

The share price reaction on the Johannesburg Stock Exchange for special (extra) dividend announcements

1. INTRODUCTION

The "information content of dividends" hypothesis has emerged from the work of Lintner (1956) and Miller and Modigliani (1961). This hypothesis states that company managers use dividend announcements to signal their belief about the prospects of the firm. An announcement of an increase in the dividend rate reflects management's belief that the firm's earnings in the foreseeable future will be sufficiently high to sustain payment at the increased rate. Similarly, an announcement of a dividend decrease occurs only when management is extremely pessimistic about the probability that future earnings will be sufficient to continue dividends at their present rate. The theoretical implication of the "information content" hypothesis is that the announcement of a dividend (or a change in dividend) conveys information about management's assessment of the firm's prospects, that this information is different from other information provided by management, and that this information may cause an immediate investor reaction, including but not limited to share price changes.

The validity of the dividend information hypothesis hinges on the belief that a firm's management often possesses privileged information about the firm's future earnings potential and communicates this to the general investment community by altering the expected dividend. The difference between the actual dividend declared and that "expected" by the market i.e., the unexpected change in dividends, purportedly is a signal that investors use to reassess their estimates of a security's value. Several South African studies have investigated the impact of regular dividend announcements on share price behaviour. However, the reaction on the Johannesburg Stock Exchange (JSE) to special dividend announcements has been a neglected field of study. The purpose of this article is to examine investor behaviour around special dividend announcement dates for securities listed on the JSE.

2. DIVIDENDS AS SIGNALS FROM MANAGERS

The use of cash dividend payments as signals by managers has been extensively debated in the corporate finance literature. Assuming perfect capital markets, Modigliani and Miller (1958) have shown that, given the investment decision, the value of the firm is independent of the decision to pay cash dividends to shareholders. In a follow-up article, Miller and

Modigliani (1961) noted that any relationship between dividend announcements and security price movements should be attributable to the information concerning future earnings prospects that are conveyed in the dividend announcements, and not the dividends themselves.

Bhattacharya (1979), Kalay (1980), and Miller and Rock (1982), each assuming that information asymmetries exist between managers and investors, have developed models of cash dividend signalling. In each model, security prices adjust to new equilibrium levels in response to the information which managers convey to investors in their dividend decisions. The empirical studies of Aharony and Swary (1980), Kwan (1981), and Woolridge (1982) strongly support the notion that dividends contain information as evidenced by share price reactions to dividend change announcements.

Knight and Affleck-Graves (1987) evaluated the dividend signaling associated with dividend announcements by companies listed on the JSE during the 1973 - 1980 period. Increased dividend announcements were grouped as the "good news" portfolio and the announcements of decreased dividends were grouped as the "bad news" portfolio. Both portfolios obtained significant positive share price reaction in the week and the subsequent ten weeks following the dividend announcement. Knight and Affleck-Graves (1987:84) conclude that the empirical evidence suggests that dividend announcements on the JSE convey little or no information to the market over and above that contained in the earnings announcements. A further conclusion is that the signaling role is an unlikely explanation of the dividend phenomenon on the JSE. The surprising result of this study could well be due to the several methodological shortcomings in the use of a forecasting technique to capture investors' dividend expectations.

Bhana (1991) examined the share market response to substantial changes in dividend policies by JSE listed companies during the period 1970 - 1988. The results provide strong support for the information content of dividend hypothesis. The empirical evidence suggests that large dividend changes on the JSE convey valuable information to investors over and above that contained in the earnings announcements. The hypothesis that investors revise their expectations in response to announcement of significant dividend changes (signaling effect) is accepted.

*Graduate School of Business, University of Durban - Westville, Private Bag X54001, Durban 4000, Republic of South Africa.

One way for a company to increase its cash distribution in periods of prosperity is to declare a special (extra) dividend in addition to the regular annual or semiannual dividend. By declaring a special dividend, the company attempts to prevent investors from expecting that the dividend represents an increase in the established dividend rate. The declaration of a special dividend is particularly suitable for companies with fluctuating earnings. Goldmining companies in South Africa usually declare special dividends when the bullion price is high.

The use of the special dividend enables the company to maintain a stable record of regular dividends but also to distribute to shareholders some of the rewards of prosperity. By paying special dividends only when earnings are higher than usual, the company will not lead investors to count on the increased dividends in future periods. However, a company cannot pay special dividends continuously without conveying to the market some impression of permanency. As soon as a certain level of dividends is recurrent, investors begin to expect that level regardless of the distinction between regular and special dividends.

