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The Role of Banks in Governing Non-Financial Companies

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Abstract

Our article consists in studying the important role of banks in the governance of Tunisian non-financial companies listed and observed between 2004 and 2008. The analyses in the framework of this work also reveal important results. First, the presence of the bank within the firm whether as a creditor or shareholder, is costly for the firm and causes the destruction of the value of the latter. In addition, the variables, growth opportunities, performance, majority shareholder, bank debt, shareholder bank as well as the profitability ratio exert a significant influence on the motivation of banks to acquire stakes and grant credits to non-financial firms. Finally, in the Tunisian context, the Bank-Company relationship increases conflicts of interest to the detriment of monitoring advantages , which weakens the effectiveness of the bank as a monitor and leads to the destruction of the value of the firm.

Keywords:

Firms , profitability, Banks , Non-Financial Companies

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Introduction

The topic of corporate governance has emerged as the most debated topic in management in the last decade . The emergence of this topic as a research stream is traditionally attributed to Berle and Means (1932) who found that the separation of ownership and control leads to a situation where the divergence of interests between owners and managers is problematic. Research on corporate governance has gone beyond the simple study of the relationships between shareholders and managers to go further by emphasizing the privileged interests linked to the sharing of power within companies, and by highlighting the study of the whole of the relationships that a company maintains with its various stakeholders. The introduction of the role of banks was manifested in connection with the questioning of the hypothesis of perfect financial markets and perfect information . As a result , the new theory of financial intermediation recognizes that the role of banks went beyond that of granting credit or managing deposits , consequently , financial intermediaries represent not only a form of financing for companies with insufficient self - financing , but also a mechanism for controlling and governing companies (Nékhili, 1997). In the context of a bank-company relationship , and thanks to easier access to private information , the creditor bank can exercise more effective control over its client firm by intervening in its management . This relationship allows the partner firm to benefit from better performance . Thus , the credit relationship is often strengthened by capital relations between the

bank and the company . Therefore , bank ownership allows the firm to benefit from more effective control , easier access to debt and improved performance . However, this access to relevant information also leads to opportunistic intervention by the bank that could harm to the performance of firms.

However, the dual role played by banks as shareholders and creditors can increase conflicts of interest which can weaken the effectiveness of banks as monitors and lead to the destruction of the value of the partner firm.

Thus, banks play a role that differs depending on the context in which they operate. However, due to cultural and legal differences between emerging and developed markets, the effectiveness of supervision carried out by banks in the context of developed markets may not be verified in the context of emerging markets (Barth et al. 2006).

The study of corporate governance structures in different countries allows us to distinguish between " market " oriented models and " bank" oriented models as well as the median system which represents an intermediate case between the two Anglo-Saxon and German- Japanese models. Furthermore, the distinction between bank or market orientation cannot be applied to economies whose banking systems are still not very competitive on the domestic and international levels. The Tunisian financial system , which is slowly continuing its process of

banking and whose reforms have hardly produced convergence towards the market because the development of markets cannot be done without that of

banks, can therefore be considered as a “mixed” financial system, neither bank -oriented nor market -oriented , but rather combining the two modes of financing (Chaari, 2007). Thus, the Tunisian financial system is different from international financial systems. Despite the changes initiated by the state, it remains dominated by banks which have a particular influence on investment decisions and the performance of companies.

In view of all these considerations , it is interesting to conduct a study in the Tunisian context, in order to explore the following problem : what is the impact of the presence of banks as shareholders and creditors on the performance of non-financial firms, and what are the motivations of banks to acquire stakes in the latter.

This work has many interests. It allows to detect, firstly, the effect of the presence of bank as shareholder on the performance of Tunisian non-financial companies and secondly, the effect of the presence of bank as creditor on the performance of the latter. Finally, it gives us the possibility to explain the motivations of banks to grant credits and to hold stakes in Tunisian non -financial firms .

Our research work is presented as follows. The first part presents the theoretical framework and research hypotheses. The second part will be devoted to a comparative study to explain the motivations of Tunisian banks to acquire stakes in non-financial firms. The third part deals with the methodological aspects. The analysis and interpretation of our results are the

subject of the fourth part. The conclusion summarizes the main results of this research, recalling the limits and presenting openings.

