

## Governance and Financial Development in MENA region

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**Abstract:** This paper uses annual aggregate data for 16 countries in Middle East and North of Africa (MENA) for the period 2001-2008, to determine the impact of a better quality or so-called good governance on financial development. We have used three governance indicators namely, political stability, control of corruption, and rule of law values published by the World Resources Institute(WRI). Our findings regarding political stability, and rule of law based on panel regression analysis support that better governance has a positive impact on financial development into the MENA region. Therefore, policies to improve governance indicators in the region are suggested.

**Key words:** Financial Development, Governance, Panel Regression, MENA Region.

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### INTRODUCTION

The indispensable role of financial system has been accepted by economists like Schumpeter (1912), Hick (1969) and Mckinnon (1973). It relates to Alesina and Peroti (1996) in that it finds political instability to be a primary determinant of an economic outcome. Outreville (1999) found that human capital and political stability are important factors explaining the level of financial development. It complement work offering political economy explanations for finance, such as that of Rajan and Zingsles (2003), Pagano and Volpin (2005), Perotti and Thadden (2006), and Acemoglu and Robinson (2006). Dellas and Hess (2005) argues that firms are willing to invest in nation which experience political stability. Nabamita and Sanjukta (2008) found political risk factors to be affecting the relationship by altering the threshold level of financial development. Roe and Siegel (2009) conducted that a nation's political stability should be added to the key determinants of modern financial development.

In this paper we take a look at the empirical relationship between governance indicators and Financial Development in 16 countries of the MENA region for the period 2001-2008. Therefore, paper proceeds as follows: section 2 describes data and model. Section 3 presents conclusion.

#### **Data & Model:**

This article employs panel data for 16 countries over the period 2001-2008 published by the World Resources Institute(WRI). In this study, we included Algeria, Bahrain, Turkey, Egypt, Iran, Jordan, Kuwait, Lebanon, Libya, Malta, Morocco, Oman, Saudi Arabia, Syrian, Tunisia, Yemen for which their data were available over the period 2001-2008 in WRI.

The dependent variable namely financial development (FD) has been taken from the Beck, Demirguc-Kunt and Levine (2000) database of indicators of financial development across countries over time. Amongst the Various measures of financial development, we mainly use the ration of private credit by deposit money bank to GDP. Our independent variables include Political Stability(PS), Rule of Law(RL), and Control of Corruption(CC). The average data of governance variables are shown in table(1). The range of governance indicators are between -2.5 (worst governance) and +2.5 (best governance).

As shown in Fig (1) the Average of Financial Development (FD) in Jordan is higher than other countries for the period under consideration.

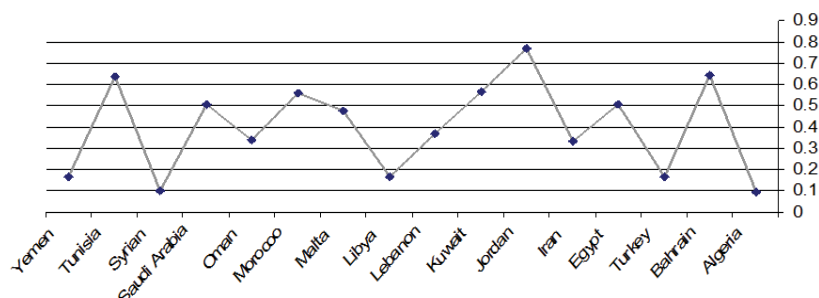
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**Table 1:** Average Governance indicators in selected MENA Region, 2001-2008.

Countries	Average of Political Stability	Average of Rule OF Law	Average of Control Corruption
Algeria	-1.4725	-0.79125	-0.5925
Bahrain	-0.025	0.675	0.6475
Turkey	-0.49	0.01125	-0.15625
Egypt	-0.67625	-0.03375	-0.03375
Iran	-0.9275	-0.61125	-0.43
Jordan	-0.3125	0.37	0.2675
Kuwait	0.1925	0.725	0.86125
Lebanon	-1.15125	-0.37	-0.5225
Libya	-0.10375	-0.7175	-0.78875
Malta	1.39125	1.42375	1.0325
Morocco	-0.30625	-0.0075	-0.10875
Oman	0.80875	0.71125	0.72375
Saudi Arabia	-0.4725	0.1625	0.1375
Syrian	-0.5	-0.44125	-0.6175
Tunisia	0.18125	0.185	0.2775
Yemen	-1.4575	-1.1475	-0.7825
Average MENA	-0.33258	0.008984	-0.00531

Reference: World Resources Institute (2009)



**Fig. 1:** Average FD (Private Credit in % GDP) in MENA Region, 2001-2008

Some theoretical works suggested a positive and linear relationship between financial development and governance (Roe and Siegel, 2009; Acemoglu and Robinson, 2006). To find the impact of governance indicators influencing Financial Development in MENA region, we use a Panel Generalized Least Square Method. The general form of the model is shown in the following equation.

$$FD_{it} = \alpha_0 PS_{it} + \alpha_1 CC_{it} + \alpha_2 RL_{it} + U_{it} \tag{1}$$

The level of financial development, FD is the key explanatory variable that we are interested in. We are guided by the control variables; PS is political stability, CC is control of corruption, RL is rule of law, *i* indicate country and *t* for time.

