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Evidence of Dividend Catering Theory in Malaysia: Implications for Investor Sentiment

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ABSTRACT

This study investigates the key determinants of corporate performance in Malaysia. Using panel data (2002-2007) of 361 companies listed in Malaysia, the study finds dividend per share, use of debt, number of board members, and last year's performance to be the most significant determinants of corporate performance across four selected industries: trading or services, property, consumer products, and industrial products. This study also finds that dividend per share is influenced by market performance and is followed by last year's dividend and size of the dividend. These findings exhibit the presence of dividend catering incentives. As such, market demand for dividends drives corporate dividends. The study concludes that investor sentiment influences corporate decisions in Malaysia.

KEY WORDS:

dividend catering theory; investor sentiment; Malaysia

JEL Classification:

G02; G12; G32

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1. Introduction

Dividend policy is a major financial decision. Despite theories suggesting that dividend policy has no significant impact on the changes in corporate value (Miller & Modigliani, 1961), extant studies find that dividend works as a signal and influences asset valuation (Asquith & Mullins, 1983; Brickley, 1983; Grinblatt, Masulis, & Titman, 1984; Ross, 1977). Studies in behavioral finance present debates over dividend initiation, dividend desire, and dividend catering theories that exhibit an increasing amount of evidence of asset misvaluation by investors (Asquith & Mullins, 1983;

Baker & Wurgler, 2004; 2007; Subrahmanyam, 2007). Additionally, the phenomenon where financial managers time the market in view of taking advantage of investor sentiment are found to be in line with corporate value changes (Asquith & Mullins, 1983; Baker & Wurgler, 2003; Brickley, 1983). Consequently, the issue of why corporations actually pay dividends becomes an important research question at both the academic and policy levels (Daniel, Hirshleifer, & Teoh, 2002; Denis & Osobov, 2008).

A dividend is a direct form of cash flow to investors. A higher (lower) amount of dividends provides positive (negative) signals for the valuation of assets. Alongside cash dividends, studies have found that stock dividends and stock split announcements have a positive impact on stock prices (See Grinblatt, et al., 1984 and references therein). It can therefore be

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expected that dividends are perceived as tangible benefits to investors when valuing any company. Investors desire more dividends. However, Fama and French (2001) presented the disappearing dividends effect among American investors claiming that dividends are no longer an important vehicle for attracting investors. In response to this argument, Baker and Wurgler (2003; 2004) found that the propensity to pay dividends is driven by the catering incentive. The catering theory of dividends purports that corporations will pay dividends only if they perceive a demand for the same from the market (Baker & Wurgler, 2004). Thus, there will be higher dividend payouts if the market provides a premium for the stock price. It is this premium that creates the catering incentive and thus explains the corporate tendency to pay dividends. Baker and Wurgler (2004) argued that if dividend payment is influenced by stock market performance (or vice versa), investor sentiment would be a major reason behind this causal relationship. Consequently, disequilibrium in the market reveals the tendency to relate dividends to the market value of corporations.

This study examines the presence of dividend catering theory and the influential power of dividends in corporate valuation among the listed firms in Malaysia. Similar to Baker and Wurgler (2004), if corporate performance influences corporate dividend payment, the study may conclude that some performance-related motivational force is driving the propensity to pay dividends. The study also investigates the influence of different industries (such as construction and trading) on the determinants of corporate value and dividend catering incentives.

2. Dividend and Other Determinants of Corporate Valuation

A number of studies in the West and recently in emerging markets have identified a list of determinants for corporate valuation. Theoretically, better quality investments should positively influence the value of corporations in the market (Morgado & Pindado, 2003). The term quality investment, in most of the studies, refers to investments having a positive net present value. Myers (1977) found that the effect of debt financing in investment decisions was negative. Jensen (1986) argued that investment interacts with availability of free cash flow, agency conflict and corporate financing

policies when determining the value of corporations. Companies with higher debt have the opportunity to offer external stakeholders control, providing the corporations with transparency and effective checks and balances. However, involving external stakeholders may result in agency conflict, which could be flagged by investors as being a negative signal. On average, however, an increase in positive NPV projects would positively influence corporate value. Baker, Stein and Wurgler (2003) presented similar results by reporting that investment performance depends on how financing decisions are made.