1. Literature review and research hypotheses

Financial systems and corporate governance structures differ depending on the context in which firms operate; in many countries, banks tend to hold equity stakes in firms and appoint bank directors to the boards of client firms in order to directly influence firms (Cable, 1985; Petersen and Rajan, 1994; Gordon and Schmid, 2000; Bris, Welch and Zhu, 2006; Santos and Rumble, 2006).

Cable (1985), studies the impact of the bank-company relationship on the performance of a sample of 48 non-financial companies and over a study period spanning 4 years (1968 to 1972). The author finds that the concentration of voting rights in the hands of banks, the involvement of bankers in the boards of directors, and the presence of banks as creditors of partner firms, have a positive effect on the return on equity of the firms studied.

In the German context , historically the financial markets were less developed, banks hold direct equity stakes in firms and shareholder-mandated voting rights. Thus, the bank-firm relationship is a substitute for the financial market, so interaction with a bank should improve firm performance . Furthermore , Gorton and Schmid (2000) study the influence of banks on the performance of a sample of 145 listed German non- financial firms . In particular, they test the respective effects of direct bank equity stakes and shareholder-mandated

voting rights on firm performance . The authors find that bank ownership positively affects firm profitability. Furthermore, they find no evidence of conflicts of interest between banks and shareholders. Notably, shareholder-mandated voting rights do not affect firm performance at any time. Indeed, banks play an important role in the governance of German non-financial firms . It therefore appears that governance mechanisms for non-financial firms that are different from those operating in market-based economies can be effective.

Despite variations in banking systems across the world, existing studies conducted on developed countries generally assert that direct bank participation in the capital of a non-financial firm favors its performance (Barth et al. 2006).

Furthermore, while some theories support the idea that bank shareholding can generate conflicts of interest (Diamond, 1984, Mahrt- Smith, 2006), most studies conducted in the context of developed economies, affirm that banks can effectively control the firm, improve its performance and discipline borrowers (Kang et al. 2000, Krozner and Strahan, 2001, Welch, 1997). Thus, the holding by commercial banks of shares of non-financial companies being strictly regulated in the United States, American studies have focused on another form of bank-company rapprochement which is the presence of bankers on the board of directors. In this sense, Kroszner and Strahan (2001) show that more than a third of American companies have a banker-director. The expected benefits of such a presence are very similar to those of the presence of shareholder banks

in non-financial firms. As for the disadvantages, they arise from the conflict of interest to which the banker-director is subject . In the context of a bank-company relationship, banks can increase the value of the firm by providing it with continuous financing and effective monitoring (Gordon and Schmid 2000, Kang et al. 2000). Thus, Gorton and Schmid (2000) have shown that the performance of non-financial firms benefits from the concentration of shareholding and in particular from bank shareholding. Bank shareholding can help the firm overcome agency problems, however, without its participation in the capital, the bank can manipulate its informational advantage to the detriment of other external investors in order to extract additional profits from their partner firms, however the latter need additional financing resources. Consequently, this reduces the incentive for indebted firms to generate profits. In parallel, Mahrt-Smith, (2000), shows that the lower participation held by a bank in the capital of the firm, allows, on the one hand, to reduce the incentive of the bank to extract additional profits from its partner firm , and on the other hand , to improve bank-firm relationship can enhance firm performance this will largely depend on the institutional fabric and governance structure in which banks and firms are located. Thus, banks can enhance firm value in developed economies where laws and procedures allow banks to play an effective monitoring role vis-à-vis borrowers. On the other hand, the bank - firm relationship can distort the manager 's incentives to perform good management, change the strategic direction of the firm and consequently destroy the value of the latter (Berlin et al. 1996, Mahrt- Smith, 2006).

The study conducted by Lin et al. (2009) in the Chinese context also proves that bank ownership can destroy firm performance. On the other hand , these authors claim that the presence of bank creditors and shareholders can lead to the destruction of firm value in emerging markets, where agency problems are much more severe and the supervisory role of banks is compromised by the legal environment. These results corroborate those found by Limpahayom and Polwitoon (2004) and Fok et al. (2004) on Thailand and Taiwan, respectively.

