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1. November 2009

Online at <https://mpra.ub.uni-muenchen.de/23841/>
MPRA Paper No. 23841, posted 12. July 2010 13:31 UTC

Dividend Yield and Stock Return In Different Economic Environment: Evidence from Malaysia

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Abstract: This study investigates the relationship between dividend yields and stock returns in bull and bear markets. Evidences from developed countries show that there should be a positive correlation between dividend yields and stock return in bear markets and a negative correlation between dividend yields and stock return during the bull markets. Findings of this study, in emerging market content, show that there is a positive relation between dividend yield and stock returns in both bull and bear markets which are not consistent with previous works.

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1. Introduction

Three types of financial decisions influencing the value of the firm are investment decision, financing decision, and dividend decision. These are also interdependent. The investment decision will affect future earnings and potential future dividend. However, dividend decision will influence the amount of equity capital in a firm's capital structure and so affect the cost of capital. Although these interrelations exist, the ultimate goal of managers in making all of these decisions is to maximize shareholder's wealth. So, dividend policy decision has a great role in maximizing firm value in particular and shareholder's wealth in general. Moreover, dividend is also important because under normal conditions and for long term investors, dividend is the only way that they could benefit from the company. In rare situation of liquidation, investors benefit from the company's assets. Amount of dividends are determined by board of directors and can vary between zero dividend to all of present and past retained earnings. Besides, dividend is real and off value. So, shareholders can use it in any proper way. Most companies keep dividends at a level which they can afford to pay in long run, no matter how was the earning in the year is. Dividend yields of shares keep a close relation to the fixed deposit and interest rates. So, one defensive or conservative strategy in investment is to buy stocks which pay high dividends.

Many theories like information asymmetric, suggest a relationship between dividend and stock return, but it is an empirical research question for many years. Although there are some debates, a general correlation between dividend yields and stock return was found empirically.

Dividend yield is a good predictor of stock return, but their relation in different market conditions is questionable. Bull and bear markets are defined differently by scholars, especially in terms of time horizon or selection criterion (Bhaduri & Durai, 2006; Chen, 1982; Cohen, Zinbarg, & Zeikel, 1973; Fabozzi & Francis, 1977; Gombola & Liu, 1993; Kim & Zumwalt, 1979; Lockwood & McInish, 1990; Weisenberger, 1984; Wood, McInish, & Ord, 1985). Bull markets generally interpreted as a booming or rising economics. On the other hand, bear markets is generally perceived as a declining economy. So, investors may interpret same variable (dividend yield) differently in different market conditions. Previous studies regarding the relation between dividend yields and stock return show that investors generally anticipate a low dividend yield in bull markets. It may be rationale because, in a bull markets firms will have better investing opportunities. In order to finance the growth projects internally, they will pay fewer amounts of dividends, so dividend yield and stock return will have a negative relation during bull markets. In contrast, in bear markets they may face problems finding new growth opportunities, so firms tend to pay more dividends to maintain their stock price by showing their strength. Hence, the relationship between dividend yields and stock returns in bear markets would be a positive relation.

Previous studies (Gombola & Liu, 1993; Gwilym, Morgan, & Thomas, 2000) about this issue were mainly done in developed markets but there are not significant works from emerging

markets and especially from Malaysia. However, a number of studies on dividend policy and dividend behavior have been done on Malaysian firms. In a survey study, Isa (1992) found that Malaysian firms follow stable dividend policy and a number of internal and external factors govern these policies. Kester & Isa (1996) also confirmed these results. Annuar & Shamsher (1993) and Sing & Gupta (1994) confirmed the applicability of Lintner (1956) model for Malaysian firms. Joher, Shamsher, & Annuar (2002) found that profitability in terms of firms earning is the only factor among Malaysian listed companies in determining dividend policy decision. They also found that size of companies, leverage, and investment opportunities provide some explanation for dividend policy choice, although it is not statistically significant. Pandey (2001) in the study of dividend policy and behavior of Malaysian firms found that large number of Malaysian firms increase payment of dividend when their earnings increase. Malaysian firms are also very prompt in omitting dividends when they suffer losses. However, a number of firms try to maintain dividends when their earnings fall. Dividend actions of Malaysian firms are very sensitive to earning changes. Pandey also proved the validity of the Lintner's model in Malaysian market. In his study, he also shows that Malaysian firms rely on both past dividend and current earnings in deciding the current period's payments of dividends.

