



The information content of cash dividend announcements in a unique environment

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ARTICLE INFO

Article history:

Received 9 November 2009

Accepted 2 March 2010

Available online 15 March 2010

JEL classification:

D82

G14

Keywords:

Dividends

Tax effects

Information content

Price reaction

ABSTRACT

Due to its distinctive institutional background, Oman offers a valuable opportunity to examine stock price reactions to dividend announcements. In Oman, (1) there are no taxes on dividends and capital gains, (2) there is a high concentration of share ownership, (3) there is low corporate transparency, and (4) firms frequently change their dividends. Our results show that announcements of dividend increases are associated with increased stock prices, while announcements of dividend decreases cause decreases in stock prices. Firms that do not change their dividends experience insignificant negative returns. These results contradict tax-based signaling models, which argue that higher taxes on dividends relative to capital gains are a necessary condition for dividends to be informative.

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1. Introduction

Numerous studies have documented that announcements of changes in dividends convey specific information to the market (Pettit, 1972; Charest, 1978; Aharony and Swary, 1980; among others). The majority of these studies are conducted using US data. One natural question is whether these dividend effects are peculiar to the US or if they are also prominent in countries where the tax regime and/or institutional and economic characteristics are significantly different.

The purpose of this paper is to investigate stock price reactions to announcements of cash dividends by companies listed in the Muscat Securities Market (MSM) to identify whether or not such dividends contain information relevant to price formation.¹

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¹ Firms listed in the MSM distribute dividends in two forms, cash dividends and stock dividends, though we consider only cash dividends in the empirical tests in this paper. Dividend distributions in one form or another are not compulsory. If a company's board of directors proposes to distribute dividends, the details must be published in the daily newspapers. The proposed dividend is subject to the final approval at the shareholders' Annual General Meeting (AGM). Generally, most dividend propositions are accepted at the AGM because the board of directors usually represents the majority of the share capital. Firms usually distribute dividends only once a year.

Several important economic and institutional features make Oman a unique and interesting environment in which to examine the market reaction to cash dividend announcements.

First, Oman has a unique tax system that allows us to examine the tax-based signaling hypothesis related to Black's (1976) dividend puzzle. He raises the question of why companies pay dividends, despite the fact that dividends are taxed at higher rates than capital gains. Tax-based signaling models provide an answer to this question. The higher tax on dividends relative to capital gains makes dividends informative about the company's future prospects and cash flow (Bhattacharya, 1979; John and Williams, 1985). These models argue that dividends would not be informative if not for the higher taxes on dividends relative to capital gains (Amihud and Murgia, 1997). In Oman, there are no taxes on dividends and capital gains.² This situation provides us with a unique opportunity to test the tax-based dividend signaling model. Under arrangements such as Oman's, existing models predict that dividends will not be informative, or at least will have less information. If we find that stock prices react to cash dividend announcements, then this suggests that the higher taxation on dividends relative to capital gains is not a necessary condition for dividends to convey

² As Oman is a petroleum-producing country, taxes play a minor role in generating income for the economy (Al-Yahyaee et al., 2008). As a result, shareholders are not subject to any taxes on dividends. Likewise, there are no taxes on capital gains. The only taxes are the 12% flat tax rate on corporate income. This makes the tax system in Oman one of the simplest in the world.

information. This finding would also suggest that there are other factors beyond taxation differentials that make dividends informative.

Second, Omani companies rely heavily on bank financing (Al-Yahyaee, 2006). If bank monitoring is effective, then dividend payments may not be necessary to reduce the tendency of managers to overinvest free cash flow. This should reduce the announcement effects of dividends on stock prices. Moreover, Omani companies are owned by a small number of investors who have controlling interests (Al-Yahyaee, 2006).³ This concentrated ownership structure should reduce the agency cost between managers and shareholders. If the concentration of ownership leads to less information asymmetry between managers and shareholders, dividend announcements should have smaller pricing effects compared to countries where companies are owned by diverse groups of investors. Both arguments, together with the absence of taxes on dividends and capital gains, suggest that dividends act as neither information-signals nor disciplinary mechanisms, and overall, these attributes suggest a diminished role for dividends in Oman.