Moreover, according to Diamond (1984), Gorton and Schmid (2000) and Limpaphayom and Polwiton (2004), if bank shareholding is advantageous for the firm, the authors expect a significantly positive β. On the other hand, if the conflict of interest is greater than the benefit of monitoring, they expect a significantly negative coefficient. Similarly , Chirinko and Elston (2006), assert that bank control negatively affects the performance of German non-financial firms, even if the significance is weak. Thus, Ferreira and Matos (2008), test the impact of the involvement of financial institutions in the capital of non-financial firms, all over the world, on the value of the latter. The authors conclude that the presence of banks has no impact on the performance of firms. Indeed, the impact of the presence of banks as shareholders on the performance of non- financial firms is ambiguous. In the Japanese context, Morck et al. (2000) detected a non-linear relationship between bank ownership and the performance of non-financial firms measured by Tobin's Q.

Thus, Edwards and Nibler (1999) explore the respective effects of the presence of shareholder banks , the involvement of bankers in the board of directors and the concentration of the ownership structure on the performance of German non-financial firms (a sample of 158 firms, over a period from (1988-1992)). They use three different accounting measures [1] to assess performance. These authors find that the percentage of capital held by all banks and the involvement of bankers in the supervisory board do not affect, whatever the criterion used , the performance of the firms. However, the concentration of the ownership structure has a positive impact on the profitability of the firm (except if the owners are public sector organizations).

Our first hypothesis is as follows: The presence of banks as shareholders of non-financial firms has a negative impact on their performance. Our second hypothesis adopts the design: The presence of banks as creditors has a negative impact on the performance of non-financial firms.

Moreover, firms maintaining close relationships with banks have less liquidity constraints , this evidence has been proven by Hoshi

the company 's incentive to generate profits .

It remains controversial in the existing literature, whether empirical or theoretical, whether the role of banks in the governance of non- financial companies contributes to improving performance or, on the contrary, leads to the destruction of the value of the latter. Therefore, the relationship

[1] Performance is measured respectively by the ratio between the result for the financial year before tax and total assets, the ratio between the current result before tax and net book assets and a ratio which excludes, in relation to the first, the exceptional result.

Sab et al. (1990) and Weinstein and Yafeh, (1998) for Japan and Petersen and Rajan, (1994) for the USA. Whereas , according to Vilanova (2002), the holding of a share of the capital of a firm by a banker presents a certain number of advantages. If the shareholder status is coupled with an involvement in the board of directors, this would allow the banker to better control the borrower and de facto reduce the asymmetry of information between the two parties. As a result, the presence of a bank-company relationship will allow the company to benefit from easier access to bank credits. Thus, Baert and Vennet, (2009) were able to find a significant negative relationship between the shareholding of financial institutions and the value of the firm measured by Tobin's Q, and they concluded that the increase in the fraction of shares held by financial investors has a negative effect on the value of the firm (a study carried out on a sample of European companies). Similarly, these authors have identified other evidence that confirms that non - financial companies maintaining close relations with banks benefit from better access to financing by bank loans. Again, Berlin et al. (1996), reveal that in the German-Japanese context, the presence of a bank as a shareholder and creditor allows, on the one hand, to facilitate the effectiveness of the bank's intervention when the firm follows a

period of financial distress, and on the other hand, to reduce agency conflicts between the bank and the shareholders of the firm. In addition, in providing financial support, the bank generally prefers to resort to monitoring the borrowing firm in order to minimize its risk and ensure the recovery of the loaned funds. This monitoring allows the bank to collect a broad base of information on the financial situations of the various companies requesting its financial support (Nékhili, 1997).

Barucci and Mattesini, (2008) study the motivations of banks to acquire stakes in Italian non-financial firms over a 7-year study period (1994-2000). Their empirical results show that banks tend to hold shares in firms characterized by low profitability , low growth opportunities, with a large share of tangible assets (collateral) and difficulties in repaying their debts. In the context of a bank-firm relationship, creditor banks are more likely to hold stakes in their partner firms. Overall, the evidence established by these authors suggests that there is a complementarity between equity participation and the granting of bank loans. Flath, (1993) analyzes the reasons that motivate banks to acquire stakes in Japanese non-financial firms, he obtains many interesting results, on the one hand, companies with low levels of collateral, low growth opportunities and with high levels of R&D expenditures, are those that captivate the main bank to acquire more stakes in their organizations. On the other hand, a company with a large loan that it has contracted with a main bank benefits from continuous financing and effective monitoring . Our 3rd

hypothesis is as follows : The presence of a bank as a shareholder of the firm facilitates its access to bank debt. Our 4th hypothesis adopts the design : Banks tend to hold shares in non- financial firms characterized by low levels of performance.