To estimate Equation 1, panel data of *n* countries (individuals) was used over *T* time periods. Observations

on  $F_{di,t}(i=1,2,\dots,N \ \& \ t=1,2,3,\dots,T)$   $y_{it}(i=1,\dots,n \ \text{and} \ t=1,\dots,T)$  are random outcomes with a probability distribution

conditional on observations of a set of exogenous variables  $X_{kit}(k=1,2,\dots,K)$ . Differences between countries are examined using fixed and random effects models (Greene, 2000, pp. 560–82). To test between the fixed and random effects models, Hausman’s test (Baltagi, 2005, pp. 67) is used where the null is that the country effects are uncorrelated with other regressors in the model. If the null is rejected, the fixed effects model is preferred. For avoid the problem of spurious regression; we carry out panel unit root test and apply Im, Pesaran, and Shin (2003) panel unit root test.

Im, Pesaran, and Shin (2003) begin by specifying a separate ADF regression for each cross section:

$$\Delta y_{it} = \alpha y_{it-1} + \sum_{j=1}^{p_i} \beta_{ij} \Delta y_{it-j} + \varepsilon_{it} \tag{2}$$

The null hypothesis may be written as:  $H_0 : \alpha_i = 0, \text{ for all } i$

While the alternative hypothesis is given by:

$$H_1 : \begin{cases} \alpha_i = 0 & \text{for } i = 1, 2, \dots, N_1 \\ \alpha_i < 0 & \text{for } i = N + 1, N + 2, \dots, N \end{cases}$$

(Where the  $i$  may be reordered as necessary) which may be interpreted as a non-zero fraction of the individual processes is stationary.

The results from the IPS panel unit root test are presented in Table 2 and are reported with an intercept. All of the variables are tested in levels. As it can be inferred from this table, we can reject the unit-root hypothesis at the 3 percent level of significance. Therefore, our series are well characterized as an I(0) process. We can reject the problem of spurious regression. These results allow us to use fixed and random effects models for estimation equation (1).

**Table 2:** IPS panel unit root test

variables	level
FD	-3.07 (0.032)
CC	-3.71 (0.005)
RS	-3.12 (0.025)
RL	-3.13 (0.027)

The p-value is reported in parenthesis.

In order to test the null hypothesis that the (fixed) country effects and the time effects are absent, we use a restricted F test (Baltagi, 2005, pp. 34) which is shown in table 3.

**Table 3:** Redundant Fixed Effects Tests Test cross-section and period fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	19.867992	(15,102)	0.0000
Cross-section Chi-square	174.917301	15	0.0000
Period F	0.472826	(7,102)	0.8523
Period Chi-square	4.087487	7	0.7696
Cross-Section/Period F	13.982879	(22,102)	0.0000
Cross-Section/Period Chi-square	177.953952	22	0.0000

In table 3, there are three sets of tests. The first set consists of two tests that evaluate the joint significance of the cross-section effects using sums-of-squares ( $F$ -test) and the likelihood function (Chi-square test). The corresponding restricted specification is one in which there are period effects only. The statistic values and the associated  $p$ -values strongly reject the null that the effects cross section is redundant. The remaining results evaluate the joint significance of the period effects, and of all of the effects, respectively. At the end, these results suggest that the corresponding effects are statistically significant.

To test between fixed and random effects models, Hausman's test yields that the null hypothesis- there is no misspecification- is not rejected. Thus the random effects model is chosen for estimation

The estimation results using Eviews 6 are shown in table 4. As seen from table 4, political stability, and rule of law, has positive and significance impact one FD while the results regarding the control of corruption variable is not statistically significance.

**Table 4:** Results

Dependent variable	Repressors	EGLS- Random effects
constant		0.82 (0.0000)
CC		0.137 (0.0474)
PS		0.122 (0.0009)
RL		0.202 (0.0049)
Hausman Stat		2.36 (0.50)
$R^2$		0.41
$\bar{R}^2$		0.40

The p-value is reported in parenthesis.

**Conclusion:**

In this paper we investigated the impact of governance indicators on Financial Development in MENA Region for which the necessary data were available for the period 2001-2008. The results based on the panel regression model show that Control of Corruption, political stability, and rule of law are important to Financial

Development into these countries. Therefore, policies to improve governance indicators in the region are suggested.

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