Third, transparency in Oman is low, while corporate disclosure requirements are loose (Islam, 2003). There is a scarcity of professional financial analysts, and management forecasts are not provided. Furthermore, Oman lacks credible media to disseminate financial information, which in most developed countries is provided by a specialized part of the press and the electronic media. Investors have few other sources of information on Omani companies, and this makes cash dividend announcements an important source of information in pricing Omani shares. The above analysis implies that dividends can be used to evaluate management expectations and confidence as to the future performance and prospects of the firm.

Furthermore, a feature of Omani MSM-listed firms is their variability in cash dividend payments. The majority of Omani firms change their dividends almost every year (see Table 1). This practice contrasts with patterns observed in the US and other developed countries, where most stocks experience relatively few changes in their dividends. In fact, Aharony and Swary (1980) find that about 87% of sampled firms had no change in quarterly dividend payments in the US during the period January 1963–December 1976. In the data sampled by Bajaj and Vihj (1990), more than 80% of announcements made between July 1962 and June 1987 involve no change in dividends. When a dividend increase is made, the evidence suggests that managers are reluctant to return to previous levels of dividends because announcements of dividend decreases result in significant share price declines. Variability in cash dividends has been shown to diminish the information content of dividends (Chen et al., 2002).

Whether or not investors use cash dividend announcements to price shares in Oman is an empirical question. While studies in developed markets show that cash dividend announcements have information content, the picture is less clear in Oman. On the one hand, the absence of taxes, high bank leverage, share ownership concentration, the lack of professional analysts, and individual investors' relatively limited knowledge of accounting and finance all suggest that dividend announcements may have little impact on share prices. On the other hand, investors have few other sources of information on companies and so, in a relative sense, dividend announcements may still be the most important piece of information with which investors value stocks. We investigate whether the net effect of these factors is positive or negative.

Just as in the US, our evidence shows that the market reacts strongly to announcements of changes in cash dividends. This

Table 1
Frequency of firm-year observations.

Year	Dividend decrease	No change	Dividend increase	Total
1997	17	7	21	45
1998	12	3	31	46
1999	21	8	27	56
2000	14	13	26	53
2001	26	2	24	52
2002	31	9	17	57
2003	31	8	31	70
2004	21	16	34	71
2005	5	6	40	51
Total	178	72	251	501

The table reports the number of firm-year observations for each year of the sample for dividend decrease, no change, and dividend increase.

finding shows that such announcements are used by investors as information-signals. Firms that increase their dividends experience an increase in stock prices, while those that decrease their dividends see an opposite effect. Firms that have no change in their dividends experience insignificant negative average abnormal returns, a pattern that is consistent with the view that no change in dividends is, on average, a disappointment. These findings support the view that dividends convey unique and valuable information to investors. Furthermore, these results stand in sharp contrast to tax-based signaling models that argue that tax differences are a necessary condition for dividends to convey information about a firm's future prospects and cash flows.

The remainder of the paper is organized as follows. Section 2 discusses the pertinent theories and empirical literature for this study. Section 3 describes both the data sources used in this paper and the specifics of our data sample. Section 4 describes the methodology employed in the paper, and Section 5 presents the empirical results. Section 6 concludes the paper.

2. Theoretical and empirical studies

In the US it is well established that the market reacts to dividend announcements, which implies that dividends contain information (Charest, 1978; Aharony and Swary, 1980). Capital markets react favorably to "good news" announcements (dividend increases) and adversely to "bad news" announcements (dividend decreases). The implication is that dividend increases represent positive information about the company's prospects. Conversely, a dividend decrease is a negative signal about the company's future prospects. The most frequently cited explanation for this pattern is that dividends contain information: the signaling hypothesis. This hypothesis states that the firm uses dividends as signaling devices to convey valuable information to the market.

2.1. Signaling and taxes

Bhattacharya (1979) develops a theoretical model of dividend signaling in which dividends are seen as a costly means of removing information asymmetries in the market concerning a firm's true value. Signaling costs are a function of (1) the differential tax treatment of dividends versus capital gains and (2) the financing costs of raising unexpected funds to fulfill dividend obligations. In Bhattacharya's model, taxes are an important factor in determining dividend announcements' signaling effects. Dividends are informative due to the higher tax rates on dividends relative to capital gains. As agents for shareholders, managers are expected to optimize the after-tax objective function of the shareholders. Bhattacharya (1979) argues that when there are personal taxes on dividends, the level of the tax is positively related to the

³ During the sample period for this study (January 1997–December 2005) the average ownership of MSM-listed firms by shareholders who own at least 10% of the issued capital is 52%. See Al-Yahyaee (2006) for more details, or contact the corresponding author.

strength of the dividend signal. A higher tax rate should provide managers of firms with a stronger incentive to tell the truth about the firm's expected cash flows. Hence, a taxable dividend is a good and credible signal, as it is costly for firms with poor performance to imitate.

