

An Examination of Dividend Payment Behavior In Kuwait

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Introduction

The Primary Focus of prior empirical studies on dividend payment practices has been on major industrial countries such as the U.S. (see for example Lintner (1956) and Fama and Babiak (1968), Japan (see Nakamura and Nakamura (1985), and Canada (see Morgan and Saint-Pierre (1978). While it is important to understand the dividend payment practices in the major industrial countries, it will also be worthwhile to investigate how firms in smaller countries with different economic settings behave with respect to dividend payments.

The purpose of this study is to examine the dividend payment behavior of firms that are traded on the Kuwait Stock Exchange. Our empirical analysis is based primarily on the economic specifications of dividend policies suggested by Lintner (1956).

The variants of the Lintner model developed by Fama and Babiak (1968) and Nakamura and Nakamura (1985) are also investigated. The findings of our study indicate that dividend payments by the publicly-traded firms in Kuwait can be explained by current earnings and lagged dividends as suggested by Lintner (1956).

Furthermore, lagged earnings have a negative relationship with change in dividends supporting the rational expectations model of Nakamura and Nakamura (1985). Our analysis also indicates that these results are more likely to hold in the post Gulf years and for financial firms.

Discussion of Dividend Payment Behavior

Since the proposition by Miller and Modigliani (1961) that dividends are irrelevant in perfect capital markets, several studies have analyzed dividend payment behavior by focusing on market imperfections (see Alli et al. (1993) for a

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comprehensive list of studies). The conclusions of these studies generally indicate that dividends can matter because of tax clientele effect, transaction costs of issuing new securities, signalling effect, agency problems, and managerial considerations with respect to financial slack and dividend stability.

In empirical testing, the partial adjustment model suggested by Lintner (1956) has been the most successful. Lintner (1956) studied the dividend payment practices of 28 well-established firms and concluded that: (a) dividend payment at any given time depends on whether the existing dividends should be changed, (b) existing rate of dividends is changed if it is positively desirable, (c) current earnings is the most persuasive factor affecting change in dividends, and (d) dividends are changed based on the target payout ratio and an adjustment factor. Based on his field work, Lintner (1956) proposes that the dividend payment behavior of firm j can be explained by the following basic equation:

$$\Delta D_{jt} = \alpha_j + c_j (D^*_{jt} - D_{j,t-1}) + u_{jt} \quad (1)$$

Where: ΔD_{jt} = change in dividend payments from last year.

α_j = intercept coefficient,

c_j = speed of adjustment coefficient,

D^*_{jt} = target dividends,

u_{jt} = error term.

Lintner (1956) includes change in dividends, ΔD_{jt} , as the dependent variable because managers use change, not the amount of dividends in the dividend decisions. The intercept term, α_j , will generally be positive to reflect the greater reluctance to cut than to raise dividends. The coefficient, c_j , indicates the speed with which a firm adjusts to the difference between last year's dividend and the target dividend, D^*_{jt} . Since stockholders and managers prefer stability in dividends, adjustment towards target dividends in any given year is partial and progressive. Lintner (1956) suggests that the target dividend is equal to the firm's target payout ratio times its current earnings. Equation 1, therefore, can be written as:



$$\Delta D_{jt} = \alpha_j + c_j r_j E_{jt} - c_j D_{j,t-1} + u_{jt} \quad (2)$$

where: r_j = target payout ratio,

E_{jt} = current earnings,

or

$$\Delta D_{jt} = \alpha_j + \beta_{1j} E_{jt} + \beta_{2j} D_{j,t-1} + u_{jt} \quad (3)$$

where: $\beta_{1j} = c_j r_j$,

$\beta_{2j} = -c_j$.

The sign of the coefficient, β_{1j} is expected to be positive while that of β_{2j} , is expected to be negative. Lintner (1956) Suggests that the target payout ratio and the dividend adjustment rate are established by firms based on a number of factors such as growth prospects of the firm and the industry, availability of investment opportunities, working capital requirements, stockholders' preference for dividend stability etc. He also indicates that the target payout and the adjustment rate are relatively stable over time although there can be significant variations across firms.

