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Corporate Governance for the cost of bank capital

(Evidence of Yemen)

Monai Ajbihtor[1*]

[1] Associate Professor of Finance Management, Sana'a University, Yemen

*Corresponding author's E-mail: Ajbihtor@yahoo.com

ABSTRACT

The law incorporates the guidelines of the Basel Accords and governance principles, and was declared a major step forward into facing global banking competition and driving financial growth in Yemen. The purpose of this study is to examine the association between governance quality and cost of capital comprising the cost of equity and cost of deposits. We create two multivariate cross–sectional time–series regression models to test this relation. Our main results show that there is a highly significant relation between bank governance and cost of capital. Banks with large board size and more executive directors on board are able to obtain finance from cheaper resources. This indicates that cost of equity of Yemenian banks is not just related to financial performance and risk but also related to how well a bank is run. Furthermore, the cost of deposits decreases significantly with high governance quality, especially for the high proportion of foreign ownership.

Keywords: Corporate Governance, Banking, Cost of Equity, Cost of Deposits, Yemen

1. Introduction

The 1988 Basel Accord provided guidelines for bank regulation to be adopted by all banks all over the world. Banking regulations encourage banks to decrease their credit risk exposure (Barth et al, 2004). In order to comply with requirements of the Basel Accords, the Yemenian government launched its comprehensive financial sector reform program in 2004 to be implemented over the period from 2005–2008 (Mohieldin and Nasr, 2007). This reform program aims to improve banks' performance effectiveness and soundness, increase their competitiveness, enhance risk management practices of the banking sector, and solve the problem of non- performing loans (NPL) in late 1990s, which resulted from poor corporate governance principles or even absence of these standards in banks causing improper lending and investment decisions. Therefore, the banking sector reform program includes three pillars: privatization and consolidation of the banking sector, restructuring of state–owned banks, solving non–performing loans problems, and enhancing the CBE banking supervision (C.B.E., 2007, p.12). Furthermore, the major reforms in Yemen include the issuance of the 2005 corporate governance code. As part of the financial reform program, the banking law No. 88 of year 2003 was promulgated to regulate the Yemenian banking sector and comply with Basel requirements. The law regulates the banking sector by mandating strong capital base to absorb different banks risks. In this case, raising capital will have an effect on the banks cost of capital, as the reduction of banks risks due to applying the minimum capital adequacy ratio should lead to reduction in cost of bank capital. In addition, the banking law addresses some governance issues in order to regulate the banking sector and protect shareholders rights, for example, owning bank shares, disclosure and transparency, bank committees, and board of directors. The 2003 Law sets the rules, which included most of the five corporate governance principles determined by the Organization for Economic Cooperation and Development (OECD). It sets the rules of disclosure, reserve ratios, banks ownership structure, responsibilities of board of directors. The structure and responsibilities of the board of directors are placed at the core of a corporate governance framework for banks, as the Bank Board of Directors has a very sensitive role suggested by the Basel Committee on Banking Supervision (BCBS).

The main objective of this research is to examine the effect of bank governance on the banks cost of capital. We estimate OLS regression models to test these relations. The sample consists of Yemenian banks whose financial information is available. We measure governance as a multidimensional composite index comprised of board structure characteristics (board size, board composition, and CEO/Chairman duality) and ownership structure characteristics (ownership concentration, foreign ownership, and institutional ownership).

To the best of our knowledge, this is the first study to measure governance in the Yemenian banking sector using a multidimensional self-constructed governance index comprised of six governance indicators: board size, board composition, leadership structure (duality), foreign ownership, institutional ownership, and ownership concentration. We use factor analysis to group the six variables into a single governance score. Moreover, to our knowledge, this is the

first research that examines the relation between bank governance and cost of capital in Yemenian banking sector and establishes a link between governance components and cost of capital. That is, we examine the impact of Yemenian bank governance on cost of bank capital including cost of equity and cost of deposits.

The research will be structured as follows: section 2 reviews the literature that investigates the relation between bank governance quality and cost of equity and debt capital, and develop the hypotheses related to these relations. Section 3 defines the study variables and explains model specifications. Section 4 presents the empirical results of the study. Section 5 concludes and section 6 recommends future research.