Additional theoretical developments are provided by John and Williams (1985). Their model is similar to Bhattacharya's with respect to the cost of signaling, as both models point to a tax penalty on dividends relative to capital gains as the primary cost of signaling. In both models, dividends are informative because of the higher taxes on dividends relative to capital gains.

The absence of taxes on dividends and capital gains in Oman provides us with a golden opportunity to examine the predictions of Bhattacharya (1979) and John and Williams (1985). Under this scenario, tax-based signaling models predict that dividends are not informative or are, at least, less informative. If we find that the stock price reacts to cash dividend announcements, then this would suggest that higher taxation on dividends relative to capital gains is not a necessary condition for dividends to be informative.

2.2. Signaling and agency costs

Due to the separation between ownership and control, managers (agents) may not always act in the best interests of the firm owners. This problem induces shareholders to incur agency costs to monitor managers' behavior. Dividend payments may help in aligning the interests of managers and shareholders by cutting down the cash available for use at the discretion of management and, hence, providing protection against self-interested actions by the management (Easterbrook, 1984). Moreover, paying larger dividends reduces discretionary internal cash flow and forces the firm to seek external financing from capital markets, which places it under the scrutiny and disciplining effects of investment professionals (Easterbrook, 1984). In other words, capital markets provide an efficient monitoring mechanism that helps firms to reduce both excess perquisite consumption and the agency problem.

Jensen (1986) suggests that managers, motivated by compensation and human capital considerations, have incentives to overinvest free cash flows even in the absence of profitable growth opportunities (the free cash flow hypothesis). In this case, dividend payout policy becomes a vehicle for monitoring managers' potential to misuse excess funds. Hence, the observed market reaction following dividend changes is consistent with a reduction in agency costs.

A clear implication of the standard free cash flow hypothesis as advanced by Jensen (1986) is the separation of ownership and control, since wider ownership dispersion intensifies conflicts of interest between managers and shareholders. Such conflicts of interest generally motivate higher dividend payouts to limit managers' ability to misuse shareholder funds. In Oman, for the most part, firms are closely held, with ownership concentrated in the hands of family members in the form of large equity blocks.⁴ This phenomenon suggests that in Oman, firms have a disincentive to misuse funds through overinvesting because the relative benefit of managing a larger firm is likely to be outweighed by the direct cost to man-

agers of overinvesting in their substantial personal holdings in the firm. Furthermore, firms in Oman are highly levered, and when banks play a pivotal role in financing firms, agency problems should be less severe (Al-Yahyaee, 2006). Jensen (1986) argues that debt could serve as a substitute for dividends in reducing the agency problem. Oman's high leverage, together with its patterns of concentrated ownership, leads the existing tax-based signaling literature to expect a weaker information content for dividend announcements.

2.3. Dividend as signal

There are numerous studies that examine stock price reactions to dividend announcements. These studies generally report that stock prices follow the same direction as the dividend change announcements. Dividend increases and dividend initiations (or, alternatively, decreases and omissions) are associated with significant increases (or decreases) in stock prices.

An early, extensive empirical study that tests the information content of dividend announcements is Watts (1973). His analysis suggests that dividends convey little, if any, information about stock valuations once current earnings are controlled for in the experiment. In contrast, Pettit (1972) demonstrates that stock prices react significantly to dividend announcements. Charest (1978) examines a larger number of firms announcing dividends over a long period and finds that abnormal returns are observed beyond the next quarter.

The two most frequently cited studies in this area are Aharony and Swary (1980) and Asquith and Mullins (1983). Both papers use a naïve dividend forecasting model. Aharony and Swary (1980) investigate the effects of dividend announcements made on dates different from the earnings announcements. Similar to Pettit (1972), they document that cash dividend announcements provide information beyond what is included in corresponding quarterly earnings announcements. Asquith and Mullins (1983) show significant positive abnormal returns at dividend initiation announcements. Significant abnormal returns around dividend announcements are also reported by Bajaj and Vijh (1995).