The relation between dividend yields and stock returns in different market conditions is still questionable and vague among financial scholars, managers, academicians and shareholders. The significance of this study was to help investor's forecasting by giving them clarification information about the dividend yields and stock returns relationship based on the general market condition. This can help them in their decision making about portfolio generating. Although many works have been done up to now, but more studies are needed to be conducted to ascertain this relation in various time horizons and markets.

The purpose of this study is to identify the correlation between dividend yields and stock returns in different market conditions in Malaysian stock market and checking the possibility of providing another evidence for time variation in the relation between dividend yields and stock return during bull and bear markets.

2. Data and Method

In this study, relation between dividend yields and stock returns in different market conditions is analyzed for a context of 60 KLCI stocks for a period of 66 months from January 2000 until June 2005. This period is set in order to satisfy a long term study's objective. In order to select firms, list of firms were sorted on the basis of dividend yields. Then, the first 20 percent, the last 20 percent, and the middle 20 percent firms were selected and set to three portfolios of high-, medium, and low- dividend yield companies. Data are extracted from DataStream database.

In order to be consistent with Gombola & Liu (1993) Bhaduri & Durai (2006), the relative up/down definition of market condition is used. Here, if the market return at time period t is

greater than the time period t-1 then t time period has been considered bull market and if the value at t time period is less than t-1 then it will be considered as bear market. This definition is particularly have been chosen because other factors such as risk free rate or interest rate is generally fixed by the Malaysian central bank (Bank Negara), so they could not be a good evaluation criteria.

Dividend Yield and Stock Return were calculated in the same way as Gombola & Liu (1993). The firms are selected from 100 KLCI companies. In order to select firms, list of firms were sorted on the basis of dividend yields. Then, the first 20, the middle 20, and the last 20 firms were selected and set to three portfolios of high-, medium, and low- dividend yield companies, respectively.

In order to find the relation between dividend yield and stock return more specifically during bull and bear markets, regression analysis was conducted on sample data. Initially, regression model performed was just based on the concurrent month's dividend yield as follow.

$$R_{it} = \alpha + \beta_1 DY_{it} + \varepsilon_t \quad (1)$$

As it's regarding f-value suggests, results for the regression analysis were not significant in any case. Hence, this analysis is not statistically revealing any significant relationship between dividend yield and stock return. Finding a significant relation between dividend yield (DY) and returns, regression formula was modified to a lagged multiple regression analysis by adding the lagged dividend yield term to the equation (1), which would result in following equation (2). The following regression equation was used to test whether there is a relationship between dividend yield and stock return.

$$R_{it} = \alpha + \beta_1 DY_{it} + \beta_2 DY_{it-1} + \varepsilon_t \quad (1)$$

Where

R_{it} = stock portfolio return for i^{th} portfolio for period t

α = regression constant

β_1, β_2 = coefficients to be estimated

DY_{it} = dividend yield for i^{th} stock portfolio for period t

DY_{it-1} = dividend yield for i^{th} stock portfolio for period t-1

ε_t = error term

3. Empirical Results

3.1 Descriptive Statistics

During period of this study, January 2000 – June 2005, dividend yields in some companies were as low as 0 and the highest dividend yield observed was 15.53% for Dialog Group as in year 2005. These stocks had average dividend yields of 2.31 over the whole period. During period of this study, there were always some companies with a zero dividend yield, but the number of such companies was shrinking over time. In order to analyze data, three portfolios were set up. Average dividend yield of portfolios for each year was shown in Table 1.

