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Corporate Governance Reforms and Bank Performance: Evidence from the Middle East and North Africa
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Research Question/Issue: The importance of corporate governance reforms for the MENA country banks has been a relatively under-researched area. To address this issue, we combine the staggered timing of corporate governance reforms for banks across MENA countries with bank-level data for the period 2000-2012 and examine the impact on bank performance.

Research Findings/ Insights: The analysis suggests that not all governance characteristics are equally effective and some of these characteristics exert a more pronounced effect on bank performance as compared to others. These results also vary across oil exporting and oil importing nations and differs during the crisis. Besides, we find that improved operating efficiency and access to finance are the key channels through which governance improves bank performance. Therefore, the analysis of the effect of governance reforms and implementation on the success of a bank sheds light not only from a financial sector standpoint, but also from a systemic viewpoint.

Theoretical/Academic implications: The results show that although corporate governance reforms by themselves are not very effective, the impact on performance is quite pronounced when considered alongside related corporate governance characteristics. The paper shows how a stakeholder from within or from outside can assess the magnitude of the potential governance risks to an individual bank.

Practitioner/ Policy implications: Corporate governance reforms in the MENA countries need to be carefully tailored, taking into account the inherent economic characteristics of the country in order for it to exert durable impact. The challenge for policymakers is to find the right balance that can ensure maximum benefits for the banking sector, while minimizing the challenges involved in its implementation.

Key words: corporate governance; profitability; MENA; agency theory; resource dependency theory; banking

Corporate Governance Reforms and Bank Performance: Evidence from the Middle East and North Africa

INTRODUCTION

Over the past two decades or so, a significant amount of attention in both the academic literature as well as in policy circles has been devoted towards understanding the role of corporate governance in banks and more so, following the outbreak of high profile corporate irregularities in several advanced economies and elsewhere. The culmination of these interests has resulted in the formulation of corporate governance codes in several countries or alternately, revamping the existing codes with focus on their implementation.[1]

One region of the global economy where the importance of corporate governance has been relatively under-researched has been the Middle East and North Africa (MENA) region. In the early 2000s, the World Bank (2003) had highlighted the significant governance gap in the MENA region and suggested possible pathways to good governance. Subsequently, although some studies have explored the efficacy of corporate governance for the MENA countries (Saidi, 2004; International Finance Corporation, 2008; Organisation for Economic Cooperation and Development, 2005, 2009, 2011), these have been more in the nature of documentary evidence, highlighting the weaknesses in governance standards in the MENA region. With MENA countries having undertaken significant governance reforms during the past decade, the efficacy of such reforms in affecting bank performance remains a moot empirical concern.

To inform this debate, this paper studies the impact of corporate governance reforms on bank performance. The information base comprises of a sample of over 100 banks, a quarter of which are Islamic, in 12 MENA countries during the period 2000-2012. The empirical research design exploits the exogenous variation arising from the staggered reforms in the corporate governance framework across the banking sector in these countries and adopts a difference-in-differences (DID) research design to isolate the impact on performance. We find that the economic impact of

governance reforms on bank profitability is limited. However, when considered in conjunction with relevant governance characteristics, these magnitudes are quite significant in several instances and indicate that corporate governance reforms do have a role to play in influencing bank profitability.

These cross-sectional heterogeneity also mitigates concerns about omitted variables. Economically, it is possible that the results are driven by other contemporaneous reforms, and not just those related to corporate governance. If that were the case, we would incorrectly attribute changes in bank performance to governance reforms. Under such a situation, exploiting the cross-sectional heterogeneity enables us to difference out such effects. Additionally, since we can control for country as well as year effects, we are able to take into account the changes in the regulatory and economic environment across countries and over time.

A number of factors make the MENA banking sector a compelling laboratory to investigate this issue. First, the insufficient development of equity and bond markets makes banks the most important source of external finance for firms. In addition, the high level of family involvement in corporations also necessitate close ties with local banks, more so given the inadequate disclosure practices of companies which makes access to alternate sources of external finance challenging.

Second, although these countries have introduced corporate governance reforms for banks, the implementation of requirements contained in the relevant legislations vary markedly across countries. Illustratively, in Oman and Egypt, the first set of countries to enunciate corporate governance codes in 2002 and 2005 respectively, these standards have become significantly more rigorous over the years, whereas in others such as Bahrain and Kuwait, these norms are of recent origin. In addition, the statutes of these governance codes also differ. In Algeria and Tunisia, these codes were introduced as voluntary; however, in Saudi Arabia, Oman, Jordan and Qatar, these apply on a 'comply or explain' basis. This unevenness in the application raises the concern as to how far governance codes impact bank performance.

Third, the recent global financial crisis and the subsequent political turmoil has significantly eroded market confidence and dented capital

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flows to the region. By reinforcing corporate governance standards, banks have not only sought to improve their market valuation and lower credit and market risks, but additionally, engender improvements in governance standards in borrowing firms, protect investors' interests and in turn, encourage durable capital flows to the region.

The rest of the paper unfolds as follows. Section II presents an overview of the literature and highlights the contribution of the paper. An overview of the evolution of corporate governance standards in these countries against the backdrop of their banking and financial systems follows thereafter. Section IV discusses the data and methodology and follows it up with an analytical assessment of the results. The final section concludes.

THEORETICAL BACKGROUND AND HYPOTHESES

A number of studies have demonstrated important national differences in the governance structure of firms across countries. In an early exposition, Shleifer and Vishny (1997) provide a comprehensive review of the theoretical and empirical research on corporate governance. Subsequently, La Porta et al. (1997, 1998) highlight the importance of legal systems in determining the efficacy of corporate governance.

Three sets of theories have been advocated to explain corporate governance. The first is based on the agency theory and follows from the work of Berle and Means (1932). It is argued that, owing to the separation of ownership and control, agents are less likely to work in the interests of the principal. To address this concern, shareholders need to use employ corporate governance mechanisms to monitor managers. This induces rational managers to fulfill their function of maximizing shareholder value, leading to an improvement in performance. Several studies have examined this theory and come up conclusive findings. Lipton and Lorsch (1992) and Jensen (1993) suggest that smaller boards improve financial performance due to co-ordination problems in larger boards. Consistent with this argument, Agoraki et al (2010) uncover an inverse association between board size and performance. Similar findings are also reported for within-country (Pathan and Faff, 2013; Liang et al., 2013) as well as cross-country (Andres and Valledado, 2008) studies.