The vehicle for corporate financing - debt or equity - has a significant impact on the value of corporations. Fama and French (1999) found that U.S. corporations mostly use long-term debt for expansion. These firms rely on equities only during merger and acquisition activities. Investment performance and dividend policy simultaneously influence the effect of external financing on firm performance. Although firms gain external control through debt financing (Berger & Di Patti, 2006), higher dependency on debt financing may result in poor performance given that the investment decisions are below average quality (Abor, 2005; 2007; Lang, Ofek, & Stulz, 1996). On the other hand, the use of debt positively influences the performance of reputed firms (Campello, 2006; Harris & Raviv, 1991).

The existing literature displays the effect of dividends on corporate value. Dividends work as a signal and carry both positive and negative impacts. Grinblatt, Masulis and Titman (1984) found that dividends positively influence corporate value. Baker and Wurgler (2007) discovered that dividend premiums are a significant proxy of investor sentiment in the market. They concluded, similarly to Brown and Cliff (2005), that investor sentiment works as a contrarian predictor of future stock returns, thus proving that the global presence of dividend premiums is a determinant of corporate value (See also Baker, Wurgler, & Yuan, 2009 and references therein). Lang and Litzenberger (1989) found that dividend announcements offer opportunities for earning abnormal returns. Both positive and negative announcements carry significant changes to corporate value. While explaining financial distress likelihood, Pindado, Rodrigues, and De La Torre (2008) found a positive influence of dividends on corporate value. Ahmed, Hussin and Ying (2010)

found a positive influence of dividends and earnings announcements on the stock price of 120 listed Malaysian firms. However, the influence of dividends is more significant than that of the earnings announcement.

Among other determinants of corporate value, Campello (2006) found a positive relationship between profitability and firm value. Jensen (1986) found free cash flow to be significant in explaining corporate value with respect to debt policy and agency cost. A number of studies exhibit the influence of non-financial variables (such as corporate governance related factors) on the value of the firm. Miller (1994) noted that effective corporate governance positively influences the control structure of the firm, thus balancing relationships among stakeholders. Board independence, size of the board (number of board members), managerial shareholding, and the role duality of the chief executive officer (CEO) are the common governance and board related factors that determine the financial and market value of firms (See Haniffa & Hudaib, 2006 for a summary). Analyzing 349 companies from Kuala Lumpur Stock Exchange, Haniffa and Hudaib (2006) reported a negative influence of board size and managerial shareholding on the market performance of the selected firms. Pearce and Zahra (1992) found a positive relationship between board size and firm performance, whereas other studies found a significant negative influence of large board size on firm performance (Eisenberg, Sundgren, & Wells, 1998; Haniffa & Hudaib, 2006).

Various proxies measure corporate performance. Many studies used firm performance and firm value (especially market performance and market value) interchangeably. Return on Asset (ROA) is used as a measure for financial performance (Haniffa & Hudaib, 2006), whereas Tobin's Q is reported as a proxy for financial and market performance in various studies (Chua, Eun, & Lai, 2007). Chua et al. (2007) reported that Tobin's Q is the proxy for perceived corporate value by the investors. Tobin (1969) explained the Q ratio as being the determinant of how investors reward and penalize the firms' financial decisions. Thus, Tobin's Q can work as a proxy for financial, market and investor perception. Other than Tobin's Q, various studies rely on stock price as a measure for market performance. However, due to the frequent volatility of the stock price, which requires additional analysis,

making a valid proxy from stock returns to represent firm performance is somewhat questionable.

3. Empirical Models

The major objectives of this study include determining key factors behind corporate valuation among listed firms in Malaysia to determine the influence of significant factors in different industries and to determine the presence of the dividend catering incentive in overall corporate valuation and in selected industries. Equation 1 lists a number of determinants along with the proxy for corporate value. Table 2 gives the descriptions of the variables. Haniff and Hudaib (2006) found a significant influence of different industry groups in linking corporate value and corporate governance. Their study uses data from six industries, including the consumer, trading, property, construction, plantation and industrial sectors. This study incorporates the analysis of four significantly large industries that include industrial production (IP), consumer products (CP), property (PR), and trading and service (TS). Table 1 provides descriptive statistics on industry groups. Because the number of companies under each of the four selected industries is suitable for conducting multiple regression analysis, equation (1) will be examined for four industries to compare the beta coefficients.

$$Q_{i,t} = \alpha_{i,t} + \beta_1(DPS)_{i,t} + \beta_2(DEBT)_{i,t} + \beta_3(INV)_{i,t} + \beta_4(DUAL)_{i,t} + \beta_5(BOARD)_{i,t} + \varepsilon_{i,t} \quad (1)$$

