OWNERSHIP STRUCTURE AND DEBT POLICY OF TUNISIAN FIRMS

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Abstract

The relation between corporate governance and the financial decisions presents a rich subject but less pronounced in corporate finance. The purpose of this article is to study the impact of the ownership structure on the debt policy of the Tunisian companies. From the econometric tests applied to Tunisian data of panel, the results obtained corroborate the assumptions of the entrenchment theory. The ownership structure is unable to orient the management of the leaders towards the maximization of the shareholders' richness. The companies with concentrated property don't use the debt like mean to encourage the leader to act according to their interests. The remuneration system does not encourage the leaders to privilege the financing of the investments by debt. The presence of the financial institutions in the capital of the Tunisian companies does not influence the policy of financing of the company. They don't exert a particular role of control on the management of the leaders in place by the debt.

Keywords: Ownership Concentration, Shareholding of the Leader, Financial Institutions, Debt Policy

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1 Introduction

In the capitalist countries, various companies knew a development in their strategies characterized, in particular, by the diffusion of their shareholding and the separation of their functions of property and decision. Such a development led to examine about the rationality of the strategic decisions made by the leaders. The latter are in the centre of the decision-making process and it is probable that their personal strategies come to influence the performances of the companies (Paquerot, 1997). The separation of the functions of property and decision can create a relation of agency who generates agency costs who can influence the performance of the company (Jensen and Meckling, 1976).

The study of the relation between the ownership structure and the performance of the company was the subject of an abundant literature since the thesis of Berle and Means (1932). Nevertheless, the study of the relation between the ownership structure and the debt policy of the company were less pronounced (Florou and Galarniotis, 2007). The principal objective of this article is to study the impact of the ownership structure on the debt policy of the Tunisian companies.

The principal questions relating to this article are as follows: Does the companies with concentrated property count less, in their policy of financing, on the debt? Is the debt policy of the company influenced by the nature of the shareholder?

This paper is arranged as follows. After this introduction, the second part provides the theoretical framework for the study. The third part describes the data and variables used in the empirical analyses. The results of regression model are presented in the fourth
part. Finally, the paper discusses the conclusions reached by the study and indicates directions for future research.

2 Literature Review

2.1 The Ownership Structure as a Control Mode of the Leaders

Authors of the agency theory and those of the government of company (Bethel and liebeskind, 1993; Charreaux, 1997; Franks and Mayer, 1997; Ang, Stick and Flax, 2001; Hiraki, Inoue, Ito, Kuroki, Masuda, 2003; Karathanassis and Drakos, 2004; Davies, Hillier and McColgan, 2005) suppose that the ownership structure constitutes part of the system of corporate governance. It presents an effective method of management control of the leaders. The ownership concentration and the nature of shareholders can answer the problem of incentive of the controllers and contribute to the increase of the performances of firm (Paquerot and Muanios, 1999; Lee, 2004).

The entitlement theory, supported by Morck, Shleifer and Vishny (1990), Paquerot and Muanios, Alexandre and Paquerot, Fulghieri and Hodrick (2005), stipulates that the leaders who have a solid majority of the capital escape any control and can thus manage the firm from a contrary of the maximization of the value of the company. In this direction, the leaders invest in credits specific to their know-how to benefit from privileged information which makes it possible to increase the job security, the remuneration and the liberty of action to the detriment of the shareholders (Coombes and Watson, 2000; Gompers, Ishii and Metrick, 2003; Yermack, 2004). They do not evaluate the investments compared to the created performances of firm (Paquerot and Muanios, 1999; Lee, 2004).