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A second set of studies, *a la* resource dependency theories, explore the interlinkage between corporate governance and performance. Viewed from this perspective, it is argued that boards with a large number of directors might prove beneficial in reducing dependency on external resources, strengthening a firm's network with its external environment and encouraging additional perspectives (Ruigrok et al., 2006; Campbell and Minguez-Vera, 2008; Adams and Mehran, 2012).

A final line of research, based on stewardship theory, view agents as stewards who manage the firm responsibly to improve its performance (Donaldson and Davis, 1991; Muth and Donaldson, 1998). This theory advocates that the autonomy reposed in managers minimizes the cost of monitoring and as a result, positively impacts performance. Several studies provide support of this theory. For instance, Sierra et al. (2006) uncover a positive association between the proportion of inside directors and bank performance. Similar results are echoed in the international sample of European (Busta, 2007; Agoraki et al., 2010) and Thai (Pathan et al., 2007) banks.

In our analysis, we utilize different features of corporate governance codes at the country level for banks and examine its impact on performance, after controlling for relevant bank-specific as well as country- and year-specific factors.

The analysis contributes to the literature in a few distinct ways. First, this is one of the earliest studies to examine the interface between corporate governance reforms and performance for an extensive sample of MENA banks. The International Finance Corporation conducted a survey of corporate governance in this region during 2006-2007 and found that such standards were weak in the region. Empirically, Al-Shammari and Al-Sultan (2010) show that improved corporate disclosure improves the profitability of Kuwaiti firms. Al-Moataz and Hussainey (2012) focus on publicly listed companies in Saudi Arabia and show board independence to be a key governance feature behind their performance enhancement. Other studies which focus on specific countries (Elsayed, 2007; Shanikat and Abbadi, 2011) or on cross-country samples (Harabi, 2007; Piesse et al., 2012) find mixed evidence in favor of the usefulness of corporate governance. Employing firm-level data for eight MENA countries, Hasan et

al. (2014) show that firm valuation is higher in countries with higher investor protection and low levels of managerial entrenchment. More recently, utilizing data on manufacturing firms, Abdallah and Ismail (2017) show a positive association between governance and performance. In contrast to these studies, we focus on a comprehensive sample of MENA country-banks and examine the relevance of corporate governance. Accordingly, based on the previous discussion, we can state the following hypothesis:

H1: The impact of corporate governance reforms on bank profitability is expected to be positive.

Second, our paper also adds to the literature that examines the channels through which corporate governance affects bank performance. The literature has identified several ways through which such performance improvements can occur, namely through improved access to financing (Beck et al., 2002, La Porta et al., 1998), lower capital cost and higher valuation (Dyck and Zingales, 2002; Klapper and Love, 2002) and improved operational efficiency (Gompers et al., 2003; Klapper and Love, 2002). We employ proxies for each of these channels and ascertain how it interacts with corporate governance and affects bank performance. Accordingly, our second hypothesis would read as follows:

H2: Corporate governance reforms can lead to performance improvement via increased access to capital, low capital cost or low operating inefficiencies

Third, the paper is a contribution to the evolving literature on the differential impact of corporate governance on the profitability of Islamic banks. As is well-known, the MENA region has a significant presence of Islamic banks whose governance standards are distinctly at variance from those of their conventional counterparts (Ahmed and Chapra, 2002; Hassan, 2011; Grassa, 2015). The impact of corporate governance on the performance of these banks has not been satisfactorily addressed in prior research. Using cross-country data on Gulf Cooperation Council banks, Srairi (2015) finds that governance exerts a positive impact on the performance of Islamic banks. Similar findings are also reported for Islamic banks in Indonesia (Kusuma and Ayumardani, 2016). A major drawback of these studies is the limited time period or the small sample

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size, which lowers their empirical appeal. Taking a cue from these studies, it is possible to state the following hypothesis:

H3: The impact of corporate governance reforms on the performance of Islamic banks is expected to be positive

And finally, our paper complements the thin literature that relates board characteristics to performance. Previous studies show that firm value is negatively associated with staggered board (Bebchuk and Cohen, 2005), busy boards (Fich and Shivdasani, 2006) and less independent boards (Grinstein and Chhaochharia, 2007). The present analysis contributes to this debate by highlighting the role and relevance of board tenure in impacting bank performance. Hermalin and Weisbach (1991) and Bhagat and Black (2002) find little evidence that board independence improves firm performance, after controlling for the endogeneity of board selection. Concurrent with these findings, Vafeas (2003) show that long-tenured directors in US firms are less effective in monitoring management. Likewise, Fracassi and Tate (2012) find that CEO-director ties lower firm value. Earlier, Kim and Hwang (2009) had also documented that compensation of top management is less sensitive to performance when CEOs are socially connected to directors. Provided these findings are germane to banking firms as much as they are for manufacturing entities, we can propose the following hypothesis.

H4: The impact of board tenure on bank performance is expected to be negative

BANKING AND CORPORATE GOVERNANCE IN MENA

The MENA countries can be broadly categorized into two groups. The first group comprise primarily of high-income Gulf Cooperation Council (GCC) countries, which are primarily oil-exporting nations (World Bank, 2014). The other set comprise, primarily non-GCC countries, are oil-importers, who depend essentially on trade, tourism and capital flows.[2] Within this overall setup, the financial sector is primary bank-based (Ben Naceur and Omran, 2011) with the ratio of private credit to GDP averaging nearly 65%, being higher for the oil exporters as compared with the oil importers. On the deposit side, the deposit-to-GDP ratio for non-GCC

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countries are higher at 90% as compared with their GCC peers (roughly 80%), reflecting workers remittances and capital flows.

