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The Timing And Benefit Of Dividend Payment The Case Of Tunisia

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The aim of this paper is to identify the determinants of the dividend payment date for a panel of Tunisian firms from 1994 to 2004. Our results indicate that Tunisian companies with high liquidity and big size pay dividends more rapidly. We find that there is a significant negative correlation between benefits and the timing of dividend payment. The relation between dividend payment date and growth opportunities is negative.

JEL Codes: F34, G21 and G24.

1. Introduction

Dividend policy is a fundamental component of corporate policy. Many researchers are focusing on the determinants of the amount of dividend to pay and ignore another central of interest to shareholders which is the date of dividend payment. Basically, the most cited determinants of the amount of dividend are profits, investment opportunities and the size of the firm. However, the literature ignored the determinants of the date of dividend payment which is a recent field of research. So, is there a relationship between the determinants of dividend and the determinants of the timing of payment? This association is based on the idea that the dividend policy is divided in two parts: amount and exact moment of payment. According to signalling theory, managers, distribute high dividends as a signal for their profitability and strengthen of the firm. We think that the timing of dividend payment is also a signal about the capacity of the firm to distribute and if the firm has enough cash to distribute, the timing of dividend payment will be enough near to the date of the general annual meeting, which is good news for stockholders.

The aim of this paper is to identify the major determinants of the dividend payment date for a panel of Tunisian firms from 1994 to 2004. The major results indicate that Tunisian companies with high liquidity and big size pay dividends more rapidly. We show that there is a significant negative correlation between benefits and the timing of dividend payment. The relationship between dividend payment date and growth opportunities is negative.

2. Literature review

The literature review reveals that signalling models (Battacharaya, 1979; Asquith & Mullins, 1983; John & Williams, 1985; Miller et Rock, 1985) argue that information asymmetries between firms and outside investors may induce a signalling role for

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dividends. They show that dividends communicate private information about the firm. They argue that firms pay dividends to signal favourable information to the capital market. The most important element in the signalling theory is that firms with higher earnings are likely to pay higher dividends, and try to do it regularly.

If Nissim & Ziv (2001) report evidence in favour of the signalling theory, Benartzi, Michaely & Thaler, 1997; Grullon, Michaely & Swaminathan, 2002; and Grullon, Michaely, Benartzi and Thaler (2003) find another evidence. They argue that to pay a higher dividend regularly is only restricted to mature firms. These ones have some relevant characteristics that will permit it to pay higher dividends regularly. In this vein, Grullon et al. (2001) suggest that dividends convey information about a firm's transition from growth stage to a mature phase. Fama and French (2001) argue that three characteristics to mature phase affect the decision to pay dividends: profitability, investment opportunities, and size. They found that especially larger firms and more profitable ones are more likely to pay dividends. Dividends are less likely for firms with more investment opportunities and we construct that these characteristics will be deterministic in fixing the real date of payment.

In accordance to Fama and Frensh (2001), firms with higher current earnings and few growth opportunities (which are characteristics of maturity stage) imply higher cash and translating the firm from non-dividend payer to dividend initiator. This reasoning is consistent with Deshmukh (2003) who find that the time until initiation is negatively related to cash (liquidities). Therefore, the time until the date of payment should be negatively related to cash. Grullon et al (2001) suggest that declining reinvestment rate gives rise to excess cash, which is paid out in the form of dividends.

Since the law doesn't prefix until now an exact date to respect to pay the dividends, managers continue to decide lonely about this date. The question of at what time the firm choose the real date to pay annually the dividends is in our view really attached to the characteristics of the firm in its life cycle. The literature review of the dividend policy reveals that to this date, the moment of dividend payment remains a major concern for investors worldwide (let's see all the articles in financial reviews about the date fixed to pay dividends for investors). The more they know about the exact timing of dividend payment of a potential firm payer, the greater the chance they can maximize profits, by replacing this cash in banks to obtain another gain unriskly. At the same time, investors are sure that managers will not invest the benefits in bad projects, or for their own profits. So, the dividend payment date reduces the asymmetric information and gives rise that the firm is stronger if we think that the more the firm is larger, beneficial and has enough cash, the more the dividend payment lag will be shorter.

