Corporate Governance and Access to Finance

Mustafa Kenan ERKAN

Sakarya University, Faculty of Business

54187 Esentepe/Sakarya, TURKEY

merkan@sakarya.edu.tr

Tel: 0 (264) 295 71 29

Abstract

This article examines the influence of firms’ access to finance on corporate governance and attempts to contribute to the literature by applying quantile regression as a robust regression method in order to give more detailed outlook of the relationship between access to finance and corporate governance. Using a sample of 102 country-level observations, the article empirically confirms that access to finance has a significant influence over corporate governance level of countries. The findings suggest that financing through local equity markets, ease of access to loans, venture capital availability, and affordability of financial services are highly significant factors for corporate governance.

Keywords: Access to finance, financial development, corporate governance index

1. Introduction

Corporate scandals and accounting frauds spilled out of the recent global financial crisis have brought the long-neglected business themes of corporate governance and ethics to the fore so acutely that academics and practitioners alike have increasingly been prompted by the ongoing market reform pressures to analyse corporate governance issues in its multidimensionality. The lessons derived from these developments centralize on the notion that quality of corporate governance is an important element for free market economies to function on behalf of the common good. Ever increasing internationalization of business operations and financial transactions together with the subsequent interdependencies among countries dictate firms and countries to adapt sound corporate governance standards.

The CFA Institute Manual for Investors (Schacht et. al, 2009) defines corporate governance as: “the system of internal controls and procedures by which individual companies are managed. It provides a framework that defines the rights, roles, and responsibilities of various groups—management, board, controlling shareowners, and minority or non-controlling shareowners—within an organization." As the definition suggests, establishing and maintaining sound corporate governance standards and practices are rather complex tasks for firms due to inevitable involvement of internal and external stakeholders with differing interests, rights, roles, and responsibilities. The importance of the quality and soundness of corporate governance standards arises from this complicated nature. High quality corporate governance standards function as an interface between financial markets and firms by reducing asymmetric information costs and eventually increasing firms' ability to access financial sources.

The Financial Development Report of The World Economic Forum (2012) states that financial development promotes sound corporate governance and allocates capital to the right investments which lead to economic growth and prosperity through increased innovation and productivity. In today's interwoven global economic climate, for countries to achieve economic development and raise standard of living, a well-functioning relationship between financial markets and firms is a prerequisite for which sound corporate governance practices play an essential role.

2. Literature Review

Although the relationship between corporate governance and firms' access to finance is a well investigated phenomenon, mostly the emphasis has been on the corporate governance's effect on firms' access to finance and financial performance. After mentioning the fact that firms' access to finance and their financial performance are important determinants of capital market development Haque et al. (2008) observe an interrelationship between corporate governance and capital markets in a way that corporate governance quality may lead to capital market development by increasing firms' access to finance and financial performance which in turn play a fundamental role in enhancing corporate governance standards.

Although developing a comprehensive theoretical approach to corporate governance is a difficult task because of its complex nature, this paper nevertheless attempts to empirically examine the relationship between corporate governance and components of financial development namely, financing through local equity market, ease of access to loans, venture capital availability, foreign direct investment and technology transfer, affordability of financial services, availability of financial services.

D’Souza (2000) points out the differences between developed and developing country firms in terms of their dependence on internal finance and external debt. Javid and Iqbal (2010) investigate corporate governance in Pakistan within the context of corporate valuation, ownership and financing. The empirical results of their study show that concentration of ownership, external financing needs of corporations, size and investment opportunities of firms effect corporate governance systems.

Durnev and Kim (2005) assert that investment opportunities, external financing and ownership structure are related to the quality of governance and disclosure practices. Chen et al (2010) argues that since poor corporate governance signals higher asymmetric information costs for outside shareholders, firms with external financing needs are induced to make improvements to their quality of corporate governance practices. Similarly, Bruno and Claessens (2007) claim that the association between corporate governance and firms’ external financing can be reciprocal in nature: firms make improvements to their corporate governance practices only when obtaining new financing, on the other hand, external financing could require changes in firms’ corporate governance structures.

Ararat and Yurtoğlu (2007) express that foreign direct investments in take-over form is considered to be a force effecting corporate governance practices of firms in developing countries. Kim, Sun and Wei (2007) demonstrate that international investors are averse to high ownership control disparity and this aversion depends on the corporate governance quality of the international investors' home country. Thereby making corporate governance systems an important factor for the availability of external finance.