This study examines the presence of dividend catering theory in Malaysian corporations. A number of studies explain how corporate managers take advantage of high market value while announcing dividends, mergers and acquisitions, and new stock offerings (Alti, 2006; Baker & Wurgler, 2002; 2004; 2007; Lamont & Stein, 2005). According to dividend catering theory, payers will offer dividends if there is market demand for dividends. Therefore, firms that would pay dividends would be motivated by (1) corporate value of the current year (Q), (2) dividends from the previous year (DPS_{t-1}) and (3) size of the dividend paid ($DPOUT_{t-1}$). Catering incentive exists if the company provides dividends when market perception about the company is higher. Dividends of the current year may follow a trend from the previous year, which shows

Table 1. Industry Groups – Descriptive Statistics

| Industry Groups | Companies | |
|--------------------------|-----------|-----|
| | Frequency | % |
| Trading/Services (TS) | 75 | 21% |
| Property (PR) | 60 | 17% |
| Consumer Products (CP) | 50 | 14% |
| Industrial Products (IP) | 96 | 27% |
| Hotels | 6 | 2% |
| Infrastructure Companies | 5 | 1% |
| Plantation | 31 | 9% |
| Construction | 26 | 7% |
| Technology | 12 | 3% |
| Total | 361 | |

Note: Industry groups in italics were selected for further investigation. A total of 361 companies were investigated.

the tangible expectation of the investors for receiving dividends in the current year. However, there may be differences in companies offering higher and lower dividends. Investors may demand higher dividends in the current year if dividends were higher the previous year. Thus, more than an average dividend in the previous year would create a positive demand for dividends in the current year. To examine these three conditions, the study uses the following three equations.

$$DPS_{i,t} = \alpha_{i,t} + \beta_1(Q)_{i,t} + \varepsilon_{i,t} \quad (2)$$

$$DPS_{i,t} = \alpha_{i,t} + \beta_1(DPS)_{i,t-1} + \varepsilon_{i,t} \quad (3)$$

$$DPS_{i,t} = \alpha_{i,t} + \beta_1(DPOUT)_{i,t-1} + \varepsilon_{i,t} \quad (4)$$

4. Data and Method

Due to the structural differences of listing requirements and the type of operation (Haniffa & Hudaib, 2006), this study concentrates only on non-financial firms listed on the main board of Bursa Malaysia. After preliminary filtering, the final datasheet includes 361 companies having a data range of six years, ranging from 2002 through 2007. The filtering process is

primarily targeted toward reduce survivorship bias and fulfilling a balanced panel of corporate data. Nine industry classifications are chosen, with the highest 27% of the companies coming from the Industrial Products (IP) group while the lowest 1% of the companies are involved in infrastructure development (Table 1). The top four industry groups are selected for further analysis on sector-wise importance of determinants of corporate value. Based on consensus from the extant literature, five independent variables are selected, of which three are financial variables and two are corporate governance (board) related variables. The major data source is DataStream by Thomson Reuters. However, the corporate governance data were randomly checked with the annual reports of the selected companies. The selected companies are listed with the main market of Bursa Malaysia. The time range is very crucial in this study. The year 2007 was purposely chosen to reduce possible volatility due to the financial crisis that began in 2008.

The study uses panel data, which has become increasingly important in developing countries due to the paucity of time series data (Gujarati, 2003). In the panel data method, the study can control for cross section fixed effects (Baltagi, 2005). To provide a simple understanding,