The banking sector is quite diverse, comprising primarily of domestic players. The share of foreign banks remains low, averaging 13% in 2012, similar to those obtaining in 2007 (Claessens and van Horen, 2014). Besides, several countries have dual banking system wherein Islamic banks (including Islamic windows) co-exist with conventional ones, although their presence is uneven across countries. In the GCC countries for example, the share of these banks averaged around 30% in 2012 with a maximum of 50% in Saudi Arabia to a minimum of 6% in Oman (Islamic Financial Services Board, 2016). In contrast, the share is much lower in non-GCC countries, with an average of 5%, being the highest in Jordan at about 10%. Bank concentration remains high, with the 3-bank (usually, domestic) concentration ratio ranging between 0.5 - 0.8 and even higher in some cases. The value is the lowest in Tunisia at 0.41.

Across ownership, the banking sector is preponderantly domestically-owned, reflecting barriers to entry and licensing restrictions on foreign banks (Al-Hassan et al., 2010). As a result, the presence of banks across borders is primarily in the form of branches, often of unitary nature. State ownership of banks (comprising government, quasi government and domestic royal family) is high in several countries such as UAE, Saudi Arabia and Oman, although in others such as Bahrain, Kuwait and Morocco, it is much lower (Al-Hassan et al., 2010).

In tandem with the growth of banking and finance, countries have also undertaken steps to improve the corporate governance practices in banks. Kolderstova (2010) identifies two waves of governance reforms in these countries. The first wave, initiated in the early 2000, coincided with the development and subsequent enactment of corporate governance codes. Thereafter, between 2005 and 2009, 11 corporate governance codes were introduced across countries, as also specialized ones for state-owned and family-owned firms, including banks. Several of these guidelines such as those in Qatar, Oman and Saudi Arabia were driven by state initiatives, but there were also instances where the private sector pitched in to develop governance guidelines, such as those in Lebanon by the Transparency Association and in Jordan by the Corporate Governance

Taskforce. In several instances, these guidelines were voluntary in nature, drawing upon available best practices.

The subsequent uprisings, first in Tunisia and thereafter in several other economies in the region, reiterated the importance of good corporate governance (Ghosh, 2016). More specifically, these political upheavals highlighted the necessity of public and private firms to not only satisfy their stakeholders with superior levels of disclosure and standards of transparency, but also to ensure better management in order to improve practices and behavior. With banks being the mainstay of financial intermediation in these economies, they have not been immune to these developments. As a result, several of the subsequent legislations in corporate governance have focused exclusively on banks.

This marks the second wave of corporate governance reforms in these economies (Kolderstova, 2010). Two major features of such reforms punctuate this phase. First, the focus was towards improving practices and behavior: integrating the management of business with the cultural ethos of the region. Second, it also entailed professional commitment of the board and senior management towards the success of the organization and its key partners.

Consistent with these developments, several regulators have either undertaken steps to upgrade their erstwhile governance codes (e.g., Egypt and United Arab Emirates) or alternately, documented specific governance guidelines for banks (e.g., Kuwait and Tunisia).

DATA AND RESEARCH DESIGN

The analysis combines three sets of data: bank-specific data, banking industry and finally, country-specific data.

Bank level data

The bank-level data is extracted from *Bankscope*, a comprehensive, global database containing information on nearly 30,000 public and private banks globally, maintained by International Credit Analysis Limited (IBCA).

We use a sample comprising of an unbalanced panel of annual report data from 2000-2012 for 12 MENA countries, comprising commercial and Islamic banks. The sample initially contained nearly 120 banks, but

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subsequently we deleted the finance and investment companies including banks with extremely misrecorded/missing data on several of the important variables, leaving is with 102 banks, a quarter of them being Islamic. The total assets of Islamic banks was around a third of the total assets of the sample banks. At an average of 12.7 years of observations per bank, we have a maximum of 1297 bank-years. To moderate the influence of outliers, we winsorize the top and bottom 1% of observations for all bank-specific variables. In 2012, the final year of the sample, these banks on average, accounted for roughly 65% of total banking assets in their respective countries. **Table 1** provides the sample composition.

[Table 1]

Following from the literature, the dependent variable of interest is Return on Asset (ROA), defined as the ratio of profit after tax to total asset. In certain specifications, we also employ the Adjusted Q (Adj-Q) as our dependent variable of interest. Consistent with prior research (Ghosh, 2009; Sarkar and Sarkar, 2012), this variable is measured as the aggregate of market value of equity and book value of liabilities scaled by total asset. However, since the listing of banks is staggered over time, this lowers the sample size considerably.

To ascertain the channels through which corporate governance affects performance, we employ several variables that act as proxies for these channels. Contextually, we also examine the impact of the crisis on bank performance in the presence of corporate governance.

Country level data

The key variables are those related to corporate governance at the country level. We utilise several variables to measure corporate governance.

First, we employ a dummy which equals one beginning from the year that a country has implemented corporate governance reforms for banks, else zero. Information on this variable is extracted from Organization for Economic Cooperation and Development (OECD, 2015) and Amico (2014) and subsequently, cross-validated from the country-specific governance documents available on the website of European Corporate Governance Institute (ECGI). As observed from Table 1, the earliest initiator of corporate governance reforms was Egypt in 2002 while

Kuwait is the most recent entrant, having introduced such reforms in 2012.

In addition, we employ several other governance-related variables. Information on these variables is extracted from the OECD survey on corporate governance framework in the Middle East and North Africa (OECD, 2011) supplemented with OECD Corporate Governance codes (OECD, 2014).

The first variable we employ is a dummy coded one if these governance codes are binding, else zero. Intuitively, codes that are binding are expected to exert a more pronounced impact on performance.

The second set of variables pertain to board characteristics. We employ three variables capturing different facets of the board.

First, we employ a dummy variable which equals one if a board is of single tier, else zero. Jensen and Meckling (1976) show that the value of a firm that is fully-owned and managed by a single entrepreneur is higher than otherwise. In the US, corporate boards are typically single-tiered, which invests both managerial and supervisory responsibilities in one unified board of directors, whereas Germany has a two-tier board structure. Focusing on non-financial firms, Jungmann (2006) finds limited evidence in favour of superiority of either kind of board structure, although Millet-Reyes and Zhao (2010) provide evidence in favour of superiority of unitary board structure for French manufacturing firms.

Second, we employ a variable which captures the average board size for banks. While agency theory predicts a negative association between board size and performance, the resource dependency theory would suggest the opposite.