A later study by Fama and Babiak (1968) concludes that the two-variable Lintner model performs well relative to other models. Fama and Babiak (1968) also find that the forecasting ability of Lintner model can be slightly improved by adding a one-period lagged earnings. The Fama-Babiak model, which is a methodological extension of the Lintner model, is presented below:

$$\Delta D_{jt} = \alpha_j + \beta_{1j} E_{jt} + \beta_{2j} D_{j,t-1} + \beta_{3j} E_{j,t-1} + u_{jt} \quad (4)$$

Nakamura and Nakamura (1985) Show that under a rational expectations hypothesis, the one-period lagged earnings variable can be included in the Lintner model. The basic premise of their hypothesis is that the target dividend payment is a function of a firm's permanent earnings as perceived by the management. Given an information set, the permanent earnings in any given period represent the discounted value of expected future earnings times the return on the market

value of the firm. Using a stochastic process for earnings, Nakamura and Nakamura (1985) show that change in dividends can be explained by lagged dividends, and both current and lagged earnings. Unlike a positive sign of the coefficient of the lagged earnings implied by Fama and Babiak (1968), they specify a negative sign in the model.

Data and Sample

The dividend and earnings data of firms for our empirical analysis are drawn from the 1989 and 1992 issues of the *Investor Guide* published by the Kuwait Stock Exchange. The 1989 issue contains data for the years 1989, 1987, 1988, While the 1992 issue provides data for the years 1993, 1992, 1991. We have focused on these six years because of the availability of complete and meaningful data for most firms. For the other years that we checked, the issues are either not available or the data have missing values.

Since our regression analysis includes change in annual dividends as well as current and one-year lagged earnings, we require availability of annual dividends and net income data for three consecutive years. We are able to obtain 40 and 16 such cases, respectively, from the 1989 and 1993 issues of the *Investor Guide*. The 56 cases include 29 firms with consecutive-year data for 1989, 5 firms for 1991-1992, and 16 firms for both 1987-1989 and 1991-1993. of the 56 cases, 26 are in the nonfinancial sectors (15 industrial, 1 real estate, 6 food sector, and 4 services), and 30, are in the financial sectors (16 banking, 5 investment, and 9 insurance).

Empirical Findings

The Findings of the dividend payment behavior models are presented in Table 1. Model 1 is the basic Lintner model in which change in dividends is a function of one-period lagged dividends and current year's net income. The findings indicate that the change in dividends can be explained by both the variables specified in the Lintner model. The coefficients of both lagged dividends and current earnings are significant and their signs are as hypothesized. The lagged dividend



variable $D_{j,t-1}$ has a coefficient of -0.467 (t-statistic=-6.21) while the current earnings, $E_{j,t}$, has a coefficient of 0.219 (t-statistic=5.17). The constant term is also significantly positive reflecting the greater reluctance to cut than to raise dividends. The R^2 value indicates that 53% of the variation in the dependent variable can be explained by the model. This R^2 value is higher than that observed in the dividend studies by Fama and Blacomin (1968), Morgan and Saint-pierre (1978), and Nakamura and Nakamura (1985). Overall, the findings for model 1 suggest that the dividend payment behavior specified by Lintner (1956) Works well for the Kuwaiti firms.

Table 1

Coefficients of the dividend behavior models for firms listed on the Kuwait Stock Exchange, 1988-1989 and 1991-1992. Change in annual dividends is the dependent variable.

t-statistics are in parentheses.

Variable	Model 1	Model 2
Constant	3.832 (3.81) ***	3.035 (3.04) ***
$D_{j,t-1}$	-0.467 (06.21) ***	- 0.461 (- 6.51) ***
$E_{j,t}$	0.219 (5.17) ***	0.331 (5.56) ***
$E_{j,t-1}$		- 0.121 (-2.54) **
N	46	46
R^2	0.73	0.77
F-statistic	23.96 ***	20.14 ***

$D_{j,t-1}$ = Annual dividend for firm j in year t.

$E_{j,t}$ = Annual net income for firm j in year t.

$E_{j,t-1}$ = Annual net income for firm j in year t-1.

*** Significant at the 1% level.

** Significant at the 5% level.

Model 2 includes a one-year lagged earnings variable, $E_{j,t-1}$, in the basic Lintner model as specified by Fama and Babiak (1968) and Nakamura and Nakamura (1985). The results indicate that all the variables are significant in explaining change in dividends. The signs of the coefficients of the constant term, lagged dividends and current earnings are as expected. The lagged earnings has a coefficient of -0.121 (t-statistic=2.54). The negative sign of the coefficient of the lagged earnings supports the rational expectations hypothesis proposed by Nakamura and Nakamura (1985). The inclusion of the lagged earnings variable increased the R^2 value to 59% for model 2. This represents a slight increase from model 1.

In an effort to shed light on whether the dividend payment behavior is influenced by the Gulf war of 1990 and by the nature of the industry, we divide the sample into pre (1988-1989) and post (1991-1992) Gulf war periods, and financial and nonfinancial sectors. The results for the subsamples are presented in Table 2.

