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CORPORATE GOVERNANCE AND MENA BANKS' PERFORMANCE

GOBIERNO CORPORATIVO Y DESEMPEÑO DE LOS BANCOS EN LOS PAÍSES DE MENA

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ABSTRACT

We analyze the effect of corporate governance on banks' performance in the MENA countries using an index comprised of seven widely used governance measures, as a measure of firm-level corporate governance. In addition, we have also considered country governance as an important determinant of performance. The data at the firm level has been obtained from the Bankscope Database and we also hand-collect the corporate governance data from the annual reports over the period 2005-2012, covering the period of the financial crisis. At the country level we obtain the data from different sources. Our paper shows that corporate governance is relevant explaining performance in a way consistent with the segmentation of the corporate governance at both country level and bank level. It highlights the need for internal governance mechanisms but also the importance of country governance in emerging markets. The best governance at the country level has a positive effect under favorable conditions but not in crisis situations.

Keywords: Banks, corporate governance, performance, MENA countries, financial crisis.

RESUMEN

Analizamos el efecto del gobierno corporativo en el desempeño de los bancos en los países MENA utilizando un índice compuesto por siete medidas de gobierno ampliamente utilizadas, como una medida del gobierno corporativo a nivel de empresa. Además, también hemos considerado la gobernanza del país como un determinante importante del desempeño. Los datos a nivel de empresa se han obtenido de la base de datos de Bankscope y también recopilamos manualmente los datos de gobierno corporativo de los informes anuales durante el período 2005-2012, que cubren el período de la crisis financiera. A nivel de país obtenemos los datos de diferentes fuentes. Nuestro documento muestra que el gobierno corporativo es relevante para explicar el desempeño de una manera consistente con la segmentación del gobierno corporativo tanto a nivel nacional como bancario. Destaca la necesidad de mecanismos de gobernanza interna, pero también la importancia de la gobernanza nacional en los mercados emergentes. La mejor gobernanza a nivel de país tiene un efecto positivo en condiciones favorables, pero no en situaciones de crisis.

Palabras clave: bancos, gobierno corporativo, rendimiento, países de Mena, crisis financiera.

JEL Classification/ Clasificación JEL: G21, G34, G32, D23.

1. INTRODUCTION

The quality of a company's corporate governance has been proven as an effective method to prevent management opportunistic behavior and, then, improving the firm performance (Habbash et al., 2014). Weak corporate governance reduces firms' potential and in worst case can lead to financial difficulties and frauds (Todorovic, 2013). Thus, banks consider the corporate governance system as an important tool for helping to enhance their performance (Keong, 2002). Fernandes et al., (2018) review the empirical literature on the corporate governance of banks. However, Willeson (2015) shows that compared to the overall literature on corporate governance, the scope of these studies is limited. In any case, these studies have boosted attention to the link between corporate governance structures and performance in banks (Wintoki et al., 2012). However, banks have unique attributes that interfere with the way in which the usual corporate governance mechanisms work (Fernandes et al., 2018; Haan and Vlahub, 2016), such as high leverage which increases the probability of bank failures (John et al., 2016), opacity and complexity of banking assets with more pronounced informational asymmetries (Levine, 2004), regulation, and finally intervention by the government (Barth, Caprio and Levine, 2004), which require a distinct analysis of corporate governance issues (Aebi et al., 2012) what causes that some of the empirical consistencies found in the research on corporate governance for nonfinancial institutions are not applicable to the banks (Haan and Vlahub, 2016). These special features could reduce the effectiveness of standard governance mechanisms (Fernandes et al., 2018 and John et al., 2016) and require more radical departures from traditional governance for non-financial firms (Becht et al., 2011).

Most of the research investigating banks' corporate governance has been conducted in developed countries like the US or European countries or in an international sample (Erkens et al., 2012). But little is known about the effect of corporate governance in emerging markets. Chen, Li and Shapiro (2011) have argued that even if these developing countries adopt good codes, based on the OECD Principles of Corporate Governance, they will not necessarily have good results, as many problems have affected corporate governance in developing countries, including weak legal controls, uncertain economies, poor investor protection and government intervention (Tsamenyi et al., 2007). Furthermore, Berglof (2011) explains that in some emerging markets the protection of ownership rights could be too weak for governance to be

effective. Perpelea and Mihalcea (2015) found results indicating that efficient corporate governance has a positive impact on the financial performance and stock market valuation of the banks listed on Bucharest Stock Exchange. But in emerging countries like the MENA countries, which are the focus of our attention, little is known about the effect of corporate governance on bank performance.