2. Literature Review

The Agency Problem and Corporate Governance

Separation of ownership and control in organizations creates information asymmetry problems between shareholders and managers and expose shareholders to agency costs. According to agency theory, an agency relationship is a contract between the principal (the owner) and the agent. If both parties to the relationship are utility maximizers, there is good reason to believe that the agent will not always act in the best interests of the principal (Jensen and Meckling, 1976).

Corporate governance mechanisms can help mitigate the agency problems by increasing the transparency and disclosure of information, and by reducing the opportunistic behavior of managers through monitoring their actions. Therefore, CG mechanisms play an important role in enhancing the firm value, reducing firms' risks and hence their cost of capital.

Corporate governance is defined in most studies from either an investor protection or functional perspective. Studies taking the investor protection perspective define corporate governance as the internal control system which constitutes one of the control mechanisms to resolve the divergence between managers' decisions and those that are optimal from the society's point of view (for example, Jensen, 1993). Studies taking the functional/operational viewpoint believe that CG results in increased access to external financing, lower cost of capital and associated higher firm valuation, better operational performance through better allocation of resources and better management, reduced risk of financial crises, better relationships with all stakeholders (For example, Claessens, 2003).

In the financial institutions, the corporate governance problem arises from the asymmetric information which causes banks' opaqueness and the government regulations which restricts its activities. Opaqueness enables managers and large investors to manipulate boards of directors and exploit the private benefits of control (Caprio and Levine, 2002).

BCBS adopts the functional view, where it defines CG as involving "the manner in which the business and affairs of banks are governed by their boards of directors and senior management, which affects how they set corporate objectives; operate the bank's business on a day–to–day basis; meet the obligation of accountability to their shareholders and take into account the interests of other recognized stakeholders; align corporate activities and behavior with the

expectation that banks will operate in a safe and sound manner, and in compliance with applicable laws and regulations; and protect the interests of depositor" (BCBS, 2006).

Corporate Governance Mechanisms and Cost of Capital

Due to agency problem and conflict of interests, investors will demand high rate of return for this agency risk and thus increase the firm's cost of capital (Poterba, 1991). Another agency problem arises from the conflict of interest between firm shareholders and bondholders, where shareholders may take actions, such as taking risky projects or distribute dividends instead of investing in positive net present value projects that induce in increasing debt holder's default risk and therefore cause an increase in the cost of debt (Ashbaugh et al., 2006). In addition to the two previous agency problems, banks have another agency problem which arises because banks are heavily leveraged, and leverage can create agency problem because depositors, who are bank creditors, are less able to monitor and control banks' risk taking (Junarsin and Ismiyanti, 2009).

These conflicts of interests raise the need for corporate governance (Shleifer and Vishny, 1997), as high quality of corporate governance will ensure better access to external financing at a lower cost (La Porta, et al, 1997). Several corporate governance mechanisms can be used through which investors can protect themselves against expropriation by the insiders (La Porta et al, 2000) and therefore, reduce risk and lower the firm's cost of capital. The empirical evidence on a relation between CG and bank cost of capital has been scant, except for the relation of disclosure and cost of bank equity capital (Poshakwale and Courtis, 2005).

Governance and Cost of Equity Capital

In context of banks, Zimmer and McCauley (1991) defined cost of bank capital as the fee or net spread between bank borrowing and lending rates that a financial product (such as a straight corporate loan, a commitment to lend, and an interest rate swap) must generate in order to increase the market value of the bank, that is, it is the spread or fee that allows the required regulatory capital to earn the rate of return demanded by the market. In other words, the cost of a bank's equity capitalis the after–tax rate of return that banks shareholders expect on their investment or the rate at which banks shareholders discount future expected earnings (Maccario et al., 2002). Governance mechanisms will reduce the cost of a firm's equity by reducing the cost of external monitoring by outside investors, limiting opportunistic insider trading (Chen et al., 2009), mitigating agency costs driven by the problems of moral hazard and adverse selection resulted from information asymmetries (Ashbaugh et al., 2004), reducing the divergence of cash flows from shareholders and thus reduce the cost of capital (Pham et al., 2007).