The rationale for special dividends is based on the hypothesis that dividend changes convey information. Weston and Copeland (1992) suggest that firms increase their regular dividend only if they are confident of maintaining future dividends at this increased level. Therefore, a regular (unlabelled) dividend increase can be considered a positive signal to the market regarding the firm's future cash flows. Since a special dividend is a labeled dividend increase, Brickley (1983) argues that the increase is a temporary phenomenon and will not be repeated. Consequently, a special dividend implies less positive information than a comparable regular (unlabelled) dividend increase. Brickley tests this hypothesis by comparing the behaviour of share prices around the announcements of special and regular dividend increases. His results support the notion that management uses the labeling of dividends to convey information to the market about future dividends and earnings. In addition, given the magnitude of the change in share price, he finds that regular dividend increases provide a more positive message than special dividends. Brickley finds additional support for the information content hypothesis in the earnings patterns surrounding the announcements of special dividends and regular dividend increases. Specifically, he documents that the group of firms with regular dividend increases has statistically larger earnings changes in the year following the dividend announcement.

Handjinicolaou and Kalay (1984) and Woolridge (1983) have argued that one cannot infer that dividend increases convey positive information about the firm by examining share prices alone, since unexpected dividend increases could cause wealth transfers from

bondholders to shareholders by reducing the asset base of the firm. Therefore, the observed increase in share price is consistent with both wealth redistribution and positive information. To distinguish between the relative importance of these two effects, Handjinicolaou and Kalay and Woolridge analyze the changes in bond prices around dividend announcements since the two hypotheses (information content and wealth transfer) have different predictions for bond price behaviour. In particular, the wealth transfer hypothesis predicts a negative bond price reaction, while the information content hypothesis predicts a positive reaction. The findings of both studies are consistent with the hypothesis that informational effects dominate wealth redistribution effects wherever there are unexpected dividend increases.

The purpose of this paper is to test the information content hypothesis for special dividends by analyzing share price reactions to special dividend announcements by companies listed on the JSE. Special dividends tend to be large relative to regular (unlabelled) dividend increases. Hence, there is a greater likelihood of observing wealth transfers around special dividend announcements than around regular dividend increase announcements. Non-negative announcement period returns accruing to shareholders would be consistent with the information content hypothesis.

Share price reactions to special dividend announcements for firms that declare special dividends infrequently may differ from those for firms with repetitive declarations. We expect the former group to exhibit a larger abnormal return around the announcement period than the latter if repetition generates anticipation. Specifically, if repeated announcements of special dividends are anticipated, then the wealth transfer hypothesis predicts that announcement period reactions will be smaller for repetitive special dividends since returns in the announcement period capture unanticipated wealth transfers only. The same prediction is obtained from the information content hypothesis since the market already anticipates the special dividend announcement, and the announcement effect has already been impounded into the share price at some previous date.

3. RESEARCH METHODOLOGY

All special dividend distributions by companies listed on the JSE during the 20 - year period 1975-1994 were considered for inclusion in the sample. A random sample of 100 companies announcing 338 special dividends during the period 1975-1994 was selected to provide the empirical evidence. Each share included in the sample met the following criteria:

The share was issued by a company that had announced a regular dividend in the year before the special dividend announcement.

1. The shares of the company announcing the share dividend were listed on the JSE.

Companies declaring special dividends were initially identified from the "Johannesburg Stock Exchange Monthly Bulletin". This publication provided the date of the public announcement of the special dividend. The *Business Day* was monitored to obtain information related to earnings and other (regular) dividend announcements made by companies simultaneous to special dividend announcements. For each company in the random sample, daily data on share prices were obtained from the database of the JSE and "McGregor's Online Information Services". Share returns based on closing share prices from 43 days before the event through day 1 after the event are obtained from the JSE database. These returns are characterized according to event time, with day 0 being defined as the announcement date of the special dividend as recorded on the JSE database.

The impact of special dividends on share prices is estimated using the mean adjusted return model,

$$r_{it} = \mu_i + \varepsilon_{it} \quad \dots (1)$$

where

- r_{it} = rate of return on security i over day t ,
- μ_i = expected return on security i ,
- ε_{it} = mean zero, serially independent random disturbance term.

For each of the events, the above model is estimated with 40 daily returns, starting 43 days and ending 4 days before the announcement of a special dividend, i.e., day - 43 to day - 4. The estimated mean return, μ_i , is used to predict normal returns around the announcement date. Deviations of realized returns from the estimated mean yield estimates of excess returns.