In another view as depicted in Table 2, different portfolio returns are calculated and as a result we can see that high dividend yield portfolios (and therefore high dividend stocks) generates higher returns in overall market condition. Moreover, they generate higher returns in bear markets (smaller negative terms) which is consistent to Gombola and Liu (1993). It suggests that high dividend stocks are more resistant to declines in markets which are consistent to the conjectures of Blume (1980). In contrast, high dividend portfolio generates lower returns in bull market which is also consistent with the results of Gombola and Liu (1993).

3.2 Findings and Discussion

As Table 3 shows, dividend yields have a statistically significant relation with stock return in all regressions. Regression analysis conducted for High dividend yield portfolio (High DYP), Medium dividend yield portfolio (Med DYP), and Low dividend yield portfolio (Low DYP) over the whole study period show a significant positive relation between lagged term (DY_{it-1}) and return. This indicates that, generally, the higher the dividend yield, the higher the stock returns. This is consistent with the notion that, a share with a higher yield will cause investors to pursue such share, thus, resulting into an increase in stock price, eventually earning a higher stock return for investors.

Regression analysis conducted for High dividend yield portfolio (High DYP), Med dividend yield portfolio (Med DYP), and Low dividend yield portfolio (Low DYP) over the Bear market shows a significant positive relation between lagged term (DY_{it-1}) and return. This indicates that the higher the dividend yield, the higher the stock returns in bear market. This finding is consistent with the findings of previous empirical researches (Bhaduri & Durai, 2006; Chen, 1982; Gombola & Liu, 1993; Gwilym et al., 2000).

Regression analysis conducted for High dividend yield portfolio (High DYP), Med dividend yield portfolio (Med DYP), and Low dividend yield portfolio (Low DYP) over the Bull market shows a significant positive relation between lagged term (DY_{it-1}) and return. This indicates that the higher the dividend yield, the higher the stock returns. However, this is not in consistency with previous works done in developed countries. Generally, in bullish market, companies may reduce or even omit their dividend in exchange for anticipated future earnings. So, in line with the pecking order theory (Myers & Majluf, 1984), and in anticipation of favorable market condition, firms' needs to finance expansion projects are

mostly financed from internal sources, mainly by cutting dividends. In contrast to company's perspective, investors' perception is that if they forgo concurrent dividend, they may benefit from the future earnings. However, results of this study show that in the context of Malaysia, this is not the actual case and trend.

There is an inconsistency between findings of this study and previous works. Previous works have found that dividend yield is positively related to return during bear markets but negatively related to return during bull markets. However, this study resulted in different outcomes. This difference might be due to some fundamental difference between Malaysian stock markets and those of other markets. One possible reason is taxation effect. Malaysia does not have the double taxation rule, i.e., dividends are tax exempt. Thus, there is a preference toward higher dividends in Malaysia. Moreover, another possible reason is the difference in ownership structure of Malaysian firms. About 60% of Malaysian firms are institutional investors, Government Linked Companies (GLC) or family owned companies and these types of owners typically require higher dividends. For the GLCs the easiness of access to debt market stimulates the higher payment of dividends. These issues need more and in-depth study. The taxation and ownership structure reasons along with other reasons such as investors' preference, might have given dividend yield an extra credit in determination of variations of returns. However, this finding is consistent with previous works on the Malaysian dividend policy mentioned before, i.e. there is a tendency for stable dividend policy among Malaysian firms.

Furthermore, there is one other major difference in this study and other studies done in developed markets especially US market. In previous studies done in developed markets the analysis was based on the relationship of dividend yields and stock returns in the same month. They found significant relation between dividend yield and return of the same month. However, this relation is not significant in Malaysian case, as mentioned before. But, a one month lagged regression analysis resulted to statistically significant results in Malaysian market. This means that Malaysian stock market participants take up to one month to fully adjust the news regarding dividend yields. This might be a result of market imperfection in Malaysia. This is consistent with findings of other studies done on Malaysian stock market. However, this reason needs further study.