The literature shows empirically that the cost of capital is affected by several governance mechanisms such as; shareholder rights (Gompers et al., 2003; Cheng et al, 2006; Guedhami and Mishra, 2009; and Huang et al.,

2009), the legal protection (Chen et al., 2009), disclosure and transparency (Botosan, 1997; Baumann and Nier, 2004; Poshakwale and Courtis, 2005), and other governance mechanisms such as board structure, ownership structure, and compensation structure (Chen et al., 2003; Ashbaugh et al., 2004 and 2009; Pham et al., 2007; Shah and Butt, 2009).

Regarding shareholders rights, Gompers et al., (2003) find that shareholders with stronger rights enjoy a lower cost of equity capital. Huang et al. (2009) suggest that managerial ownership could substitute for shareholder rights in affecting the cost of equity capital. Cheng et al. (2006) find that firms with stronger shareholder rights regimes and higher levels of financial transparency are associated with significantly lower costs of equity capital. In addition, strong legal system decreases the auditing costs and lowers the cost of monitoring the company's performance (Lombardo and Pagano, 2000), increases the confidence of investors and decreases risk premium (Chen et al., 2009), provides high legal protection of minority shareholders and thus reduces the firms' cost of capital (La porta et al., 2002).

Using corporate governance index that includes several governance mechanisms, Koerniadi and Tourani (2009) argue that cost of capital of firms with high corporate governance values is consistently lower than that of firms with low governance values. Shah and Butt (2009) show that board size is negatively related to cost of equity, managerial ownership has a negative impact on a company's cost of equity, board independence and audit committee independence have a positive although insignificant effect on a company's cost of equity. Ashbaugh et al. (2004) argue that governance attributes intend to reduce agency costs therefore they have significant effects on firms' cost of equity capital directly and also indirectly via beta (systematic risk). Similarly, Ashbaugh et al. (2009) argue that governance have a significant effect on firms' risk profiles.

In context of ownership structure, there is evidence that high insider ownership and presence of institutional blockholders reduce the risk and information asymmetry of the firm and therefore lead investors to demand lower rates of return on capital (Pham et al., 2007). Regarding ownership concentration, cost of equity is increasing in case of the firm is controlled by a single large shareholder (Guedhami and Mishra, 2009).

Regarding disclosure, the third pillar of the New Basel Accord focuses on bank disclosure of information in order to reduce information asymmetry. Disclosure requirements increase market efficiency through existence of reliable information and thus, reduce the return on investors investments (Shaffer, 1995), decrease stock volatility which in turn will reduce a bank's cost of capital (Baumann and Nier, 2004), increase the liquidity of the firm's securities, thus reduce a firm's cost of capital (Diamond and Verrecchia, 1991).

Finally, in emerging markets, Chen et al. (2003) examine the impact of disclosure and other non–disclosure CG mechanisms on cost of equity capital for firms from nine emerging Asian economies, and find negative relationship between disclosure and the cost of equity capital, and also a negative relationship between the non– disclosure CG mechanisms, such as board independence and minority shareholder protection, and the cost of equity capital. However, the effect of the non–disclosure CG mechanisms on the cost of equity capital is stronger than that of disclosure, after controlling for beta and firm size.

They suggest that the role of non–disclosure CG mechanisms is more important than the role of disclosure in reducing the cost of equity capital because the legal protection of investors in

emerging markets is weak. Therefore, we hypothesize that bank cost of equity capital is negatively associated with governance quality.

Corporate Governance and Cost of Debt Capital

In the context of the agency problem, Ashbaugh et al. (2006) there are two conflicts that increase probability of default and therefore increase cost of debt. The first agency conflict is between the managers and shareholders, where information asymmetry leads to opportunistic managerial behavior causing the firm cash–flow to decrease; therefore the default risk of creditors will increase inducing in higher cost of firm debt. The second agency conflict is between firm shareholders and bondholders, where shareholders may take actions that are against the interests of bondholders, for example shareholders may influence managers to undertake risky projects which increases the riskiness of the firm's future cash flow. In both cases, the debt holder's default risk will increase resulting in higher cost of debt (Ashbaugh et al., 2006; and Bhojraj and Sengupta, 2003).

