	0.1285
-1	0.0034	0.0233	-0.1178	0.0658
0	**0.0025**	**0.0161**	**-0.0406**	**0.0891**
1	0.0025	0.0242	-0.0800	0.0841
2	-0.0001	0.0255	-0.0864	0.0762
3	-0.0033	0.0198	-0.0629	0.0897
4	-0.0002	0.0218	-0.0825	0.1267
5	0.0023	0.0144	-0.0265	0.0661
6	-0.0014	0.0242	-0.1300	0.1053
7	0.0036	0.0211	-0.0472	0.0839
8	-0.0019	0.0206	-0.0629	0.1195
9	0.0003	0.0196	-0.0741	0.0697
10	0.0091	0.0786	-0.0577	0.7153

Turning to Trinidad and Tobago, abnormal returns were negative about 12 days out of 21 days in the event window. Highest average abnormal return is on the

dividend event day, day 0 which is 0.3% while the lowest is recorded on day -1 at -0.3%. Of the maximum daily abnormal returns, day 2 recorded the most abnormal returns of 11%. For the minimum daily abnormal returns, the lowest is on day -1 at 16.3%. The standard deviation of daily abnormal returns revolves within a narrow range of 0.2% and 0.22%.

Table 2: Trinidad and Tobago's Descriptive Statistics: Event Window Abnormal Returns

Event Day	Mean	Std. Dev.	Min	Max
-10	-0.0011	0.0068	-0.0375	0.0151
-9	-0.0006	0.0017	-0.0069	0.0050
-8	0.0006	0.0061	-0.0071	0.0357
-7	-0.0009	0.0071	-0.0484	0.0238
-6	-0.0001	0.0040	-0.0076	0.0158
-5	0.0008	0.0069	-0.0061	0.0443
-4	-0.0002	0.0033	-0.0071	0.0213
-3	-0.0004	0.0027	-0.0072	0.0134
-2	-0.0007	0.0032	-0.0106	0.0118
-1	-0.0016	0.0215	-0.1625	0.0535
0	**0.0026**	**0.0152**	**-0.0146**	**0.1073**
1	0.0023	0.0104	-0.0144	0.0485
2	0.0023	0.0151	-0.0068	0.1104
3	-0.0002	0.0054	-0.0125	0.0365
4	0.0001	0.0032	-0.0056	0.0134
5	0.0002	0.0061	-0.0306	0.0265
6	-0.0007	0.0090	-0.0608	0.0270
7	-0.0003	0.0077	-0.0308	0.0343
8	-0.0002	0.0038	-0.0186	0.0123
9	0.0004	0.0077	-0.0151	0.0565
10	0.0008	0.0084	-0.0328	0.0426

These statistics raises an interesting question; when summed up are the average abnormal returns significantly different from zero. To answer this question, t-tests

with robust standard errors was carried out on cumulative abnormal returns reported in table 3.Five different event windows were estimated to check for robustness. In Jamaica, all windows show significant p-values at 10 percent level indicating that the country's stock exchange is inefficient in the semi-strong form. The positive mean CAR's suggest that on average the dividend announcements lead to positive total abnormal returns or increased share prices. Hence, stock prices in Jamaica react to dividend announcements indicating some new information being communicated by the dividend announcement, which is consistent with the Information Content Hypothesis despite the fact that as a result of ownership concentration investors should suffer relatively little information asymmetry and agency costs. .This suggests that even owners who are represented on the board or in management suffer from or perceive information asymmetry and/or agency costs, or that involves value dividends for reasons beyond their benefits in managing agency costs and/or redressing asymmetric information between owners and managers.

In the case of Trinidad and Tobago stock prices show no reaction to dividend announcements. This finding appears to be more consistent with standard theory in that investors who are faced with no or relatively low or little agency

Table 3: Jamaica and Trinidad and Tobago's Cumulative Abnormal Returns

JAMAICA				
Event window	**Mean CAR**	**Robust Std. Err.**	**t-value**	**p-value**
[-10,10]	0.027	0.013	2.070	0.042
[-2,15]	0.023	0.013	1.760	0.082
[-1,12]	0.021	0.012	1.800	0.074
[-12,12]	0.035	0.013	2.590	0.011
[-2,15]	0.022	0.012	1.820	0.072
TRINIDAD AND TOBAGO				
Event window	**Mean CAR**	**Robust Std. Err.**	**t-value**	**p-value**
[-10,10]	0.003	0.007	0.450	0.651
[-2,15]	0.000	0.008	0.000	0.996
[-1,12]	0.005	0.006	0.870	0.385
[-12,12]	0.002	0.008	0.220	0.824
[-2,15]	0.000	0.008	0.010	0.989

The same five windows estimated for Jamaica, where also used for Trinidad and Tobago. Results for Trinidad and Tobago are the opposite; across windows CAR's are statistically not different from zero. That is investors do not gain from dividend announcements as stock returns/prices are as expected. More precisely, investors in Trinidad and Tobago correctly anticipate the firm's share price when the firm's dividend announcements are made. According to the semi-strong form of market efficiency, this indicates that the country's stock exchange is efficient. However, in the case of Trinidad and Tobago the results should be interpreted with caution. Having CAR's not statistically different from zero may signal thin trading. The investors in Trinidad and Tobago hardly trade, hence, the share price doesn't change frequently. Thus, zero stock returns may reflect constant share prices due to thin trading or low activity and not efficiency.

