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Controlling Shareholders' Activism Quality and the Disciplinary Role of Dividend

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Abstract
The aim of this paper is to investigate the disciplinary role of dividend in the Tunisian context. Based on the agency theory predictions, we consider the effect of two conflicting model of dividend: the outcome and the substitute model. Using a sample of 528 firm-years listed on the Tunisian Stock Exchange over the period 1998-2009, our results highlight the deficiency of the disciplinary role of dividend. Empirical evidence shows that dividend policy is the result of large shareholders preferences. We find a positive relationship between dividend payout ratios and the voting powers of financial institutions and the second largest shareholder. In contrast, the control stakes of family and the largest shareholder are negatively related to the payout ratios. We also find a positive association between the free cash flow, the return on assets, the business sector and dividend to earnings ratio. Finally, we document a negative relationship between the debt ratio and dividend payouts. Taken together, our results are consistent with the outcome model of dividend policy.
Keywords: dividend, corporate governance, controlling shareholders, voting power, agency theory.

1. Introduction

During the three last decades, economists have proposed a number of explanations of the dividend puzzle. One of these explanations is the idea that dividend payments are expected to attenuate agency problems between corporate insiders and outside shareholders. According to Easterbrook (1984) and Jensen (1986), dividend can reduce agency conflict for many reasons. First, dividend generates external monitoring by forcing managers into the capital market to raise funds. Second, dividends reduce free cash flows that could otherwise be spent by managers on their private benefits rather than maximizing shareholders' wealth.

Recent empirical research shows that many publicly traded firms around the world have large shareholders in control (La Porta *et al*., 1999). Large owners (blockholders) may play a valuable role by reducing the familiar agency problems between shareholders and managers (Agency conflict I), but recent research has emphasized that large block holdings give rise to a second agency problem between blockholders and minority investors (Agency conflict II). Large shareholders prefer to generate private benefits of control that are not shared by minority shareholders (Shleifer and Vishny, 1997). They can implement policies that benefit themselves at the expense of outside shareholders.

Inspired by agency theory arguments, La Porta *et al*. (2000) have established two models of the relation between a firm's corporate governance quality and its payout policy: the outcome model and the substitute model. Under the first model, dividends are the outcome of an effective system of legal protection of shareholders. The authors claim that under an effective system, minority use their legal power to force firms to pay out dividends. As suggested by Adjaoud and Ben-Amar (2010), according to this model, corporate governance quality should be positively related to dividend payouts since better governed-firms offer stronger protection rights to shareholders. Contrary to this view, the second model argues that dividend payout policy is a substitute for governance problems in a firm (La Porta *et al*., 2000; Gomes, 2000). Under this model, corporate governance quality should be negatively related to dividend payouts in a way that better governed-firms are less likely to use dividends as a device to mitigate agency conflicts opposing managers to shareholders (John and Knyzeva, 2006; Adjaoud and Ben-Amar, 2010).

Indeed, while country-level investor protection is an important factor in preventing expropriation, firm-level corporate governance could carry equal or greater importance (Mitton, 2004). As corporate governance practices can vary widely even among firms in the same country operating under the same legal regime, this paper uses firm-specific corporate governance quality (according to large shareholders activism in corporate control) to study the impact of controlling shareholders on the disciplinary role of dividend. In particular, we try to find an answer to the following question: How large shareholders affect the disciplinary function of dividend policy?

Our research is relevant for many respects. First, it allows answering the question relating to the governance role of dividend policy. Consequently, by identifying the relation between large shareholders' governance quality and dividend policy, this research helps legislators, board of directors and outside investors to take appropriate actions in order to limit large shareholders latitude and reinforcing corporate control to enhance the firm-level corporate governance. Moreover, there is an academic interest to this research insofar as

it contributes to the literature examining corporate governance effectiveness. It assumes that governance mechanisms, such as dividend policy, should be conceived according to specific agency problems that firms confront.

The remainder of this paper is organized as follows. Section 2 reviews relevant literature on the two agency models of dividend and develop hypotheses. Section 3 describes the data and explains our research methodology. Section 4 reports our empirical results followed by sensitivity tests in section 5. Section 6 concludes the paper.