In this paper, we analyze the effect of corporate governance on banks' performance in the MENA countries covering the period before and after the financial crisis. More specifically, we assess whether banks' performance is affected by ownership and the presence of family, government and institutional investors. In addition, we consider the effect of CEO duality and an index, proposed by Le (2012), comprised of seven widely used governance measures, as a measure of firm-level corporate governance. In addition to the firm-level features of banks, we have also considered country governance, in line with Aggarwal et al. (2011) and Berglof (2011), who explain the importance of considering the interdependence between the "macro" governance system (country-level governance variables) and "micro" governance mechanisms (firm-level corporate governance variables). In this sense *country-level governance* has been considered, using Worldwide Governance Indicators (WGI) as in the studies of Čihák and Hesse (2010), Erkens et al. (2012). Also, we considered property rights using the Heritage Index of Economic Freedom to measure country-level investor protection. In addition, we examine the differences in performance depending on whether the banks are Islamic or conventional.

This paper contributes to the existing literature in several important ways. As far as we know, this is one of the few papers that show that corporate governance is relevant to performance in a way consistent with the segmentation of the corporate governance at both country level and bank level. While most of the previous works focus on the study of the institutions of a single country, our dataset includes banks from different emerging countries because the environment in which firms operate affects to the influence of corporate governance on corporate performance (Mertzanis, Basuony & Mohamed, 2019). Different national regulations and governance systems evidence that corporate governance and financial regulation and national governance interact (Haan and Vlahub, 2016). It also contributes to the existing bank performance literature by covering a quite long sample period (2005–2012), which implies considering the period before and after the global financial crisis. We also provide further insight into how performance depends on the presence (or absence) of large shareholders, investor protection and concentrated ownership (in case of the banks being family or non-family-owned and public or private banks). The focus on MENA countries is another contribution of this paper. As mentioned, research on the effect of corporate governance on banks' performance has traditionally paid little attention to emerging countries. To the best of our knowledge, the absence of empirical studies in the field of corporate governance and performance focused on MENA countries offers

opportunities to make contributions to the existing literature. Moreover, our results should guide bank regulators and supervisors in the MENA countries.

The structure of this paper is organized as follows: after this introduction, Section 2 discusses the pertinent theoretical and empirical reviews, conceptual framework and develops corresponding hypotheses; Section 3 presents the data source and description of the methodologies used in the paper; Section 4 explains the descriptive and empirical analysis.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. CORPORATE GOVERNANCE AT THE BANK LEVEL

It is well acknowledged that good corporate governance is commonly associated with better management and allocation of a company's resources, little expropriation of corporate resources by managers or controlling shareholders, better decision-making and lower costs of capital (Keong, 2002). The corporate governance of banks is usually attributed to shareholder-oriented governance (SOG). This implies that shareholders' objectives have a large weight in managers' incentives and the governance structures try to protect the shareholders' interests (Srivastav and Hagendorff, 2016). As a result, if bank governance is shareholder-oriented is expected that bank would try to maximize the profits and returns for shareholders. Claessens and Fang (2002) noted that corporate governance affects the economic performance of firms, markets and whole economies in different ways: increasing the ability of firms to acquire external financing and decreasing the cost of capital, achieving a better resources allocation and reducing default risk. Previous empirical studies have investigated the relationship between corporate governance and firm performance with mixed results. Concerning the empirical findings on US banks, Cornett, Guo, Khaksari and Tehranian (2010) show that better corporate governance is positively related to performance but Aebi et al. (2012) report an insignificant impact. Also Haß, Johan and Schweizer (2016) shows a positive effect for a sample of listed companies in China and Kalezić (2012) finds a positive relationship between the quality of corporate governance practices and corporate performance in Montenegro. Nevertheless, Lamport, Seetanah and Sannasse (2011) show no overall difference and Otman (2014) shows some evidence for listed companies on the Dubai Financial Market (DFM) and the Abu Dhabi Securities Exchange (ADX).

In this paper we expect a positive effect of the governance at bank level on the banks' performance.

H1: Corporate governance and shareholder orientation at the bank level has a positive effect on banks' performance.

Two theories (agency theory and stewardship theory) argue two opposite views about the effect of CEO duality¹. According to agency theory, CEO and chairman roles should be separated because boards are responsible for monitoring the management including the CEO. In contrast, the stewardship theory claims that the dual roles improve efficiency since there is no information breakdown between the CEO and the board (Donaldson and Davis, 1991). Alexander, Fennell & Halpern (1993) mention that a single person holding both the chairman and the CEO role improves firm value as the agency problems between both is eliminated. However, Jensen (1993) states that the CEO could not perform the chairman's role since the chairman is responsible for operating board meetings and supervising the process of employing, dismissing, evaluating, and compensating the CEO. According to the empirical literature, the effect of CEO duality on performance remains unclear. Some researchers argue against dual roles and found support for the negative impact of CEO duality on firm performance (Jensen, 1993). In contrast, Donaldson and Davis (1991) and Coles, McWilliams and Sen. (2001) indicate that CEO duality was positively associated with firm performance.