Table 2. Description of Variables

| Variables | Code | Description |
|--------------------------------|--------|---|
| Tobin's Q | Q | [Market Value of Common Shares + Debt] ÷ Book Value of Assets. For a value higher than 1, investors perceive that companies are using scarce resources efficiently (Lewellen & Badrinath, 1997). Corporate investment is inefficient if the value is lower than 1. Tobin's Q is the representation of corporate value from both the financial and market perspectives. |
| Dividend per Share | DPS | [Total Dividend in Malaysian Ringgit ÷ Total Number of Shares Outstanding]. This study postulates a positive relationship between DPS and Q ratio. |
| Investment Growth | INV | [Log Natural of Investment at t=1 minus log natural of investment at t=0]. This study hypothesizes that positive growth on investment should be positively related to Q ratio. |
| Leverage | DEBT | [Total Debt ÷ Total Assets]. Debt represents the use of external funds. The study postulates that a higher use of debt will increase external monitoring and thus will contribute positively toward corporate value. |
| Role Duality of CEOs | DUAL | [Dummy Variable – coded as '1' if CEO and Chairperson is the same person, coded '0' if otherwise]. In literal governance terms, the presence of role duality will collide with the role of CEO and chairperson, which may affect values negatively. This study hypothesizes a negative relationship between DUAL and Q ratio. |
| Number of Board Members | BOARD | [Log natural of the total number of board members]. A higher number of board members raises the opportunity of conflict of interest delaying important decision making. Thus, this study assumes that BOARD is negatively related to Q ratio. |
| Others: | | |
| Size Dummy for Dividend Payout | DPOUT | [Dummy Variable – coded as '1' if the dividend per share is higher than the median dividend per share of all of the selected companies, and coded as '0' if otherwise]. Companies with large dividends will pay a higher dividend, which is a nominal expectation of the investors. If proven right, the study expects the presence of dividend catering incentive to payers. |
| Dividend per Share Lag Term | DPSt-1 | One-year lag value of Dividend per Share. |
| Q Ratio Lag Term | Qt-1 | One-year lag value of Q ratio. |

Baltagi (2005, p. 12) noted that it is better to run a fixed effect when selecting a fixed number of companies and the result is analyzed among these firms. However, a random sampling of companies from a population should produce a random effect. Researchers can check whether to conduct fixed or random effects based on secondary tests, such as the Hausman test. If the analysis rejects the null hypothesis, the study should concentrate on the fixed effect (Ahn & Moon, 2001). Hausman statistics follow Chi Square distribution with k degrees

of freedom, where k is the number of independent variables. To fulfill the objective, the study conducted three sets of analyses. In the first stage, the study used multiple regressions involving the Q ratio as the dependent variable and the other five independent variables (given in equation 1) to examine the determinants of corporate value. In the second stage, equation (1) is tested for each of the four top industries. In the third stage, equations (2), (3) and (4) are tested to examine the presence of dividend catering.

Table 3. Descriptive Statistics

| Variable | Q | DPS | INV | DEBT | DUAL* | BOARD | DPOUT* |
|--------------|--------|--------|--------|--------|--------|--------|--------|
| 2002 | 0.9757 | 0.0605 | 0.0496 | 0.2293 | 0.2767 | 7.7956 | 0.4970 |
| 2003 | 0.9760 | 0.0605 | 0.0497 | 0.2296 | 0.2763 | 7.7956 | 0.4975 |
| 2004 | 0.9759 | 0.0605 | 0.0500 | 0.2304 | 0.2763 | 7.7982 | 0.4972 |
| 2005 | 0.9764 | 0.0605 | 0.0499 | 0.2301 | 0.2758 | 7.7952 | 0.4975 |
| 2006 | 0.9767 | 0.0605 | 0.0501 | 0.2304 | 0.2753 | 7.7952 | 0.4975 |
| 2007 | 0.9769 | 0.0605 | 0.0501 | 0.2307 | 0.2753 | 7.7966 | 0.4979 |
| Mean | 0.9763 | 0.0605 | 0.0499 | 0.2301 | 0.2760 | 7.7961 | 0.4974 |
| Max | 15.306 | 2.5700 | 3.7188 | 0.9265 | 1.0000 | 20.000 | 1.0000 |
| Max - Sector | IP | CP | Tech. | CP | 27%** | TS | 50%*** |
| Min | 0.0404 | 0.0000 | -3.927 | 0.0000 | 0.0000 | 3.0000 | 0.0000 |
| Min - Sector | PR | PR | TS | CP | - | IP | - |

Notes: Q = Tobin's Q ratio, DPS = Dividend per share, INV = Growth of investment, DEBT = Percentage of debt to total asset, DUAL = Dummy variable for CEO Duality, BOARD = Log natural of the board size, DPOUT = Dummy used for dividend pay-out. Max-sector = Reports the maximum value by any sector.

Min-sector = Reports the minimum value by any industry.

* Dummy Variables are shown as percentage count (percentage of 1 and 0).