The presence of characteristics relative to the maturity stage suggests that the rapidity to pay dividends for a firm is a function of several firm attributes. The decision to not pay dividends rapidly stems from the fact that the firm is not mature (Fama & Frensh, 2001). We suggest that non mature firms pay dividends faster than mature firms and should not be ignored in any analysis of corporate dividend policy. That's why we try to explain the dividend payment lag by the characteristics of the firm payer.

In this paper, we extend the study of the dividend initiation which is the first payment of dividends to the investigation of factors associated with the length of time taken by firms to distribute the dividends. This time frame is referred to as “the dividend payment lag” and is equal to the number of days between the date of the assembly (when the members decide of the amount of dividend to distribute) and the date to start this payment. The dividend payment lag is examined in the context of an alternative explanation based on life cycle theory. This alternative explanation is derived from the mixture hypotheses of Fama and French (2001) and Grullon et al (2001). This mixture of hypotheses has implications for a firm’s dividend payment delay that have been largely ignored in the dividend policy literature. For instance, Asquith and Mullins (1983), and Deshmukh (2003), argue, dividend initiations are more unexpected than dividend increases (or changes) and represent a significant shift in a firm’s dividend policy. In this paper we examine the exact timing (lag) of payment which is done yearly by the developed firms. For this category of firms, paying dividends is a consequence of their characteristics that are relied to their maturity. Fama and French (2001) argue that mature firms are large with high benefits but low growth opportunities. These characteristics can explain why listed firms start paying dividends. So, we think that the characteristics of mature firms can explain the rapid payment of dividend.

According to Grullon & al (2001), larger firms and more profitable ones are more likely to pay dividends. Dividends are less likely for firms with more investments and we construct the following hypothesis: “Firms with high size, high benefits and few investment opportunities pay dividends more rapidly than firms with low benefits, small size and strong investment opportunities.”

3. Methodology and Empirical Analysis

The following paragraph presents (i) sample selection, (ii) proposed model and (iii) discussion of the results.

3a. Sample selection

We examine the dividend payment lag for a sample of firms listed on the Tunisian stock exchange for the period 1999 to 2004. We collect the data from the annual reports of the official bulletins of the Tunisian stock exchange. The final sample contains 18 financial institutions and 13 industrials firms.

3b. Proposed model and description

Our empirical model is described as follows:

$$DPL_{it} = c_i + b_{1i}Size + b_{2i}Prof_{it} + b_{3i}OpInv_{it} + b_{4i}Liq_{it} + b_{5i}Ind_{ii} + e_{it}$$

The dependent variable, DPL, is the dividend payment lag per firm. This variable is measured by the natural logarithm of days between two dates: the date of the annual general meeting, and the dividend payment date.

Size, is a variable that measures the size of the firm. It is measured by the log of total assets. According to Grullon et al. (2002), the larger the firm size, the higher the

probability that is a mature-dividend-payer and the lower the timing of the dividend payment. Therefore, the sign of the coefficient on size will be negative, in accordance to life cycle theory.

Prof, is measured as the ratio of aggregate stock earnings over aggregate book equity. Our model predicts a negative relationship between the profitability and the dividend payment lag Therefore, the sign of the coefficient on profit will be negative, in accordance to life cycle theory.

OpInv, is measured as the ratio of investment opportunities. Dividends are less likely for firms with more investments. Our model predicts a positive relationship between the investment opportunities and the dividend payment lag.

The potential importance of life cycle theory in determining the timing of dividend payments does not rule out other factors affecting this payment. As follows, we identify control variables from other models on dividend policy.

Cash / Liquidity, according to signalling models, firms with higher earnings are likely to pay higher dividends. Similarly, life cycle theory predicts also that firms with higher current earnings and few growth opportunities (which are characteristics of maturity stage) imply higher cash and translating the firm from non-dividend payer to dividend initiator. This reasoning is consistent with Deshmukh (2003) who find that the time until initiation is negatively related to cash (liquidities). On the other hand, the time until the date of payment should be negatively related to cash. Grullon et al (2001) suggest that declining reinvestment rate gives rise to excess cash, which is paid out in the form of dividends. We construct the cash/liquidity measure defined as the ratio of liquidity to book value of assets to serve as a proxy for cash.

