

Political stability, Financial Crises and the Finance-Growth Nexus: Evidence from MENA Region

الاستقرار السياسي، تطور القطاع المالي والنمو الاقتصادي: دراسة تطبيقية على
منطقة الشرق الأوسط وشمال أفريقيا

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Abstract :We re-examine the relationship between financial development and economic growth in MENA region. In particular, this paper investigates empirically the extent to which the finance-growth relationship is influenced by political stability and financial crises. To this end, two linear models with interaction terms are estimated. Based on the estimation of the empirical model with linear interaction between financial development and political stability, our findings show that political stability appears a significant determinant of the finance-growth relationship. In fact, the results show that finance has a negative effect on economic growth; however political stability mitigates the negative effect of financial development on economic growth. The interaction of financial development and financial crises does not appear strongly significant, which imply that financial crises do not appear relevant in the determination of the finance-growth relationship in MENA

Key words: Financial development, financial crises, political stability, economic growth, MENA region

JEL classification : E02, E44, G01, K1, O43

Résumé:Nous réexaminons la relation entre le développement financier et la croissance économique dans la région MENA. En particulier, cet article étudie empiriquement dans quelle mesure la relation finance-croissance est influencée par la stabilité politique et les crises financières. À cette fin, deux modèles linéaires avec des termes d'interaction sont estimés. Sur la base de l'estimation du modèle empirique avec interaction linéaire entre développement financier et stabilité politique, nos résultats montrent que la stabilité politique apparaît comme un déterminant significatif de la relation finance-croissance. En fait, les résultats montrent que la finance a un effet négatif sur la croissance économique ; cependant la stabilité politique atténue l'effet négatif du développement financier sur la croissance économique. L'interaction du développement financier et des crises financières n'apparaît pas fortement significative, ce qui implique que les crises financières n'apparaissent pas pertinentes dans la détermination de la relation finance-croissance dans la région MENA

Mots clés : Développement financier, crises financières, stabilité politique, croissance économique, région MENA.

JEL classification:E02. E44. G01. K1. O43

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1. Introduction

Why do countries grow at various rates has been the central issue in economic growth that has interested experts. Regarding this issue, a significant body of literature has given particular focus to the financial system's function in the growth process. On the theoretical front, a significant body of models (McKinnon (1973), Shaw (1973), Pagano (1993), King and Levine (1993a), King and Levine (1993b)) describe the mechanisms through which the financial system affects economic growth. Their findings are in agreement with the Schumpeter's theory, which highlights the beneficial influence of financial development on economic growth. However, Robinson (1952) offers a skeptic stance, stating that where entrepreneurship leads, finance follows, and highlighting the fact that financial development comes after economic growth.

The purpose of our paper is to examine the finance growth relationship in a sample of 10 Middle East and North African (MENA) countries over the period of 1997-2020. Specifically, we try to investigate the effect of political risk and financial crises on the finance-growth relationship in MENA region. This is a worthwhile question because the region as a whole experienced the weakest real per capita growth performance among all regions in the world (Bhattacharya and Wolde (2010)). Moreover, Ben Naceur and Ghazouani (2007) argue that while MENA countries have embarked since the mid-1980 on to financial reforms, financial development has not contributed to economic development in this region.

Based on these considerations, this paper revisits the finance-growth nexus effect of financial development on economic growth in MENA region. Our work extends the previous studies by trying to give an explanation to the weak effect of financial deepening on economic growth in MENA region. Specifically, we aim to examine whether the finance-growth nexus in MENA region is affected by political risk and financial crises.

The structure of this study is as follows. Section 2 provides a review of both theoretical and empirical studies on the relationship between financial development and economic growth. Section 3 describes the dataset. Section 4 explains the empirical methodology and the main

results discussions. Finally, section 5 offers some conclusions and policy implications.

2. Literature revue

The theoretical underpinnings of the relationship between financial development and economic growth can be traced back to the work of Schumpeter (1934)] and more recently to McKinnon (1973) and Shaw (1973) school. The main policy implication of the McKinnon-Shaw thesis is that a developed financial system which can be the result of financial liberalization, will promote economic growth. Similar conclusions are also reached by the early endogenous growth models. These models suggest that financial intermediation has a positive effect on economic growth.