The statistical significance of the estimated excess returns is assessed by constructing a z-statistic similar to one developed in Brown and Warner (1980). Specifically, the standardized excess return for security i over date t is defined as

$$A_{it} = (r_{it} - \mu_i) / S_i \quad \dots (2)$$

where S_i is the estimated standard deviation of security i 's return. The estimation period for the standard deviation is the same as that used for the mean. Assuming that daily returns are normally distributed and independent through time, A_{it} has a student-t

distribution with 39 degrees of freedom. Using the central limit theorem, average standardized excess returns on any day t are approximately normally distributed with mean 0 and variance $1/N$ when N is the number of returns included in the average. The statistic used to test whether the excess returns on any day t are significantly different from 0 is approximately standard normal and is defined as

$$Z_t = \bar{A}_t \sqrt{N} \quad \dots (3)$$

where

$$A_t = \sum_{i=1}^N A_{it} / N \quad \dots (4)$$

The following hypothesis is tested :

- H_1 : The share price reaction to special dividend announcements for companies that declare special dividends infrequently may differ from that of companies with repetitive declarations. The information content hypothesis predicts that the announcement period returns will be smaller for repetitive special dividends since the announcements effect may already be impounded into the share price in the case of the earlier declaration.

4. EMPIRICAL RESULTS

Tables 1 and 2 contain a description of the behaviour of share prices around the announcement of special dividends for different subsamples of the complete sample of 338 events. The results are reported for categorizations based on occurrence of simultaneous regular dividend announcements (contaminated and pure subsamples), frequency of special dividend declarations in the sample period (companies with less than or equal to five and greater than six special dividends), and order of special dividend declarations in the sample period (first, second, third, fourth-fifth, sixth - tenth, and greater than or equal to eleventh).

In general, the results are similar in magnitude and direction of those reported by Brickley (1983). In particular, Table 1 shows that the announcements of special dividends result in an upward revaluation of share prices. The estimated excess share return for the complete sample for the three days around the announcement date is 1.69 percent. Moreover, the excess return significantly exceeds zero on each of the three days. This positive reaction is not the result of other dividend announcements made by companies simultaneous to special dividend announcements, since the subsample of pure special dividend

Table 1 : Daily average excess returns for various equally weighted portfolios of shares for the three days around the announcements of special dividends from 1975 to 1994.

Sample category ^a	Event day(s)	Average return (%)	Average excess return (%)	Z -value	Percent positive
Complete share sample (338)	-1	0,214	0,140	3,63*	49,87
	0	0,915	0,841	23,42*	61,02
	1	0,783	0,709	20,31*	56,43
	-1,0, 1	1,912	1,690	26,42*	62,37
Contaminated sample (293)	-1	0,216	0,142	3,41*	48,87
	0	0,939	0,865	22,67*	60,14
	1	0,713	0,639	18,35*	55,95
	-1,0, 1	1,868	1,646	25,91*	61,71
Pure sample (45) ^b	-1	0,198	0,124	1,49	50,23
	0	0,738	0,664	5,34*	62,37
	1	1,205	1,131	7,98*	60,28
	-1,0, 1	2,141	1,919	8,72*	64,39
Infrequent special dividends : five or fewer in sample period (261) ^c	-1	0,221	0,134	3,07*	48,32
	0	0,893	0,806	16,15*	58,26
	1	0,954	0,867	14,21*	60,14
	-1,0, 1	2,068	1,807	19,46*	63,81
Frequent special dividends : six or more in sample period (77) ^d	-1	0,170	0,110	1,80	48,10
	0	0,657	0,597	14,31*	61,13
	1	0,639	0,579	14,10*	57,27
	-1,0, 1	1,406	1,286	18,21*	61,89

^a The figure in parentheses is the sample size.

^b The pure sample of 45 events had no other dividend announcements simultaneous to the announcement of the special dividends.

^c The category consists of all special dividend declarations by companies that had five or fewer special dividends in the sample period.

^d This category consists of all special dividend declarations by companies that had six or more special dividend declarations in the sample period.

* Indicates significance at the 5-percent level.

announcements also exhibits a significant positive excess return (1,919 percent).

Table 1 also presents some evidence regarding the relationship between the frequency of special dividend declarations and the gains to shareholders. We find that for companies with five or fewer special dividend declarations over the sample period, the announcement period excess return of 1,807 percent is significantly higher than the 1,286 percent earned by shareholders of companies with six or more declarations of special dividends. This conclusion is based on a t-value of 2,27 for the test of equality of mean excess returns for the two subsamples. This behaviour of share prices is consistent with the hypothesis that infrequent declarations of special dividends convey more information than those that appear on a more regular basis.