2. Comparative study: the motivations of banks to hold stakes in Tunisian non-financial companies

2.1 Data Description

The study sample consists of 27 non - financial companies listed on the Tunis Stock Exchange (BVMT) . The period analysis spans 5 years (from 2004 to 2008). Based on this sample, we collect accounting and financial information from the financial statements and stock market data published by the Financial Market Council (CMF), the BVMT, company files and prospectuses of the companies concerned provided by Tustex. In addition, the data that were missing after this documentary research were collected directly from the services concerned. These sources of information were unable to provide us with complete data for the entire sample. Consequently, our sample is then an incomplete panel comprising 128 observations instead of 135.

2.2 Motivations of banks to acquire stakes in Tunisian non - financial firms .

In order to better explain the reasons that motivate Tunisian banks to acquire stakes in non - financial firms , we proceeded , first of all, to a division of our sample into two sub - samples, the differentiation between the two groups is

made according to the degree of presence of shareholder bank, then, to a comparison between the two groups according to different characteristics.

Table 1 : Descriptions of the variables used in the comparison :

Variables	**Descriptions**
Performance Measures	
Return on Assets (ROA)	Net profit / Total net assets
Return on Equity (ROE)	Net profit / Equity
Q of Tobin	(Market capitalization + Total debt) / Total assets
Financial Leverage Measures	
Bank debt	Bank debts / Total assets
Lever	Debts / Total Assets
Growth Opportunity Measures	
Asset growth ratio	Total assets) $_{t}$ - (Total assets) $_{t-1}$ / (Total assets) $_{t-1}$
Growth ratio of the Exploitation product	Operating income $_{t}$ - Operating income $_{t-1}$ / Operating products $_{t-1}$
Equity growth ratio	Equity $_{t}$ - Equity $_{t-1}$ / Equity $_{t-1}$
Intangible assets / total assets	Intangible assets / total assets
Guarantees	Tangible fixed assets / total assets

Current ratio	Current assets / Current liabilities
Control Variable Measurements	
The age of the firm	Number of years since the company was established
Size of the firm	Logarithm of total assets
Bank shareholding	Percentage of equity held by the bank
Majority shareholder	Percentage of equity held by the shareholder majority
CA size	Size of the board of directors (CA)
Number of banks	Number of banks board of directors

Table 2: Results of the comparison between the characteristics of the two sub-samples:

Firms with strong bank shareholding					
Measures	AVG	MED	MAX	MIN	E-

2.3 Interpretation

This comparison shows that companies with a strong shareholder relationship with banks are less profitable , they record a lower level of performance (ROA (0.041), ROE (-0.281)), compared to that of firms with low bank shareholders. The latter record a higher level of performance (ROA (0.054), ROE (0.124)).

However, companies with a strong shareholder bank presencerecord a level of growth opportunities (Tobin 's Q (1.749), the operating profit growth ratio (-0.557) and asset growth ratio (0.042)), lower than that of firms with low bank shareholding (Tobin's Q (2.513), operating profit growth ratio (-0.220) and asset growth ratio (0.045)). Based on the above- mentioned results , it is concluded that Tunisian banks tend to hold shares in non - financial firms with low performance levels as well as low growth opportunities .

In order to assess the relevance of the conflict of interest between shareholders and creditors we use the ratio measured by the ratio of Tangible Assets to Total Assets. Firms with a low level of tangible assets are probably more appropriate to be characterized by higher asset substitution costs, higher bankruptcy costs in times of financial distress as well as a more intense conflict of interest between shareholders and creditors. The ratio measured by the ratio of Tangible Assets to Total Assets can be considered as guarantees (Barucci and Mattesini, 2008).