Gospel and Pendleton (2003) attempt to explore the relationship between firms' suppliers of finance and managers by developing a model which defines financial institutions and pressures' effect on labour management. Sui (2011) emphasizes the importance of financing decisions as an ingredient of corporate governance and suggests some policy recommendations for China such as financial system reform, development of bond and bank lending market, strengthening the monitoring mechanism of banks. Javaid and Saboor (2015) empirically investigate the relationship between corporate governance and firm performance and show that the association between corporate governance index (CGI) and firms' performance is positive and significant. Their study reiterates the notion that better corporate governance structures increase the chances of firms in acquiring finance.

Gupta et al (2010) examine the effects of country level legal and financial development, and firm level corporate governance on the cost of equity capital and show that improvements at firm level corporate governance are influential but financial development is fundamental on the cost of equity. Ananchotikul (2007a) discusses the subject of corporate governance in emerging markets and asserts that different characteristics of economies in terms of financial development, ownership structure, and business culture culminate in different corporate governance structures with different problems. Ananchotikul (2007b) also highlights the same point that financial development and quality of institutional arrangements affect each other.

Bushman and Smith (2003) state that dynamic securities markets depend on supportive institutions such as intermediaries and disclosure regimes which contribute to and encourage quality of corporate governance systems of publicly traded firms. Winkler (1998) analyses the determinants of financial development and identifies quality of corporate governance of banks as the key factor in financial system development. Success of financial system reforms in developing countries depends mostly on the strengthening of corporate governance practices of financial institutions.

3. Hypothesis Development

Based on the theoretical discussion in the previous section, some hypotheses related to the effect of “access to finance” on corporate governance are derived.

The dependent variable CGI (The Corporate Governance Index), is assessed based on the executive opinion survey questions related to corporate governance practices such as the relationship between board and management and represents the percentage of the firms in the country that give satisfactory ratings to the questions on protection of minority shareholders, quality of training, willingness to delegate authority, nepotism and corporate governance.

For the factors of access to financial sources WEF makes available the following six variables. All six variables are assessed based on the executive opinion surveys.

Financing through Local Equity Market (FTLEM): indicates the level of easiness for companies to raise capital through issuing shares on the stock market (expressed as a score on a 1-7 scale, score of one = extreme difficulty; seven = extreme easiness)

Ease of Access to Loans (EATL): measures the level of easiness of obtaining a bank loan with only good business plan and no collateral (a score on a one-seven scale, one = extremely difficult; seven = extremely easy)

Venture Capital Availability (VCA): measures the level of easiness for entrepreneurs to find venture capital with innovative but risky projects, (weighted average score on a one-seven scale, one = extremely difficult; seven = extremely easy)

Foreign Direct Investment and Technology Transfer (FDITT): measures the extent to which foreign direct investment bring new technology to a country. (Weighted average score on a one-seven scale, one = not at all; seven = to a great extent)

Affordability of Financial Services (AFFS): indicates the extent to which financial services are affordable for businesses weighted average score on a one-seven scale, one = not affordable at all; seven = affordable).

Availability of Financial Services (AVFS): indicates the extent to which a wide range of financial products and services are provided to businesses by the financial sector.

Therefore, this study proposes the following research hypotheses:

H_1: The level of financing through local equity market (FTLEM) in a country is positively associated with the level of CGI.

H_2: The level of ease of access to bank loans (EATL) in a country is negatively associated with CGI.

H_3: The level of venture capital availability (VCA) in a country is positively associated with CGI.

H_4: The level of FDI and technology transfer (FDITT) in a country is positively associated with CGI.

H_5: The level of affordability of financial services (AFFS) in a country is positively associated with CGI.

H_6: The level of availability of financial services (AVFS) in a country is positively associated with CGI.

4. Data and Research Methodology

In this study, it is argued that access to finance for firms in a country influences corporate governance. For measuring the corporate governance, the corporate governance index (CGI) developed by Kaufmann (2004) is used. For the independent variables, the data set used for this study are obtained from the Global Competitiveness Report (2014-2015) issued by the World Economic Forum (WEF). The Figure 1 shows the distribution of the dependent variable of CGI. Normal density and kernel density estimates are depicted on the figure. The use of quantile regression methods is justified by the fact that normal density and the kernel density estimates depicted on the figure are considerably different suggesting the distribution of the dependent variable to have fatter tails which justifies the use of quantile regression methods in order to better capture the relationship between the variables.