Finally, we employ the board tenure as an explanatory variable. This is defined as the maximum number of years a person can be a member of the board of directors. On the one hand, a large literature finds little evidence of any direct link between board independence and financial performance (Shivdasani and Zenner, 2004), suggesting a possible endogeneity of board selection. On the other hand, empirical evidence indicates that greater insider representation positively affects the quality of advice to management (Coles et al., 2008).

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The final two explanatory variables focus on risk management and disclosure. First, we employ a dummy which equals one if the bank is required by law to disclose its governance policy, else zero. From an economic standpoint, governance policy represents the intention of the organization to implement corporate governance and policies. These include, *inter alia,* the rights of shareholders, the duties and responsibilities of the Board, the policies of the company and its easy access to regulators, employees and the public, ethical standards in dealing with relevant stakeholders and compliance with relevant laws and regulations.

We insert a dummy if a country is required to institute an audit committee of the board, else zero.   An audit committee is a sub-committee of the main board comprised mainly of independent directors with oversight over auditing activities. In the case of Lebanon, Salloum et al. (2014) show that audit committees play a key role in negating the influence of potential banking distress.

Table 2 provides a definition of the relevant variables, including data source and summary statistics. The level of profitability is high, averaging 1.6%, with wide variability. The natural log of assets translates into a book value of USD 120 billion, on average. Although banks are cost efficient, their loan delinquency is also high, with NPLs averaging 7.5%. A quarter of the sample banks are Islamic.

[Table 2]

At the country level, corporate governance reforms has been in effect across countries for just over 30% of the years; in a fifth of these countries, these reforms are binding. Looking at board characteristics, the average board across countries comprises of 8.5 members with a maximum duration of 3.7 years for a board member, on average.

The correlations in **Table 3** suggest a modest association among the relevant variables. For instance, the correlation between the ROA and the corporate governance reform measure is 12%, and is statistically significant at the 0.01 level. ROA also exhibits a positive and statistically significant association with all of the other governance-related measures, but in no case is the correlation in excess of 15%. These raw correlations

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however, do not control for demand side conditions or relevant bank-level variables.

 [Table 3]

RESULTS: GOVERNANCE REFORMS AND BANK PERFORMANCE

We begin our analysis by investigating the relation between corporate governance reforms and bank profit. By employing the staggered implementation in corporate governance that exploits inter-temporal variation across countries, we find that there was a salutary impact on bank profitability.

Difference-in-differences analysis. To study the effects of corporate governance reforms on bank profits, we employ regression for bank b in country k at time t of the following form:

$$y_{bkt} = \gamma_k + \tau_t + \upsilon_{bt} + \delta\, GOV_{kt-1} + \mathbf{X}_{bkt-1}\varphi' + \varepsilon_{bkt} \tag{1}$$

where y is the outcome variable of interest, mostly ROA and in robustness checks, Adj-Q; γ_k and τ_t are country and year effects to help control for differences in the timing and/or magnitude of shocks across countries and over time and ε_{bkt} is the error term. In Equation (1), we also include bank-specific fixed effects υ; this key feature allows us to control for any other unobservable bank characteristic not directly incorporated in the regressions.

GOV is the dummy variable which equals one beginning from the year a country has effected corporate governance reforms for banks, else zero. It is lagged one period, driven by the fact that its impact on performance is likely to be manifest only after a period of time.

The coefficient of interest is δ, which depicts the effect of governance on performance. To the extent that corporate governance reform leads to an improvement in performance, one would expect δ to be positive. Throughout, we double-cluster the standard errors at the country and year levels (Cameron et al, 2011).

$\mathbf{X}_{bkt}$ represents a matrix of lagged bank-level controls. These include size, equity-to-asset ratio, non-performing loan (NPL) ratio and cost-to-

income ratio, which have been identified as important determinants of bank performance.

The impact of size on profitability is ambiguous. On the one hand, larger banks are more capable of realizing scale economies and lowering the costs of information processing (Demirguc Kunt and Huizinga, 1999; Dietrich and Wanzenried, 2011), suggesting a positive association with performance. However, very large banks might illustrate a negative relation with profitability, owing to agency costs and bureaucratic overheads. In line with this, several studies find this relation to be negative for very large banks (Stiroh and Rumble, 2006; Pasiouras and Kosmidou, 2007). Earlier, Sinkey and Greenawalt (1991) had concluded that large banks are more profitable than smaller ones.

The impact of bank capital on performance is not clear cut. Theoretically, Hellmann et al. (2000) show that higher capital requirements create a trade-off between increasing the quantum of less risky investment on the one hand and lowering charter value on the other. Empirically, capital requirements have been found to induce banks to switch from loans to low-yielding securities (Berger and Udell, 1994; Thakor, 1996). On the positive side, an increase in capital reduces the willingness of shareholders to assume excessive risks and as a result, debt holders might require lower premium, entailing better performance. Not only are well capitalized banks able to attract greater quantum of loans and deposits (Calomiris and Mason, 2003), but even during the crisis, well-capitalized banks, irrespective of their size, exhibited higher probability of survival (Berger and Bouwman, 2013).

Bourke (1989) and Molyneux and Thornton (1992) show that the level of credit risk, proxied by NPLs, is negatively related to bank profitability. Similar findings are echoed in Miller and Noulas (1997) who argue that higher exposure to bad loans lowers lendable resources and thereby dampen profit margins.

Finally, the cost-to-income ratio is included as an indicator of efficiency. Theoretically, operationally efficient banks are expected to be more profitable. In practice however, the evidence is inconclusive: while certain studies report a negative relationship with profitability (Athanasoglou et al., 2008; Goddard et al., 2009), others find the

relationship to be positive (Molyneux and Thornton, 1992). Even for MENA countries, prior studies report a negative association between profits and efficiency (Bin Naceur and Omran, 2011).

Regression results are set out in **Table 4**. In column 1, we present the results without the controls. The coefficient on GOV is positive with a point estimate equal to 0.25, but is statistically insignificant. When we include the control variables in column 2, the coefficient on GOV remains insignificant. This refutes H1 which suggests that corporate governance reforms *per se*, improve bank performance.