2- Hypotheses Development

In order to identify their governance quality, we have classified firms into two classifications with regard to the voting power of largest shareholders. First, we distinguish between concentrated control and shared control. Several recent studies show that firms with strong governance are those with shared control. Bloch and Hege (2001) suggest that the presence of multiple shareholders reduces private benefits through competition for control.

Second, we distinguish between the types of the controlling group. Firms are classified into family controlled, institutional controlled, outside individuals and state controlled. In an agency perspective, the problems opposing insiders to outside shareholders are affected by the type of the controlling group. Filatotchev *et al*. (2005) argue that family control over the board may lead to greater executive entrenchment and potential agency conflicts with outside investors (Agency conflict II). The agency conflicts between insiders and outside shareholders may be duplicated in state-controlled corporations. As argued by Gugler (2003), in such firms, a double principle-agent problem exists. Agency problems can arise between citizens and state representatives and between state representatives and managers who look to their own interest. Contrary to these controlling shareholders, institutional investors are seen to be active in corporate governance. The efficient monitoring hypothesis initiated by Bathala *et al.* (1994) provides that institutional investors, by their expertise, can mitigate information asymmetry between insiders and outsiders. These investors have more incentive to influence the corporation manager's decision compared to common investors because of their advantage of capital, technology and human resources. On the other hand, financial literature recognizes the crucial role of outside blockholders in reducing the opportunistic behavior of managers (Shleifer and Vishny, 1986). By their important holdings, large outside shareholders can reduce the problem of collective action stemming from dispersed ownership.

The following table summarizes firms' classification with regard to the two components of agency conflicts (agency conflict I and II):

Table 1: Firms' classification according to the two components of agency conflicts

Firms' control \ Agency conflict		Agency conflict I		Agency conflict II	
		Low	High	Low	High
Control level	Concentrated	×			×
	Shared	×		×	
Control type	Family	×			×
	Outside individuals	×		×	
	Financial institutions	×		×	
	State		×		×

Agency conflict I: Shareholders/managers; Agency conflict II: Controlling shareholders/outside shareholders

Hence, according to this discussion and having that the outcome and substitute models have opposite predictions about the relation between governance and dividend policy, we state our hypotheses as follow:

H1 (outcome): dividend payout ratio increases with the voting power of the second largest shareholder, institutional investors and outside blockholders and decreases with the voting power of the largest shareholder, families and the state.

H2 (substitute): dividend payout ratio increases with the voting power of the largest shareholder, families and the state and decreases with the voting power of the second largest shareholder, institutional investors and outside blockholders.

3- Data and Methodology

3-1- Sample selection and data sources

The base for the selection of our sample was the list of issuers of listed securities admitted to trading on a regulated market from the Tunisian securities market commission for the period 1998-2009. We exclude banking and insurance companies because of their special regulations and accounting specificity. Then, the sample is narrowed down by eliminating firms with missing data. We have also eliminated firms with non-positive

earnings because of their negative payout ratios for those paying dividends or because they have never paid dividends during the period of analysis. After imposing these requirements, we obtain a sample of 528 firm-year observations covering the years 1998 to 2009. The sample procedure is reported in Table 2.

Table 2- Sample description

Firms	Frequency
Firms making public offering	128
Less	
Banking and insurance companies	36
Companies with missing data	40
Firms with non-positive earnings and paying dividends	3
Firms with non-positive earnings during the period analysis and never paying dividends	5
= Total	***44***

3-2- Ownership concentration and the measurement of voting power

Following Renneboog and Trojanowski (2006), we analyse a two-stage voting game. In the first stage, we assume that all the shareholders of a particular type form a coalition. In the second stage, such coalitions participate in a voting game with the objective to influence the dividend policy.