** 27% firms had CEO duality, *** 50% firms paid dividends higher than the median value.

5. Discussion of the Findings

Table 3 provides a number of descriptive statistics. Industrial production (IP) produces the highest Q ratio (Q_{t-1}) among the selected sample, which is theoretically settled. Additionally, IP has the lowest number of board members (3 members). The consumer products (CP) industry provides the highest DPS for Ringgit Malaysia (RM) of 2.57. Companies from this industry borrow the highest and lowest outside capital (DEBT) (92.65% and 0.00%). Growth of investment (INV) is the highest for technology (TECH) companies. Trading and services (TS) has the lowest investment growth. The property (PR) industry exhibits the lowest Q ratio (of 0.04) and DPS (of RM 0.00). Approximately 27% of the companies' CEOs also act as chairman of the board. Approximately 50% of the companies offer higher than median dividends per share, thus opening a sentiment dilemma for the market. The average Q Ratio of 0.97 is close to the findings of Haniffa and Hudaib (2006) and Chua et al. (2007). The average board size (of 7.79) and duality of CEO (present in 27% companies) are similar to the find-

ings of Haniffa and Hudaib (2006). The results of the Hausman test (Table 4) reject the null hypothesis, hence supporting fixed effects models.

5.1. Key Determinants of Corporate Valuation

Table 5 shows a number of key indicators explaining corporate value (Q ratio) for the Malaysian market. As expected from the literature, Dividend per Share (DPS) is robust between the total sample and the three (out of four) industry groups. DPS represents approximately 21% (highest) and 14% (second highest) of changes in the Q ratio in the PR industry and the total sample, respectively. Similar to Grinblatt et al. (1984), cash DPS positively influences corporate value. Table 5 shows that INV negatively influences corporate value because INV becomes negatively significant for almost all groups. Additionally, the economy was slowly approaching a financial crisis (the study sample examines the years 2002 to 2007 and the years 2008 to 2009 in order to observe the recent global financial crisis). Thus, the market reacts negatively toward newer investments that may result in a low net present value (Morgado & Pindado, 2003).

Table 4. Hausman Test for Fixed or Random Effect Selection (Total Sample)

| H0: Random Effects are Efficient | | | |
|---|-----------|-------|--------|
| H1: Fixed Effects are Efficient | | | |
| Dependent Variable: TOBINS Q | | | |
| | χ^2 | d. f. | Prob. |
| Cross-section random | 37.907045 | 9 | 0.0000 |
| Decision: Fixed Effects are efficient. | | | |

Table 5. Determinants of Performance (Eq. 1) (Standardized Beta Coefficient)

| Variables | Total Sample | Trading/Services (TS) | Property (PR) | Consumer Products (CP) | Industrial Products (IP) |
|---------------|--------------|-----------------------|---------------|------------------------|--------------------------|
| C (Intercept) | -0.00808 *** | -0.00732 | -0.17827*** | 0.076548*** | 0.044647*** |
| DPS | 0.140373*** | 0.052552 | 0.219838*** | 0.105296*** | 0.036652*** |
| INV | -0.01053*** | -0.04789*** | 0.055655*** | -0.00088 | -0.04967*** |
| DEBT | 0.096645*** | 0.091207*** | 0.172434*** | 0.173631*** | 0.000586 |
| DUAL | 0.001288 | 0.01344 | 0.020445*** | -0.00369 | -0.00865 |
| BOARD | -0.01013*** | -0.01514** | -0.00092 | 0.033449** | -0.01741** |
| Q(t-1) | 0.237595*** | 0.361048*** | 0.064513 | 0.109916* | 0.217885*** |
| R2 | 0.93 | 0.95 | 0.84 | 0.94 | 0.88 |
| Adj. R2 | 0.91 | 0.94 | 0.80 | 0.92 | 0.85 |
| DW | 1.99 | 1.96 | 1.90 | 2.00 | 2.08 |

Notes: *** = Significant at 1%, ** = at 5% and * = at 10%.

Dependent Variable: Tobin's Q, Qt-1 = Performance at lag 1, DW = Darbin-Watson.

Corporate value in property (PR) and consumer products (CP) industries exhibits a higher positive influence of 17% in both cases compared to other industry groups. Positive debt and negative investment results are in line with Myers (1977) because it is expected that the investment decisions were below the average standard as the financial crisis was approaching. However, similar to Jensen (1986), higher debt may result in better stakeholder control over firm management, thus resulting in positive debt-value relationships. Given the negative debt-investment relationship, similar

to Lang et al. (1996), a positive debt-value relationship is possible because the Malaysian firms are not heavily dependent on debt (average DEBT is 23% (Table 3). Duality is insignificant in almost all sectors except for property. It was interesting to observe a conflict between duality and the lag value of the Q ratio, which may lead to challenging future research on governance and firm performance.