 [Table 4]

Advancing the argument further, we estimate an expanded specification of the following form:

$$y_{bkt} = \gamma_k + \tau_t + v_{bt} + \delta\, GOV_{kt-1} + \\ \eta\, (GOV_{kt-1} * GCH_{kt-1}) + \mathbf{X}_{bkt-1}\varphi' + \xi_{bkt} \tag{2}$$

where most variables are defined earlier and the coefficient of interest is η. The coefficient represents a difference-in-difference-in-differences (DIDID) analysis: it examines the differential impact of governance reforms on bank performance across various corporate governance characteristics (GCH).

In column 3 of Table 4, the coefficient on GOV is positive and marginally significant with a point estimate of 0.58, whereas the interaction term is negative and statistically significant with an almost similar coefficient value. Therefore, while governance reforms improve profitability, the binding nature of such reforms actually dampen profitability. What this indicates is performance is enhanced provided banks willingly embrace governance practices rather than such reforms being mandatorily thrust upon them. The fact that voluntary adoption of corporate governance principles can improve firm performance has been documented by Kouwenberg (2006).

Column 4 examines the relevance of board structure for corporate governance and finds no differential effect of single tier board on performance. In column 5, we consider board size as the variable of interest and find that the coefficient on the interaction term is negatively and statistically significant, suggesting that bigger boards are less performance-enhancing, consistent with prior evidence (Yermack, 1996;

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Coles et al., 2008). We can discern the impact on performance by looking at a change in board size from the 25th (7.5 members) to the 75th (9 members) percentile, a difference of 20 percent. The estimates in column 4 reveal that such a change in coverage leads to an additional 1.5 percentage points (=-0.07*20=1.46) decline in profitability. Among others, we find that governance reforms that emphasize the importance of disclosures exert a positive impact on performance. Intuitively, enhanced disclosures lower mismanagement or negligence and improve investor confidence (Fama and French, 1992). Alternately, better governance standards improve shareholder protection and increases valuation of corporate assets (La Porta et al., 2003), resulting in better performance.

The control variables are consistent in sign and significance. Thus, bigger banks are more profitable, hinting at their comparative advantages in processing information and monitoring borrowers. Well capitalized banks appear to be more profitable, consistent with recent research (Berger and Bouwman, 2013). NPLs bear a negative sign, since higher loan delinquency raises provisions and lowers lendable resources, thereby hurting profitability.

To sum up, the key takeaway is that in conjunction with other governance characteristics, corporate governance reforms exert a non-negligible impact on bank performance.[3]

Corporate governance, bank business model and ROA. A related concern is the impact of corporate governance across bank business models. Several of these countries have a significant presence of Islamic banks whose business model and capital structure are different from those of their conventional counterparts (Beck et al., 2013). With corporate governance reforms having permeated these banks, it remains to be examined how far it has impacted their profitability. Evidence for GCC countries suggests that governance reforms exert a beneficial impact on the performance of Islamic banks (Srairi, 2015). To investigate this issue in our setup, we estimate the following specification:

$$y_{bkt} = \gamma_k + \tau_t + v_{bt} + \delta\, GOV_{kt-1} + $$
$$\eta\, (GOV_{kt-1} * Islamic_{bkt}) + \mathbf{X}_{bkt-1}\varphi' + \xi_{bkt} \qquad \textbf{(3A)}$$

Here *Islamic* is a dummy for Islamic banks and the coefficient of interest is *η*. All the other variables and subscripts are defined as earlier. In addition, to ascertain the differential impact of governance characteristics on performance, we also estimate a similar specification, as follows:

$$y_{bkt} = \gamma_k + \tau_t + \nu_{bt} + \delta\,GOV_{kt-1} + \lambda_1\,(GOV_{kt-1} * Islamic_{bkt}) +$$
$$\lambda_2\,(GOV_{kt-1} * GCH_{kt-1}) + \lambda_3\,(GCH_{kt-1} * Islamic_{bkt}) + \quad \textbf{(3B)}$$
$$\eta\,(GOV_{kt-1} * Islamic_{bkt} * GCH_{kt-1}) + \mathbf{X}_{bkt-1}\varphi' + \xi_{bkt}$$

In equation (3B), the coefficient of interest is η and it indicates the differential performance impact of Islamic banks in response to governance reforms under a particular characteristic. For instance, if corporate governance reforms relating to an increase in maximum tenure of directors affects the performance of Islamic banks, then the coefficient η would be significant.

The results in **Table 5** show that only in column 7, the coefficient on the triple interaction term is negative and statistically significant, implying that governance reforms that mandates an audit committee of the board dampens the performance of Islamic banks. It appears that given the nature of their transactions which are either asset-backed or asset-based, an audit committee can easily decipher risk concentration and reveal the weaknesses in their income structure and therefore exerts a dampening impact on performance.

[Table 5]

In essence, the results suggest that there is no discernible differential impact of corporate governance reforms on the performance of Islamic banks. This refutes H3.

Channels of influence. The next issue we examine is the channels through which governance reforms impact performance. As observed earlier, these can occur through improvements in equity levels (reflecting improved access to financing), lower deposit rates (reflecting lower financing costs) or decline in the cost-to-income ratio (reflecting improved efficiency). We test these predictions, we specify regressions of the following form:

$$y_{bkt} = \gamma_k + \eta_t + \nu_{bt} + \delta\,GOV_{kt-1} +$$
$$\lambda\,(GOV_{kt-1} * Channel_{bkt-1}) + \mathbf{X}_{bkt-1}\varphi' + \xi_{bkt} \quad \textbf{(4)}$$

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where in Equation 4, *Channel* signifies the channel of influence; the remaining variables are defined earlier. As a result, if corporate governance reforms triggers an improvement in performance *via* a particular channel, the coefficient λ would be positive. It is also possible for any particular channel to lead to an improvement in market valuation. As a result, we also estimate similar regression as earlier with Adjusted Q (Adj-Q) as an alternate dependent variable.

