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### **BOARD OF DIRECTORS AND PROFITABILITY: THE CASE OF TUNISIAN PRIVATE BANKS**

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#### **Abstract**

The issue of the impact of the Board of Directors on banking performance is still being discussed. There is indeed a controversy on the topic to the point that drawing clear conclusions is a bit rash. In this paper, our aim then is to extend the issue by measuring the impact of the presence of independent directors, board structure and duality of functions on banking performance. To this end, we use a Generalized Method of Moment (GMM) estimation to study these relationships in a sample of seven private banks in Tunisia observed over the 2008 – 2017 period. We found evidence pointing to the presence of a negative correlation between duality of functions, board size and performance. Conversely, the relationship between independent directors and performance is found to be positive and significant.

**Keywords:** Banking Performance, Profitability, Independent Director, Board Size

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#### **1. Introduction**

With the recent upheavals of the global financial system after the 2007 subprime crisis, there has been a growing interest in putting more efforts to explain how banking governance can be improved. Accordingly, there were initiatives calling for a more tightening of the banking industry by putting in place specific rules and regulations, the aim of which is curb down the inherent risks. By improving banking governance, the effects will certainly produce an efficient banking structure conducive to maximize the financing process of the economy. Therefore, it can be postulated that poor banking governance is likely to negatively affect the banking system as a whole and ultimately the economy.

The board of directors disposes of a wide variety of tools to monitor management. It uses governance as an internal control tool. Mergers and acquisitions are external control tools. Meanwhile, shareholders play a direct control tool. The aim is to support managers in running the business. The board of directors is in charge of appointing and dismissing managers as well as determining the Chief Executive Officer (CEO) compensation. In fact, outside and independent directors are entitled to monitor managers to avoid legal conflicts with shareholder and protect their human capital. In similar lines, outside directors may enrich business operations as they are objectively concerned with management issues.

In response to the recent increase in banking risks, international authorities, in particular the Basel Committee, have decreed regulations to ensure financial and economic stability across the globe. The Basel Committee made it clear that good governance practices are needed in view

of fostering the banking industry in particular and the international/domestic financial system in general. This will definitely impact economic development. Subsequently, the committee set up a number of international banking supervision standards that banks have to work with so that they guarantee their liquidity and solvency with their customers.

The role and duties of the Board of Directors of banking institutions have been outlined by The Bank for International Settlements on 1999. Under BIS terms, the CEO is entitled to play a monitoring role of managers across different departments and with specific responsibilities. Moreover, the Board should clearly assign its main duties and those of the CEO. It should also make sure that managers meet the required skills and qualifications.

The belief is that when endowed with a monitoring role, the board of directors would reinforce the day-to-day management of the bank. Nevertheless, for this role to be complete, the BIS recommends that the board implement rigorous governance practices proved to be successful in other business areas. Therefore, the Board is asked to offer unbiased assistance, shun down from conflicts of interest and hold regular meetings with management and audit committees.

Then, our aim in this paper is to study the relationship between banking governance and banking performance. To this end, we examine a sample of seven private banks operating in the Tunisian context and observed over the 2008-2017 period. Our paper is structured as follows: The next section reviews the literature on the relationship between the Board and performance. Section 3 presents the data, the variables, and the econometric approaches and discusses the main results. Finally, Section 4 concludes the paper.

## **2. Literature Review**

The literature on the relationship between banking governance and performance is abundant and has reported mixed findings. Many researchers found inconclusive results, yet they made the case for the specificity of banking governance.

### **2.1. Impact of Audit Committees on Performance**

According to Hamdan *et al.* (2013), there is a unanimous agreement that audit committees play a crucial safeguarding role. However, in order for the committee to protect shareholders' and other stakeholders' interests, it has to monitor closely the process of preparing financial statements. Among the duties assigned to audit committees, we mention their responsibility to make sure that internal control and risk management systems are efficient Zhou *et al.* (2018). Moreover, the committee should have an eye on the accounting process and auditor independence in addition to pursuing internal audit arrangements (Mohammed, 2018). As a result, the audit committee should be able to produce reliable financial statements, decrease discretionary manipulation, errors and fraud in the accounting logs.