Concerning the cost of debt, corporate governance is highly important in determining the credit rating of the firm and therefore the cost of debt, where a credit rating is generally an opinion of the financial ability of an entity to meet its debt obligations in accordance with their terms (Standard and Poor's 2002). Prior literature suggests that the relation between corporate governance and cost of debt is negative, that is good corporate governance can reduce cost of debt (Anderson et al., 2003; and Klock et al., 2005).

Corporate governance can reduce the firms' default risk, decrease the bond yields and increase their credit ratings and therefore reduce firms' cost of debt financing if they have timely and detailed disclosure (Sengupta, 1998), have greater institutional ownership and stronger outside control of the board (Bhojraj and Sengupta, 2003), high financial transparency, board independence, board stock ownership and board expertise, and weaker shareholder rights (Ashbaugh et al., 2006), have large board size, high board meeting frequency and audit committee independence as audit committee monitoring of the financial accounting process reduces creditors risk premium and thus the cost of debt (Anderson et al., 2004).

Accordingly, these arguments indicate that corporate governance is used to determine the cost of capital, whereby good corporate governance can reduce cost of capital. This drives the hypothesis that bank cost of deposits is negatively associated with governance quality.

3. Methodology

The purpose of this study is to examine whether there is a relation between bank governance quality and cost of bank capital. We create two separate OLS regression models to examine the impact of governance quality on cost of capital. We test for a relation by using cross–sectional, time–series regression analyses design. The sample consists of 48 banks operating in Yemen with data covering the period 2000–2009. The sample selection policy for the study hypothesis (H1 H2) is described below. The study hypotheses require cross–sectional regression analyses of the impact of governance on bank performance and cost of capital are conducted. To be included in the sample, a bank must meet the following sample selection criteria (see Table 1):

1) Bank is subject to CBE supervision and the 2003 Banking Law jurisdiction.
2) The bank must not be a branch of a foreign bank.
3) Financial and governance data are available from Bankscope and Kompass Yemen databases, respectively, for at least three years during the period 2000–2009.
4) Daily stock closing prices (i.e. share price data) must be available from the Thomson Reuters 3000 Xtra stock price database for the period corresponding to the study period (2000–2009) for cost of equity capital calculations.
Sample consists of banks operating in the Yemenian banking sector over the period 2000–2009. The sample banks must have data available from KOMPASS YEMEN Financial Yearbook2,3 Bankscope database, banks' financial statements, and Reuters 3000 Xtra stock price data services. The selection criteria resulting in the final sample is detailed below.

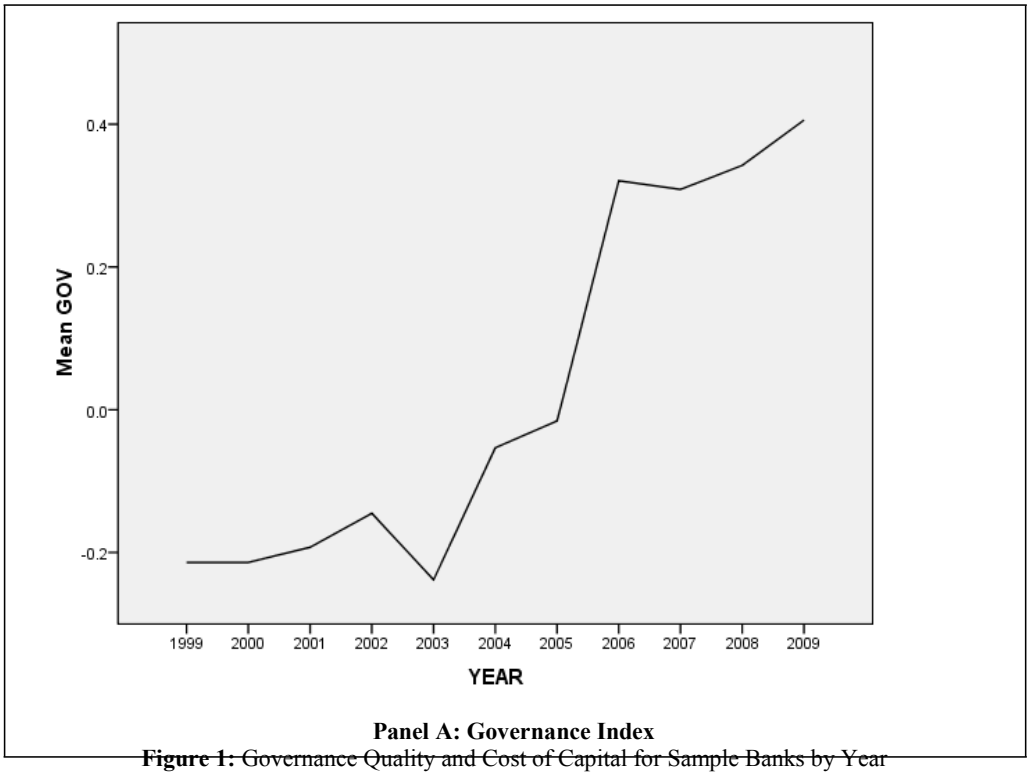
Table 1: Sample Selection Criteria for H1–H2