In summary, dividend yield has a significant relation with return in Malaysian market. Concurrent month's dividend yield has a negative relation with return, while one month lagged dividend yield has positive relation to return. This relation is not sensitive to market condition in terms of sign; however its magnitude changes as market condition changes. Positive relation of dividend yield and return during bear market is consistent with previous studies but positive relation of dividend yield and return in bull market is not consistent with previous works.

4. Conclusion

This study highlights the possibility for the Malaysian long term investors of using dividend yield to measure the value of stocks before buying the shares in different market conditions.

To a certain extent, the results have been able to establish that there exist a significant relationship between dividend yields and stock returns without concerning to market condition. The higher the dividend yield, the higher the stock return would be.

This study found that there is an inconsistency between Malaysian stock market's reactions to market condition with other markets, especially developed markets. In developed markets, there is a significant positive relation between dividend yield and stock return in bear market and a significant negative relation between dividend yields and stock return in bull market. In contrast to this, in Malaysian stock market, there exist a significant positive relation between dividend yields and stock returns both in bull and bear markets. This inconsistency might be of most interest for international investors in order to diversification their international portfolios in different countries in bull and bear markets.

Table 1: Dividend Yield for Each Portfolio over Study Period

Portfolio \ Year	2000	2001	2002	2003	2004	2005
High	4.19	5.49	5.58	5.40	5.14	5.49
Med	1.33	2.68	2.53	2.54	2.23	2.63
Low	0.50	0.96	1.08	1.05	0.92	0.94

Table 2: Portfolio Returns during the bull and bear markets

Dividend Yield Portfolio	Average Dividend Yield	Average Monthly Return	Average Monthly Return in Bull Market	Average Monthly Return in Bear Market
High DYP	4.98	0.76	4.73	-3.20
Med DYP	2.24	0.65	4.86	-3.56
Low DYP	0.89	0.52	5.69	-4.66

Table 3: Results of Multiple Lagged Regressions

	Intercept		Dividend Yield		Lagged Dividend Yield		p-value	R Square
	Coefficient (t stat)	Standard Error	Coefficient (t stat)	Standard Error	Coefficient (t stat)	Standard Error		
Pooled Regression – High DYP	2.74728 (0.69720)	3.94045	-14.12132 (-9.10618) ***	1.55074	13.79196 (8.90542) ***	1.54872	0.00000	0.58343
Pooled Regression – Med DYP	-0.59771 (-0.21111)	2.83127	-18.02152 (-4.73066) ***	3.80951	18.70357 (5.02926) ***	3.71895	0.00002	0.28983
Pooled Regression – Low DYP	-1.81100 (-0.72375)	2.50226	-86.48191 (-9.92356) ***	8.71480	89.62292 (10.71672) ***	8.36291	0.00000	0.65079
Bull Market – High DYP	9.65042 (1.60760)	6.00300	-5.24211 (-3.47021) ***	1.51061	4.29045 (2.78064) ***	1.54297	0.00577	0.29919
Bull Market – Med DYP	5.33182 (1.44286)	3.69532	-5.77974 (-2.03447) **	2.84091	5.58793 (2.10002) **	2.66089	0.11395	0.13911
Bull Market – Low DYP	4.23148 (1.08607)	3.89613	-24.29051 (-3.16174) ***	7.68265	25.94258 (3.77560) **	6.87112	0.00304	0.32957
Bear Market – High DYP	-6.57268 (-1.16786)	5.62797	-2.33049 (-1.33994)	1.73925	3.01106 (1.78497) *	1.68690	0.21892	0.09946
Bear Market – Med DYP	-7.02584 (-2.42965) **	2.89170	-5.12999 (-1.93750) *	2.64773	6.76368 (2.67961) ***	2.52413	0.02843	0.21772
Bear Market – Low DYP	-9.97768 (-2.48450) **	4.01598	-18.33362 (-1.83235) *	10.00553	24.55036 (2.64584) ***	9.27885	0.02222	0.23090

Notes: *: 10% significance level
 **: 5% significance level
 ***: 1% significance level

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