The results in **Table 6** show that profitability increases are driven primarily by improvements in efficiency: the coefficient on GOV*CIR is negative and statistically significant in column 3. To understand its economic significance, we consider an increase in efficiency from 0.528 to 0.330, equal to a move from the 75th to the 25th percentile of the distribution. The point estimates indicate that such an improvement would increase profitability by an additional 2 (=0.032*60=1.92) percentage points. Alternately, when we employ Adj-Q as the dependent variable, we find that the improvement in valuation is driven primarily by improved access to financing sources. As earlier, a move from the 25th to the 75th percentile of the equity distribution would result in a gain in market valuation by an additional 0.4 percentage points. With average market valuation of the listed banks being equal to USD 4.4 billion, this translates into a difference of USD 18 million or nearly 10% of their pre-tax profits, quite a significant number.

[Table 6]

To encapsulate, the results suggest that the impact of corporate governance reforms on bank performance occurs via improved operating efficiency and increased access to capital. This supports H2 above.

Robustness checks. Next, we check the robustness of our baseline regressions to different country characteristics. As observed earlier, the MENA region consists of two group of countries: the relatively well-off oil exporters and the remaining being oil importers (See fn. 3). We examine whether our results are equally pertinent to these two groups of countries. Accordingly, we estimate regressions as specified in equation (2) earlier, but separately for these two sets of countries.

The results are reported in **Table 7**. More generally, we find that the overall results are driven primarily by the oil exporters. To be more

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specific, the coefficient on the statistically significant interaction term for the oil exporters are those that are reflected for the entire sample in Table 4. In case of oil importers, the statistically significant interactive coefficients are those pertaining to structure of the board, the tenure of board members and the efficacy of mandatory audit system. We find that single-tier boards lead to improved performance, consistent with Millet-Reyes and Zhao (2010). In addition, boards with greater tenure of members exhibit higher profitability: a 50% increase in tenure for board members in oil importing nations – equal to a move from the 25th to the 75th percentile of the distribution – would result in a rise in profitability by an additional 6 percentage points. Economically, board tenure captures the trade-off between knowledge accumulation and independence. On the one hand, higher tenure increases firm-specific knowledge and thereby can improve profits. On the flip side, it raises the risk of increased familiarity between the board and management, which can undermine independence. Our results suggests that the former effect dominates the latter and stands in contrast to the evidence proffered by Vafeas (2003) for US firms who show that long-tenured directors are less effective in monitoring management.

[Table 7]

Summing up, the results indicate that the overall findings are driven primarily by oil exporters; for oil importers, board structure and director tenure are the key governance factors that affect profitability. Our findings regarding the impact of board tenure on performance shows that it is positive only for the oil importing countries, contrary to H4, which predicted an inverse relationship.

Dynamics of governance. Akin to Bertrand and Mullainathan (2003), we decompose the institution of governance into separate time periods. We replace the GOV indicator with two variables: GOV (-2, 0) captures any effect from two years before to the year of establishment of the entity, while GOV is the contemporaneous value. We estimate specifications similar to earlier, controlling for all usual determinants of ROA as well as country, year and bank fixed effects. A positive and significant coefficient on BUREAU(-2, 0) would be symptomatic of reverse causation. In **Table 8,** we find limited evidence of any contemporaneous impact: the coefficient

on GOV is insignificant across all columns, whereas the coefficient on GOV (-2,0) is negative and statistically significant in certain cases.

[Table 8]

Governance and financial crisis. Finally, we examine the differential impact of the financial crisis on bank performance under different governance characteristics. Claessens et al. (2006) had observed that corporate governance can influence firm behavior in times of financial stress. To investigate this proposition, we estimate regressions of the following form:

$$y_{bkt} = \gamma_k + \eta_t + \nu_{bt} + \delta\, GOV_{kt-1} + \phi_1\, (GOV_{kt-1} * Crisis_{kt}) +$$
$$\phi_2\, (GOV_{kt-1} * GCH_{kt-1}) + \phi_3\, (GCH_{kt-1} * Crisis_{kt}) + \quad \textbf{(5)}$$
$$\rho\, (GOV_{kt-1} * Crisis_{kt} * GCH_{kt-1}) + \mathbf{X}_{bkt-1}\varphi' + \xi_{bkt}$$

where in Equation 5, *Crisis* is a dummy variable which equals one for the years 2008 and 2009, else zero; all other variables are defined earlier. The coefficient of interest is ρ: it examines the differential performance impact during the crisis in response to reforms under a particular corporate governance characteristic.

Regression results set out in **Table 9** show that the coefficient on the three-way interaction term is significant in columns 2 and 3. The results in column 2 highlight the fact that countries with a mandatory nature of corporate governance reforms experienced a decline in their profits during the crisis; same is the case for single-tier bank boards. Our results therefore, stand in contrast to Jungmann (2006) and show that single-tier boards are not very effective, presumably because it has to simultaneously make and monitor the same decision, which might not be very effective, especially during the crisis.

[Table 9]

To encapsulate, the findings suggest that the mandatory nature of governance characteristic and the unitary nature of board were less effective in improving profits, especially during the crisis.

CONCLUDING REMARKS

The literature on corporate governance has spawned in recent times, with a significant volume of research examining varied facets of the process.

One area of the global economy wherein this attention has been quite limited is the MENA region. To address this shortcoming, we integrate data on MENA banks with the corporate governance reforms across countries in this region for an extended time span and examine their impact on performance. The results show that although corporate governance reforms by themselves are not very effective, the impact on profitability is quite pronounced when considered alongside several corporate governance characteristics. To be more specific, the binding nature of governance reforms along with board size and disclosure practices are the key variables that affect bank profitability. Further investigations reveal that these results are driven essentially by the oil exporting countries, whereas the results for oil importers indicate that board structure and tenure of board members are the important variables that influence performance.

Our results also shed light on the channels through which governance influences bank performance. We show that the improvements in profitability are driven by controlled growth in operating expenses whereas increases in market valuation are the result of improved investor confidence emanating from better access to financing.

To sum up, the broad conclusion is that corporate governance reforms need to be carefully tailored, taking into account the inherent economic characteristics of the country in order for it to exert durable impact. The challenge for policymakers is to find the right balance that can ensure maximum benefits for the banking sector, while minimizing the challenges involved in its implementation.

NOTES

[1]Salient among these include the Blue Ribbon Committee (1999) in the US, the Cadbury Committee (1992) and Higgs Committee (2003) in the UK, the Vienot Report (1995) in France and the Peters Report (1997) in the Netherlands.