Criterion	**Number**	**Percent**
Total number of banks available from Kompass Yemen and Bankscope during 2000–2009	62	100.00
Less: Branches of foreign banks	(5)	(8.10)
Subtotal	57	91.90
Less: banks with less than 3 continuous years of data on Kompass Yemen and Bankscope	(9)	(14.50)
Final number of banks in the sample	**48**	**77.40**

4. Finding

To enhance the power of the empirical analysis, we pool observations across years for the period 2000–2009. No bank may be represented more than once in the sample.
This policy results in a maximum number of observations of 480 bank–years (48 banks in 10 years) comprising the final sample for H1 and H2 testing. However, because many data items are missing, number of observations per variable may be lower.
In this section, we present the empirical results of the analysis conducted on study models. Please recall that the study purpose is to test whether governance quality is a determinant of cost of capital in the Yemenian banking sector (hypotheses 1–2). Models 1–2 test this relation using a cross–sectional design. To control against extraneous industry effects, we follow Cornett et al. (2007) in adjusting the financial variables in all models for the industry averages. Industry–adjusted comparisons permit the examination of firm–specific performance irrespective of any industry–wide factors that may affect financial performance (Cornett et al., 2007).
In this section, we describe the empirical results of testing Models 1–2, where we regress the cost of equity (Model 1) and cost of debt (Model 2), respectively, on bank governance quality and a set of relevant control variables. Cost of equity capital and deposits at well–governed banks are lower than those at poorly–governed banks, even after adjusting for the industry averages. The lower cost of capital reflects the lower risk of well–governed banks. Loan loss provisions, beta, liquidity, and financial leverage are lower in well–governed banks compared to poorly–governed banks. On the other hand, capital adequacy and loan growth are higher compared to poorly–governed banks. As for bank characteristics, well–governed banks have smaller size, lower managerial efficiency, and lower non–interest revenue sources.

In this study, all non–governance and non–macroeconomic measures are expressed in industry–averages. Thus, the interpretation of the figures should focus on the relative rankings of the variables rather than on the individual values (which in themselves would have little meaning).
To illustrate the change in study variables over time, Figure 1 below shows the trend over period 2000–2009 in governance quality index (Panel A) and cost of equity and cost of deposits (Panel B) for sample banks. Governance quality index shows a sharp increase starting in 2004, the year in which the 2003 law went into effect. Cost of equity (solid line) started a downward trend in 2004 with a few peaks in 2005 and 2007. Cost of deposits (dashes and dots) has decreased steadily starting in 2001. Both costs increased again sharply in 2009, but this may be due to the smaller sample size in 2009 than a genuine effect of economic activity.



Panel A: Governance Index
Figure 1: Governance Quality and Cost of Capital for Sample Banks by Year

In this section, we describe the results of testing the hypothesis specified in Models (1) and (2). Pearson correlation coefficients for the variables are shown in Table 4. Panel (a) of Table 4 shows the cost of equity (Model 1) correlations, where the correlations between cost of equity, governance and other control variables are represented . Panel (b) of Table 4 shows the cost of deposits (Model 2) correlations, that is, the correlation relation between cost of deposits, governance and control variables are presented.
Figures in Panel (a) in Table 4 indicate that K(Equity) is insignificantly positively correlated with GOV. K(Equity) is also significantly positively correlated with BETA and ROA, and negatively correlated to LLP. However, LIQ, SIZE, LGRO, CRISIS, GDPGRO, CPI, and LIST are insignificantly related to cost of Equity. On the other hand, the figures in Panel (b) in Table 5 show that K(Deposits) is significantly negatively correlated with GOV. K(Deposits) is also

negatively significantly related to BETA, SIZE, LGRO, ROA, CRISIS, GDPGRO and CPI. Moreover, K (Deposits) is positively significantly related to LLP and LIQ. Finally, Correlations show that K (Deposits) is insignificantly related to LIST and FLEV.