Using data from China, Chen et al. (2002) examine the information content of dividends among firms that change their dividends frequently. They find that cash dividends have no discernible association with stock returns in these cases. Their analysis suggests that the variability of dividends diminishes their information content. The fact that dividends vary frequently in Oman may also weaken their role as a signals.

There are also studies that examine the information signaling hypothesis of seasoned equity offerings (SEOs) and stock splits. In this vein, Elliott et al. (2009) examine the information content of SEOs and find no support for the information signaling hypothesis. Chern et al. (2008) study the information content of stock splits and find that prices of optional stocks embody more information, diminishing the information content of stock split announcements. Likewise, Hwang et al. (2008) examine dividend signaling in stock splits. They find that the information contained in stock splits is not rapidly impounded in stock prices.

3. Data

Our sample consists of the universe of Omani companies announcing cash dividends between January 1, 1997 and August 31, 2005. Announcement dates of cash dividends, stock dividends, splits, and earnings are obtained from the Muscat Depository and Registration Company Database and the MSM website. We also extract earnings data from the "Share-Holding Guide of MSM Listed Companies." Stock price data and the MSM index are obtained from the MSM database.

⁴ For recent survey papers that investigate ownership concentration as a corporate governance mechanism, see: Claessens et al. (2002), which shows that firm value increases with the ownership of the largest shareholder; Holderness (2003), who shows that block holders closely monitor the form and level of managerial compensation; and Denis and McConnell (2003), who show that ownership tends to be more concentrated in nations where there is a relatively lower level of investor protection. Claessens et al. (2002) paper surveys evidence from eight East Asian economies, Holderness (2003) includes all nations, while Denis and McConnell (2003) examine all nations except the US.

Table 2
Cash dividend distributions.

Year	$\sum_i \text{DIV}$	$\sum_i \text{EARN}$	$\sum_i \text{MV}$	$\frac{\sum_i \text{DIV}}{\sum_i \text{EARN}}$ (%)	$\frac{\sum_i \text{DIV}}{\sum_i \text{MV}}$ (%)
1997	60.511	137.294	1692.623	44.07	3.57
1998	38.027	76.020	824.484	50.02	4.61
1999	50.702	75.648	835.341	67.02	6.07
2000	59.249	137.365	747.740	43.13	7.92
2001	45.382	54.218	610.507	83.70	7.43
2002	81.488	124.951	937.844	65.22	8.69
2003	210.298	140.304	1220.041	149.89	17.24
2004	237.674	169.240	1728.093	140.44	13.75
2005	98.501	198.490	1961.265	49.63	5.02

The table presents the annual information on cash dividend distributions to stockholders for a sample of Omani firms. The sample consists of all firm-year observations that have data in the Share-Holding Guide of MSM Listed Companies over the period 1997–2005 that have available information on the following variables: DIV, EARN and MV. DIV is the total amount of dividends declared on the common stock. EARN is the earnings after taxes. MV is the market value of common stock. The sample contains 512 firm-year observations. \sum_i represents the aggregation of data by calendar year. The aggregate numbers are expressed in million of Rials.

Table 3
Descriptive statistics.

Category	DIV/P (%)	ΔDIV (%)	ΔEPS (%)	Observations
Dividends increase	8.2033	8.3896	8.4714	234
Dividends decrease	6.1505	-4.7525	-5.6784	145

The table reports DIV/P, ΔDIV , and ΔEPS for dividend increases and decreases. DIV/P is the dividend yield, where DIV is the announced dividend per share and P is the stock price ten days before the announcement day. ΔDIV is change in dividend per share from the previous year. ΔEPS is change in earnings per share from previous year.

We exclude observations that accompany other corporate events, such as stock dividends, splits, or subscription rights. Moreover, we eliminate observations if rights or stock dividend announcements are made during the event study period. After this screening process, the final sample consists of 501 cash dividend announcements. As shown in Table 1, approximately 50% of firms increase cash dividends ($n = 251$), 36% decrease dividends ($n = 178$), and 14% have no change in dividends ($n = 72$).

We examine the trends in dividend payout policy by utilizing aggregate data by calendar year on total cash dividends, aggregate earnings, and total market value of equity. Table 2 shows that firms distribute a large proportion of their earnings as dividends. On average, Omani firms distribute around 77% of their earnings as dividends. The figures presented in Table 2 also show that Omani firms distribute around 3.57% of their market value as dividends in 1997. This ratio increases to 17.24% in 2003 and then declines to 5.02% in 2005.