A large number of board members (BOARD) exhibit mixed results as a determinant of value. However, for the total sample, TS, IP and BOARD negatively influence

Table 6. Test of Dividend Catering Incentive

| Variables | Total Sample | Trading/Services (TS) | Property (PR) | Consumer Products (CP) | Industrial Products (IP) |
|--|--------------|-----------------------|---------------|------------------------|--------------------------|
| Equation 2: DPS and Q Ratio | | | | | |
| C (Intercept) | 0.000 | -0.05*** | 0.000 | 0.412*** | -0.057*** |
| Q | 0.0177*** | 0.000 | -0.19*** | 0.157*** | 0.0046 |
| Adj. R ² | 0.96 | 0.95 | 0.99 | 0.963 | 0.92 |
| DW | 1.53 | 1.48 | 1.26 | 1.658 | 1.71 |
| Equation 3: DPS and DPS _(t-1) | | | | | |
| C (Intercept) | 0.016 | -0.090*** | -0.07*** | 0.36*** | -0.05** |
| DPS _(t-1) | 0.099*** | -0.422*** | 0.565*** | 0.19*** | -0.175*** |
| Adj. R ² | 0.81 | 0.788 | 0.89 | 0.97 | 0.47 |
| DW | 2.035 | 1.397 | 2.34 | 2.52 | 2.64 |
| Equation 4: DPS and DPOUT | | | | | |
| C (Intercept) | -0.149*** | -0.16*** | -0.27*** | 0.27*** | -0.17*** |
| DPOUT | 0.30*** | 0.245*** | 0.204*** | 0.225*** | 0.246*** |
| Adj. R ² | 0.81 | 0.73 | 0.86 | 0.96 | 0.46 |
| DW | 1.78 | 2.968 | 1.05 | 1.62 | 2.65 |

Notes: *** = Significant at 1%, ** = at 5% and * = at 10%.

Dependent Variable: Tobin's Q, Qt-1 = Performance at lag 1, DW = Darbin-Watson

the Q ratio. Haniffa and Hudaib (2006) found a negative relationship between the number of board members and value. Conflict of interest is the primary reason behind such relationships. The previous year's performance (Q_{t-1}) also influences the current year's performance and boosts the R² of the estimates. The variable is robust across all of the sectors and is consistent with the suggestions of Haniffa and Hudaib (2006). Table 5 shows that the R² of the estimates are significantly above conventional norms. Additionally, the Durbin Watson (DW) statistics are under control. Higher standardized beta coefficients of DPS and $Q_{(t-1)}$ lead to further inquiry on the dividend catering incentive.

5.2. Dividend Catering

Dividend catering theory argues that corporations offer dividends if there is market demand for dividend pay-

ment. Thus, to examine the existence of dividend catering incentives, equations (2), (3) and (4) should be significant and robust across industries. Table 6 highlights the tests for these three equations for the total sample and for four industry groups. One of the major arguments behind dividend catering theory is that market value drives the propensity to pay dividends. Table 6 shows that the Q ratio (proxy for market performance) significantly influences DPS. The standardized beta coefficients are high (19% and 15.7%) for PR and CP, respectively. The total sample exhibits a similar pattern. Both positive and negative signs explain dividend catering incentives. A positive coefficient should increase the DPS with the increase in Q or otherwise with a negative coefficient. This clearly shows that the market drives dividend payments, positively or negatively. Hence, the sentiment of the market influences dividend decisions.

Table 7. Combined Model (Total Sample)

| Variable | Beta Coefficient |
|---------------|------------------|
| DPS | 0.133*** |
| DEBT | 0.094*** |
| BOARD | -0.006*** |
| DPOUT | 0.058*** |
| Q(t-1) | 0.226*** |
| C (Intercept) | -0.03*** |
| Adj. R2 | 0.911 |
| DW | 2.00 |

Notes: Beta Coefficients are standardized

*** = Significant at 1%, ** = at 5% and * = at 10%.

Dependent Variable: Tobin's Q.

The market may also expect that the company with a positive dividend the previous year may offer dividends in the current year. In equilibrium, dividends from the previous year should not be related to dividends in the current year. Dividends therefore depend on factors other than dividends from the previous year. Table 6 shows that dividends from the previous year (DPS_{t-1}) significantly influence the current year's dividends. Among the sectors, trading TS and PR are the two sectors with very high coefficients. Additionally, investors may expect that the companies with higher dividends may continue to pay higher dividends. Thus, they will expect higher dividends and by the grace of catering incentives, managers should look for sources of income to provide higher dividends. The proxy for higher dividends, DPOUT, significantly influences DPS in all sectors as well as the total sample. The beta coefficients are also high. Thus, market forces drive corporations and investor sentiment while paying higher dividends. Three of our proxies, through equations 2, 3 and 4, establish that corporate managers time the market for their dividend announcement activity. Baker and Wurgler (2003; 2004) theoretically support the performance proxy (DPS and Q in equation 2) and size proxy (DPS and DPOUT).