This aspect of the information content hypothesis receives more support from the evidence in Table 2. Here we examine the behaviour of announcement period returns as a function of the order of the announcement of the special dividend. The results indicate that the reaction to the first special dividend announcement is larger than that for any subsequent announcement. In addition, the abnormal returns tend to decrease with the order of the special dividend. For example, the reaction of the market to the announcement of the tenth special dividend in a company's history is substantially smaller than that to the first special dividend.

Another explanation for the negative relationship between excess returns around the announcements of special dividends and the frequency of announcements is that companies that declare special

dividends more frequently declare smaller ones. This explanation is consistent with the result in Brickley (1983) that the size of the special dividend is positively related to returns. To test this possibility, we estimate a regression with the excess return as the dependent variable, and a set of six independent variables - the relative size of the dividend, and five dummy variables that take on values of zero or one, depending on the

frequency of the special dividend under consideration. If the result is being driven by dividend size alone, we would expect the dummy variable coefficients to be zero. On the other hand, if declaration frequency has the hypothesized effect, the coefficients of the dummy variables should be negative.

Table 2: Panel A. Daily average excess returns for equally weighted portfolios of shares for the three days around the announcement of special dividends from 1975 to 1994. Samples are categorized by the order of the special dividend.

Order of special dividend ^a	Event day (s)	Average Return (%)	Average excess return (%)	Z - value	Percent positive
First (128)	-1	0,239	0,141	2,73*	50,36
	0	1,309	1,218	17,54*	62,18
	1	1,182	1,092	14,64*	63,43
	-1,0, 1	2,730	2,451	21,15*	67,32
Second (51)	-1	0,118	0,055	0,93	48,29
	0	0,916	0,853	8,76*	61,82
	1	0,741	0,677	7,84*	58,75
	-1,0, 1	1,775	1,585	9,98*	63,81
Third (37)	-1	0,241	0,158	0,80	49,37
	0	0,816	0,732	7,03*	63,48
	1	0,473	0,389	4,11*	59,56
	-1,0, 1	1,530	1,279	6,87*	64,25
Fourth and fifth (45)	-1	0,250	0,178	1,62	52,30
	0	0,701	0,631	8,79*	60,17
	1	0,824	0,751	8,45*	59,45
	-1,0, 1	1,775	1,560	11,17*	64,38
Sixth - tenth (48)	-1	0,091	0,056	0,18	49,92
	0	0,576	0,541	5,46*	57,34
	1	0,484	0,449	3,90*	54,47
	-1,0,1	1,151	1,046	6,15*	58,51
Eleventh and up (29)	-1	0,232	0,195	1,95*	54,17
	0	0,510	0,473	4,60*	55,26
	1	0,603	0,566	5,32*	60,49
	-1,0, 1	1,345	1,234	6,71*	65,34

Panel B. t - Values for differences between 3-day announcement period returns for subsamples based on order of special dividends

Order of special dividends ^a	2nd	3 rd	4th and 5th	6th - 10th	11th and up
1st	2,41 *	3,12 *	1,78	4,17*	2,63 *

^a The order of the special dividends is based on the sample chosen. For example, the category of "first" consists of the first special dividend announced by companies in the sample of 338 events.

* Indicates significance at the 5 - percent level.

Table 3: Cross-sectional regressions of announcement period excess returns on dummy variables related to declaration frequency of special dividends for the 338 announcements of special dividends from 1975 to 1994.

$$ER = a + b(\text{RELSIZE}) + C_1 D_1 + C_2 D_2 + C_3 D_3 + C_4 D_4 + C_5 D_5$$

Excess return	a	b	C ₁	C ₂	C ₃	C ₄	C ₅
2 - Day (0,1)	0,019 (10,64)*	0,004 (5,91)*	-0,008 (-2,53)*	-0,011 (-3,31)*	-0,008 (-1,94)	-0,006 (-1,10)	-0,012 (-4,75)*
3 - Day (-1, 0, 1)	0,020 (8,97)*	0,004 (5,24)*	-0,007 (-1,73)	-0,009 (-2,68)*	-0,007 (-1,65)	-0,004 (-0,54)	-0,011 (-3,66)*

^a ER is the announcement period excess return, RELSIZE is the relative size of the special dividend defined as the ratio of the special dividend to the previous year's dividend. D₁ is the dummy variable that takes on a value 1 if the special dividend is the (i + 1) st in the company's history (i = 1, 2, 3, 4), and D₅ is a dummy variable that takes on the value 1 if the special dividend is the sixth or more in the company's history.

^b The figure in parentheses is the t - statistic.

* Indicates significance at the 5 - percent level.