We also obtain data on the announced dividend per share in rials, DIV_{it} , and the stock price 10 days before the announcement day, P_{it} . We use these data to calculate dividend yield DIV_{it}/P_{it} , the change in dividend, $\Delta \text{DIV}_{it} = (\text{DIV}_{it} - \text{DIV}_{it-1})$, and the change in earnings per share, $\Delta \text{EPS}_{it} = (\text{EPS}_{it} - \text{EPS}_{it-1})$, for both dividend increases and decreases.⁵ The figures presented in Table 3 show that the average dividend yield for the dividend increase sample is 8.20%. The change in dividends is around 8.39% and the change in earnings per share is 8.47% for the same sample. For the dividend decrease sample, the average dividend yield is 6.15%, the change in dividends is -4.75%, and the change in earnings per share is -5.68%.

⁵ This is similar to the approach in Amihud and Murgia (1997).

Table 4
The stock market reaction to dividend increase in the Muscat Securities Market.

Event	AR (market model)	t-Statistics	AR (market-adjusted return)	t-Statistics
-5	0.5306	0.2863	0.5699	0.2541
-4	0.4765	0.2233	0.4331	0.1629
-3	0.1355	0.7301	0.0824	0.4230
-2	0.2935	0.2109	0.2515	0.1699
-1	1.3026	3.9654	1.3774	3.9865
0	5.7826	6.0339	5.8807	6.1021
1	0.3720	1.1594	0.4323	1.3323
2	0.1447	0.5275	0.1155	0.4065
3	0.0970	0.4039	-0.0363	-0.1489
4	-0.6311	-0.7421	-0.6149	-0.7247
5	-0.2750	-1.5972	-0.3780	-1.2118

The sample consists of 251 cash dividend increase announcements in the period January 1, 1997–August 31, 2005 for firms listed at the Muscat Securities Market. The Abnormal Return is defined as (1) the difference between the actual return on day i and the expected return predicted from the market model and (2) the market-adjusted return. t -Statistics are for the null hypothesis that the mean abnormal return is equal to zero.

4. Methodology

The methodology used in this study follows standard event study methodology (e.g., Binder, 1998). Using the market model, we calculate the following statistics: daily abnormal return, daily average abnormal return, and cumulative average abnormal return.⁶

In addition, as a robustness check and to test the sensitivity of our results to beta estimation, we follow Charest (1978) and calculate market adjusted abnormal return by subtracting the MSM daily return from the observed stock's return over a given period t .

5. Empirical results

In this study, we test the null hypothesis that the daily mean abnormal return is zero. In other words, cash dividend announcements have no systematic impact on corresponding stock prices. We test this hypothesis by performing a parametric t -test, where t -statistics are calculated using the cross-sectional standard deviation.⁷ This t -statistic is detailed in Boehmer et al. (1991). This test is used in many studies, including Graham et al. (2003), Kadapakkam and Martinez (2008), and Adams and Mansi (2009).

5.1. Dividend increase

Table 4 provides daily mean abnormal returns and t -statistics (testing that the mean abnormal returns are equal to zero) for the five days before and after the dividend announcement date (day 0), using both the market model and the market-adjusted return.

The positive dividend declaration dates are preceded by positive returns for the five days before the announcement. Interestingly, the abnormal return earned on day -1 by dividend increasing companies is 1.3%, with a t -statistic of 3.97. The presence of significant positive abnormal returns on day -1 shows a somewhat earlier market reaction to the cash dividend announcement, which may suggest that there is some information leakage into the

⁶ We estimate the parameters for the market models from a regression of daily stock returns on daily market returns from 250 to 41 days before the announcement date ($t = -250$ to $t = -41$, where $t = 0$ is the announcement date).

⁷ To check the robustness of the conclusions based on our parametric tests, we also employ a nonparametric sign test. Our results are insensitive to this new method. In particular, the z -statistic on the announcement day is 7.5745 for dividend increase and -8.6410 for dividend decrease. For no change sample, the z -statistic is -1.4142 which is insignificant at any conventional level of significance.

Table 5

The stock market reaction to dividend decrease in the Muscat Securities Market.