We use a game-theoretic approach to study the formal power represented by shareholder votes. The idea is to model shareholders as players in a voting game, and to use classical power indices to measure the extent of their control over a target company. Intuitively, such power indices reflect the relative ability of each player (shareholder) to impose his will to the target company through coalitions with other players. As Crama *et al*. (2003), we propose to use the Banzhaf index, which measures the ability of a voter to swing the decision in his or her own favor. More precisely, the Banzhaf index of a player can be defined as the probability that the outcome of the voting process changes when the player changes her mind unilaterally, under the assumption that all vectors are equally likely (see appendix). We have used two procedures to compute the voting power of the largest shareholders. Table 2 (Panel A and B) illustrates the distribution of voting power (as measured by Banzhaf indices, Z) among the two largest shareholders and different categories of controlling shareholders.

Table 3- Voting power of the largest blockholders

Panel A- Two-stage voting game (absolute Banzhaf indices for shareholder coalitions)				
Variable	Mean	St. dev.	Min	Max
Family and executive directors (ZFAM)	0.42	0.39	0	1
Financial institutions (ZINST)	0.28	0.35	0	1
Outside individuals (ZIND)	0.07	0.10	0	0.33
State (ZSTATE)	0.15	0.35	0	1
Panel B- One-stage voting game (absolute Banzhaf indices for the largest shareholders)				
Largest block (Z1)	0.72	0.29	0.26	1
2^{nd} largest block (Z2)	0.10	0.11	0	0.5

3-3- Dividend Measure

Consistent with prior research in finance (Jensen *et al*. 1992; Farinha, 2003; Poulain-Rehm, 2005 and Kowalewski *et al.*, 2007), we use the ratio of cash common dividends to net income. This measure estimates the tradeoff between the payment and the retention of benefits.

3-4- Control Variables

3-4-1- Free cash-flow (FCF)

The free cash-flow hypothesis initiated by Jensen (1986) suggests that if firms have cash in excess of their requirement of investment in positive-NPV projects, it is better to pay these cashes as dividend in order to reduce managerial discretionary funds and thus avoid agency costs of free cash-flow. The ratio of free cash flow to total assets is considered as the proxy of free cash flow.

3-4-2- Debt (DEBT)

According to Jensen and Meckling (1976) and Jensen (1986) debt policy has an important role in monitoring managers thus reducing agency costs arising from the shareholder-manger conflict. Moreover, as argued by Kalay (1982) and Smith and Warner (1979), some debt contracts include protective covenants limiting the payout. The debt variable is defined as the long term debt deflated by total assets (Jensen *et al*, 1992).

3-4-3- Performance (ROA)

The financial literature documents that a firm's performance is a significant and positive explanatory variable of the dividend payout. In general accordance with a signaling perspective, dividend payouts may be positively

related with measures of profitability. Following Jensen *et al*. (1992), we use the return on assets as a measure of firm performance.

3-4-4- Past growth (GROW)

Our model predicts a negative relationship between the past growth and dividend payout ratio since firms prefer to avoid transaction costs due to external financing. According to the pecking order theory, we can expect firms to pay fewer dividends if they experienced past growth. As Rozeff (1982), we use the average of the historical sales growth over the period 1998-2007 as a measure of past growth.

3-4-5- Market listing (LIST)

Wallgren (2006) finds that listed companies have significantly higher payout ratios than non-listed companies. This finding is supported by the outcome and the substitute model. On the one hand, in listed firms, minority shareholders are able to put pressure on the controlling shareholder to increase dividend payments as suggested by the outcome model. On the other hand, with conformity to the substitute model, in listed firms controlling shareholder has more incentives to signal to the outside investors that he is not extracting private benefits of control by employing a generous dividend policy. This variable takes the value 1 if the firm is listed and 0 otherwise.

3-4-6- Business sector (SEC)

Poulain-Rehm (2005) suggests that dividend policy should be evaluated relatively to their competitor in the same business sector which leads to neutralize the effects of the economic conjecture. The small number of companies in certain industries makes comparisons difficult. This variable takes the form of a group of firms in the sample into two categories, those in the finance and those on industry and services.

4- Empirical Analysis

4-1- Descriptive statistics

Table 4 (Panel A and B) contains the descriptive statistics for the sample firms. Panel A of Table 4 shows that the average firm pays out 50% of its earnings in dividends, with a maximum of 96%. In addition, we observe a positive free cash flow values that range between 2% and 74% with a mean value of 15%. It is clear that some firms have excess debt in their financial structure as the maximum of debt ratio is 131%. The average ratios of sales growth and net income to total assets for the sample are respectively 12% and 6%.