Based on the empirical literature, we propose the following hypothesis:

H2: CEO non-duality has a positive effect on MENA banks' economic and financial performance.

The nature of bank ownership is another important factor that influences bank performance. Laeven and Levine (2009) show that the same regulation policy can have different effects on bank risk taking depending on banks' ownership structure. In general, the literature (Iannotta, Nocera and Sironi, 2007) suggests that governments are likely to pay special attention to political goals such as low output prices, employment or external effects relative to profitability. In the particular case of banks, Berger et al. (2005) find that state-owned banks have poorer long-term performance than do domestically owned or foreign-owned banks. Cornett et al. (2010) also observe that state-owned banks operated less profitably and Shen et al. (2014) argue that the negative impact is only for those banks which were forced to buy other distressed banks.

H3: Government ownership has a negative effect on banks' economic and financial performance.

Family ownership is often connected with a double role for the family as owners and managers of the firm. Families are often reluctant to lose control of the family-owned firm, so family-owned companies tend to be relatively risk-averse and more capital-rationed than other companies (Thomsen and Pedersen, 2000). Large family shareholders can pressure managers to reduce diversification and increase company economic performance (Thomsen and Pedersen, 2000). Studies such as Miralles et al. (2014) found that family control can increase performance in Western European firms. Andres (2008) also suggests that family ownership is related to superior firm performance.

¹ The practice of a single individual serving as both CEO and board chairman (Krause, Semadeni, & Cannella, 2014).

H4: Family ownership has a positive effect on banks' economic and financial performance.

Shleifer and Vishny (1986) note that large institutional investors have the opportunity, resources and ability to monitor, discipline and influence managers. Institutional investors also exert a high degree of monitoring of management activities to ensure superior returns (Megginson and Boutchkova, 2000). Del Guercio and Hawkins (1999) find a positive relation between institutional investor ownership and firm performance. In contrast, Bricker and Markarian (2015) indicate that, on average, institutional ownership is negatively related to profitability, and this relationship derives from direct monitoring. Similarly, previous empirical studies (Aebi et al., 2012) support the existence of a negative impact of institutional investor ownership on firm financial performance.

H5: Institutional ownership has a positive effect on banks' economic and financial performance.

2.2. GOVERNANCE COUNTRY LEVEL

Country-level governance reflects the quality of the governance environment in each country, which affects the average quality at the firm level. A strong macro governance framework can act as a substitute for corporate governance at the firm level (Berglof, 2011). A good firm governance can be reinforced when the country has an effective macro governance framework. Ben Naceur and Omran (2011) showed that law enforcement significantly affects the bank performance. At the country level, strong property rights, protection and law enforcement also enhance corporate governance, firm valuation, asset allocation and thereby economic growth (Claessens and Laeven, 2003). The degree of investor legal protection is based on both the strength of the laws and the effectiveness of their enforcement. Then, D'Souza, Nash & Megginson (2001) note that the degree of shareholder rights protection within a country should be positively correlated with performance improvements. Additionally, Pagano and Roell (1998) argue that stronger legal protection of investor rights restricts collusion between the firm and potential monitors and promotes more effective managerial monitoring. Consistent with the theory, Reyna (2012) finds that firm performance tends to increase as protection to investors gets stronger. Also, La Porta, Lopez-de-Silanes, Shleifer and Vishny (2002) find evidence of higher firm value in countries with better protection of minority shareholders and firms with higher cash-flow ownership by the controlling shareholder.

H6: Country-level governance has a positive effect on MENA banks' economic and financial performance.

H7: Investor protection has a positive effect on MENA banks' economic and financial performance.

According to the previous literature review, we suggest the following hypotheses (Table 1):

TABLE 1. HYPOTHESES SUMMARY

ARGUMENT	HYPOTHESES
Corporate Governance Firm-Level (CGFL)	H1: Corporate governance at the bank-level has a positive effect on banks' performance
Governance Country-Level (CGL)	H2: Country-level governance has a positive effect on MENA banks' economic and financial performance
Property rights protection / Investor protection	H3: Investor protection has a positive effect on MENA banks' economic and financial performance
The Non-duality of the CEO and board chairman's position (The Separation)	H4: The CEO non-duality has a positive effect on MENA banks' economic and financial performance.
The identity of big owners / State vs private ownership	H5: State ownership has a negative effect on banks' economic and financial performance
The identity of big owners / Family vs non-family	H6: Family ownership has a positive effect on banks' economic and financial performance
The identity of big owners / Institutional Investors Ownership	H7: Institutional ownership has a negative effect on banks' economic and financial performance

Source: Author's own creation.