Event	AR (market model)	t-Statistics	AR (market-adjusted return)	t-Statistics
-5	0.0863	0.0886	0.1669	0.1698
-4	0.5818	0.5841	0.5015	0.5010
-3	0.8056	0.7919	0.6266	0.6108
-2	0.1858	0.1898	0.9992	1.0156
-1	-1.0206	-1.0683	-0.8038	-0.8365
0	-2.4904	-4.1037	-2.4161	-4.0225
1	-0.3666	-0.3368	-0.5830	-0.5343
2	0.9777	1.0376	0.9077	0.9564
3	0.6026	0.6440	0.4017	0.2872
4	-0.2302	-0.1889	-0.1317	-0.1072
5	0.5173	0.5018	0.1869	0.1813

The sample consists of 178 cash dividend decrease announcements in the period January 1, 1997–August 31, 2005 for firms listed at the Muscat Securities Market. The Abnormal Return is defined as (1) the difference between the actual return on day i and the expected return predicted from the market model and (2) the market-adjusted return. t -Statistics are for the null hypothesis that the mean abnormal return is equal to zero.

market. A further 5.78% abnormal return occurs on the announcement date. The results show that the market's major reaction takes place on day 0. This average abnormal return is the largest of the abnormal returns in the event period studied. These mean abnormal returns are highly significant, especially on the announcement date. The results are consistent with an information effect in dividend increase announcements, and thus, they imply that relevant information is transmitted to the market when increases in dividends are announced. These results are in line with those found in the US and strongly contradict the tax-signaling model, which argues that a higher tax on dividends is a necessary condition for dividends to be informative.

Similar results emerge using market-adjusted returns. There is a significant positive market reaction to dividend increases. The average abnormal return on the announcement date is 5.88%, which is very close to the one reported using the market model. These results suggest that the estimation error and/or instability of the betas are unlikely to be a driver of our results.

5.2. Dividend decrease

Table 5 gives the results for the dividend decrease sample. These results show that abnormal returns are significantly negative when a dividend decrease is announced. The largest t -statistic occurs on the day of the dividend announcement.

The results again support the hypothesis that dividend decreases impart negative information about the firm's prospects. However, the mean abnormal returns for dividend decrease announcements are of much smaller magnitude than those of the corresponding dividend increase announcements.⁸ These results are at odds with many previous findings, which show that dividend decreases generate price responses that are larger in absolute magnitude than those of dividend increases (Pettit, 1972; Charest, 1978; Aharony and Swary, 1980; among others). For instance, the daily stock price results of these studies report that mean abnormal negative returns on announcement day range from -3% to -10% for unfavorable dividend announcements, while mean abnormal returns for favorable news are around 1%. Just as with dividend increases, the results obtained here are at odds with tax-signaling models, which argue that taxes are a necessary condition for dividends to have information. The results using market-adjusted returns are almost identical to those reported using the market model.

⁸ It is worth noting that the size effects for dividend decreases are smaller than those for dividend increases (see Table 3).

5.3. No change

Table 6 reports the results for companies that did not change their dividends. If no news is being signaled to the stock market, then one might logically assume that no abnormal stock price movements would be expected. Our results are in line with this proposition.

The results show that investors who hold these companies' stocks earned only normal returns over the five days preceding and following the cash dividend announcement dates. Mean abnormal returns drift randomly over the event period with no significant changes on day 0. Mean daily abnormal returns are not significantly different from zero. However, the negative signs on the dividend announcement dates are in contrast with those reported in the US. For example, the mean abnormal returns to announcements of no change in dividends in the US were significantly positive in Bajaj and Vijh (1990).

In brief, our results reveal that cash dividend announcements do carry new information to the market. The market reacts favorably to "good news" announcements (dividend increases) and adversely to "bad news" announcements (dividend decreases), which supports the view that dividend changes convey information in Oman. These results sharply contrast with tax-based signaling models, which argue that higher taxes on dividends relative to capital gains are a necessary condition for dividends to be informative.

5.4. Cumulative abnormal returns

We also calculate cumulative average abnormal returns (CARs) for different intervals. The null hypothesis to be tested is that the cumulative average abnormal returns will be equal to zero. The test statistic is the ratio of the cumulative average abnormal return to its estimated standard error. The results are presented in Table 7.

The two day window (-1, 0) shows a significant positive wealth effect surrounding a cash dividend increase. When the event window is widened to include additional trading days (-2, +2) before and after the announcement, the cumulative abnormal returns are also positive and statistically significant. For the (-4, +4) and (-5, +5) windows, the cumulative abnormal returns are positive but insignificant. The CARs for the pre-announcement window (-5, -1) are positive but insignificant. For the post-announcement window (+1, +5), the cumulative abnormal returns are negative and insignificant. The results are very similar whether we use the market model or market-adjusted returns.