2.2 The Debt Policy of the Company:

Since Modigliani and Miller (1963), the debt was emphasized in the policy of financing of the company. These authors conclude that the tax advantage coming from the character deductible from the interests leads the companies to be involved in debt. The financial literature attributes to the debt various functions. Indeed, Ross (1977), who is at the origin of the signal theory, regards the debt as a means of solving the problems of the asymmetric information between the better informed supposed leaders and the investors. The level of debt constitutes a signal making it possible to inform the investors of the real quality of the investment opportunity (Ross, 1977). The debt can be regarded as a means of pressure on the leaders (Jensen, 1986). It can be also used to reduce the asymmetric information ex-post between the shareholders of a firm and its managers (Jensen and Meckling, 1976). However, the financial literature attributes to the debt various functions. Indeed, Ross (1977), who is at the origin of the signal theory, regards the debt as a means of solving the problems of the asymmetric information between the better informed supposed leaders and the investors. The level of debt constitutes a signal making it possible to inform the investors of the real quality of the investment opportunity (Ross, 1977). The debt can be regarded as a means of pressure on the leaders (Jensen, 1986). It can be also used to reduce the asymmetric information ex-post between the shareholders of a firm and its managers (Jensen and Meckling, 1976). However, the financial literature attributes to the debt various functions. Indeed, Ross (1977), who is at the origin of the signal theory, regards the debt as a means of solving the problems of the asymmetric information between the better informed supposed leaders and the investors. The level of debt constitutes a signal making it possible to inform the investors of the real quality of the investment opportunity (Ross, 1977). The debt can be regarded as a means of pressure on the leaders (Jensen, 1986). It can be also used to reduce the asymmetric information ex-post between the shareholders of a firm and its managers (Jensen and Meckling, 1976).

The Pecking Order theory of capital structure supposes, while being based on the assumption of asymmetric information, that there is a classification between the various modes of financing. Indeed, Myers and Majluf (1984) think that the asymmetric information generates phenomena of unfavourable selection which affects the external request for financing. To avoid undergoing this unfavourable selection, the companies firstly finance their investments by the self-financing. In the absence of costs of failure, the leaders prefer the financial debt in the long run at the expense of the emission of capital to avoid revealing the information privileged at the market. In the presence of costs of failure, the company can be brought to emit capital to finance its investments or to be freed of debts. The modeling of Myers and Majluf (1984), was regarded as a play intervening between the leaders who seek to maximize the richness of the shareholders in place of the controllers.

16 Shleifer and Vishny (1997) define the corporate governance of the company like the whole of the mechanisms by which the contributors of capital guarantee the profitability of the action. Rajan and Zingales (2000) define the corporate governance as the whole of the mechanisms of allowance and exercise of the power. In the same direction, Rebiouch (2003) defines the corporate governance as the structuring and the exercise of the power in the organizations.

17 In his article of 1984, Altman conceives that the direct costs are related to the process of rectification legal. He explains why the bankruptcy generates indirect costs which are costs of loss of credibility or loss of investment appropriateness.
and the contributors of capital, new shareholders or creditors (Charreau, 1992). The leaders act in favour of the existing shareholders to the detriment of the future shareholders (Narayanan, 1988). Consequently, the financing of the company is ensured in priority, by self-financing then by debt and finally by new issue of capital. This hierarchy makes it possible to limit the risks to be in situations of under investment, to limit the distribution of dividends and to reduce the costs of the capital by limiting the recourse to the loans (Myers, 1984). Frank and Goyal (2003) tested the relevance of the Pecking Order theory. Their conclusions suggest that this theory "functions better" within the firms characterized by a higher level of entrenchment of their leaders. The order of financing of these firms decides as follows: self-financing, debt and finally stockholders' equity.

The classification of the Pecking Order theory is the same one as that retained by the theory of the cycle of life. The latter conceives that the dynamic companies will have need for financing external to finance their growth. For the introduction period, the only source of financing available is the own capital stocks. However, these firms are characterized by a fast passage to the phase of growth. This phase is generally financed by the commercial debts or of the banking debts in the short term. These short-term financings can generate risks of illiquidity also since the very high growth rates.

In the model of Cornell and Shapiro (1987), the objective of the leader is to maximize the value of the firm. For the other partners (lenders, customers,...), the objective is to minimize the risks related to the purchase or the financing of the specific investments. The achievement of these two objectives supposes the minimization of the costs of implied contracts. To minimize the costs of these contracts, the firm may find it beneficial not to exhaust its capacities of self-financing and debt before the date at which it must honour its implied contracts. Indeed, on this date, the issue of shares can be very expensive. Thus, the support hierarchy is: self-financing, increase in the capital and finally debt.