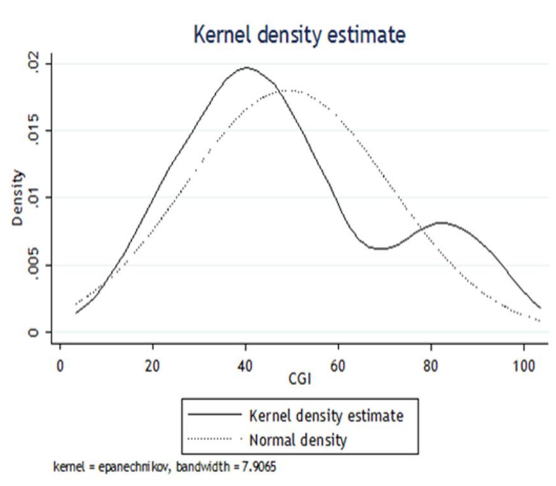

Figure 1. Distribution of Corporate Governance Index

Table 1 shows the descriptive statistics of all the variables used in the study. The minimum and the maximum values of the sample are the lowest and the highest country scores, respectively.

Table 1. Descriptive Statistics of Variables

Variable	Obs	Mean	Std. Dev.	Min	Max
CGI	102	49.0352	22.15455	11.23318	95.40874
FTLEM	102	3.624511	.924607	1.424694	5.698652
EATL	102	2.960023	.7448704	1.593059	4.776849
VCA	102	2.883818	.7116976	1.619521	4.602418
FDITT	102	4.634467	.6042978	2.919829	6.369658
AFFS	102	4.440539	.8361081	2.903032	6.107397
AVFS	102	4.705614	.8693172	2.349348	6.491313

Table 2 reports the correlation matrix. The correlation matrix indicates that some of the independent variables are highly correlated with one another. To investigate the statistical validity of the six hypotheses developed in the previous section, single variable regressions are conducted to alleviate the multicollinearity problem. Multicollinearity between the independent variables may create a problematic interpretation in terms of evaluating the multivariable regression model.

Table 2. Correlation Matrix

	CGI	FTLEM	EATL	VCA	FDITT	AFFS	AVFS
CGI	1.0000						
FTLEM	0.6913	1.0000					
EATL	0.4386	0.7143	1.0000				
VCA	0.5976	0.7542	0.9003	1.0000			
FDITT	0.4247	0.4758	0.4849	0.5391	1.0000		
AFFS	0.6940	0.7386	0.7650	0.7916	0.6366	1.0000	
AVFS	0.6996	0.7654	0.7031	0.7419	0.6927	0.9409	1.0000

In addition to multivariate tests, this study uses quantile regression approach which was initially proposed by Koenker and Bassett (1978) as an alternative robust regression model. Quantile regression gives regression co-efficients depending on the quantiles of dependent variable. Quantile regression is especially useful when conditional quantiles show variance and provides a proper model for conditional quantile functions by giving information about various points in the distribution of the dependent variable (Koenker, 2005).

5. Empirical Results

For the empirical investigation of the statistical validity of the six hypotheses developed in this study, country level regressions are conducted. Table 3 shows the multivariate and single variable regression results for the entire sample of 102 countries.

Table 3. Multivariable and Single Variable Regression Results

VARIABLES	(1) CGI	(2) CGI	(3) CGI	(4) CGI	(5) CGI	(6) CGI	(7) CGI
FTLEM	10.08***	16.56***					
	(2.533)	(1.403)					
EATL	-22.49***		13.04***				

	(4.130)		(2.375)				
VCA	16.93***			18.60***			
	(4.964)			(2.380)			
FDITT	-3.182				15.57***		
	(3.129)				(2.800)		
AFFS	12.49***					18.39***	
	(4.732)					(1.854)	
AVFS	3.113						17.83***
	(4.217)						(1.651)
Constant	-25.14**	-11.00**	10.42	-4.609	-23.12*	-32.63***	34.86***
	(11.21)	(4.857)	(6.915)	(6.740)	(12.84)	(8.113)	(7.566)
Observations	102	102	102	102	102	102	102
R-squared	0.660	0.478	0.192	0.357	0.180	0.482	0.489