Table 2: Pearson Correlation Coefficients for Models 1 and 2

	K(Equity	*GO*	*BET*	*LL*	*LI*	*SIZ*	*LGR*	*RO*	*CRISI*	*GDPGR*	*CPI*	*LIST*
K(Equity)	1.0	0.03	0.59 0.00	–0.18	–0.10	–0.02	–0.05	0.22	–0.01 0.48	0.00	0.00 0.48	–0.05 0.29
GOV	0.00	1.00	–0.29	–0.10	–0.26	–0.02	0.25 0.00	0.01	0.14 0.06	0.1	0.16 0.00	–0.28 0.00
BETA	0.5	–0.29	1.00	0.17	–0.04	0.06	0.04 0.34	0.35	–0.02 0.42	0.0	–0.02	0.24 0.00
LLP	–0.1	–0.10	0.17 0.04	1.00	–0.12	–0.21	–0.18	–0.64	–0.01 0.43	–0.0	–0.02	–0.06 0.20
LIQ	–0.1	–0.26	–0.04	–0.12	1.00	–0.13	–0.04	0.10	0.03 0.26	0.0	0.01 0.45	–0.23 0.00
SIZE	–0.0	–0.02	0.06 0.26	–0.21	–0.13	1.00	–0.00	0.01	0.04 0.25	0.0	0.03 0.34	–0.25 0.00
LGRO	–0.0	0.25	0.04 0.34	–0.18	–0.04	–0.00	1.00	0.15	0.09 0.06	0.1	0.07 0.11	–0.04 0.27
ROA	0.2	0.01	0.35 0.00	–0.64	0.10	0.01	0.15 0.01	1.00	0.00 0.47	0.0	0.02 0.37	0.19 0.00
CRISIS	–0.0	0.14	–0.02	–0.01	0.03	0.04	0.09 0.06	0.00	1.00	0.7	0.36 0.00	–0.15 0.00
GDPGRO	0.0	0.16	0.02 0.39	–0.04	0.00	0.03	0.10 0.04	0.00	0.70 0.00	1.0	0.42 0.00	–0.19 0.00
CPI	0.0	0.16	–0.02	–0.02	0.01	0.03	0.07 0.11	0.02	0.36 0.00	0.4	1.00	–0.18 0.00
LIST	–0.0	–0.28	0.24 0.00	–0.06	–0.23	–0.25	–0.04	0.19	–0.15 0.00	–0.1	–0.18	1.00

Regarding the regression results for Models 1 and 2, the following Table 5 shows the results for the impact of bank governance on bank cost of capital; consisting of cost of equity (Model 1) and cost of deposits (Model 2).

Table 3: Results of Regression Analysis of Model 1 and 2

Dependent variable	***K(Equity)***			***K(Deposits)***		
	Theorized relation		**Ex–Post Analysis**	**Theorized relation**		**Ex–Post Analysis**
	Model 1 (a)		**Model 1 (a1)**	**Model 2 (b)**		**Model 2 (b1)**
	Pred. Sign	**Standardized Coefficients**	**Standardized Coefficients**	**Pred. Sign**	**Standardized Coefficients**	**Standardized Coefficients**
GOV	–	0.179***		–	–.277***	
BSIZE			-.358***			.134
COMP			.302**			.163
DUAL			-.40			.019
FOR			-.124			–.597***
INST			.104			–.009
C1			.283			.297*
BETA	+	1.133***	.686***	+	–.434***	–.304***
LLP	+	–.926***	.089	+	–.001	–.048
LIQ	+	–.201***	-.093	+	.212***	.106
SIZE	–	–.392***	.043	–	–.120	.086
LGRO	–	–.214***	.079	–	–.178*	–.222**
ROA	–	–.640***	.344**	–	–.339**	–.339**
CRISIS	+	.071	-.012	+	.243*	.237*
GDPGRO	–	–.142*	-.057	–	–.430***	–.420***
CPI	+	–.021	-.066	+	–.002	–.038
LIST	–	–.372***	-.235**	–	.176**	.087
FLEV				+	–.42	–.111
Model Specification Statistics						
F–Statistic	25.87***		5.33***	10.31***		9.237***
R^2	0.74		0.62	0.71		0.77
Adjusted R^2	0.71		0.51	0.64		0.69