Ind, is industry representation and is our control variable. It is measured by a dummy variable which takes 1 for a financial firm and 0 for a non financial firm.
To summarize, the independent variable, their proxies and their measures are presented in table (1):

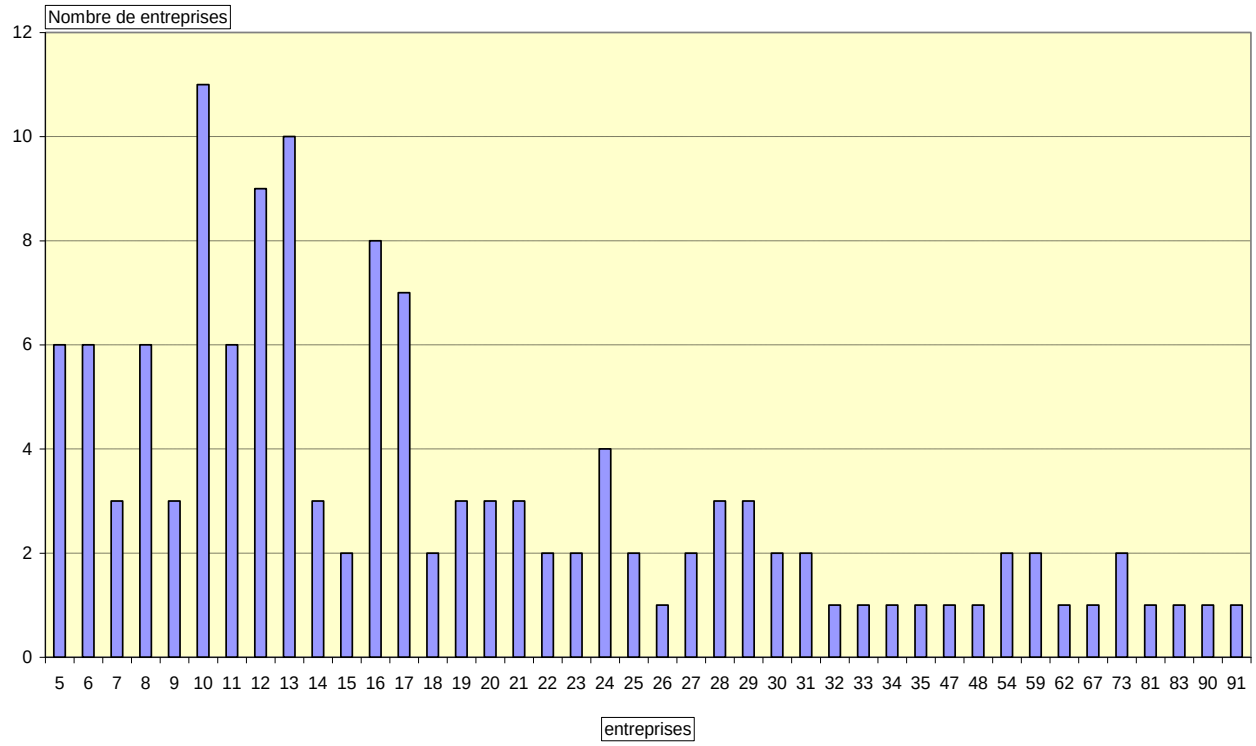
Table 1: Description of the variables

Variable	**Proxy**	**Measure**
Size	Size of the firm	Log of total Assets
Prof	Profitability	Net Profit / book value of equities
OpInv	Investment opportunities of the firm	market value of assets / book value of assets
Liq	Liquidity of the firm	Liquidity / total assets
Ind	Industry representation	Dummy variable which equals 1 if the firm is a financial one, 0 otherwise.

3c. Discussion of the results

Descriptive statistics: Table 2 presents the full descriptive statistics for the dependent variable “dividend payment lag” on the full sample of firms. The statistics show two important remarks: 50% of our firms choose to start distributing their dividends after 21 days after announcing the amount of the dividend at the annual general meeting. On overage, the dividend payment lag is 18 days after the day of the annual general meeting for financial institutions, and 24 days for industrial firms. That’s mean that financial institutions pay dividends before industrials firms.

Figure 1: Distribution of frequency of the dividend payment lag for both financial and non financial firms.



This figure presents the distribution of frequency of the dividend payment lag for both financial and non financial firms. We analyze the distribution of frequency of “dividend payment lag’ with the distinction done by sector representation.