According to the results obtained, it is observed that firms with a high level of bank shareholding have a lower level of guarantee (0.233), a higher level of total debt (0.564) as well as a more intense level of bank debt (0.124) compared to firms whose shareholder bank is present for a small fraction. The latter are characterized by a higher level of guarantee (0.284), a lower level of total debt (0.445) as well as a lower level of bank debt (0.08).

We therefore conclude that bank shareholding facilitates access to total debt and bank debt for partner non-financial firms.

The current ratio is an indicator of the company's liquidity and its ability to repay its short-term debts, this ratio depends on the sector, but a ratio of around 2 is considered reasonable. It is noted that this ratio is all the higher when the presence of bank shareholding is low (2.45).

The majority shareholder variable is measured by the percentage held by the latter within the firm. This variable measures the degree of control exercised by the majority shareholder and it also makes it possible to specify the involvement of the bank in acquiring stakes in the firm.

It is observed that firms with a strong bank shareholding are less concentrated (0.423) than those with a weak bank presence as a shareholder (0.506). This allows us to affirm that companies with a less concentrated capital structure attract more banks to acquire stakes in their organizations.

In addition, the degree of control exercised by the majority shareholder influences the bank in its decision- making regarding the acquisition of stakes in the non-financial firm. If the bank's intention is to influence the management carried out by the management team in order to ensure the proper functioning of the credit relationship and to ensure the proper use of these funds involved, it will be less motivated to hold stakes in firms with a concentrated capital structure . Thus , within a firm with a concentrated shareholding structure, the

private benefits of control are high, which motivates banks to hold shares in this organization (Barucci and Mattesini, 2008).

Furthermore, it is noted that companies with a high presence of bank shareholders are characterized by a larger size (17.955) and are older (36.778) than those with a low presence of banks as shareholders (17.819 (size), 36.38 (age)). Moreover, the

The size of the board of directors of companies with shareholder relationships with banks is larger (8.31) than that with low bank shareholders (8.14). Firms with high bank shareholders are characterized by the involvement of bankers in the board of directors, this involvement leads to a confusion of the roles of creditor and director. As a result, the participation of the banker in the board of directors has the advantage of facilitating closer monitoring of the borrower. In addition, this participation allows the banker not only to be aware of the strategic decisions taken by the management team of the partner firm , but also to be better placed to protect his interests as a creditor and to dissuade opportunistic behavior that the debtor may adopt (Vilanova, 2002). However, the involvement of the bank in the board of directors does not only reveal advantages, the creditor banker is less encouraged to occupy a position of director when the firm is in “good health”, conversely, if the company experiences financial difficulties, the incentive of the bank to participate in the board should be high in order to protect its own interests (Vilanova, 2002).

3. Methodology

In order to explore the impact of the bank-firm relationship on the performance of Tunisian non-financial firms and to better explain the motivations of banks to acquire stakes and grant credits, we used a simultaneous equation model borrowed from that of Lin et al. (2009) with some modifications to the ratio levels following an adjustment to the Tunisian context.

4.1. Model Specification

Our model is written for each firm i (i=1,…, N) at a time t (t=1,…, T) as follows: our model is a simultaneous equation model: Performance **it** : α 0 + β 1 Presence of bank as shareholder **it** + β 2 Bank debt **it** + β 3 Majority shareholder **it** + β 4 Age **it** + β 5 Size **it** + μ i (1)

Presence of bank as shareholder **it** : α 0 + β 1 Bank debts **it** + B 2 Majority shareholder + β 3 Guarantees **it** + B 4 Performance **it** +β 5 Tobin's Q **it** + β 6 Age **it** + μ i (2)

Bank debts **it** : α 0 + β 1 Presence of bank as shareholder **it** + β 2 'INTANG' **it** + β 3 Majority shareholder **it** + β 4 'PROFI' **it** + B 5 Performance + β 6 Size **it** + μ i (3)

We note **:** α 0 : Constant of the model; β 1…… β 6 : The coefficients or parameters of the model, they quantitatively measure the influence of X i on Y i ; μ i : The measurement errors.

4.1.1 Presentation and measurements of the model variables

-The endogenous variables are :

The variable we seek to explain is Performance , measured by

Net profit / Total net assets .