In Panel B of Table 4 we report descriptive statistics of the discrete variables. We observe that over the period 1998-2009, firms are listed in 84.28% of cases. In addition, financial firms represent 27.3% of the total sample firms.

Table 4- Summary statistics for pooled sample

Panel A- Continuous variables

Variable	Mean	St.dev.	Min.	Max.
PAYOUT	0.50	0.29	0	0.96
FCF	0.15	0.14	0.02	0.74
DEBT	0.18	0.21	0	1.31
GROW	0.12	0.27	-0.24	4.31
ROA	0.05	0.06	-0.21	0.34

Panel B- Discrete variables

Variable	Modality	frequency	%
	1	445	84.28
LIST	0	83	15.72
	1	144	27.3
SEC	0	384	72.7

4-2- Multivariate analysis

4-2-1- Model specifications and estimation techniques

Inspired from previous studies (Rozeff, 1982; Jensen, 1986; La Porta *et al*. 2000; Officer, 2006; Adjaoud and Ben Amar, 2010), we propose the following model:

$$PAYOUT_{it} = \alpha_0 + \alpha_1 Z_{jit} + \alpha_2 FCF_{it} + \alpha_3 DEBT_{it} + \alpha_4 GROW_{it} + \alpha_5 ROA_{it} + \alpha_6 LIST_{it} + \alpha_7 SEC_i + \varepsilon_{it}$$

Where Z_{jit} is the Banzhaf index of controlling shareholders j of firm i at time t.

4-2-3- Regression Results

The estimation results of our models (Table 5) are satisfactory both econometrically as that of economic and financial interpretation. Expectations about the meaning of relationships, as revealed by the sign of the estimated values are all satisfactory. Moreover, the R^2 between (the R^2 most relevant for random effects) which constitutes a measure of the portion of inter-individual variability of the dependent variable explained by explanatory

variables are satisfactory: they range from 38.24% to 45.58 %. The probability of Breush-Pagan test shows that random effects are globally significant at 1% level.

Control concentration

- *Voting power of the Largest Shareholder*

As indicated by Table 5, the influence of the voting power enjoyed by the largest shareholder on dividend to earnings ratios is significantly negative in accordance with the outcome hypothesis. This result indicates that a higher concentration of voting rights by the largest shareholder is associated with lower dividend payouts. The results are consistent with Bena and Hanousek (2005) who find that firms with majority ownership in Czech Republic pay lower dividends. Large shareholders extract rents from firms and expropriate minority shareholders. Gugler and Yurtoglu (2003) also report that majority controlled firms in Germany have lower payouts.

- *Voting power of the Second Largest Shareholder*

According to the hypothesis 1, the results indicate that the variable Z2 is associated with a positive (0.43) and significant ($p < 5\%$) coefficient meaning that the level of dividend is an increasing function of shared control as expected by the outcome model. The more the second largest shareholder has a voting power, the more he is motivated to exercise strict control over the management of the company through dividend policy. Thus, by his involvement in the control of the company, the second largest shareholder limits the discretionary behavior of the first shareholder and protects the interests of minority shareholders through a generous dividend policy. Our results are consistent with the argument about a positive monitoring role by another large shareholder, as proposed by Faccio *et al.* (2001), Gugler and Yurtoglu (2003), and Pindado *et al.* (2011).