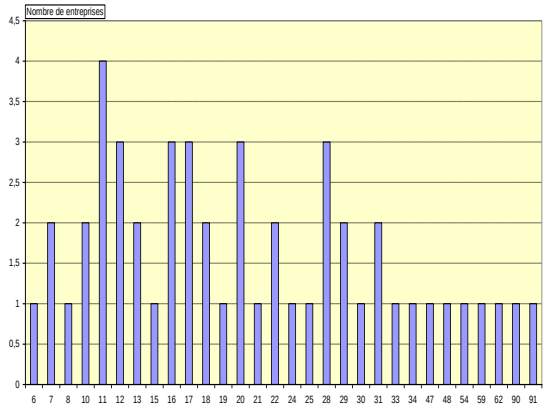
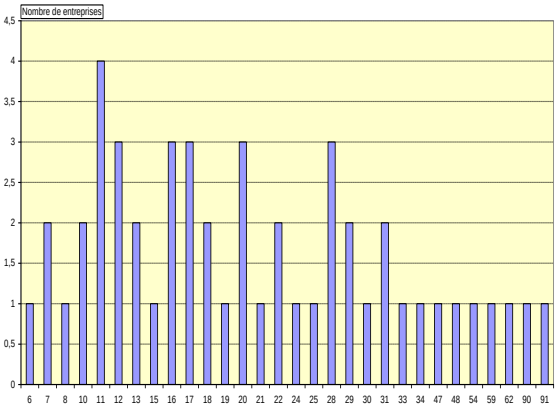
Fig 2. (Financial sector)	Fig 3. (Non Financial sector)
	

Table 2. Descriptive statistics of 'Dividend payment lag' for financial firms and industrial firms

	F+NFFirms	Financial Firms	Industrial Firms
Mean	21.174	18,853	24,98
Median	15	13	19,5
Mode	10.5	10	11
Std. dev	17,9037	17,4037	18,826
Minimum	5	5	6
Maximum	91	83	91

Table3 presents the full descriptive statistics for the relevant variables on the full sample of firms. The statistics presented show that financial institutions are larger, more profitable, and more liquid than industrials firms; they also have fewer investment opportunities.

Tableau 3: Comparison means of explanatory variables for financial institutions and industrial firms

	Size	Profitability	Liquidity	Investment opportunities		
				Investment opportunities	Equity	Q Marris
Financial instiutions	113 622 379 730	93 646 114	67 914 068	104 183 922	49 131 140 599	0,9763
Both financial and industrial firms	70 607 656 558	59 685 771	43 093 525	91 955 065	30 530 923 655	1,3205
Industrials firms	63 510 554	3 990 808	2 387 834	71 899 739	26 567 866	1,8848

Correlation Matrix: table 4 presents correlation matrix of the variables included in the model. As predicted by the theory, the size is negatively correlated with profitability and investment opportunities. Managers of big firms with high liquidity, tend to pay dividends to stockholders in order to signal their good performance, and ovoid opportunities of investment if they are not enough profitable.

Table 4. The correlation matrix of the explanatory variables

	Size	Profitability	Liquidities	Inves Opp
Size	1.0000			
Profitability	-0.0083 0.6185	1.0000		
Liquiditiy	0.0300 0.6973	0.0160 0.8357	1.0000	
Investment Opportunities	**-0.2814** **0.0002***	0.084 0.6182	0.0609 0.4285	1.0000

***Significant level = 5%**

The correlation matrix shows that the correlations are between – 0.28 and 0.08 and are less than 0.8%. According to Kennedy (1992), the explanatory variables are not highly correlated. This result will be confirmed by the results of the variance inflation factor presented below.

Table 5. VIF results

Variable	VIF	1/VIF
Size	1.09	0.917763
Profitability	1.00	0.997475
Investment Opportunities	1.09	0.915273
Liquidity	1.01	0.993650
VIF Mean = 1.05		

According to Dimitrova (2005), if VIF mean is under the level of 5, there is not problem of correlation between the independent variables. Therefore, we introduce all the variables in the same regression.

3.3. Empirical Regression Results

The regression analysis is concluded in the following model:

$$DPL = f (PROF, SIZE, OPINV, LIQ, IND)$$

Table 6 presents the result of the Haussman (1978) test of Homogeneity by the panel data in order to decide if we will discuss the regression results to the fixed effects model or the random effects model.