In the framework of the agency theory, Fama (1980) examined the structure of the whole of the contracts which intervene in the operation of the firm. He noted that the structures of financing are always mixed whatever the organisational form, with a pre-eminence of the debts. He insisted on the role of the control of the banking in order to carry out the objectives of the contracting agents. According to the theory of Free Cash-flows, the recourse to the financing by debt obliges the leader to manage the firm in an effective way to avoid the bankruptcy in order to face its engagements (Jensen, 1986 and Stulz, 1990). In revenge, Black and Scholes (1973), Galai and Masulis (1976) think that the presence of the debts limits the motivations of the shareholders and the leaders. The debt constitutes a source of conflict between these two partners giving rise to costs of agency of debt.

While referring to the theory of the transaction costs, Williamson (1981) analyzes the decision of financing as a particular transaction where the degree of specificity of the financed credit plays a central part. The debt or the own capital stocks is not regarded any more instruments financial but as 'governorship structure' of the particular transaction (Ghertman and Quelin, 1995) which constitutes the financing of an investment.

According to the theory of Conventions, the objective consists in establishing conventions and agreements making it possible to face uncertainty inherent in the relation of financing in a way considered to be acceptable and effective by the parts concerned (Rivaud-Danset, 1995). Thus, by reference to conventions of financing, the managers of company prefer the self-financing rather than the loan. The theory of the target ratio conceives that the companies adjust their capitalization towards an optimal lever of debt by emitting debts when their debt ratio is lower than the target ratio and while being freed of debts when it is higher to him (Hovakinian, Oppler and Titman, 2001). The deviations of the target ratio following accumulations of benefit or losses are compensated by the dual emissions of actions and debts (Hovakinian, Hovakinian and Tehranian, 2004).

3 Data and methodology

3.1. Procedure

The sample for the present study consisted of Tunisian firms listed on the Stock Exchange market. These firms operate in various branches (industry, business, tourism and transportation). The firms belonging to the financial sector like the banks, the insurances and the leasing companies were not included in this sample. The statistics come from the data stock exchange published by the financial market over a period of seven years from 1999 until 2005.

3.2. Measures

The debt policy. According to the study of Zhang, He and Chen (2008), the debt policy refers to the ratio of total debt to total assets (TDAS).

- The ownership structure: According to the agency theory, the ownership structure is presented by the ownership concentration, the shareholding of the leader and of the financial institutions.
- The ownership concentration. The ownership concentration constitutes a control means of the leaders by the shareholders and contributes to the increase in the performances of the firm (Paquerot and Mtanios, 1999). According to Godard (2001) and Shabou (2003), the level of ownership concentration refers to the percentage
of the capital held by the first shareholder (PCFS).

- **The shareholding of the leaders**: According to the agency theory, the shareholding of the leaders was regarded as a mean to reduce the cost of control supported by the shareholders and to encourage the leaders to contribute to the creation of shareholders value (Jensen and Meckling, 1976). According to Charreaux (1987), the shareholding of the leaders refers to the percentage of capital detained by the leaders. This percentage is calculated by dividing the number of shares detained by the leaders by total number of shares of firm (NSDL).

- **The shareholding of the financial institutions**: The financial institutions represent the best shareholders having the resources necessary to acquire important blocks of actions in the large companies. They make it possible to solve internal conflicts of interests in the firms (Nekhili, 1994), to decrease the problems of agency (Schwiete and Weigand, 1997) and to influence the decisions taken by the leaders in order to maximize the value of the company (Lapointe, 2000; Yafeh and Yosha, 2003). According to Patry and Poitevin (1995), the shareholding financial institutions refer to the percentage of the capital held by the financial institutions. It measured by dividing the number of shares held by the financial institutions to the total number of the shares of firm (NSFI).