Table 5- Results of multivariate analysis

Variables	Reg 1	Reg 2	Reg 3	Reg 4	Reg 5	Reg 6
Intercept	0.45***	0.39***	0.46***	0.45***	0.44***	0.46***
Z1	-0.09*					
Z2		0.43**				
ZFAM			-0.14**			
ZIND				0.08		
ZINST					0.10*	
ZSTAT						-0.01
FCF	0.22***	0.23***	0.24***	0.25***	0.23***	0.25***
DEBT	-0.47***	-0.44***	-0.45***	-0.46***	-0.44***	-0.44**
GROW	-0.04	-0.04	-0.04	-0.05	-0.04	-0.05
ROA	0.29	0.30	0.29	0.28	0.27	0.29
LIST	0.02	0.02	0.02	0.02	0.02	0.02
SEC	0.21***	0.22***	0.20***	0.21***	0.19***	0.21***
Wald	47.1***	49.3***	46.1***	40.2***	43.8***	40.1***
Br-Pagan	89.2***	75.8***	87.2***	90.8***	89.2***	100.8***
R^2 Within	3.96%	3.91%	4.04%	3.78%	3.94%	3.84%
Between	43.8%	45.58%	43.26%	40.02%	43.86%	38.24%
Overall	20.02%	21.07%	20.46%	18.32%	20.08%	18.10%
N	528	528	528	528	528	528

****, **, *: significant respectively at 1%, 5% and 10% level.*

Shareholders coalitions' type

The type of shareholders coalitions is described by the relative voting power of families, outside individuals, financial institutions and the state as measured by the Banzhaf index.

- *Voting power of family shareholders*

In accordance with the outcome model predictions, the coefficient associated with ZFAM is negative and significant ($p < 5\%$), implying that the more corporate control structures are dominated by families or individuals involved in management, the more they tend to distribute fewer dividends. This result challenges the disciplinary role of dividend policy when the supervisory power of the family shareholders is important. Moreover, firms with low distribution have, on average, higher scores ZFAM.

These findings indicate that the expropriation risk is more pronounced when a family holds the control of the firm. As argued by Guizani *et al.* (2008), in Tunisian firms with high family ownership, the board of directors is dominated by the member of the family. Then, the corporate policies are in favour of their best interests. Their risk aversion and their incentive to transfer the corporate wealth to their descendent are the

causes of a lower dividend payout ratio. On the other hand, families prefer their own funds to finance investment projects because they want to keep the control of their firm.

- *Voting power of financial institutions*

The estimation results reported in Table 5 indicate that the coefficient associated with the variable ZINST is positive and significant, confirming the hypothesis of the outcome model and contrasting that of substitute model. To exercise strict control over the firm's management, financial shareholders adopt a generous dividend policy. This could be explained by the effectiveness of control exercised by financial institutions on the managers in accordance with "the efficient monitoring hypothesis" initiated by Bathala *et al*. (1994).

An alternative explanation could be provided by the clientele theory: shareholders who prefer certain dividend policies would choose to invest in such firms and lead to the observed ownership structure. Moreover, as suggested by Allen et al. (2000), dividend helps to attract some particular institutional investors better at monitoring managers than current shareholders.

Control Variables

From the regression results, we note that the FCF variable is associated with a positive and significant coefficient when the dependent variable is PAYOUT. These findings indicate that firms with substantial funds pay higher dividends in accordance with the free cash flow and life-cycle hypotheses. With respect to our variables' measure, the free cash flow is an increasing function of net income, which can explain the positive relationship between FCF and dividend to earnings ratio.

We provide a negative effect of debt on the dividend to earnings ratios at a confidence level of 99% in all regressions. The relationship between the bank and the company is strongly influenced by the regular payments of principal and interests. Knowing that Tunisian firms rely heavily on bank loans, it is interesting for them to maintain good relationships with banks providing the necessary payments and avoiding conflicts that may arise.

The results reported in Table 5 show that the business sector is an important determinant of the level of dividend. The coefficients of the variable SEC are all significant. Thus, it appears that the financial sector has more generous dividend policy than other sectors.

5- Sensitivity Tests

In order to more fully explore the reliability of our results, we subject our estimates to a large battery of robustness checks. The aim of these tests is to analyze whether the sign and significance of the relations between the payout variables and the main independent variables (*control degree of large shareholders*) are sensitive to the changes in variable definitions. We repeat multivariate analysis with two alternative control thresholds. First, in accordance with several previous studies (see, e.g., La Porta *et al.* 1999; Claessens *et al.* 2000; Faccio and Lang, 2002), we consider a firm as controlled if at least one of its shareholders owns 20% or more of its shares. Second, we assume that control is achieved by holding 50% of a firm shares. The results are reported in Table 6.