### **2.2. Impact of Independent Directors on Performance**

One advantage of independent directors is their ability to mend audit quality. Such a position needs them to engage in an in-depth audit process to supplement their control responsibilities. Along with auditors, they are also able to even identify and correct errors. As such, they represent mechanisms that make the board's control function efficient and affect the board's decisions to look for improving audit quality. The presence of independent directors in the board casts a strong control signal. Indeed, Muniandy and Hillier (2015) studied the impact of board independence on corporate performance in a sample of 151 South African companies, found a positive correlation between corporate performance and independent directors. Similarly, Liu *et al.* (2015) examined a sample of Chinese listed companies over the 1999 to 2012 period and found that independent directors had an overall positive impact on the performance of the studied companies. Moreover, Fuzy *et al.* (2016) studied samples from different countries and found mixed results on the relationship between the actions of independent directors and corporate performance. However, Sakawa and Watanable (2017) studied the relationship between structure and performance of Japanese banks over the 2006-2011 period, reached the conclusion that external directors are

not that effective. Still, Gafoor *et al.* (2018) examined a sample of 36 Indian banks during the 2001-2014 period, found a positive and a significant correlation between board independence and banking performance.

### **2.3. Impact of Chief Executive Officer / Chairman of the Board of Directors duality on performance**

The duties assigned to the chairman of the board are twofold. First, the chairman presides the different meetings and assemblies of the board. Second, the chairman entrusts the board with the task of monitoring the CEO. Additionally, the chairman is entitled to undertake any control tasks at any time. Moreover, the chairman may engage in data and information collection tasks seen necessary to carry out their duties.

Board independence is fostered by the presence of independent directors. In the same line of thinking, separating the functions of the chairman and the CEO is believed to add to that independence. However, combining decision-making and control functions may create tensions and conflicts of interest and can be seen as a barrier to safeguard board independence. Such combination of functions may lead to managers' entrenchment and discretionary power harmful for shareholders. Indeed, combining these two functions allows the CEO/chairman to engage in an opportunistic behavior that favors their interests and projects, even if these latter fail to add real value for shareholders. Accordingly, audit failure risk intensifies because error and fraud probability is high.

To counter such an opportunistic behavior under this duality of functions, shareholders need to dispose of a thorough control mechanism. Under this scenario, there is evidence pointing to a positive and a significant relationship between combination of functions and audit fees level. It is assumed that this duality of functions burdens the audit process, as there will be a growing need for a high audit quality and consequently audit fees will increase.

As a conclusion, combining functions is likely to meddle with board independence. Managers will offset shareholder interests by protecting their own interests, leading to an increase in agency costs. In this case, companies have to leverage more fees to ensure an audit quality that would protect shareholders and at the same time counter managers' opportunistic behavior. There seems to be two conflicting and inconclusive stands as to the impact of duality of functions on performance. Stewardship theory believes that combining the two functions reduces management conflicts and increases performance. However, agency theory assumes that combining the two functions hinders the board's ability to control management.

Under a separation scenario, Gafoor *et al.* (2018) studied a sample of 36 Indian banks during the 2001-2014 period and found no significant improvement in banking performance. However, Cabrera-Suarez and Santana (2015) examined 544 unlisted Spanish family companies and found that duality of functions positively affects performance. Similarly, Duru *et al.* (2016) studied a panel of companies and found that duality of functions has a negative and a significant impact on performance when independent directors represent a small percentage of the board.

### **2.4. Impact of Board Size on Performance**

There is a belief that large companies are better controlled by large international companies because human and financial resources are available. As consequence, audit fees tend to be very significant. Then, we can assume that there is a positive correlation between firm size and audit quality.

Board structure and size are then believed to have a significant impact on performance. As the number of directors increases, the management team will have more and more expertise and experience at their disposal. This reduces uncertainty and lack of information in large boards. Similarly, a larger board has extensive control functions. However, this advantage can be offset by the additional costs of communication and decision-making in large entities. Consequently, large boards may have a dispersed decision-making structure and may be run by coalitions and counter-coalitions.

In large boards, maintaining and pursuing the firm's vision seems a difficult task to achieve because of power dispersion and incoherence. In addition, according to agency theorists, large boards tend to be burdened with costs and hinder the free exchange of ideas between board members. Zhou *et al.* (2018) point to the opposing stands on the relationship between board size and performance. From an agency theory perspective, it can be argued that larger boards are more likely to be cautious when monitoring managers, but they can also engender greater focus, participation, and genuine interaction and debate. From a resource dependency theory perspective, it can be similarly argued that large-board firms perform better because their size creates an opportunity for the firm to open up more to its environment and secure the needed resources. Gafoor *et al.* (2018) examined a sample of 36 Indian banks over the 2001-2014 period, found a significant relationship between board size and bank performance when board size is between 6 and 9. Salim *et al.* (2016) examined the relationship between corporate governance and the efficiency of Australian Banks between 1999 and 2013, found evidence indicating that board size has robust significant and positive effects on efficiency.