### 3.3 Regression model

The relationship between the ownership structure and the debt policy was thus estimated using the following regression model:

$$TDAS_{it} = e + \beta_1 \times PCFS_{it} + \beta_2 \times NSDL_{it} + \beta_3 \times NSFI_{it} + \epsilon_{it}$$

in which:
- **TDAS** \( _{it} \): The ratio of total debt to total assets for firm \( i \) at time \( t \);
- **PCFS** \( _{it} \): The percentage of the capital held by the first shareholder for firm \( i \) at time \( t \);
- **NSDL** \( _{it} \): The number of shares detained by the leaders dividing by total number of shares of firm \( i \) at time \( t \);
- **NSFI** \( _{it} \): The number of shares held by the financial institutions dividing by the total number of the shares of firm \( i \) at time \( t \);
- \( e, \beta_1, \beta_2 \) and \( \beta_3 \) constitute unknown parameter of model; \( \epsilon \): the error term.

### 4 Results

#### 4.1 Descriptive statistics

Descriptive statistics for the sample of firms are reported in Table 1, Table 2, Table 3 and Table 4. In fact, The Table 1 shows that the Tunisian companies have an average level of concentration of about 37.74%. This average degree of concentration appears weak compared to that of the French companies which is 50% (This result comes from the study from Broye and Schatt (2003) applied out of 402 French companies with dimensions between 1986 and 2000.). In Canada, Short and Keasey (1997) found that 60% of the 500 larger companies have ownership concentrated by only one shareholder. Moreover, the principal known shareholders have the degree of concentration between 0.66% and 83.75% of the capital. In this context, the first five shareholders hold on average more than 74% of the shares. However, Demsetz and Lehn (1985) show, on a sample made up of 511 American companies, that the five principal shareholders hold on average 24.8%. Charreaux and Pitot-belin (1985) found that the principal known shareholders hold on average 52%. Fendjo (2006) showed that the ownership in the Cameroonian companies is strongly concentrated. The first five shareholders are held with more than 50% of the shares of 67% of the companies.

#### Table 1. Share of the capital of the first five shareholders

<table>
<thead>
<tr>
<th>Variable</th>
<th>Average</th>
<th>Cumulated average</th>
<th>Standard</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of the first shareholder</td>
<td>37.74 %</td>
<td>37.74 %</td>
<td>18.50 %</td>
<td>14 %</td>
<td>83.75 %</td>
</tr>
<tr>
<td>Share of the second shareholder</td>
<td>15.11 %</td>
<td>52.85 %</td>
<td>6.63 %</td>
<td>3 %</td>
<td>30.70 %</td>
</tr>
<tr>
<td>Share of the third shareholder</td>
<td>10.00 %</td>
<td>62.85 %</td>
<td>4.71 %</td>
<td>1.7 %</td>
<td>20.50 %</td>
</tr>
<tr>
<td>Share of the fourth shareholder</td>
<td>6.78 %</td>
<td>69.63 %</td>
<td>4.15 %</td>
<td>1 %</td>
<td>19.99 %</td>
</tr>
<tr>
<td>Share of the fifth shareholder</td>
<td>4.76 %</td>
<td>74.39 %</td>
<td>2.49 %</td>
<td>0.66 %</td>
<td>8.92 %</td>
</tr>
</tbody>
</table>

The Table 2 shows that the majority of the Tunisian companies of the sample have a level of ownership concentration lower than 50%. In this framework, 70.4% of the sample companies have a percentage of the capital held by the first shareholder lower than 50%. On the other hand, 29.6% of companies have a level of concentration exceeding 50%.
Table 2. Distribution of the companies' frequency

<table>
<thead>
<tr>
<th>Concentration level</th>
<th>Percentage of the companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 50%</td>
<td>70.4%</td>
</tr>
<tr>
<td>More than 50%</td>
<td>29.6%</td>
</tr>
</tbody>
</table>

The Table 3 shows that the Tunisian leaders hold less than 5% of the shares of 58% of the companies of the sample. They hold a share ranging between 5% and 25% of the capital of 25% of the companies. They hold, also, more than 25% of capital of 17% of the companies of the sample. The average percentage of capital represented by the leaders in these companies is of 33.82%. This percentage is higher than that in the French and American companies. According to Charreaux and Pitol-belín (1985), it is to the maximum of 20%. For the United States, the share of the property which is held by the leaders and the administrators is about 30% (Morck, Shleifer and Vishny, 1988).