3. SAMPLE AND DATA

This paper tries to investigate whether there is an effect of corporate governance on the economic and financial performance of the banks in MENA countries covering the period before and after the financial crisis (2005-2012). After revising the existing theoretical and empirical available literature, we obtain our data from several sources. At the firm level we obtain the data from BankScope International Bank Database maintained by Fitch/Bureau Van Dijk, which provides information for financial institutions worldwide, and we also hand-collect the corporate governance data from the annual reports. At the country level we obtain the data from different sources: Access Database of the World Bank, Heritage Foundation's Index of Economic Freedom, World Governance Indicators compiled by the World Bank and the IFC Doing Business Database and The International Financial Statistics provided online by the IMF (International Monetary Fund).

3.1. VARIABLES

To evaluate the effect of corporate governance on bank performance in MENA countries, we chose Return on Average Assets (ROAA) and Return on Average Equity (ROAE) as dependent variables (Table 2). As we mentioned, these measures are very popular accounting-based performance measures

(Demsetz and Lehn; 1985), and they have also been used in previous research on corporate governance and firm performance (Ben-Khedhiri, Casu and Ben Naceur, 2011; Chaghadari and Chaleshtori, 2011).

In terms of independent variables, we used two proxies for corporate governance: country-level as well as firm-level mechanisms. As proxies for *country-level governance*, we use the indicators obtained from the Worldwide Governance Indicators (WGI), as in the studies of Čihák and Hesse (2010), Erkens et al. (2012). The WGI project constructs aggregate indicators of six broad dimensions of governance: (1) Voice and accountability; (2) Political stability and absence of violence/terrorism; (3) Government effectiveness; (4) Regulatory quality; (5) Rule of law; (6) Control of corruption. We follow Kaufmann et al. (1999) and we consider the mean of the six variables for each country where a higher value of the index indicates better institutions.

As proxies for *firm-level governance*, we use a set of indicators obtained in accordance with the reviewed literature. Thus, we follow Lel (2012) in measuring the *firm-level internal governance index*. This index is comprised of seven widely used governance measures hand-collected from the firms' annual reports. In particular, this index is constructed as follows:

- a) A firm earns one additional point if the roles of CEO and chairman are separated (Jensen, 1993),
- a) A firm earns one additional point if there is no wedge between cash flow and voting rights of the largest managerial shareholder (La Porta et al., 2002). According to Caprio et al. (2007), the wedge equals the difference between control rights and the cash flow rights of the controlling owner. The wedge equals zero if there is no controlling owner,
- b) A firm earns one additional point if there are no stocks with differential voting rights (Doidge, 2004),
- d) A firm earns one additional point if there is at least one non-managerial and non-institutional large shareholder (Shleifer and Vishny, 1997),
- e) A firm earns one additional point if there is a large institutional shareholder (Gillan and Starks, 2000),
- f) A firm earns one additional point if there is a large family shareholder (Andrés, 2008),
- g) Finally, a firm earns one additional point if there is no state ownership (Shleifer and Vishny, 1997).

Following Chang (1998), we define blockholders or large shareholders as a beneficial owner of 5% or greater of outstanding shares. For measuring the *property rights*, we follow Hasan, Kobeissi and Song (2011). They use property rights from the Heritage Index of Economic Freedom to measure country-level investor protection and construct the variable *property rights*. To measure the *ownership structure* (owners' nature and identity), we construct a set of variables by hand-collecting data from annual reports over the period 2005–2012. We use the same criteria explained before based on Chang (1998). According to Davydov (2015), several institutional ownership measures are used based on the literature e.g., Burns, Kedia and Lipson (2010). Blockholders

are shareholders that own at least 5% of a company's total shares outstanding. The same five-percent cutoff was used by Faccio et al. (2001), La Porta, Lopez-