### 3. Empirical study

To study the empirical association between board structure and performance and between board structure and banks risk taking, we will refer to the study of Pathan (2009) conducted in American banks.

#### 3.1. Methodology

In our study, we try to estimate the following equation:

$$Profit_{i,t} = \alpha + \beta_0 Profit_{i,t-1} + \beta_1 Ln(BS)_{i,t} + \beta_2 (OUTD)_{i,t} + \beta_3 (CEOD)_{i,t} + \beta_4 Ln(BZ)_{i,t} + \varepsilon_{i,t} \quad (1)$$

where  $i$  denotes individual banks ( $i = 1, 2, \dots, 7$ ),  $t$  time period ( $t = 2008, \dots, 2017$ ) and  $\ln$  is the natural logarithmic.  $\beta$  denotes the to-be-estimated parameters.  $\varepsilon$  is error term.

**Measuring Profitability:** Because there is no single unique measure of bank profitability, we use 2 measures: ROA (return on assets) and ROE (return on equity). We define ROA as the square root of net profit divided by total assets and ROE as the square root of net profit divided by equity.

Board size (BS) is measured by the natural logarithm of the number of directors serving on the board. Independent directors (OUTD) variable is measured as the percentage of total directors who are independent. CEO Duality (CEOD) takes the percentage of CEO's shareholdings. Bank size (BZ) is total assets at the end of each fiscal year.

Our sample consists of seven private banks operating in Tunisia examined over the 2008-2017 period. The data is taken from the different annual reports of the banks under study. The banks are: Amen Bank, Arab Tunisian Bank, Banque Internationale Arabe de Tunisie, Attijari Bank, Banque de Tunisie, Union Internationale de Banques and Union Bancaire pour le Commerce et l'Industrie.

Table 1 shows the descriptive statistics for all variables. Table 2 reports the Pearson correlation coefficients between the independent variables included in our models.

**Table 1. Descriptive statistics**

Variables	Mean	Standard Deviation	Minimum	Maximum
ROE	13.812	6.638	0.07	32.65
ROA	1.121	1.056	0.05	8.86
BS	10.430	1.151	8	15
OUTD	0.878	0.962	0.764	1
CEOD	0.789	0.547	0	1
BZ	16.230	0.498	13.567	19.235

**Table 2. Correlation Matrix for the independent variables**

	<b>BS</b>	<b>CEOD</b>	<b>BZ</b>	<b>OUTD</b>
<b>BS</b>	1			
<b>CEOD</b>	-0.3478	1		
<b>BZ</b>	0.0765	0.2873	1	
<b>OUTD</b>	-0.0672	0.4548	-0.0794	1

From Table 2, we can see that all correlation coefficients are lower than 0.8. Then, we conclude to the absence of bi-variable multi-collinearity. The following (equation 2) is the Generalized Method of Moments in system technique (GMM in system) of Blundell and Bond (1998) to be estimated:

$$Perf_{i,t} = \delta Perf_{i,t-1} + \beta_1 \ln(WS)_{i,t} + \beta_2 (OUTD)_{i,t} + \beta_3 (CEOD)_{i,t} + \beta_4 \ln(BZ)_{i,t} + \varepsilon_{i,t} \quad (2)$$

### 3.2. Results

The GMM results reported in Table 3 show stable coefficients. Moreover, we found that the Wald test indicates that all models show acceptable goodness of fit indexes. Similarly, there is no evidence of over-identifying restrictions as shown by the Sargan test. Arellano and Bond's serial-correlation test does not reject the null hypothesis ( $H_0$ : no autocorrelation) as its P-value is larger than 5%, thus supporting our previous results. With lagged depend variables statistically significant, we conclude to the high degree of persistence of profitability and then justify the use of a dynamic model.