[2] Oil exporters include Algeria, Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates. The oil importers include Egypt, Jordan, Lebanon, Morocco and Tunisia. Banks in these 12 countries comprise our MENA sample.

[3] We also estimate similar regression using Adj-Q as the dependent variable and find limited evidence of significant results.

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Table 1: Composition of banks by country

Country	Year of initiation of governance reform	N.banks	of which: Islamic	Avg. number of years of observations	Total observations
Algeria	2009	5	0	11.8	59
Bahrain	2010	8	1	12.9	103
Egypt	2011	10	1	12.6	126
Jordan	2007	4	1	13.0	52
Kuwait	2012	9	2	13.0	117
Lebanon	2010	12	0	12.6	151
Morocco	2008	9	0	12.4	112
Oman	2002	3	0	13.0	39
Qatar	2008	10	4	12.8	128
Saudi Arabia	2006	13	10	12.9	168
Tunisia	2008	3	0	12.0	36
UAE	2007	16	7	12.9	206
Total	**..**	**102**	**26**	**12.7**	**1297**

Table 2: Variable definitions and data sources

Variable	Unit	Empirical definition	Data source	N	Mean (SD)
ROA	%	Net profit/Total asset	BankScope	1082	1.611 (1.439)
Adj-Q	Number	(MVE+BVL)/Total asset, where MVE=market value of equity=Number of shares outstanding*Closing price and BVL=Book value of liabilities	As above	373	1.160 (0.452)
LTA	Number	Ln (Bank asset/price index)	As above	1083	15.663 (1.018)
EQTYTA	%	Total equity/Total asset	As above	1083	12.726 (10.174)
DEPRT	%	Interest paid on deposits/ Total deposits	As above	994	3.468 (2.379)
CIR	%	Operating expense/(Total income – interest cost)	As above	1066	45.414 (27.027)
NPL	%	Non-performing loans/ Gross loans	As above	835	7.494 (8.603)
Islamic	Number*	Dummy=1 if a bank is Islamic, else zero	As above	1297	0.256 (0.437)
GOV	Number*	1, beginning from the year a country has effected corporate governance (CG) reforms for banks, else zero	OCED	1297	0.309 (0.462)
BINDING	Number*	1 if the CG reforms in the country for banks are binding, else zero	As above	1297	0.167 (0.373)
BOARD	Number*	1 if the bank board is of single tier, else zero	As above	357	0.875 (0.447)
SIZE	Number	Average size of bank board in a given country, else zero	As above	422	8.472 (1.076)
TENURE	Number	Maximum number of years a person can be a bank board member	As above	422	3.737 (1.417)
DISCL	Number*	1 if a country discloses its CG principles and practices, else zero	As above	1297	0.216 (0.412)
AUDIT	Number*	1 if a CG legislation mandates an audit committee of the bank board, else zero	World Bank	1297	0.372 (0.632)
CRISIS	Number*	1 for the years 2008 and 2009, else zero	IMF (2012) and Mirzzei and Al-Khouri (2016)	1297	0.157 (0.364)

*=between zero and one

Table 3: Correlation matrix

	1	2	3	4	5	6	7	8	9
1.ROA									
2.Adj-Q	0.168***								
3.GOV	0.117***	-0.014							
4.BINDING	0.118***	0.112**	0.616***						
5. BOARD	0.149***	0.029	0.813***	0.727***					
6. SIZE	0.104***	-0.079	0.909***	0.604***	0.851***				
7. TENURE	0.074***	-0.046	0.817***	0.415***	0.685***	0.922***			
8.DISCL	0.103***	0.075	0.736***	0.854***	0.784***	0.698***	0.474***		
9.AUDIT	0.149***	-0.037	0.849***	0.446***	0.684***	0.814***	0.675***	0.589***	

***, ** and * denote statistical significance at the 1, 5 and 10%, respectively

Table 4: Impact of corporate governance on bank performance

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
GOV	0.250	0.288	0.576*	0.539	0.847***	0.434	0.613*	0.252
	(0.318)	(0.345)	(0.344)	(0.535)	(0.338)	(0.687)	(0.367)	(0.513)
GOV*BINDING			-0.573***					
			(0.160)					
GOV*BOARD				0.289				
				(0.508)				
GOV*SIZE					-0.073**			
					(0.035)			
GOV*TENURE						-0.047		
						(0.155)		
GOV*DISCL							0.449**	
							(0.191)	
GOV*AUDIT								0.031
								(0.242)
LTA		0.069***	0.082***	0.068**	0.062***	0.066***	0.063**	0.069***
		(0.024)	(0.032)	(0.029)	(0.025)	(0.024)	(0.028)	(0.025)
EQTY		0.026*	0.026*	0.026	0.026*	0.026	0.025	0.026
		(0.016)	(0.014)	(0.017)	(0.015)	(0.017)	(0.016)	(0.017)
NPL		-0.012*	-0.011	-0.012*	-0.013	-0.012	-0.011*	-0.012*
		(0.007)	(0.007)	(0.007)	(0.008)	(0.008)	(0.006)	(0.007)
CIR		-0.002	-0.003	-0.003	-0.002	-0.003	-0.003	-0.003
		(0.003)	(0.002)	(0.003)	(0.003)	(0.002)	(0.002)	(0.003)
Bank FE	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES
Country FE	YES	YES	YES	YES	YES	YES	YES	YES
N.Obs.	1081	800	800	800	800	800	800	800
R-sq.	0.4732	0.4925	0.4990	0.4931	0.4942	0.4927	0.4957	0.4926

Standard errors (clustered by country and year) in brackets
***, ** and * denote statistical significance at the 1, 5 and 10%, respectively

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Table 5: Differential impact of corporate governance for Islamic banks