TABLE 2. VARIABLES AND SPECIFICATIONS

The factor name	The variable	The definition
Independent variables		
ROAA	Return on Average Assets	The firms' cumulative net income over the financial year, divided by the average of total assets during the same year
ROAE	Return on Average Equity	The banks' cumulative net income divided by the average book value of equity during the same year
NIM/TA	Net Interest Margin on Total Assets	The value of a bank's net interest revenue as a share of its total assets
Corporate Governance Variables		
CGFL	Corporate governance 'bank' firm-level measure	Corporate governance quality on firm-level
WGI	Governance country-level measure "GCL"	Governance quality on country-level
The non-duality of the CEO	The CEO non-duality (The Separation)	Board chairman's position not the same with Chief Executive Officer
ProRigIndex	As a property rights/Investors Protection country-level measure	The extent of the laws that protect investors' rights and the strength of the legal institutions that facilitate law enforcement
BanImpFamSt	As proxy for banks with important family stake	Banks with family shares for more than 5% of the outstanding shares
BanImpGovSt	As proxy for banks with important government stake	Banks with government shares for more than 5% of the outstanding shares
BankImpInsvSt	As proxy for banks with important institutional investor stake	Banks with institutional investor shares for more than 5% of the outstanding shares
Control Variables		
Logtotass	Natural log of total assets	As a measure of bank size
Islbank	As proxy for Islamic banks	Banks operated and governed by the Islamic Shari'ah
NetLoanTotA	Net Loans/Total Assets Ratio	As a measure of control for extent of bank's involvement in lending activity for the current period
GrowGroLoans	Growth of Gross loans	The growth of the total amount of issued credits given to banks
CosTotInc	Cost to Income Ratio	Measures the overheads or costs of running the bank
Log Z-score	"Z" indicates the number of standard deviations that a bank's ROA has to drop below its expected value before equity is depleted.	The Z-score as a measure of individual bank risk or a measure of bank-specific stability
GDP growth	Gross domestic product growth rate	Measures how fast the economy is growing.
Infl	Inflation Rate	A sustained increase in the general level of prices for goods and services.

Source: Author's own creation.

de-Silanes and Shleifer (1999). So we highlight banks with family ownership, state ownership, and institutional investor ownership. With regard to *the non-duality of the CEO and board chairman's position (The Separation)*, in order to measure this variable, we follow some studies such as Pathan (2009), and to control this variable, we use a dummy variable, which takes the value of 0 if the CEO is the chairman of the bank, and 1 otherwise. In terms of *the control variables*, we control for various bank characteristics (Size, growth of loans, Net loans, efficiency, risk taking² and Islamic) and cross-country (GDP growth and inflation).

3.2. DESCRIPTIVE ANALYSIS

To begin the investigation of corporate governance issues and financial performance, Table 3 presents descriptive statistics for the main variables in the sample used in the regressions, which gives a general representation of the characteristics of the banks that make up the sample. As we mentioned, our sample includes 165 banks from 13 countries. Statistics are based on the annual data for the period 2005–2012. The number of observations depends on the variable, but it is always greater than 1,000. The variables are subdivided into two groups, bank-level and country-level variables. Focusing on bank performance, ROAA has an average of 2.05%, in line with the results of Mollah and Zaman (2015), who showed that RROA was 1.32%. The value of ROAA also shows that there is an important dispersion, which indicates that there are important differences between the banks of the sample. The second profitability measure used (ROAE) presents values of 11.37% for the mean and 33.9% for the standard deviation. Ben-Khedhiri et al. (2011) showed that the MENA countries, on average, in 2008 had a ROE of 13%, close to the OECD countries (15%). Also, 80% of the CEOs are not the chairs, in contrast with Arouri, Hossain, and Muttakin, (2011) where 55.6% has been found for a sample of banks in the GCC (Gulf Cooperation Council) countries. Corporate governance at the firm level (CGFL) shows that banks in our sample have a high CGFL score with a mean value of 5.80. These primary results help in the interpretation that the corporate governance on the bank level is good. In addition, in 34% of the sample banks the presence of family ownership is important. Something similar happens in the case of government ownership, since in 22% of the sample public participation is significant. Moreover, institutional investors have a strong presence in our sample. In fact, about 86% from sample banks have an institutional investor with an important stake. The second group of variables (country level) contains WGI and has an average value of -0.19, with a standard deviation of 0.62, which shows that there are important differences between countries. At the same time, the ProRigIndex (Property Rights Index) has an average value of 46.94 and a standard deviation of 12.79. In sum, regarding

² Srivastav and Hagendorff (2016) review the literature on bank corporate governance and risk-taking.

the country-level indicators we can conclude that there are big differences in all macroeconomic variables and considerable variation across countries. These differences might be partly due to the current circumstances and conditions of the countries in the sample because of the effects of the Arab Spring on some countries and also the unstable situation for some of them.

TABLE 3. DESCRIPTIVE STATISTICS OF MAIN REGRESSION VARIABLES

Variable	Obs.	Mean	Std. Dev.	Min	Max
Bank-Level					
ROAA (%)	1,201	2.05	4.82	-37.98	31.11
ROAE (%)	1,201	11.37	33.9	-53.55	46.78
CGFL	1,319	5.80	0.75	4	7
The Non-duality of the CEO (The Separation)	1,320	0.80	0.39	0	1
IslBank	1,224	0.32	0.47	0	1
BanImpGovSt	1,320	0.22	0.41	0	1
BanImpFamSt	1,320	0.34	0.47	0	1
BanImpInsl ~ t	1,320	0.86	0.35	0	1
GrowGroLoa (%)	1,037	17.98	25.55	-39.31	126.88
logZ-score	1,196	2.82	0.91	-2.08	5.47
Totass (mil)	1,203	8,355	13,894.67	28.35	100,784
Logtotass (Log_Ta)	1,203	7.84	1.67	3.34	11.52
NetLoaTotA (NLTA)	1,137	44.30	21.51	0	98.19
CosTotInc (%)	1,111	46.02	18.36	15.69	120
Country-Level					
WGI	1,320	-0.19	0.62	-1.62	0.79
ProRigIndex	1,064	46.94	12.79	10	70
DIClim/GDP per capita	1,320	1.78	4.08	0	36.24
GDPgro(%)	1,306	5.54	7.93	-62.08	104.48
InfI(%)	1,306	6.13	5.59	-4.87	35.55