5.3. A Comprehensive Model

After analyzing the dividend catering incentive, the study revises the preliminary estimates of the key determinants. Table 7 exhibits robust results for DPS, DEBT, BOARD and $Q_{(t-1)}$. The study finds a new variable, DPOUT, significant while explaining the changes in corporate value in Malaysia. Additionally, the R^2 and DW statistics for the estimates are satisfactory. Among these variables, $Q_{(t-1)}$ is the most influential variable, followed by DPS, DEBT, DPOUT and BOARD.

6. Conclusion

Dividend catering theory asks two basic questions: are dividends important in corporate valuation, and if yes, does market performance lead to a corporate propensity to pay dividends? This study used a panel data of 361 Malaysian listed companies and found that dividends per share significantly influence corporate value across industries. Thus, dividends become a tangible demand of the market. While investigating the reason, the study found that market performance significantly influences dividend per share, the previous year's dividend and dividend size. These tests prove that dividends in corporate Malaysia are significantly influenced by market demands, thus creating a dividend catering incentive in Malaysia. The dividend catering

incentive creates disequilibrium in the market because it leads to the conclusion that corporations pay dividends not because they have a reserve of income but because investors want dividends as a tangible income. Thus, investor sentiment plays a crucial role in dividend payout decisions in Malaysia.

References

- Abor, J. (2005). The Effect of Capital Structure on Profitability: An Empirical Analysis of Listed Firms in Ghana. *The Journal of Risk Finance*, 6 (5), 438-445.
- Abor, J. (2007). Debt Policy and Performance of SMEs: Evidence from Ghanaian and South African Firms. *The Journal of Risk Finance*, 8 (4), 364-379.
- Ahmed, A., Hussin, B. M., & Ying, T. C. (2010). Semi-Strong Form Efficiency: Market Reaction to Dividend and Earnings Announcements in Malaysian Stock Exchange. *The IUP Journal of Applied Finance*, 16 (5), 36-60.
- Ahn, S. C., & Moon, H. R. (2001). *Large-N and Large-T Properties of Panel Data Estimators and the Hausman Test*. Paper presented at the 10th International Conference on Panel Data, Berlin, July 5-6, 2002, International Conferences on Panel Data.
- Alti, A. (2006). How Persistent is the Impact of Market Timing on Capital Structure? *The Journal of Finance*, 61 (4), 1681-1710.
- Asquith, P., & Mullins, D. W. (1983). The Impact of Initiating Dividend Payments on Shareholders' Wealth. *Journal of Business*, 56 (1), 77-96.
- Baker, M., Stein, J. C., & Wurgler, J. (2003). When Does the Market Matter? Stock Prices and the Investment of Equity-Dependent Firms. *Quarterly Journal of Economics*, 118 (3), 969-1005.
- Baker, M., & Wurgler, J. (2002). Market Timing and Capital Structure. *The Journal of Finance*, 57 (1), 1-32.
- Baker, M., & Wurgler, J. (2003). Appearing and Disappearing Dividends: The Link to Catering Incentives. *Journal of Financial Economics*, 73 (2), 271-288.
- Baker, M., & Wurgler, J. (2004). A Catering Theory of Dividends. *The Journal of Finance*, 59 (3), 1125-1165.
- Baker, M., & Wurgler, J. (2007). Investor Sentiment in the Stock Market. *Journal of Economic Perspectives*, 21 (2), 129-151.
- Baker, M. P., Wurgler, J. A., & Yuan, Y. (2009). Global, Local, and Contagious Investor Sentiment (Working paper No. 37). Federal Reserve Bank of Dallas.
- Baltagi, B. H. (2005). *Econometric Analysis of Panel Data* (3rd ed.). New York, NY: John Wiley and Sons Ltd.
- Berger, A. N., & Udell, P. (2006). Capital Structure and Firm Performance: A New Approach to Testing Agency Theory and an Application to the Banking Industry. *Journal of Banking & Finance*, 30 (4), 1065-1102.
- Brickley, J. A. (1983). Shareholder Wealth, Information Signaling and the Specially Designated Dividend: An Empirical Study. *Journal of Financial Economics*, 12 (2), 187-209.
- Brown, G. W., & Cliff, M. T. (2005). Investors Sentiment and Asset Valuation. *Journal of Business*, 78 (2), 405-440.
- Campello, M. (2006). Debt Financing: Does It Boost or Hurt Firm Performance in Product Markets? *Journal of Financial Economics*, 82 (1), 135-172.
- Chua, C. T., Eun, C. S., & Lai, S. (2007). Corporate Valuation around the World: The Effects of Governance, Growth, and Openness. *Journal of Banking & Finance*, 31 (1), 35-56.
- Daniel, K., Hirshleifer, D., & Teoh, S. H. (2002). Investor Psychology in Capital Markets: Evidence and Policy Implications. *Journal of Monetary Economics*, 49 (1), 139-209.
- Denis, D. J., & Osobov, I. (2008). Why Do Firms Pay Dividends? International Evidence on the Determinants of Dividend Policy. *Journal of Financial Economics*, 89 (1), 62-82.
- Eisenberg, T., Sundgren, S., & Wells, M. T. (1998). Larger Board Size and Decreasing Firm Value in Small Firms. *Journal of Financial Economics*, 48 (1), 35-54.
- Fama, E. F., & French, K. R. (1999). The Corporate Cost of Capital and the Return on Corporate Investment. *The Journal of Finance*, 54 (6), 1939-1967.
- Fama, E. F., & French, K. R. (2001). Disappearing Dividends: Changing Firm Characteristics or Lower Propensity to Pay? . *Journal of Financial Economics*, 60 (1), 3-43.
- Grinblatt, M. S., Masulis, R. W., & Titman, S. (1984). The Valuation Effects of Stock Splits and Stock Dividends. *Journal of Financial Economics* 13 (4), 461-490.
- Gujarati, D. (2003). *Basic Econometrics* (4th ed.). New York, NY: McGraw-Hill.