The evidence of no dividend announcement impact on stock prices is consistent with findings in Bangladesh's Dhaka Stock Exchange (Uddin and Chowdury, 2005).

5. Conclusion

The study contributes to the extensive literature on semi-strong efficiency through evaluating whether the announcement of dividend has any impact on the share price of the companies announcing in the emerging markets of Caribbean. Evidence from the region is missing in literature and this study attempts to fill the gap. Thus, we employed event study methodology to a total sample of 52 firms (and 55 announcements) on Jamaica and Trinidad and Tobago Stock Exchanges for the period 2011-2012.

Our results suggest that overall dividend announcements positively influence share prices in Jamaica but have no effect in Trinidad and Tobago. The findings for Trinidad could however be reflecting the limited volume of trading on the stock exchange as opposed to evidence of semi-strong form market efficiency. In the case of Jamaica, with large trade volumes, the results can be interpreted as evidence

against semi-strong form market efficiency. These results concur with previous findings in other emerging markets and provide more evidence to the notion that dividend payments are relevant (in Jamaica) for future price determination. An interesting result for Trinidad and Tobago appears to portray dividends as irrelevant yet it's a reflection of thin trading. This sends caution to studies that document dividends as irrelevant not to misconstrue it with evidence of semi-strong market efficiency.

From Jamaica's findings, we can also infer that freely available information, dividend announcements in our case, does not imply the market becomes automatically efficient. Market efficiency, instead, is highly depended on the capabilities of market traders to obtain and disseminate information that may be price-sensitive.

This study provides new insights to investors, investment managers and policymakers about the behavior of stock market prices in Caribbean in response to dividend declarations.

References

Adelegan, O.J. (2003). Capital Market Efficiency and the Effects of DividendAnnouncements on Share Prices in Nigeria. *African Development Review*, 15, 218-236.

Akbar M., and Baig, H.H. 2010. Reaction of Stock Prices to Dividend Announcements and Market Efficiency in Pakistan *The Lahore Journal of Economics* 15 (1): 103-125.

Ali, S., and Mustafa, K. (2001). Testing Semi-Strong Form Efficiency ofStock Market. *The Pakistan Development Review*, 40, 651-674.

Aamir, M., and Shah, S.Z.A. (2011) Dvidend Announcements and the Abnormal Stock Reurtn for the Event Firm and its Rivals *Autralian Journal of Business and Management Research* 1 (8): 72-76.

Easton, A., and Sinclair, A. (1989).The Impact of Unexpected Earnings andDividends on Abnormal Returns to Equity.*Accounting & Finance*,29, 1-19.

Fama, E. (1965). The Behavior of Stock Market Prices.*Journal of Business*,38, 34-105.

Foster III, W., and Vickrey, D. (1978). The Information Content of DividendAnnouncements.*The Accounting Review*, 53, 360-370.

Graham, R.R., and Dodd, P., "Security Analysis", McGraw-Hill Book Co. 1951

John, K., and Williams, J. (1985). Dividends, Dilution and Taxes: ASignaling Equilibrium. *Journal of Finance*, 40, 1053-1070.

Lee, B. (1995). The Response of Stock Prices to Permanent and TemporaryShocks to Dividends.*Journal of Financial and QuantitativeAnalysis*, 30, 1-22.

Lonie, A.A., Gunasekarage, A., Power, D.M., and Sinclair C.D. (1996). The Stock Market Reaction to Dividend Announcements: A UK Study of Complex Market Signals. *Journal of Economic Studies*, 23, 32-52.

Miller, H., and Modigliani, F. (1961).Dividend Policy, Growth and theValuation of Shares.*The Journal of Business*, 34, 411-433.

Olweny, T. 2012. Dividend Announcement and Firm Value: A Test of Semi Strong Formof Efficiency at the Nairobi Stock Exchange, *Asian Social Science*8 (1): 161-175.

Uddin, M.H., and Chowdhury, G.M. (2005). Effect of DividendAnnouncement and Shareholders' Value: Evidence from Dhaka StockExchange. *Journal of Business Research*, 7, 61-72.