Table 3 presents the results of significance testing for Models 1 (a) and 2 (b). Regarding cost of equity capital, Model 1 (a) is highly significant at the .01 level and has an average explanatory power (R2 is 0.742) and adjusted R2 is 0.71. Contrary to expectations, the coefficient on GOV is significantly positive, not negative. This result indicates that governance quality is a significant determinant of cost of equity of Yemenian banks. The control variables BETA, LIQ, LLP, ROA, SIZE, LGRO and LIST appear to have a highly significant impact on K(Equity).

As for the cost of deposits, Model 2 (b) is highly significant at the .01 level and has an average explanatory power (R2 is 0.707) and adjusted R2 is 0.64. Parallel with expectations, the coefficient on GOV is significantly negative. This result suggests that governance quality has been a major determinant of cost of deposits of Yemenian banks over the period 2000–2009. The control variables BETA, LIQ, ROA, LGRO, GDPGRO, CRISIS and LIST appear to have a significant impact on K(Deposits).

To determine the impact of each governance practice on the cost of equity and cost of deposits, and because the sign on the GOV coefficients in Models 1 (a) is in the opposite direction to that hypothesized, we conduct further analysis. We analyze the impact of the individual governance components (BSIZE, COMP, FOR, INST, C1, and DUAL) on K(Equity) and K(Deposits). It must be noted that analyzing the effects of governance components on bank cost of equity and deposit capital is ex–post and no theory was created regarding the investigated relations and therefore no predictions are made for the directions of the signs. To test the separate effects of these components, we repeat the empirical testing of Model 1 (a) and 2 (b), after replacing the main independent variable GOV in the original models with governance components. Each model is an OLS regression model where the main independent variables are governance components.

The results of regressing K(Equity) on governance components are shown as "Model 1 (a1)" under the "Ex–Post Analysis" title in Table 5. The F–statistic is significant at the .01 level and the explanatory power of the model is above average (R2 is 0.62) and the adjusted R2 is 0.51 . Empirical testing shows that BSIZE is significantly negatively related to K(Equity), while COMP is significantly positively related to K(Equity). On the other hand, the results of regressing K(Deposits) on governance components are shown as "Model 2 (b1)" under the "Ex–Post Analysis" title in Table 5. The F–statistic is significant at the .01 level and the explanatory power of the model is above average (R2 is 0.77) and the adjusted R2 is 0.69. Results of empirical testing show that K(Deposits) is significantly negatively related to FOR, but significantly positively related to C1. Based on this empirical evidence, we conclude that bank cost of equity is a function of board structure, specifically board size and composition. On the other hand, bank cost of deposits is a function of ownership structure primarily, specifically foreign ownership, and ownership concentration.

5. Discussion & Conclusion

In this study, the impact of bank governance on cost of bank capital (including cost of equity and cost of deposits) is examined by using a self-constructed governance index to test whether good bank governance improves and modernizes the Yemenian-banking sector and makes it better

able to face global competition. Being more competitive implies better financial and non–financial performance, better protection for stockholder interests, and lower cost of capital. The results of this study should therefore be of interest to regulators, banking sector participants, economists, and other parties. Economic reforms in emerging markets such as Yemen should be guided by continuous research and data analysis.