Table 6. Hausman Test Results

	Coefficients from Fixed method (b)	Coefficients from Random method(B)	Difference (b - B)
Size	.065491	-.0242804	.0897713
Profitability	.713586	.835928	-.1223421
Investment opportunities	-.0135478	-.0265349	.0129871
Liquidity	-.029494	-.0247818	-.0047122
Chi ^{2} = 2.17, Signification = 0.7046, Significant level = 5%			

Table 6 shows that the test for overall Homogeneity gives that the probability to accept the null hypotheses equals to 70.46% > 5%, that's why we interpret results of the random effects model.
Table 7 and 8 present the results of the regression of dividend payment lag on the set of variables defined in section 3.1.and their predictable sign.

Table 7. Results of the Random Effects Model

Variable	Coefficient	Z	Signification of Z
Size	-0.0242804	-0.69	0.488
Profitability	0.835928	1.32	0.186
Investment Opportunities	-0.0265349	-0.55	0.582
Liquidity	-0.0247818	-0.88	0.378
Industry representation	0.2672818	1.47	0.142
constant	3.111068	4.27	0.000
R^2 = 0.2110, Chi ^{2} = 8.01, Signification = 0.1558, Significant level = 5%			

From table 7, it can be seen that the explanatory variables introduced (which are size, profitability, investment opportunities, liquidity and sector) explain at 21.10 % the dividend payment lag. As predicted, the regression indicates that dividend payment lag is negatively related to firm size and liquidity, investment opportunities and positively related to profitability. These results confirm the maturity hypothesis of Grullon et al. (2002) and Fama and French (2001) who suggest that the mature firms (with big size, high benefits and low growth opportunities) will pay dividends more rapidly than firms with low benefits and small size with high growth opportunities (characterising non-matured firms).

The company's **size** has a negative effect on the dividend payment lag. This result means that the big firm spend little time before beginning to pay dividends. This is a good signal about its organising, its transparency and its good financial health.

The coefficient of the variable **Profitability** is positive. This result denies our prediction that the more the firm is profitable, faster it will pay dividends. Firms with high profitability are in front of two decisions: investing in new projects or distributing dividends to stockholders. This reasoning attenuate the rapid disclosure of this good signal to the market, that's why, they reveal a dividend payment date far from the date of the general meeting.

Tunisian companies pay dividends faster after the date of the general meeting when they have higher **investment opportunities**. This result contradicts our prediction and the maturity hypothesis of Grullon et al. (2002). They prefer invest and distribute rapidly dividends to stockholders in order to signal good news about the future performance of their new projects.

The company's **liquidity** has a negative effect on the dividend payment lag. This result means that the firm with enough cash pay dividends rapidly. This is a good signal about its financial health. Managers pay dividends to stockholders in order to signal their performance and to be recompensed for their efforts.

The classification done by **sector** is very instructive. As said earlier, financial institutions pay faster their dividends than the industrial firms. In the majority of cases, financial institutions prefer to pay dividends to themselves because they are institutional investors in other banks. So they prefer distribute rapidly dividends in order to have enough cash to work and replace it for another gain.

Table 8. Predictable sign Vs Realised sign

Variable	Predictable sign	Realised sign
Size	-	-
Profitability	-	+
Investment Opportunities	+	-
Liquidity	-	-
Industry representation	+/-	+

4. Conclusion

This paper provides an empirical and econometric analysis conducted using panel data and both parametric and non parametric methods of the explanation of the dividend payment lag in Tunisia. In our empirical analysis we examine the implications of the maturity hypothesis of Grullon & al (2001).The predictions of the life cycle evidence suggest that the mature firms (with big size, high benefits and low growth opportunities) will pay dividends more rapidly than firms with low benefits and small size with high growth opportunities (characterising non-matured firms). In other terms, we find that there is a significant negative correlation between benefits and the timing of dividend payment. The relation between dividend payment date and growth opportunities is negative. We find also that the timing of dividend payments differ between financial and industrial firms (industry representation). Our major result is that financial firms pay dividends sooner after the date of the assembly than do non financial firms.

In sum, our study increases the field of research in the big puzzle “the dividend policy”. Our findings indicate that the dividend policy in not only the fixing of the amount of dividend to pay, but also, the date of payment to reveal to the market.

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