Table 2

Coefficients of the dividend behavior models for subsamples of pre and post Gulf war firms and financial and nonfinancial firms listed on the Kuwait stock Exchange, 1988-1989 and 1990-1992.

Change in annual dividends is the dependent variable. t-statistics are in parentheses.

Panel A	Pre Gulf war,	1988 - 1989	Post Gulf War	1991-1992
Variable	Model 1	Model 2	Model 1	Model 2
Constant	2.452 (1.73)	2.021 (1.47)	5.942 (4.67) ***	4.853 (2.81) ***
$D_{j,t-i}$	-0.426 (-3.19)***	-0.516 (-3.75) ***	-0.366 (-2.88) **	-0.280 (-2.28) **
$E_{j,t}$	0.216 (3.47) ***	0.379 (3.50) ***	0.142 (2.78) ***	0.205 (2.60) **
$E_{j,t-1}$		-0.135 (-1.81)		-0.118 (-2.19) **
N	30	30	16	16
R^2	0.31	0.39	0.83	0.87
F-statistic	6.10***	5.49 ***	30.91 ***	26.58 ***

Con./ Table 2

Panel B Variable	Financial Sectors		Nonfinancial Sectors	
	Model 1	Model 2	Model 1	Model 2
Constant	2.437 (1.25)	2.410 (1.20)	2.622 (2.69) **	2.228 (2.38) **
$D_{j,t-1}$	-0.663 (-4.96) ***	-0.661 (-4.76) ***	-0.317 (-4.92) ***	-0.330 (-5.44) ***
$E_{j,t}$	0.425 (6.13) ***	0.431 (4.71) ***	0.133 (3.66) ***	0.220 (3.98) ***
$E_{j,t-1}$		-0.011 (-0.12)		-0.082 (-2.38) **
N	22	22	24	24
R ²	0.67	0.67	0.70	0.75
F-statistic	18.93 ***	11.97 ***	24.87 ***	20.20 ***

$D_{j,t-1}$ = Annual dividend for firm j in year t.

$E_{j,t}$ = Annual net income for firm j in year t.

$E_{j,t-i}$ = Annual net income for firm j in year t-1.

*** Significant at the 1% level.

** Significant at the 5% level.

The findings in panel A indicate that, in the pre Gulf war years, the lagged dividends and current earnings explain change in dividends in both models 1 and 2 which are consistent with the basic Lintner model. The constant terms are not, however, significant in either of the models suggesting that firms in the pre war years may not be inclined to increase dividends. Also, the lagged earnings coefficient is not significant in model 2 which does not support the rational expectations hypothesis. In the post war period, the signs of all the variables in both models are as expected suggesting Lintner's proposition and the rational expectations hypothesis. The values in the post war period are also substantially higher when compared with those in the pre war period. Overall, the findings in

panel A suggest that the dividend payment practices in Kuwait are more in line with the Lintner and rational expectation models in the post war years than in the pre war years.

Panel B provides findings for subsamples of financial and nonfinancial sectors. we classify financial firms as those that belong to the banking, investment and - insurance sectors. The nonfinancial firms belong to the industrial, food, services, and real estate sectors. The findings for the financial sectors indicate dividend payment behavior that is consistent with the Linter model and the rational expectation hypothesis. For the nonfinancial sectors, the constant term in both models and the lagged earnings coefficient in model 2 are not significant. Apparently, the firms in the nonfinancial sectors are less inclined to increase dividend payments and use past earnings to make changes in dividends.

Conclusions

Prior empirical studies utilizing dividend behavioral models have concentrated on major industrial nations mainly U.S. The evidence is consistent with the basic Lintner model and its augmented versions that change in dividends are explained by lagged dividends and by current and lagged earnings.

This study attempts to determine whether the behavioral models of dividends can explain dividend payment practices in Kuwait. Using a small sample, we find that the dividend models work well for the Kuwait firms. The coefficients of the lagged dividends and current earnings are significant with expected signs supporting the Lintner model. The Lintner model explains about 53% variations in the change in dividend payments in Kuwait. Inclusion of lagged earnings increases the explanatory power of the model slightly to 59%. The coefficient of the lagged earnings is also significant and negative supporting a rational expectations hypothesis.

Further investigation indicates that the dividend payment practices are more consistent with the economic specifications in the post Gulf war period and for firms in the financial sectors.



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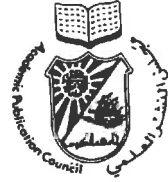
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أ.د. محمد أحمد العظمة

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الكويت : 2 دينار للأفراد - 15 دينار للمؤسسات
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