In conducting this research, one major concern is the accuracy of data. We use KOMPASS YEMEN, Bankscope, bank financial statements, and Thomson Reuters 3000 Xtra stock price database to construct the dataset used to analyze the hypothesized models. To the extent that these data sources offer accurate data, the results of this study should be accurate, valid, and generalizable. However, we attempt to improve the accuracy of the results by adopting a set of controls in building the dataset. All financial figures for every bank are industry–adjusted, that is, variable industry average is deducted from the data value for each bank on the variable. Adjusting the data for industry average serves to avoid the effects of industry–wide fluctuations and to make the bank figures representative of the bank's standing among its industry. This treatment has been followed by Cornett et al. (2007) and others.

We examine the impact of Yemenian bank governance, using a self-constructed governance index, on cost of bank equity capital and cost of bank deposits. Interestingly, empirical evidence shows that the relation between bank governance and the cost of equity and cost of deposits is significant. Unexpectedly, evidence shows that cost of equity capital is positively related to bank governance quality.

To analyze this relation and determine the governance measure that has the greatest effect on Yemenian banks' cost of equity capital, the impact of the components of the governance index on the cost of the equity is examined separately. Evidence shows that cost of equity of Yemenian banks is a function of board size and composition. Board size has a negative highly significant impact on cost of equity (consistent with Shah and Butt (2009) findings), while the presence of independent directors on bank boards has a significantly positive relation with cost of equity, which is again consistent to Shah and Butt (2009) results but against Ashbaugh et al. (2004) results. Therefore, banks with large boards and less non-executive directors have lower cost of capital. These findings are against the results of Pham et al. (2007) who argue that small independent boards reduce risk and thus lower rates of return on capital. The results may refer to the ability of dependent directors to obtain cheaper finance from different resources due to their bank specific knowledge. Banks have complicated and opaque structures due to their unobservable loan quality (Levine, 2004), therefore, bank executives have more information about the bank risk profile, and thus are more able to lower their cost of equity. In addition, banks with large boards will include high number of directors with diversified qualifications and experiences, and ability to mitigate bank managers' risk-taking behavior, thus, reduce the cost of equity. These results are consistent with the findings of Shah and Butt (2009) who document a negative (positive) relation between board size (board composition) and cost of equity, and argue that large board size prevents any stakeholder from hindering the process of decision-

making. On the contrary, Ashbaugh et al. (2009) argue that board independence is negatively related to cost of equity.

This result in particular is important because it means that cost of equity of Yemenian banks is not just related to financial performance and risk but also related to how well a bank is run. We believe that although Yemen is an emerging economy, there are parallels between cost of equity capital in Yemen and in more developed economies. In more developed economies, the link between cost of equity and governance quality is well established (Ashbaugh et al., 2004 and 2009). This study is the first to establish that such link exists in the Yemenian banking sector as well.

Moreover, evidence shows that Beta, bank size, loan growth opportunities, financial performance (ROA), and listing on the stock exchange are significant determinants of cost of equity capital. In particular, large banks with small Beta, high growth opportunities, high performance (ROA) and listed on the stock exchange have lower cost of equity capital. Large banks can take cheaper finance from different sources; these results are in line with results suggested by Gebhardt et al. (2001), Easton (2004), and Cheng et al. (2006). Again, large Beta means high risk and high cost of capital, which support the prior research that reports positive relation between firm Beta and cost of capital (e.g. Botosan, 1997; Gode and Mohanram, 2003). Few growth opportunities will cause increase in cost of equity capital, similarly as documented by Easton (2004) and Huang et al. (2009). High ROA means better performance and stream of future cash flow that will be reflected in low cost of equity capital, while listing on the stock exchange indicates more monitoring and regulations that decrease cost of equity.

On the other hand, evidence indicates that bank cost of deposits is negatively related to governance quality and the relation is highly significant. More specifically, it is positively related to ownership concentration, while negatively and significantly related to foreign ownership. The reason could be that foreign owners may be able to obtain funds from foreign sources at a lower cost compared to the Yemenian market. An alternative explanation is that foreign–owned banks are more sophisticated and are able to offer more integrated and unique services compared to local banks. The unique services allow the foreign banks to pay comparatively less interest on deposits compared to local banks. The customer loyalty enjoyed by these banks permits them to pay interest on deposits that is lower than the market. Bank cost of deposits is also a function of beta, financial performance, liquidity, GDP Growth, loan growth opportunities, stock exchange listing, and global banking crisis.

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