Source: BankScope database, Banks annual reports, Authors' calculations based on BankScope data and annual reports, Authors' calculations based on the Worldwide Governance Indicators (WGI), Property Rights from heritage economic freedom index, World Bank country macroeconomic level data, and IMF publications.

4. EMPIRICAL MODEL AND RESULTS

As we mentioned, panel data methodology is used in this paper. Panel data increases the degree of freedom and decreases the collinearity among explanatory variables (Baltagi and Moscone, 2010). More specifically, following prior research (Mollah and Zaman, 2015) we use the random-effect

GLS (Generalized Least Squares) model to estimate the relation between performance and corporate governance. This alternative has been selected because most of the explanatory variables are low time-variant and we could lose much information if we opted for a fixed-effects model. Thus, the panel data regression model proposed to test the relationship between corporate governance and different performance metrics has the form:

$$P_{it} = \alpha + \beta Y_{it-1} + \gamma [X]_{it} + \delta [C]_{it} + \sum_{t=1}^8 Year_t + \varepsilon_{it} \quad (1)$$

where P_{it} is a dependent variable representing the different performance measures of a particular bank i in period t , X represents a set of independent variables. C it is a set of control and macroeconomics variables and $Year$ dummies are introduced to control for time random effects (five-year dummies for 2005 to 2010 inclusive). ε_{it} represents the error term, whereas α (constant term), β and γ denote the parameters to be estimated.

We use the following model to test the hypotheses about the influence of corporate governance at the firm and bank level:

$$P_{it} = \alpha + \beta 1 [WGI]_{it} + \beta 2 [CGFL]_{it} + \gamma 1 [GrowGroLoans]_{it} + \gamma 2 [\log Zscore]_{it} + \gamma 3 [\text{Logtotass}]_{it} + \gamma 4 [NetLoaTotA]_{it} + \gamma 5 [CosToInc]_{it} + \delta 1 [GDPgrowth]_{it} + \delta 2 [Inflation]_{it} + \sum_{t=1}^8 Year_t + \varepsilon_{it}$$

Table 4 presents regression results of different models using the random effect model (REM). The variable WGI, which measure the governance at the country level, has a significant and positive impact on profitability in all regressions under the two financial performance measures. This result suggests that better governance at the country level affects the performance positively, which is consistent with our hypothesis 6, which predicts a positive relationship between the country-level governance and economic and financial performance. It is also consistent with the findings of Thenmozhi and Narayanan (2016) for a sample of all 'completed' acquisition transactions during the period 1999–2007. The justification of this empirical result is that the implementation of governance standards at the country level facilitates the efficient use of resources by reducing fraud and mismanagement and the level of corruption in the business environment. In addition, the positive important impact of good country governance level on bank performance suggests the positive effect associated with a better institutional environment in terms of enforcement of the law and implementing regulation, a transparent and democratic political system, a higher degree of freedom of expression and free media, and well-organized markets. All of these characteristics allow bank managers and regulators to more effectively monitor and screen risk and control of cost, thereby improving the relationship between capital, risk and bank performance. We also find that CGFL is significant and the sign indicates a positive relationship with bank profitability in the case of ROAE. This result

supports our hypothesis 1 and, in general, is consistent with the findings of previous studies (Perpelea and Mihalcea, 2015), and Otman (2014). This result could mean that better governance encourages the management to operate in the best interest of the shareholders and increasing the performance.

TABLE 4. MODELS OF CORPORATE GOVERNANCE INDEXES AT FIRM AND COUNTRY LEVEL

Variable	ROAA	ROAE
IslBank	0.1999	-0.1642
CGFL_	0.0642	1.8520**
WGI_	0.6514**	2.0799*
DIClim_	0.0007	-0.0489
GrowGroLoan	0.0022	0.0081
logtotass	-0.3170**	1.0885**
NetLoamTotA_	-0.0239***	-0.0676***
CosToInc_	-0.0373***	-0.1001**
GDPgro_	0.0192*	0.1143**
Infl_	0.0559***	0.2475***
Bahrein	0.9222	-33.557
EGYPT	-0.3632	-0.9462
JORDAN	-0.2920	-15.820
KUWAIT	0.6638	-27.693
LEBANON	-0.4523	-0.7375
OMAN	2.0584**	16.701
SAUDIAR	1.9700***	15.108
SUDAN	0.7454	7.6639*
SYRIA	-0.6678	-0.5567
UAE	0.4317	-30.946
_cons	5.9854***	-20.314
N	944	935
r2_o	0.3655	0.3538
rho	0.4389	0.3951

Note: Table reports the panel data estimates for the Random Effect where the dependent variable is the performance. Year and country dummies are included.