- Haniffa, R., & Hudaib, M. (2006). Corporate Governance Structure and Performance of Malaysian Listed Companies. *Journal of Business Finance & Accounting*, 33 (7-8), 1034-1062.
- Harris, M., & Raviv, A. (1991). The Theory of Capital Structure. *Journal of Finance*, 46 (1), 297-355.
- Jensen, M. C. (1986). Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers. *The American Economic Review*, 76 (2), 323-329.
- Lamont, O. A., & Stein, J. C. (2005). Investor Sentiment and Corporate Finance: Micro and Macro. *American Economic Review*, 96 (2), 147-151.
- Lang, L., Ofek, E., & Stulz, R. M. (1996). Leverage, investment, and firm growth. *Journal of Financial Economics*, 40 (1), 3-29.
- Lang, L. H. P., & Litzenberger, R. H. (1989). Dividend Announcements. Cash Flow Signalling vs. Free Cash Flow Hypothesis? *Journal of Financial Economics*, 24 (1), 181-191.
- Lewellen, W. G., & Badrinath, S. G. (1997). On the Measurement of Tobin's q . *Journal of Financial Economics*, 44 (1), 77-122.
- Miller, M. H. (1994). Is American Corporate Governance Fatally Flawed? *Journal of Applied Corporate Finance*, 6 (4), 32-39.
- Miller, M. H., & Modigliani, F. (1961). Dividend Policy, Growth, and the Valuation of Shares. *Journal of Business*, 34 (4), 411-433.
- Morgado, A., & Pindado, J. (2003). The underinvestment and overinvestment hypotheses: an analysis using panel data. *European Financial Management*, 9 (2), 163-177.
- Myers, S. C. (1977). Determinants of Corporate Borrowing. *Journal of Financial Economics*, 5 (2), 147-175.
- Pearce, J. A., & Zahra, S. A. (1992). Board Composition from a Strategic Contingency Perspective. *Journal of Management Studies*, 29 (4), 411-438.
- Pindado, J., Rodrigues, L., & De La Torre, C. (2008). Estimating Financial Distress Likelihood. *Journal of Business Research*, 61 (9), 995-1003.
- Ross, S. A. (1977). The Determination of Financial Structure: The Incentive Signalling Approach. *Bell Journal of Economics*, 8 (1), 23-40.
- Subrahmanyam, A. (2007). Behavioural Finance: A Review and Synthesis. *European Journal of Financial Management*, 14 (1), 12-29.
- Tobin, J. (1969). A general equilibrium approach to monetary theory. *Journal of money, credit and banking*, 1 (1), 15-29.

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