The variable Bank presence as shareholder is measured by the

percentage held by bank shareholders .

The variable Bank Presence as Creditor is measured by the ratio of bank debts/Total assets.

-The exogenous variables are :

Majority Shareholder **:** This variable is measured by the percentage held by the majority shareholder. By holding a significant stake in the company's capital, the majority shareholder will have a strong incentive to control the management team whether in its management

current or its strategic decisions and therefore it promotes the performance of the firm. In addition, this variable makes it possible to influence the bank's involvement in acquiring stakes in the non- financial firm.

Age **:** is measured by the number of years since the company was established

(Lin et al. 2009).

Size **:** can be measured either by the logarithm of total assets (Faccio et al. 2001), or by the logarithm of turnover (Rajan and Zingales, 1995) or by the logarithm of market capitalization. We retain the first measure since we tried the 3 measures of size and found similar results on our estimate.

Collateral **:** Asset structure is measured by the ratio of fixed assets to total assets (Kremp et al. 1999). Furthermore, Rajan and Zingales (1995) argue that fixed assets provide collateral to creditors and therefore reduce the agency costs associated with debt. Myers (1977) suggests that the underinvestment problem associated with debt financing is lower for firms with more fixed assets .

Profit **:** This variable is measured by the profitability ratio (Result

operating income/Total operating income or Revenue) .

Intangible **:** this variable is measured by the ratio between Intangible Assets and Total assets.

Tobin's Q: The level of growth opportunities is measured by Tobin's Q , obtained by the ratio of the sum of market capitalization and total debt to total book assets (Lin et al. 2009).

4.1.2 Model identification

We first check the identifiability conditions of the model. These are the order and rank conditions. The order conditions are necessary conditions that are determined equation by equation. The rank conditions are necessary conditions that are difficult or sometimes impossible to implement in practice. Thus, researchers limit themselves to the order conditions of identifiability (Bourbonnais, 2002) [2] .

4.1.2.1 Identification conditions [3]

If G **4** -1 greater than G-G N **5** + K **6** -K N **7** the equation is underidentified .

If G-1 = GG N + K-K N the equation is just identified.

If G-1 < GG N + K-K N the equation is over -identified.

Table 3: The identification conditions of our model

	Equation 1	**Equation 2**	**Equation 3**
G- 1	2	2	2
GG N + K- K N	4	3	3
Result	All three equations are overidentifiable (DMC). So, our model is overidentifiable.		

4.1.3 The endogeneity test : NAKAMURA NAKAMURA test

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Before estimating a system of simultaneous equations, we will first test the endogeineity of the variables, shareholder bank, bank debt and performance. For this, we use the NAKAMURA NAKAMURA test (1981). This test allows to test endogeineity through 2 steps. First, it is necessary to regress each endogenous variable on the exogenous variables of the model and its instruments. Then, the residuals from the first step are recovered and included in the original model. Indeed , if the coefficients of the residuals are jointly significant then we cannot reject the endogeineity of the tested variables. This test therefore allows to verify the existence or absence of a double causality between the endogenous variables of the model. Consequently, if the residuals are significantly different from zero then the hypothesis of endogeineity cannot be rejected. Therefore, the OLS method does not provide convergent estimators

Table 4 : Endogeineity of variables : performance, bank debt , shareholder bank

Endogenousness	**Variables**	**COEF**	**T**	**P>|t|**
Bank Debt, Shareholder Bank and Performance	Bank Debt Residues and Performance	- 0.613	- 4.90	0.000
	Shareholder Bank Residues and Performance	- 0.038	- 2.05	0.042
Bank Debt and	Bank debt and shareholder			

Shareholder Bank	bank	3.993	3.16	0.002
Results	Bank debt residuals and bank shareholder residuals are significantly correlated with performance. Therefore, the hypothesis of endogeneity of these variables is supported. Bank debt residuals are significantly correlated with bank shareholding. Hence, the hypothesis of the endogeneity of the bank debt variable is supported.			

4.1.4 Application of the model to panel data

The dual panel dimension allows us to simultaneously take into account the dynamics of behaviors and their possible heterogeneities. Indeed , this dual dimension translates into an individual dimension (individuals are different from each other) and a temporal dimension (the situation of each individual varies from one period to another). In order to distinguish between these two effects in the context of our model, we used the Hausman test that was applied to each equation in order to know whether it is a fixed effect or a random effect

.