Table 6

The stock market reaction to no change in dividends in the Muscat Securities Market.

Event	AR (market model)	t-Statistics	AR (market-adjusted return)	t-Statistics
-5	0.2458	0.6709	0.3567	0.9154
-4	0.8876	0.2943	0.9310	0.2772
-3	0.2756	0.7683	0.3952	0.8315
-2	0.2155	1.2451	-0.0696	-0.1928
-1	0.0202	0.1087	0.0542	0.2392
0	-0.9432	-1.4502	-0.7776	-1.1845
1	-0.8499	-1.6158	-0.2105	-0.3920
2	-0.4746	-1.1826	-0.5840	-1.3880
3	-0.3810	-1.1323	-0.4165	-1.1953
4	-0.7067	-0.5126	-0.6455	-0.4623
5	0.3728	1.3931	0.3471	1.1180

The sample consists of 72 no change cash dividend announcements in the period January 1, 1997–August 31, 2005 for firms listed at the Muscat Securities Market. The Abnormal Return is defined as (1) the difference between the actual return on day i and the expected return predicted from the market model and (2) the market-adjusted return. t -Statistics are for the null hypothesis that the mean abnormal return is equal to zero.

Table 7

Cumulative abnormal returns for dividend increase, dividend decrease, and no change in dividends.

	Dividend increase		Dividend decrease		No change	
	Market model	Market-adjusted return	Market model	Market-adjusted return	Market model	Market-adjusted return
(+5, -5)	0.0823 (0.9450)	0.0811 (0.8292)	-0.0035 (-0.0326)	-0.0014 (-0.0128)	-0.0134 (-0.1747)	-0.0061 (-0.0722)
(-4, +4)	0.0797 (1.1931)	0.0792 (1.0787)	-0.0095 (-0.1092)	-0.0050 (-0.0539)	-0.0196 (-0.2785)	-0.0131 (-0.1694)
(-3, +3)	0.0813 (2.1973)	0.0810 (2.1120)	-0.0131 (-0.2002)	-0.0087 (-0.1238)	-0.0214 (-0.8123)	-0.0160 (-0.5328)
(-2, +2)	0.0790 (2.4121)	0.0806 (2.3709)	-0.0271 (-0.5936)	-0.0190 (-0.4134)	-0.0203 (-1.0495)	-0.0158 (-0.7244)
(-1, +1)	0.0746 (4.6385)	0.0769 (4.7073)	-0.0388 (-1.4629)	-0.0380 (-1.4336)	-0.0177 (-1.3019)	-0.0092 (-0.6620)
(-1, 0)	0.0709 (5.5059)	0.0726 (5.5438)	-0.0351 (-2.2475)	-0.0322 (-2.0619)	-0.0092 (-1.1043)	-0.0072 (-0.8192)
(-5, -1)	0.0274 (0.4648)	0.0271 (0.3921)	0.0064 (0.1298)	0.0149 (0.3008)	0.0164 (0.4012)	0.0167 (0.3466)
(+1, +5)	-0.0029 (-0.1574)	-0.0048 (-0.2535)	0.0150 (0.2877)	0.0078 (0.1372)	-0.0204 (-0.7009)	-0.0150 (-0.5018)

The table presents the Cumulative Abnormal Returns (CAR) for dividend increase, dividend decrease, and no change using the market model and the market-adjusted return. *t*-Statistics are for the null hypothesis that the cumulative average abnormal returns are equal to zero. *t*-Statistics are reported in parentheses.

For dividend decreases, the (-1, 0) window reveals a significant negative reaction to the “bad news” announcements. The CARs are insignificant in the other event windows. These conclusions using CARs from the market-adjusted return model are consistent with those from the market model.

When there is no change in dividends, the results reveal that the cumulative abnormal returns are insignificant in all event windows examined, under both the market model and market-adjusted returns model. This finding suggests that announcements of no change in dividends do not result in significant changes in stock price.

Table 8

Regression results of abnormal returns on dividend changes and earnings changes relative to stock price.