Table 6- Sensitivity Tests: Alternative measures of the control degree

The following table reports the sensitivity tests for the two alternative control thresholds. CONC, FAM, INST and STATE are dummy variables that equal one if the proportion of shares owned respectively by the largest shareholder, family, financial institutions and state is more than 20% (50% for the second test) and zero otherwise.

Variables	Control threshold : 20%				Control threshold : 50%			
	Reg1	Reg 2	Reg 3	Reg 4	Reg1	Reg 2	Reg 3	Reg 4
Intercept	0.50***	0.53***	0.46***	0.47***	0.49***	0.52***	0.44***	0.46***
CONC	-0.13*				-0.09			
FAM		-0.15*				-0.10		
INST			0.14*				0.08*	
STATE				-0.03				-0.02
FCF	0.22**	0.24**	0.23**	0.26**	0.24***	0.24**	0.23**	0.26**
DEBT	-0.44***	-0.44***	-0.42***	-0.43***	-0.44***	-0.45***	-0.42***	-0.43***
GROW	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04
ROA	0.29	0.28	0.23	0.27	0.30	0.29	0.23	0.27
LIST	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
SEC	0.20***	019***	0.18***	0.21***	0.19***	019***	0.18***	0.21***
Wald	46.3***	46.4***	43.7***	39.8***	42.3***	42.5***	43.8***	39.1***
Br-Pagan	88.7***	86.2***	91.4***	104***	97.4***	94.2***	93.6***	107***
R^2 Within	3.97%	4.05%	3.78%	3.92%	3.54%	3.88%	3.22%	3.56%
Between	43.15%	43.28%	42.58%	37.82%	39.8%	40.52%	42.06%	37.76%
Overall	20.22%	20.31%	19.62%	18.03%	18.92%	19.08%	19.41%	17.98%
N	528	528	528	528	528	528	528	528

****, **, *: significant respectively at 1%, 5% and 10% level.*

With respect to the 20% control threshold, the results confirm our original findings. In all regressions, control concentration and family control are associated with negative and significant coefficients ($p < 10\%$). The institutional control exerts a positive effect on the dividend to earnings ratios. Concerning the state control, his negative impact is not significant.

For the 50% control threshold, the sign of the estimated values associated with CONC, FAM, INST and STATE remain unchanged. However, only the coefficient associated with INST is statistically significant.

6- Conclusion

The main purpose of this paper was to investigate the disciplinary role of dividend policy through an agency approach. First, as pointed by previous financial literature such as Rozeff (1982), Easterbrook (1984) and Jensen (1986), dividend policy is seen as a way to reduce actual or potential conflicts between shareholders and managers. Second, we discussed the role of dividend policy in the context of ownership concentration and an agency relationship between the controlling shareholders and outside shareholders. In this context, recent works such as La Porta *et al*. (2000), Kowalewski *et al.* (2007) and Adjaoud and Ben-Amar (2010) show that the disciplinary role of dividend policy is unclear. In some situations, the dividend policy serves as a means of minority shareholders expropriation.

It is evident that the largest shareholder, a distinctive class of large shareholders, has some influence on dividend policy that the firm adopts. From a sample of 44 Tunisian companies over the period 1998-2007, we observe a negative relation between the largest shareholder voting power and dividend payout. In contrast, firms with multiple large shareholders that share the control pay often a higher dividend payout ratio. We interpret these results as evidence that dominant owners extract rents from firms and that strong other shareholders can prevent this behaviour.

Dividend policy is also linked to the identity of the largest shareholders. The voting power of families is associated with a negative effect on dividend payout. In contrast the presence of a coalition of financial shareholders affects positively the payout ratios. The results support the hypothesis that the interest alignment between different classes of owners is one of the important factors influencing the dividend payout.

In summary, the main finding of our tests is that firms with better corporate governance tend to prefer higher dividends than weak governed counterparts. In the study, firms with better governance and low agency problems are defined as those with shared control and those controlled by financial institutions, while firms with weak governance and severe agency problems are defined as those that are majority-controlled, those controlled by families and those controlled by the state.