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
GOV	0.265 (0.342)	0.598* (0.322)	0.574 (0.542)	0.881*** (0.316)	0.426 (0.725)	0.683** (0.342)	0.256 (0.519)
GOV*Islamic	0.078 (0.258)	-0.101 (0.341)	-0.201 (0.283)	-0.352 (0.295)	-0.354 (0.361)	-0.287 (0.381)	0.016 (0.272)
GOV*Islamic*BINDING		0.223 (0.588)					
GOV*Islamic*BOARD			-0.277 (0.476)				
GOV*Islamic*SIZE				0.019 (0.049)			
GOV*Islamic*TENURE					0.135 (0.134)		
GOV*Islamic*DISCPL						0.112 (0.672)	
GOV*Islamic*AUDIT							-0.472** (0.201)
GOV*BINDING		-0.906*** (0.129)					
GOV* BOARD			-0.377 (0.549)				
GOV* SIZE				-0.078* (0.044)			
GOV* TENURE					-0.058 (0.163)		
GOV* DISCPL						-0.665*** (0.218)	
GOV* AUDIT							0.017 (0.278)
Islamic*BINDING		0.633 (0.491)					
Islamic*BOARD			0.838** (0.402)				
Islamic*SIZE				0.053 (0.048)			
Islamic*TENURE					0.046 (0.096)		
Islamic*DISCPL						0.703 (0.438)	
Islamic*AUDIT							0.714*** (0.288)
Controls	YES	YES	YES	YES	YES	YES	YES
Bank FE	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES
Country FE	YES	YES	YES	YES	YES	YES	YES
N.Obs.	800	800	800	800	800	800	800
R-sq.	0.4926	0.5060	0.4993	0.4976	0.4950	0.5025	0.4987

Standard errors (clustered by country and year) in brackets
***, ** and * denote statistical significance at the 1, 5 and 10%, respectively

Table 6: Channels of influence of corporate governance on profits and valuation

	ROA			Adj-Q		
	(1)	(2)	(3)	(4)	(5)	(6)
GOV	-0.089	0.079	1.529***	0.047	-0.233	-0.134
	(0.419)	(0.377)	(0.714)	(0.087)	(0.201)	(0.215)
GOV*EQTY	0.029			0.005**		
	(0.038)			(0.002)		
GOV* DEPRT		0.055			0.063	
		(0.074)			(0.047)	
GOV*CIR			-0.032***			0.003
			(0.012)			(0.004)
Controls	YES	YES	YES	YES	YES	YES
Bank FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Country FE	YES	YES	YES	YES	YES	YES
N.Obs.	800	747	799	318	304	318
R-sq.	0.4952	0.5085	0.5134	0.7246	0.7101	0.7120

Standard errors (clustered by country and year) in brackets
***, ** and * denote statistical significance at the 1, 5 and 10%, respectively

Table 7: Impact of corporate governance on ROA – Robustness

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Oil exporters						Oil importers					
GOV	0.879***	1.734*	1.414***	1.736*	0.963**	0.167	0.394	-0.365***	-0.423	-0.457***	-0.011	0.223
	(0.402)	(1.061)	(0.355)	(1.068)	(0.486)	(0.839)	(0.468)	(0.102)	(0.293)	(0.203)	(0.279)	(0.188)
GOV*BINDING	-0.684***							-0.005				
	(0.116)							(0.006)				
GOV*BOARD		-1.365							0.572***			
		(1.170)							(0.096)			
GOV*SIZE			-0.123**							0.056		
			(0.063)							(0.041)		
GOV*TENURE				-0.455							0.116***	
				(0.390)							(0.051)	
GOV*DISCL					0.662***							0.045
					(0.247)							(0.379)
GOV*AUDIT						0.227						-0.234***
						(0.393)						(0.081)
Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Bank FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Country FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
N.Obs	572	572	572	572	572	572	228	228	228	228	228	228
R-sq.	0.5018	0.4989	0.4981	0.4989	0.4998	0.4953	0.6993	0.7114	0.7012	0.7020	0.6966	0.7006

Standard errors (clustered by country and year) in brackets
***, ** and * denote statistical significance at the 1, 5 and 10%, respectively

Table 8. Dynamics of corporate governance

	All countries	Oil exporters	Oil importers
	(1)	(2)	(3)
GOV	0.272	0.435	0.005
	(0.348)	(0.426)	(0.211)
GOV (-2, 0)	-0.139*	-0.238*	0.054
	(0.077)	(0.144)	(0.049)
Controls	YES	YES	YES
Bank FE	YES	YES	YES
Year FE	YES	YES	YES
Country FE	YES	YES	YES
N.Obs	800	572	228
R-sq.	0.4943	0.4986	0.6975

Standard errors (clustered by country and year) in brackets

***, ** and * denote statistical significance at the 1, 5 and 10%, respectively

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Table 9: Corporate governance and financial crisis

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
GOV	0.326 (0.397)	0.551 (0.389)	0.575 (0.638)	0.975* (0.560)	0.515 (0.747)	0.626 (0.441)	0.335 (0.595)
GOV*Crisis	-0.118 (0.563)	0.108 (0.553)	0.221 (0.612)	-1.841 (1.347)	-0.076 (0.749)	0.047 (0.607)	-0.454 (0.827)
GOV*Crisis*BINDING		-0.980** (0.424)					
GOV*Crisis*BOARD			-1.013** (0.447)				
GOV*Crisis*SIZE				0.144 (0.133)			
GOV*Crisis*TENURE					-0.161 (0.139)		
GOV*Crisis*DISCPL						-0.628 (0.476)	
GOV*Crisis*AUDIT							0.058 (0.449)
GOV*BINDING		-0.478*** (0.147)					
GOV* BOARD			-0.252 (0.486)				
GOV* SIZE				-0.081 (0.053)			
GOV* TENURE					-0.055 (0.145)		
GOV* DISCPL						-0.402** (0.197)	
GOV* AUDIT							-0.009 (0.246)
Crisis*BINDING		0.701* (0.434)					
Crisis*BOARD			1.076*** (0.349)				
Crisis*SIZE				0.115*** (0.034)			
Crisis*TENURE					0.262*** (0.094)		
Crisis*DISCPL						0.538 (0.511)	
Crisis*AUDIT							0.277 (0.297)
Controls	YES	YES	YES	YES	YES	YES	YES
Bank FE	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES
Country FE	YES	YES	YES	YES	YES	YES	YES
N.Obs.	800	800	800	800	800	800	800
R-sq.	0.4927	0.5010	0.5022	0.5048	0.5025	0.4975	0.4951

Standard errors (clustered by country and year) in brackets
***, ** and * denote statistical significance at the 1, 5 and 10%, respectively