**Table 3. Regression results of the bank board structure and alternative measures of bank profitability: GMM in system**

<b>Dependant variable</b>	<b>ROA</b>	<b>ROE</b>
Lag Dependant Variable	-0.250 (2.33)**	-0.076 (5.20)***
BS	1.345 (1.73)*	1.453 (1.75)*
CEOD	-0.371 (2.84)***	-0.386 (0.26)
BZ	-0.345 (2.44)**	-0.235 (2.90)***
OUTD	0.161 (1.62)*	0.682 (2.33)**
Nb. obs.	66	66
Wald Chi2	77.64***	230.75***
Sargan test	4.130	4.394
P-value Sargan	1.000	0.999
AR (1) test	-1.333	-1.857
AR (2) test	0.723	1.288

**Note:** AR (1): test of null of zero first-order serial correlation, distributed N (0, 1) under null. AR (2): test of null of zero second-order serial correlation, distributed N (0, 1) under null. The numbers in parentheses are t-statistics. \*, \*\*, and \*\*\* indicate statistical significance at the 1%, 5%, and 10% level.

The relationship between CEO Duality and performance is found to be negative, consistent with the findings of Duru *et al.* (2016) and Gafoor *et al.* (2018). Such as indicates, the banks with separate chairmen and CEOs do not outperform banks with a dual function structure (the chairman is the CEO). Such a finding is explained by Gafoor *et al.* (2018) who argue that separating these two roles creates information asymmetry between the chairman and the CEO, in that the CEO will engage in an opportunistic disclosure of information that favors their own interests.

Similarly, the relationship between board size and performance is found to be negative. This finding indicates that banks with small boards tend to show higher profitability than large banks. Moreover, appointing new directors to the board tends to negatively affect performance. Similar findings were reported by Andres and Vallelado (2008); Cheng *et al.* (2008) and Sakawa and Watanabel (2017). Therefore, there is evidence to retain the hypothesis assuming that large boards improve bank profitability and that the role of board plays a monitoring and advising mechanism to management on the different operational issues.

Finally, the relationship between independent directors and performance is positive and significant, in line with the results of Fama (1980); Fama and Jensen (1983); Dahya *et al.* (2008); Gafoor *et al.* (2018), yet it is not consistent with Zhou *et al.* (2018); Sakawa and Watanabel (2017); Hermalin and Weisbach (1991). This finding leads us to retain the hypothesis that independent directors are better monitors of the board. Then, appointing more independent directors to the board improves this latter's monitoring and advising role.

#### 4. Conclusion

Given the crucial role played by banking governance in the economies of countries, this is an important issue when considering the essential role that banks play in the financial systems of developing economies and the widespread banking reforms that these economies have implemented our studies have enabled us to reach several conclusions that can be summarized in the following observations:

The appointment of a greater number of independent directors to the board strengthens the board's supervisory and advisory role, which leads us to the hypothesis that independent directors better supervise the board.

With regard to the need to maintain an efficient banking system, all banks should be able to achieve effective banking governance that enables them to improve their performance. In this context, Tunisia is striving to improve the governance of its banks by admitting that the advice of banks subject to regulatory constraints works better.

Indeed, a healthy banking sector can make a positive contribution to the management of extreme risks and performance. Finally, we can say that good governance practices in banks contribute significantly to stronger and faster economic growth.

#### References

- Andres, P., and Vallelado E., 2008. Corporate governance in banking: The role of the board of directors. *Journal of Banking and Finance*, 32, pp. 2570-2580. <https://doi.org/10.1016/j.jbankfin.2008.05.008>
- Blundell, R. W. and Bond, S. R., 1998. Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics*, 87(1), pp. 115-143. [https://doi.org/10.1016/S0304-4076\(98\)00009-8](https://doi.org/10.1016/S0304-4076(98)00009-8)
- Cabrera-Suarez, K., and Santana, J., 2015. Board composition and performance in Spanish non-listed family firms: The influence of type of directors and CEO duality. *BRQ Business Research Quarterly*, 18(4), pp. 213-229. <https://doi.org/10.1016/j.brq.2014.08.001>
- Cheng, S., Evans, J. H., and Nagarajan N. J., 2008. Board size and firm performance: The moderating effects of the market for corporate control. *Review of Quantitative Financial Accounting*, 31(2), pp. 121-145. <https://doi.org/10.1007/s11156-007-0074-3>
- Dahya, J., Dimitrov, O., and McConnell J. J., 2008. Dominant shareholders, corporate boards, and corporate value: A cross-country analysis. *Journal of Financial Economics*, 87, pp. 73-100. <https://doi.org/10.1016/j.jfineco.2006.10.005>
- Duru, A., Iyengar, R. J., and Zampelli, E. M., 2016. The dynamic relationship between CEO duality and firm performance: The moderating role of board independence. *Journal of Business Research*, 69(10), pp. 4269-4277. <https://doi.org/10.1016/j.jbusres.2016.04.001>
- Fama, E. F., 1980. Agency problems and the theory of the firm. *Journal of Political Economy*, 88(2), pp. 288-307. <https://doi.org/10.1086/260866>