Table 3. Distribution of the sample according to the shareholding of the leaders

<table>
<thead>
<tr>
<th>The proportion of shares held by the leaders</th>
<th>Percentage of the companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 5%</td>
<td>58 %</td>
</tr>
<tr>
<td>5% to 25%</td>
<td>25 %</td>
</tr>
<tr>
<td>More than 25%</td>
<td>17 %</td>
</tr>
</tbody>
</table>

Moreover, the Table 4 shows that the companies in which the participation of the financial institutions is higher than 50% (HPFI) present 10.71% of the sample companies. The financial institutions have strong participation in the capital of these companies exceeding 69%. The companies in which the participation of the financial institutions is lower than 50% (LPFI) are about 89.29% of the companies. These companies have a weak participation of the financial institutions in their capital which is about 16.21%. In France, the search for Morin and Rigamonti (2002) revealed that the financial institutions hold the greatest proportion of capital in many companies. In Great Britain, Berenheim (1994) noted that 75% of the shares were held by such institutions. In the United States, Demsetz and lehn (1985), on a sample of 511 firms, find that the percentage of shares held by the first five financial institutions is 18.4%. Patry and Poitevin (1995) found that the financial institutions held 53% of the shares of firms in 1992.

Table 4. Distribution of the sample according to the participation of the financial institutions

<table>
<thead>
<tr>
<th>Group</th>
<th>Percentage of companies</th>
<th>Average of participation</th>
<th>Standard deviation of participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPFI</td>
<td>10.71%</td>
<td>69.7%</td>
<td>13.14%</td>
</tr>
<tr>
<td>LPFI</td>
<td>89.29%</td>
<td>16.21%</td>
<td>11.33%</td>
</tr>
</tbody>
</table>

4.2 Regression results

The realization of the statistics of Fisher associated with the test of constant homogeneity shows that the regression model in Table 5 includes individual effects. The probability of the test of Hausman is higher than the conventional threshold, which implies that this model represents a model of panel with random individual effects, which is more appropriate than the model of fixed effects. The coefficients of the regression model can be estimated by the method of generalized least squares (MCG). According to the test of Breusch-Pagan, the homoscedasticity assumption is not justified. The variance of residual error of this model should not be constant. Moreover, there is no autocorrelation of the individuals errors because the value of Durbin- Watson (Dw = 1.6912409) is lower than (Dl=1.73).

Table 5. Regression model results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficients</th>
<th>Test Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.2087422</td>
<td>(3.70)***</td>
</tr>
<tr>
<td>PCFS</td>
<td>-0.3778822</td>
<td>(-3.12)***</td>
</tr>
<tr>
<td>NSDL</td>
<td>0.0273701</td>
<td>(0.28)</td>
</tr>
<tr>
<td>NSFI</td>
<td>0.0617449</td>
<td>(0.46)</td>
</tr>
<tr>
<td>Wald chi² (9.87)**</td>
<td>(3.35)</td>
<td></td>
</tr>
<tr>
<td>Hausman Test</td>
<td>Test of Breusch-Pagan (42.43)***</td>
<td>Test of Durbin Watson</td>
</tr>
</tbody>
</table>

**represents being significant at the level of 5%.

***represents being significant at the level of 1%.
From the econometric tests applied to Tunisian data of panel, the results obtained show that the explanatory capacity of the regression model is, in general, satisfactory (Prob > chi2 = 0.0197). The ownership concentration has an incidence negative (-0.377882) and statistically significant to the threshold of 1% on the debt ratio. In this context, an increase in 1% of the capital held by the first shareholder will involve a reduction in the debt ratio of 0.377882. This result confirms the study of Bhojraj and Sengupta (2003), Anderson, Mansi and Reeb (2003). Thus, the Tunisian companies with ownership concentrated count less on the debt policy to finance their investments. They don't use the debt as mode of financing to encourage the leader to act according to their interests. The percentage of the capital held by the leaders has an impact positive (0.0273701) but not statistically significant on the debt ratio. This result rejects the assumptions of Kim and Sorensen (1986), Agrawal and Mandelker (1990), Smith and Watts (1992), Mehran (1992) and Gaver (1993). The shareholding of the leaders doesn't constitute an incentive to carry out investments financed firstly by debt. Such remuneration system doesn't represent an efficient tool used by the shareholders’ richness shareholders in order to intensify their control on the management of the leaders by debt. In addition, the percentage of the capital held by the financial institutions has an effect positive (0.0617449) but not statistically significant on the debt ratio what rejects the empirical work of Aoki (1991) and Nivoix (2004). The presence of the financial institutions in the capital can't lead to influence the management of the firm and to finance its investments by a mode privileging the loans rather than the own capital stocks. These shareholders don't exert a particular role of control on the management of the leaders in place by the debt.