* Indicates significance at 10% level. ** Indicates significance at 5% level. *** Indicates significance at 1% level.

We estimate a second model to evaluate the effect of the independent corporate governance variables at the firm level and avoid multicollinearity problems because some of them were included in the CGFL index:

$$\begin{aligned}
 P_{it} = & \alpha + \beta1[\text{TheNon} - \text{duality of the CEO (The Separation)}]_{it} + \beta2[\text{ProRigIndex}]_{it} \\
 & + \beta3[\text{BanImpGovSt}]_{it} + \beta4[\text{BanImpFamSt}]_{it} + \beta5[\text{BankImpInsInvSt}]_{it} + \gamma1[\text{GrowGroLoans}]_{it} \\
 & + \gamma2[\text{logZscore}]_{it} + \gamma3[\text{Logtotass}]_{it} + \gamma4[\text{NetLoaTotA}]_{it} + \gamma5[\text{CosToInc}]_{it} + \delta1[\text{GDPgrowth}]_{it} + \\
 & \delta2[\text{Inflation}]_{it} + \sum_{t=1}^8 \text{Year}_t + \varepsilon_{it}
 \end{aligned} \quad (3)$$

Our results in table 5 show that government ownership (*BanImpGovSt*)³ has a significant and negative impact on banks performance measured by ROAE, supporting our hypothesis 3, which predicts a negative relationship between banks with large government ownership and financial performance. This finding is consistent with the study of Olson and Zoubi (2011). The results show that government banks perform worse among the sample banks. We think this because banks with large government-ownership have more incentives to fund riskier projects, allocate more favourable credits to SMEs (which are considered to be riskier than other enterprises), tend to pay special attention to political goals, such as low output prices, employment or external effects, and, in some cases, present direct credit for political purposes. This inadequate risk-taking behaviour would lead to a higher level of non-performing loans (NPL) and lower profitability. At the same time, we find that banks with an important family (*BanImpFamSt*) show a significant and positive effect on ROAA. This is consistent with our hypothesis 4 and with the results of Andres (2008), Thomsen and Pedersen (2000). This finding could be explained by the fact that large family shareholders can pressure managers to reduce diversification and perform better financially. We also find a positive relationship between the institutional investor's variable (*BanImpInst*) and the ROAE. These results are consistent with our hypothesis 5 and with the findings of some previous studies which find a positive relation between institutional investor ownership and firm performance (Megginson and Boutchkova, 2000; Del Guercio and Hawkins, 1999). Thus, institutional ownership could exert a high degree of monitoring of management activities to ensure superior returns. Our regression results also show that the non-duality of the CEO (separation) and the property rights index variable does not have significance on bank performance, and thus fails to support hypothesis 2 and 7.

We further repeat the regressions and explore the effect of corporate governance on bank performance by separating our sample into the pre-crisis period (2005–2008), and post-crisis period (2009–2012), and then we report the results in Table 6. By using the two performance measures, we find that WGI and CGFL have a significant and positive effect on economic and financial performance before the crisis but negative after. This result supports again that better governance encourages the management to operate in the best interest of the shareholders, increasing the performance in times of expansion. But, the best governance at the country level has a positive effect in favourable

³ Dichotomous variable for banks with government shares for more than 5% of the outstanding shares.

TABLE 5. ESTIMATION RESULTS

Variable	ROAA	ROAE
IslBank	0.1756	-12.304
ProRigIndex_	0.0075	-0.0576
DIClim_	-0.0444*	-0.1874*
Ceoduality	-0.3166	18.508
BanImpFamSt	1.4276***	19.868
BanImpGovSt	-0.6089	-4.9695***
BanImpInst	-0.0268	2.9583*
GrowGroLoan	0.0027	0.0124
logtotass	-0.2579*	1.3335***
NetLoamTotA_	-0.0287***	-0.0804**
CosTotInc_	-0.0395***	-0.0980**
GDPgro_	0.0284**	0.1381*
Infl_	0.0467*	0.2233**
Bahrein	0.5512	-38.167
EGYPT	-1.1510**	-40.777
JORDAN	-1.0653*	-31.593
KUWAIT	0.3530	-29.445
LEBANON	-2.4010***	-7.2058**
OMAN	1.6652**	10.102
SAUDIAR	0.8535	-0.6258
SYRIA	-2.0729**	-7.1311*
UAE	0.0392	-31.309
_cons	6.3681***	10.2631**
N	773	766
r2_o	0.3792	0.3588
rho	0.4918	0.4052