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Four of the variables are statistically significant at less than 1% level for the entire sample. The R^2 of the model is 66%. FTLEM is significant at less than 1% level and supports the hypothesis 1 which states that the level of financing through local equity market in a country is positively associated with the level of CGI. EATL is significant at less than 1% level and supports the hypothesis 2 which states that the level of ease of access to bank loans in a country is negatively associated with the level of CGI. Hypothesis 3 stating that the level of venture capital availability in a country is positively associated with the level of CGI is also supported by the data since VCA is significant at less than 1% level. AFFS is significant at less than 1% level and thus supporting hypothesis 5 which states that the level of affordability of financial services in a country is positively associated with CGI. However, to mitigate multicolinearity resulting from the positive correlation between the independent variables, single variable regressions are conducted taking one independent variable at a time. The single variable regression results reported in Table 3 through the columns two to column seven indicate that all the independent variables are statistically significant at less than 1% level thereby supporting all of the six hypotheses. Overall, these results confirm that factors of access to finance namely FTLEM, EATL, VCA and AFFS for firms in a country are relevant in influencing the level of corporate governance at the country level.

In order to empirically analyse the relationships between the dependent and independent variables at different quantiles of the conditional distribution of the dependent variable this study uses quantile regression approach. Because of the fact that quantile regression method does not limit itself to analysis of the mean, the more detailed examination of the relationship provides more comprehensive outlook of the phenomenon.

Table 4. Quantile Regression Results

VARIABLES	(1) q05	(2) q10	(3) q25	(4) q50	(5) q75	(6) q90	(7) q95
FTLEM	11.70***	9.192***	11.16***	11.19***	9.124*	9.685*	8.720
	(2.727)	(3.434)	(3.954)	(4.038)	(4.770)	(5.069)	(6.637)
EATL	-28.96***	-24.02***	-23.40***	-25.08***	-20.97***	-22.55***	-25.59**
	(7.166)	(5.896)	(5.267)	(6.230)	(5.601)	(7.952)	(11.07)
VCA	22.27***	22.23***	21.16***	20.44***	13.54*	10.80	14.26
	(7.639)	(7.007)	(6.994)	(6.823)	(7.161)	(9.912)	(13.36)
FDITT	9.267	7.080	1.487	-4.736	-4.060	-8.835	-8.048
	(6.366)	(6.369)	(5.279)	(5.768)	(5.168)	(5.684)	(6.443)
AFFS	-0.283	0.972	1.808	12.87	17.28**	19.29**	30.71***
	(8.448)	(7.665)	(8.939)	(9.092)	(6.581)	(8.312)	(10.81)
AVFS	1.032	2.669	6.105	2.458	2.507	4.028	-11.26
	(7.060)	(7.155)	(8.285)	(7.314)	(5.880)	(9.960)	(12.53)
Constant	-39.50**	-43.29**	-37.26**	-23.69	-21.15	2.304	27.29
	(19.64)	(19.48)	(14.80)	(20.02)	(18.91)	(20.53)	(24.29)
Observations				102			

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The quantile regression results are reported in Table 4. According to these results FTLEM is significant in explaining CGI at all levels of the distribution except for the 95thquantile. EATL is also significant in explaining both the lower and the upper quantiles of the CGI distribution. VCA is significant in explaining the CGI distribution except for the upper quantiles (90th and 95th quantiles). A different pattern is observed for AFFS. The multivariate estimate is significant but this significance is even more expressed in the upper quantiles. Quantile regression results suggest that AFFS is significant at the 75th and upper quantiles. The results of the quantile regression are represented graphically by the Figure 2. The horizontal axis of the diagrams represent the quantiles.

The vertical axis represents the estimated coefficients. Three lines are included in the diagrams. The middle line represents the estimated co-efficient. The confidence intervals at 10% level are represented by the two lines of the each side of the estimated co-efficient. The curved line represents the quantile regression estimates.