The estimated coefficients are presented in Table 3. The negative signs of the estimated coefficients of all dummy variables in Table 3 indicate support for the hypothesized frequency effect. The share price reactions are negatively related to special dividend declaration frequency. The share market reacts more positively to companies that declare special dividends infrequently. Market participants are less likely to anticipate infrequent special dividend declarations. Such dividends surprise the market, resulting in a large share market reaction. This in turn implies that companies declaring special dividends frequently convey less information to investors than those companies making infrequent declarations. As expected, the relative size of the dividend is also an important explanatory variable of excess returns.

The results of this investigation should be interpreted with caution. Bowers and Fehrs (1995) have shown that dividend buying, used primarily by corporate investors and speculators, commences on the dividend announcement date and persists over the entire variable-length interval to the ex-dividend date. These short-term investors can earn trading profits because on average, ex-dividend day share price declines less than the amount of the dividend. As a result, some portion of the abnormal returns and increased trade volume around dividend announcement dates and attributed to the information content of dividends is actually due to short-term tax-motivated trading. It is recommended that future researchers investigate the impact of short-term dividend buying by speculators on the share price behaviour of companies announcing regular and special dividends.

5. SUMMARY AND CONCLUSIONS

There has been considerable amount of research on the behaviour of security prices around the announcement of dividend changes. This paper adds to the body of research by examining the behaviour of share prices around the announcements of labeled increases in dividends. Consistent with the findings in Brickley (1983), the share prices on the JSE tend to react positively to the announcements of special dividends. This suggests that the announcement of special dividends convey value-increasing information to the market and the gains from this positive information accrue to shareholders.

This paper also examined the relationship between the frequency of special dividend declarations by companies and the announcement-related returns to the company's shareholders. The empirical evidence indicates that the share price reactions are negatively related to dividend declaration frequency. This result suggests that market participants anticipate the announcements of special dividends by companies that have frequent declarations of such dividends. This, in turn, implies that frequent declaration of special dividends convey less information than do infrequent declarations.

REFERENCES

- Aharony J and Swary I. 1980. Quarterly dividend and earnings announcements and shareholders' returns: an empirical analysis. *The Journal of Finance*, 35, March:1-12.
- Bhana N. 1991. Reaction on the Johannesburg Stock Exchange to major shifts in dividend policy. *South*

- African Journal of Business Management*, 22(3):33-40.
- Bhattacharya S. 1979. Imperfect information, dividend policy, and the "bird in hand" fallacy. *The Bell Journal of Economics*, 10, Spring:259-270.
- Bowers HM and Fehrs D. 1995. Dividend buying: linking dividend day announcements and ex-dividend day effects. *Journal of Accounting, Auditing and Finance*, 10(3):421-435.
- Brickley JA. 1983. Shareholder wealth, information signalling, and the specially designated dividend. *Journal of Financial Economics*, 12(2):187-209.
- Brown SJ and Warner JB. 1980. Measuring security price performance. *Journal of Financial Economics*, 8, September:205-258.
- Handjinicolaou G and Kalay A. 1984. Wealth redistribution or changes in firm value: An analysis of returns to bondholders and stockholders around dividend announcements. *Journal of Financial Economics*, 13(1):35-63.
- Kalay A. 1980. Signalling information content, and the reluctance to cut dividends. *Journal of Financial and Quantitative Analysis*, 15, November:855-869.
- Knight RF and Affleck-Graves JF. 1987. An evaluation of dividend signalling on the Johannesburg Stock Exchange. *South African Journal of Business Management*, 18(2):79-86.
- Kwan CW. 1981. Efficient market tests of the information content of dividend announcements. *Journal of Financial and Quantitative Analysis*, 16, June:193-205.
- Lintner J. 1956. Distribution of incomes of corporations among dividends, retained earnings and taxes. *American Economic Review*, 46(1):97-133.
- Miller MH and Modigliani F. 1961. Dividend policy, growth and the valuation of shares. *The Journal of Business*, 34, October:411-433.
- Miller MH and Rock K. 1982. *Dividend policy under asymmetric information*. Unpublished Manuscript. University of Chicago.
- Modigliani F and Miller MH. 1958. The cost of capital, corporation finance, and the theory of investment. *American Economic Review*, 48(3):261-297.
- Weston FJ and Copeland TE. 1992. *Managerial Finance*. 9th Edition. The Dryden Press: New York.
- Woolridge JR. 1982. The information content of dividend changes. *Journal of Financial Research*, 5, Fall:237-247.
- Woolridge JR. 1983. Dividend changes and security prices. *The Journal of Finance*, 38(5):1607-1615.