Taken together, our results allow us to corroborate the predictions of the outcome model of dividend as find by Adjaoud and Ben Amar (2010) in the Canadian context. The dividend policy of Tunisian firms does not seem as a disciplinary mechanism, it appears rather as the result of the controlling shareholders preferences. As suggested by Albouy and Schatt (2010), it is not the dividend that disciplined managers, but rather the

governance quality that motivate managers to distribute what large shareholders wish on the subject of dividend.

Overall, the findings we present have several important implications for corporate finance and governance. Our results indicate that investors can benefit from the presence of a multiple large shareholders and financial shareholders in the companies in which they invest because their activism in corporate control leads to higher dividend payments. For policy makers, these findings may be useful to Tunisian regulators seeking to establish effective rules to prevent managers and controlling shareholders from expropriating minority shareholders through dividend policy. Finally, for majority-controlled and family-controlled firms themselves, the empirical evidence that we provide encourages them to pay out dividends to attract more investors and increase their shareholder base as well as act in the best interest of the long-term survival of the firm. The results imply that majority-controlled and family-controlled firms should be aware of the need for higher dividends as investors consider them more effective in controlling agency problem II.

References

Adjaoud, F. and Ben Amar, W. (2010), «Corporate governance and dividend policy: Shareholders' protection or expropriation? » *Journal of Business Finance & Accounting*, 37, 648-667.

Albouy, M. and Schatt, A. (2010), « La politique de dividende permet-elle de discipliner les Dirigeants? », Cahier du FARGO n°1100603.

Allen, F. Bernardo, A. and Welch, I. (2000), «A theory of dividends based on tax clientele», *Journal of Finance*, 55(6), 2499-2536.

Banzhaf, J.F. (1965), « Weighted voting doesn't work: A Mathematical analysis », *Rutgers Law Review*, 19, 317-343.

Bathala, C. Moon, K. and Rao, R. (1994), «Managerial ownership, debt policy, and the Impact of institutional holding: An agency perspective», *Financial Management*, 23, 38-50.

Bena, J. and Hanousek, J. (2005), « Rent extraction by large shareholder: evidence using Dividend policy in the Czech Republic », working paper, CERGE-EI.

Crama, Y. Leruth, L. Renneboog, L. and Urbain, J.P. (2003), « Corporate control concentration measurement and firm performance », In Batten, J. and Fetherston, T (eds.), social responsibility: corporate governance issues. Elsevier Science: Amsterdam.

Crespi, R. and Renneboog, L. (2003), « Corporate monitoring by shareholder coalitions in the UK », ECGI discussion paper n° 12/2003.

Easterbrook, F. (1984), « Two agency cost explanations of dividends » *American Economic Review*, 74, 65-659.

Faccio, M. Lang, L.H.P. and Young, L. (2001), « Dividend and Expropriation», *American Economic Review*, 91, 54-78.

Farinha, J. (2003), « Dividend policy, corporate governance and the managerial entrenchment hypothesis: an empirical analysis » *Journal of Business Finance & Accounting*, 30, 1173-1209.

Filatotchev, I. Piesse, J. and Lien, Y.C. (2005) « Corporate governance and performance in publicly listed, family-controlled firms: Evidence from Taiwan», *Asia-Pacific Journal of Management*, 22, 257-283.

Gomes, A. (2000), « Going public without governance: managerial reputation effects », *Journal of Finance*, 52, 615-646.

Gugler, K. (2003), « Corporate governance, dividend payout policy, and the interrelation between dividends, R&D, and capital investment », *Journal of Banking and Finance,* 27, 1297-1321.

Guizani, M. Abaoub, E. and Kouki, M. (2008), «Shareholders coalitions, voting power and dividend policy: New evidence from Tunisia», *Corporate Ownership and Control,* 6, 34-43.

Gugler, K. and Yurtoglu, B. (2003), « Corporate governance and dividend payout policy in Germany », *European Economics Review,* 47, 731-758.

Jensen, M. and Meckling, W. (1976), « Theory of the firm: managerial behavior, agency costs and ownership structure », *Journal of Financial Economics,* 3,305-360.