Note: Table reports the panel data estimates for the Random Effect where the dependent variable is the performance. Year dummies are included.

conditions but not in crisis situations, where the coefficient of WGI is negative and significant for the financial performance model. This result could be explained by the fact that in times of expansion, banks adopt more aggressive policies that could increase the risk profile and generate worse results in time of crisis. In fact, Erkens et al. (2012) and Beltrati and Stulz (2012) showed that those banks that took more risk during the period before the crisis then suffered larger losses during the crisis period.

TABLE 6. ESTIMATION RESULTS PRE-CRISIS AND POST-CRISIS

Variable	Pre-Crisis		Postcrisis	
	ROAA	ROAE	ROAA	ROAE
IslBank	1.7067***	21.302	0.1105	10.030
CGFL_	-0.1003	2.2199**	-0.0449	0.4100
WGI_	2.0324***	-16.054	-0.1153*	-1.4795**
DIClim_	-0.1419**	-0.4429**	-0.0162	-0.1005
GrowGroLoan	0.0015	0.0054	0.0021***	0.0019
logtotass	-0.7956***	0.1391	-0.2195***	1.0164***
NetLoamTotA_	-0.0471***	-0.0342	0.0041	-0.0407*
CosToInc_	-0.0700***	-0.2429***	-0.0295***	-0.1254***
GDPgro_	0.0069	0.2600**	0.0027	0.0543**
InfI_	-0.0454	-0.0732	0.0104	0.0950*
_cons	15.5691***	13.1469**	71.893	4.7110***
N	337	332	588	587
r2_o	0.4597	0.3150	0.3428	0.2956
rho	0.7834	0.5731	0.5748	0.5808

Note: Table reports the panel data estimates for the Random Effect where the dependent variable is the performance. Year dummies are included.

For further analysis, we re-estimate our baseline model using the generalized method of moments (GMM) proposed by Arellano and Bond (1991). The obtained results are almost equivalent to those of the static models, with corporate governance – both at country and firm level – being relevant to explaining the performance of the banks.

5. CONCLUSION

The objective of this study was to examine the relationship between corporate governance and performance in the banking sector. We consider a sample of 165 banks in MENA countries during the 2005–2012 period. This topic remains crucial to understanding the role of corporate governance in driving the performance, especially in some MENA countries, where building a good corporate governance environment is still an ongoing process.

The variables related to corporate governance at the firm level confirm that a higher value in the corporate governance index allows the banks to obtain better profitability. This result supports the fact that better governance practices in banks increase performance and encourage the management to operate in the best interest of shareholders. The same is true for corporate governance at the country level, where there is a positive impact on all the performance variables, which supports the analysis by Berglof (2011) who

says that firm governance can be reinforced when the country has an effective macro governance framework. Thus, our results show that the implementation of governance standards at the country level in MENA countries facilitates the efficient use of resources by reducing fraud and mismanagement and the level of corruption in business environment. In addition, the positive important impact of a good country-level governance on bank performance suggests the importance of the institutional environment in terms of enforcement of the law, regulation and the organization of financial markets. The high significance of country-level indicators in all the models estimated supports Chen et al. (2011), who argued that the adoption of good codes at the firm level in developing countries is not enough, as many problems such as weak legal controls, uncertain economies, poor investor protection and government intervention can offset firm-level practices.

Concerning the behavior during the crisis and the post-crisis period, differences between the results appeared in some variables. Better governance increases the performance in times of expansion but not in crisis situations, showing that banks adopt more aggressive policies that could increase the risk profile and generate worse results in time of crisis. At the same time, before the crisis, Islamic banks exerted a positive effect on the performance, but after the crisis this 'Islamic effect' becomes insignificant.

In general, our study shows that entities with good corporate governance practices and operating in countries with better governance and investor protection obtain a higher return as a reward but because of taking a higher risk. In this regard, some MENA countries must update and improve the corporate governance but controlling the level of risk. We also highlight the development of the institutional environment in terms of enforcement of the law, regulation and the organization of financial markets and banking monitoring to improve the framework in which banks operate.

As a limitation of our work, we must mention that we have not considered different aspects related to the board of directors (size of the board, independence of the directors, board committees, educational qualification or experience of the board, banking board turnover, etc.) due to the great difficulty of obtaining them in some of the analyzed banks, which can influence the effectiveness of the banks' board of directors (see, for example, de Andres & Vallelado, 2008 or Vallelado & García-Olalla, 2018).

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