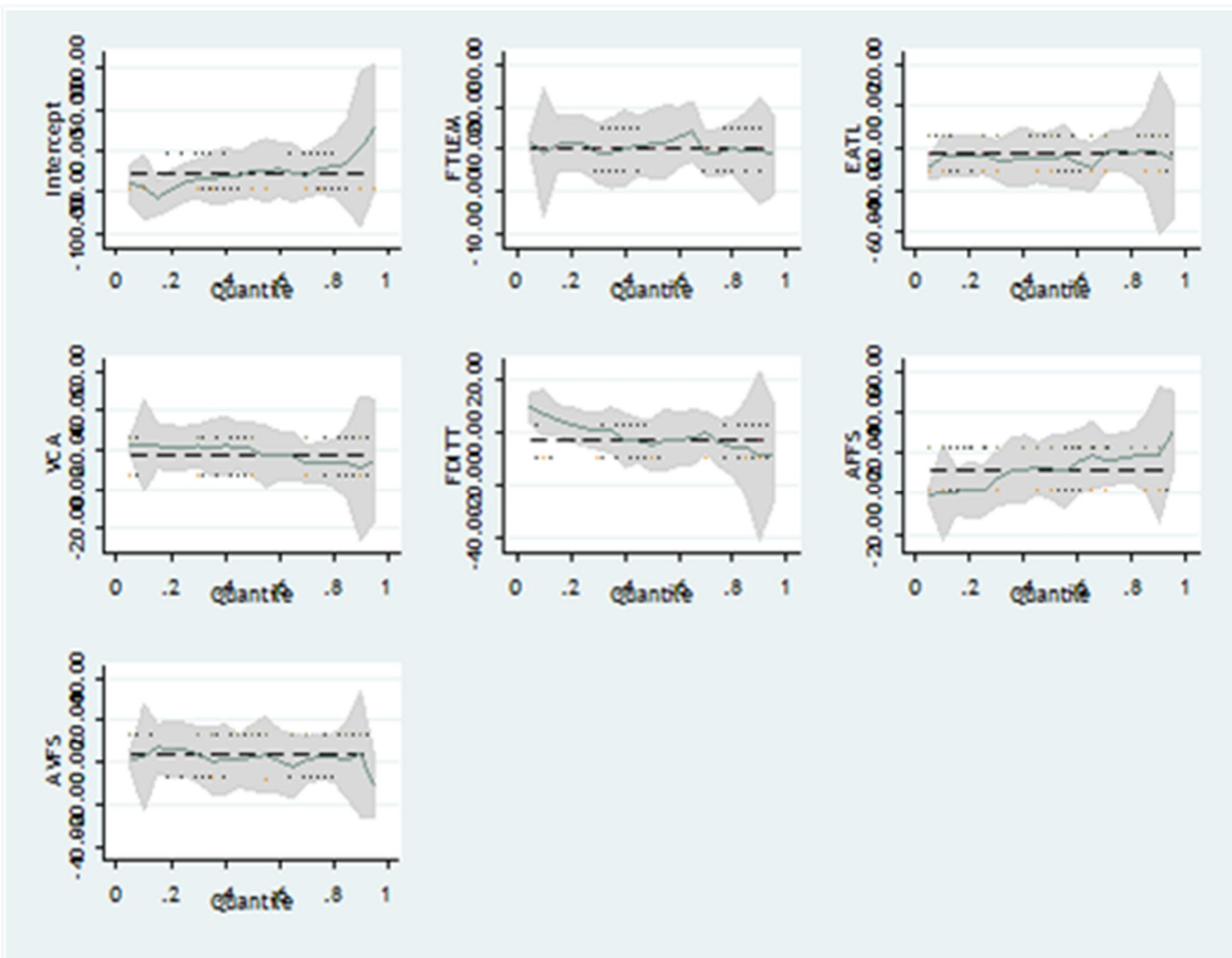

Figure 2. Quantile Regression Graphs

6. Concluding Remarks

This study examines the influences of financial development factors of countries namely financing through the local equity market, ease of access to loans, venture capital availability, foreign direct investment and technology transfer, availability of financial services, and affordability of financial services over the level of corporate governance index scores of countries. As a result of the recent global financial crises, corporate governance is considered to be an important ingredient of healthy functioning of economies. This paper focuses on the role of financial development factors in effecting a country-level corporate governance. The empirical study is based on 102 countries from the Global Competitiveness Report of the World Economic Forum. In order to capture a more comprehensive outlook of the relationship between access to finance factors for firms and country-level corporate governance index, this study utilizes quantile regression methods which show the relationship depending on the conditional distribution of the corporate governance index.

Overall, empirical results confirm that financing through local equity market, ease of access to loans, venture capital availability and availability of financial services are influential in determining the corporate governance level in a country.

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