Tunisia is a country that has companies which their ownership is concentrated. These familial companies have a small debt ratio; this can be explained by the fear of the bankruptcy or the loss of control of the company. The boards of directors apply remuneration system for their leaders by the formula of shareholding in order to act according to the interest of shareholders. Such remuneration system doesn't incite the leaders to create the value of shareholders. The leaders seek to increase their own wellbeing by other sources of remunerations like the wages and others advantages to the detriment of the richness of minority shareholders. The financial institutions are not incited to realize the goals of the companies and to reinforce their control on the leaders by the debt policy. The asymmetric information constructed by the leaders encourages them not to exert their work correctly.

In general, this study leads us to wonder about the solutions that permit to reinforce the efficiency of the control of the Tunisian companies on the management of their leaders. It is preferable to institute a board of directors composed mainly of external administrators and to implicate properly the financial institutions in the corporate governance also since these investors are regarded as the shareholders the more active and the more apt than others to exert the control on the managerial decisions and the pressure on the leaders in order to oblige them to adopt the strategy of firm.

Several future research directions would add to our understanding of the efficiency control of Tunisian companies on the management of their leaders. First, it is necessary to replicate this study in other samples of firms not listed on the Stock Exchange market. Second, it can examine the influence of the other partners of the firm on the debt policy. Finally, it is preferable to introduce others variables of governance in order to know their influence on the financial decisions like the board of directors and the markets of external discipline.

5 Conclusion

The objective of this study was to test the impact of the ownership structure on the debt policy of the Tunisian companies over the period 1999 - 2005. The realization of statistics results shows that the Tunisian companies have an average level of concentration. The majority of these companies have a low level of ownership concentration. The shareholding of the leaders in the majority of the companies is weak. However, the minority of these companies having a strong participation of the financial institutions.

From the econometric tests applied to Tunisian data of panel, the results obtained corroborate the assumptions of the entrenchment theory. The ownership structure is unable to orient the management of the leaders towards the maximization of the shareholders’ richness. Firstly, the companies with concentrated property don't use the debt like mean to encourage the leader to act according to their interests. Secondly, the companies which apply a remuneration system by the formula of the shareholding of the leaders in their capital don't encourage the leaders to privilege the financing of the investments by debt. They don't exert a particular role of control on the management of the leaders in place by the debt. Finally, the presence of the financial institutions in the capital of the Tunisian companies doesn't influence the decisions of financing of the management of the firm in order to maximize the shareholders' richness. Their presence doesn't improve the efficient of control exerted on the management of leaders. This inefficiency control can lead the leader to realize the personal goals to the prejudice of

References


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4. Altman, E. I. (1968), "Financial ratios, discriminate analysis and the properly the financial institutions in the corporate governance also since these investors are regarded as the shareholders the more active and the more apt than others to exert the control on the managerial decisions and the pressure on the leaders in order to oblige them to adopt the strategy of firm. Several future research directions would add to our understanding of the efficiency control of Tunisian companies on the management of their leaders. First, it is necessary to replicate this study in other samples of firms not listed on the Stock Exchange market. Second, it can examine the influence of the other partners of the firm on the debt policy. Finally, it is preferable to introduce others variables of governance in order to know their influence on the financial decisions like the board of directors and the markets of external discipline. prediction of corporate bankruptcy", *Journal of Finance*, Vol. 4, September, pp. 589-609.