Table 5 : The Hausman test [8] (1978)

		Equation 1	**Equation 2**	**Equation 3**

[8] If the probability of the Hausman test is less than 10%, this implies that the fixed effect model is preferable to the random effect model. On the other hand, if the probability of the test is greater than 10%, then it does not allow the fixed effect model to be differentiated from the random effect model; in this case, the choice of the nature of the model must be justified.

Fixed Effect	Intra individual	0.164	0.114	0.048
	Inter individual	0.280	0.154	0.166
Random Effect	Intra individual	0.132	0.114	0.041
	Inter individual	0.447	0.156	0.331
Tests	chi 2	6.99	1,820	5,390
	Hausman test probability	0.136	0.874	0.25
Results	The probabilities of the Hausman test for all equations are greater than 10%. Thus, the nature of the effect cannot be specified for all three equations. Therefore, the choice of the nature of the model must be justified.			

Thus, if the intra-individual variation of the variables is greater than the inter - individual variation, the fixed effects model is more appropriate than the random effects model and vice versa . Indeed , in the table above the intra-

individual variation is less than the inter-individual variation for the three equations, so the random effects model is the most appropriate.

In the context of a random effects model , the most appropriate estimator is that of the MCQG but this estimator is only effective when the explanatory variables are exogenous, but our model suffers from an endogeneity problem, in this case MCQG becomes biased and only the intra-individual estimator remains unbiased and convergent.

4. Conclusion

Our empirical study conducted in the Tunisian context testing the important role of banks in the governance of non- financial companies , allowed us to identify important results:

First, the presence of a creditor bank is costly for the firm and leads to the destruction of the latter 's value , this can be explained by the bank's exploitation of its position as holder of private information in order to promote its own interests to the detriment of those of the shareholders of the partner firm. Thus, in a lending relationship , the firm gives its creditor bank the opportunity to extract profits at a time when the firm needs the additional funds. The bank's extraction of profits therefore reduces the incentive for managers to create profits.

Furthermore, the presence of the bank as a shareholder leads to the destruction of the value of non-financial firms, which allows us to affirm that the acquisition of

shares by the bank is in order to protect its own interests and ensure the proper use of its loaned funds.

In the Tunisian context, the bank-company relationship increases conflicts of interest to the detriment of monitoring benefits, this is due to the multiple roles that the bank exercises within the firm , which weakens the effectiveness of the bank as a monitor and leads to the destruction of the value of the firm .

Moreover, Tunisian banks tend to hold shares in non-financial firms with low performance levels and low growth opportunities, in order to protect their own interests and to closely monitor the firm. This can also be explained by the fact that in firms with low performance levels the probability of debt repayment is low.

The degree of control exercised by the majority shareholder influences the bank in its decision-making regarding the acquisition of stakes in the non-financial firm . Thus, within a firm with a concentrated shareholding structure , the private benefits of control are high (Barucci and Mattesini, 2008). Tunisian banks are interested in holding shares in non-financial firms with a high concentration of capital and a high level of guarantee.

Moreover, the bank debt variable seems to have a negative influence on the presence of banks as shareholders of non- financial companies. Indeed, by holding a significant fraction of bank debt , the creditor bank has the necessary means to effectively control the firm, improve the management carried out by the management team and dissuade it from any opportunistic behavior.

In addition , the presence of a shareholder bank facilitates access for non-trading firms .

Tunisian financial institutions to bank debt .

Finally, a high level of the “PROFI” ratio allows Tunisian non-financial companies , characterized by the presence of undistributed discretionary cash flows, to avoid external financing costs, which therefore leads to a reduction in the use of financing by bank debt.

At the end of this research work, it is important to point out that our work has some limitations. The first limitation relates to the narrowness of the sample size retained. The second limitation concerns the relatively small size of the sample. Nevertheless, this work can be considered as a starting point for other research. More precisely, two main research perspectives can be outlined. First, to study the impact of the bank-firm relationship on the investment policy of non-financial firms and second, to explore the nature of the link between bank shareholding and bank debt (complementarity or replacement).

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