- Fama, E. F., and Jensen M. C., 1983. Separation of ownership and control. *Journal of Law and Economics*, 26(2), pp. 301-325. <https://doi.org/10.1086/467037>
- Fuzi, S. F., Halim, S. A. A., and Julizaerma, M. K., 2016. Board independence and firm performance. *Procedia Economics and Finance*, 37, pp. 460-465. [https://doi.org/10.1016/S2212-5671\(16\)30152-6](https://doi.org/10.1016/S2212-5671(16)30152-6)
- Gafoor, A., Mariappan, V., Thyagarajan, S., 2018. Board characteristics and bank performance in India. *IIMB Management Review*, 30(2), pp. 160-167. <https://doi.org/10.1016/j.iimb.2018.01.007>
- Hermalin, B. E., and Weisbach, M. S., 1991. The effects of board composition and direct incentives on firm performance. *Financial Management*, 20(4), pp. 101-112. <https://doi.org/10.2307/3665716>
- Hamdan A. M., Sarea, A. M., and Reyad, S. M. R., 2013. The impact of audit committee characteristics on the performance: Evidence from Jordan. *International Management Review*, 9(1), pp. 32-42.
- Khosa, A., 2017. Independent directors and firm value of group-affiliated firms. *International Journal of Accounting and Information Management*, 25(2), pp. 217–236. <https://doi.org/10.1108/IJAIM-08-2016-0076>
- Lau, J., Sinnadurai, P., and Wright, S., 2009. Corporate governance and chief executive officer dismissal following poor performance: Australian evidence. *Accounting and Finance*, 49, pp. 161-182. <https://doi.org/10.1111/j.1467-629X.2008.00278.x>
- Lefort, F., and Urzúa F., 2008. Board independence, firm performance and ownership concentration: Evidence from Chile. *Journal of Business Research*, 61(6), pp. 615-622. <https://doi.org/10.1016/j.jbusres.2007.06.036>
- Liu, Y., Miletkov, M. K., Wei, Z., and Yang, T., 2015. Board independence and firm performance in China. *Journal of Corporate Finance*, 30, pp. 223-244. <https://doi.org/10.1016/j.jcorpfin.2014.12.004>
- Malik, M., Wan, D., Ahmad, M. I., Naseem, M. A., and Rehman, R. U., 2014. Role of board size in corporate governance and firm performance applying Pareto approach, is it cultural phenomena? *Journal of Applied Business Research*, 30(5), 1395-1406. <https://doi.org/10.19030/jabr.v30i5.8795>
- Mohammed A. M., 2018. The impact of audit committee characteristics on firm performance: Evidence from Jordan. *Academy of Accounting and Financial Studies Journal*, 22(5), pp. 1-7.
- Muniandy, B., and Hillier, J., 2015. Board independence, investment opportunity set and performance of South African firms. *Pacific-Basin Finance Journal*, 35, pp. 108-124. <https://doi.org/10.1016/j.pacfin.2014.11.003>
- Pathan, S., 2009. Strong boards, CEO power and bank risk-taking. *Journal of Banking and Finance*, 33, 1340-1350. <https://doi.org/10.1016/j.jbankfin.2009.02.001>
- Sakawa, H., and Watanabel, N., 2017. Board structures and performance in the banking industry: Evidence from Japan. *International Review of Economics and Finance*, 56, pp. 308-320. <https://doi.org/10.1016/j.iref.2017.11.001>
- Salim, R., Arjomandi, A., and Seufert, J., 2016. Does corporate governance affect Australian banks' performance? *Journal of International Financial Markets, Institutions and Money*, 43, pp. 113-125. <https://doi.org/10.1016/j.intfin.2016.04.006>
- Zhou, H., Owusu-Ansah, S. and Maggina, A., 2018. Board of directors, audit committee, and firm performance: Evidence from Greece. *Journal of International Accounting, Auditing and Taxation*, 31, pp. 20–36. <https://doi.org/10.1016/j.intaccaudtax.2018.03.002>