Variable	Coefficient	<i>t</i> -Statistic
Constant	0.1685***	3.9278
Δ DIV/P	4.2789***	5.0909
Δ EPS/P	0.5793***	3.1918
Adjusted R^2	0.1078	
<i>F</i> -value	26.2028	
Observations	418	

The table reports the results of estimating the announcement abnormal returns (based on the market model) on both the changes in dividends and changes in earnings relative to the stock price ten days before the announcement day. The table shows the variable, their coefficients, and their *t*-Statistics. *t*-Statistics are heteroscedastic consistent (White, 1980).

*** Significance at 1% level.

Table 9

Regression results of abnormal returns on dividend changes and earnings changes.

Variable	Coefficient	<i>t</i> -Statistic
Constant	0.1640***	3.7421
Δ DIV	2.4916***	5.4156
Δ EPS	0.1846**	2.5484
Adjusted R^2	0.0940	
<i>F</i> -value	22.6311	
Observations	418	

The table reports the results of estimating the announcement abnormal returns (based on the market model) on both the changes in dividends and earnings. The table shows the variable, their coefficients, and their *t*-Statistics. *t*-Statistics are heteroscedastic consistent (White, 1980).

** Significance at 5% level.

*** Significance at 1% level.

5.5. Regression results on changes in dividends and earnings

To examine whether dividends contain information beyond that contained in earnings, we follow the approach in Amihud and Murgia (1997). Specifically, we estimate a model where announcement abnormal returns are a function of both dividend changes and earnings changes relative to stock price. The results are presented in Table 8.

Our results show that both the Δ DIV/*P* and Δ EPS/*P* are statistically significant, which suggests that both dividends and earnings news contain information. This discovery, in turn, suggests that dividends and earnings are strongly associated with abnormal returns. The adjusted R^2 of the model is 10.78%, and the *F*-statistic is significant at the 1% level. There are no important differences between the response coefficients of dividend increases and decreases. As in Amihud and Murgia (1997), changes in dividends result in significant positive stock price reactions beyond what might be expected for the information conveyed just by changes in earnings. It should also be noted that the dependent variable in this regression is the abnormal return on the dividend announcement date. We do not measure the earnings announcement return.

We also estimate the stock price reaction to changes in dividends and changes in earnings (Table 9). We find similar results to those reported above. This finding suggests that dividends contain information beyond that contained in earnings.

6. Conclusion

While there are many studies that examine dividend signaling in the US, this paper is one of the few investigations of this topic in emerging markets; it is the first of its kind using Omani data. In addition, the data set employed in this paper is unique in that (1) there are no taxes on dividends and capital gains in Oman, which allows us to test a tax-based signaling model argument that higher taxes on dividends relative to capital gains are a necessary condition for dividends to be informative, (2) the high concentration of share ownership should reduce information asymmetry between managers and investors, which suggests a diminished role for dividends, (3) there is low corporate transparency, which implies a positive effect for dividends, and (4) most companies change their dividends almost every year.

Our results indicate that cash dividend announcements do convey information to the market. That is, firms announcing an in-

crease in their dividends experience a significant positive price reaction, and firms announcing dividend decreases experience a significant decline in stock prices. Firms that have no change in their dividends report insignificantly negative average abnormal returns.

Our findings support the notion that dividend increases convey positive information, which results in a positive price reaction; dividend decreases similarly result in negative price reactions. This study confirms earlier studies' findings that there is a significant abnormal return during the announcement period. Our analysis is consistent with theories stating that the announcement effect is due to dividend announcements' signaling of valuable information. These results are in contrast with tax-based signaling models, which propose that higher taxes on dividends relative to capital gains are a necessary condition for dividend announcements to be informative. In a market like Oman, with highly concentrated shareholdings and limited disclosure of information, dividends may be the one source of information that allows investors to evaluate management's expectations and confidence as to the future performance of a firm.

Although Oman's stock market is young and investors there have limited knowledge and experience, the stock market appears to efficiently incorporate dividends information in share prices and returns. Further development of accounting standards, increased auditing skills, and advances in investor education will likely make dividends even more important in the future. Though it is beyond the scope of the current paper, it is possible that the reactions to cash dividend announcements observed in this paper might be due to behavioral characteristics of irrational investors (see, for example, Malkiel, 2003; Shiller, 2003). Future research to address this issue seems warranted.

Acknowledgements

We would like to thank an anonymous referee and the Managing editor, Ike Mathur for helpful comments and insights. We would also like to thank participants at the Quantitative Methods in Finance 2009 Conference and at the 22nd Annual Australasian Finance and Banking Conference for useful suggestions and feedback.

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