Jensen, G. Solberg, D. and Zorn, T. (1992), « Simultaneous determination of insider ownership, debt, and dividend policies », *Journal of Financial and Quantitative Analysis,* 27, 247-263.

John, K. and Knyazeva, A. (2006), « Payout policy, agency conflicts, and corporate governance » working paper, New York University.

Kalay, A. (1982), « Stockholder - bondholder conflict and dividend constraint », *Journal of Financial Economics*, 14, 423-449.

Kowalewski, O. Stetsyuk, I. and Talavera, O. (2007), «Do corporate governance and ownership determine dividend policy in Poland? », *Financial Markets and Institutions*, 60-86.

La Porta, R. Lopez-de-Silanes, F. and Shleifer, A. (1999), « Corporate ownership around the world », *Journal of Finance*, 54, 471-517.

La Porta, R. Lopez-de-Silanes, F. Shleifer, A. and Vishny, R. (2000), « Agency problems and dividend around the world », *Journal of Finance,* 55, 1-33.

Mitton, T. (2004) « Corporate Governance and Dividend Policy in Emerging Market», working paper, Marriott School, Brigham Young University.
Officer, M.S. (2006) « Dividend policy, dividend initiations, and governance », working paper, Marshall School of Business.
Pindado, J. Requejo, I. and de la Torre, C. (2011), « The effect of family control on the corporate dividend policy: An empirical analysis of the Euro zone», working paper, Universidad de Salamanca.
Poulain-Rehm, T. (2005), «L'impact de l'affectation du free cash flow sur la création de valeur actionnariale : le cas de la politique d'endettement et de dividendes des entreprises françaises cotées », *Finance Contrôle Stratégie*, 8(4), 205-238.
Renneboog, L. and Trojanowski, G. (2006), «Control structures and payout policy », *Managerial Finance*, 33, 43-64.
Rozeff, M. (1982), « Growth Beta and Agency Costs as Determinations of Dividend Payout Ratios », *the Journal of Financial Research*, 1982, 149-159.
Shleifer, A. and Vishny, R. (1986), «Large shareholders and corporate control », *Journal of Political Economy* 94, 461-488.
Shleifer, A. and Vishny, R. (1997), «A survey of corporate governance », *Journal of Finance*, 52, 737-783.
Smith, C.W. and Warner J.B. (1979), «On financial contracting: An analysis of bond covenants», *Journal of Financial Economics*, June, 117-161.
Wallgren, A. (2006) « Dividend policy and ownership structures in Swedish firms», working paper, Stockholm School of Economics.

Appendix

Computation of Banzhaf values – an example

Consider a company with the following ownership structure:

Shareholder	% of voting rights
A	25%
B	18%
C	12%
D	10%
Dispersed	35%

Shareholders have to vote "yes" or "no". Assume that dispersed is a continuum of infinitesimal players, the quota q is equal to (1 – 0.35)/2 = 32.5%. Thus a coalition with voting rights more than 32.5% appears powerful in corporate decision process.

We have developed an algorithm that help us to compute the Banzhaf indices (Yes = 1; No = 0 and the outcome = refused or accepted)

A	B	C	D	Sum of voting rights	Outcome
0	0	0	0	0%	Refused
1	0	0	0	25%	Refused
0	1	0	0	18%	Refused
1	1	0	0	43%	Accepted
0	0	1	0	12%	Refused
1	0	1	0	37%	Accepted
0	1	1	0	30%	Refused
1	1	1	0	55%	Accepted
0	0	0	1	10%	Refused
1	0	0	1	35%	Accepted
0	1	0	1	28%	Refused
1	1	0	1	53%	Accepted
0	0	1	1	22%	Refused
1	0	1	1	47%	Accepted
0	1	1	1	40%	Accepted
1	1	1	1	65%	Accepted

Results

Number of possible strings		=	16
Number of swings for (A)		=	6
Number of swings for (B)		=	2
Number of swings for (C)		=	2
Number of swings for (D)		=	2
Total number of swings		=	12
BZ index (A)	= (6/12)	=	0.5
BZ index (B), (C) and (D)	= (2/12)	=	0.166

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