Empirical studies on the finance growth relationship come back to the seminal contribution of Goldsmith (1969) . Considering a sample of 35 countries over the period 1860 to 1963 the results of OLS regressions show that there is a clear relationship between financial development and economic growth. In 1993 King and Levine have developed two empirical studies examining the finance growth relationship. Both the King and Levine (1993a) and King and Levine (1993 b) findings provide evidence that financial development promote economic growth.

Besides the impact of banking sector on economic growth, several studies have examined the effect of stock markets development on economic growth. Considering the OLS method of estimation for a sample of 94 countries over the period of 1960-1985 Atje and Jovanic (1993) find that while stock market has a positive effect on economic growth banking sector does not appear an engine of economic growth. In some line, Levine and Zervos (1998) have examined the effect of banking sector and stock market on economic growth in a sample of 49 countries for the period of 1960-1989. The Levine and Zervos (1998) results show that the initial levels of both stock market liquidity and banking sector development predict future rates of growth.

Levine (1997) examine whether the cross-country variations in the exogenous component of banking sector development explain cross-country variations in the rate of economic development. Considering the legal determinants of banking development as instrumental variables for banking sector development indicator Levine (1997) pro-vides empirical evidence that the exogenous component of banking development affects positively economic growth. These results are supported by Levine et al. (2000).

To account explicitly for biases induced by the inclusion of the lagged dependent variable and to control for the potential endogeneity of all explanatory variables a stand of studies has considered the Generalized Method-of-Moments (GMM) estimators (Levine (1999), Rousseau and Wachtel (2000), Beck et al; (2000), Levine et al; (2000). Their findings confirm the positive effect of financial development on economic growth. In the same line, Beck and Levine (2004) have applied the recent dynamic panel techniques "system estimator" to examine the effect of financial sector and stock market. Their findings show that stock markets and banks affect positively and significantly economic growth. In more recent study, Guru and Yadav (2019) have considered the generalized method of moment system estimation (SYS-GMM), to investigate the relationship between financial development and growth in five emerging economies. Their results show that banking sector development and stock market development indicators are complementary to each other in stimulating economic growth.

Considering the advanced dynamic common correlated estimator (DCCE) and a panel Granger-causality test for a sample of 22 emerging countries over the period of 1980-2020, Nguyen and al. (2021) provide empirical evidence that financial development affect economic growth positively. Besides they have provided empirical evidence that there is a solid bidirectional Granger causality between financial development and economic growth.

Other studies have interested to the non-linear relationship between financial and economic development. Applying a threshold regression model to King and Levine's (1993b) dataset which covers 119 countries over the period 1960-1989 Deidda and Fattouh (2002) [23] provide evidence consistent with the non-monotonic finance-growth relationship.

An important stand of literature has examined the conditional finance- growth relationship. In this vein, Rousseau and Wachtel (2000) have analyzed the effect of inflation on the finance growth nexus. Their findings show that there is an inflation thresh-old beyond which for the finance financial deepening ceases to increase economic growth. Demetriades and Law (2006) have investigated how the level of institutional quality can affect the finance-growth relationship. Their results show that when the financial system is embedded within a sound institutional framework, more finance can generate a significant benefit in economic growth. In more recent study, Abaidoo and Agyapong (2022) have examined how institutional quality influences variability in financial development

among economies in Sub-Saharan Africa (SSA). Their results provide evidence that institutional quality enhances the pace of financial development among economies in the sub-region.

Studies examining the relationship between financial sector development and economic growth in MENA region include those by Ben Naceur and al. (2007), Kar et al.(2011) and Hamadi and Bassil (2015). Using a sample of 11 MENA countries over the period 1979-2003, Ben Naceur and al.(2007) find that both banking and stock market development are unimportant or even harmful for economic growth in the MENA region. Kar et al. (2011) findings show that there is no clear consensus on the direction of causality between financial development and economic growth. In recent study, Hamadi and Bassil (2015) investigates the impact of stock markets and banks on economic growth in 13 MENA countries over the period of 1988- 2009. Hamadi and Bassil (2015) results show that financial system can promote growth only during periods of stability.

The present study attempts to extend the existing literature by examining the role of political risk and financial crises on the effect of financial development on economic growth which has not been investigated previously for MENA region...

3. Econometric Model and Data

The approach taken in this paper is to model the impact of financial development on economic growth in MENA region. Our initial intention was to cover all countries in the MENA region, but given the availability of the data the sample included are only 10 MENA countries (Algeria, Bahrain, Egypt, Iran, Jordan, Malta, Morocco, Saudi Arabia, Syrian, and Tunisia) over the period of 1997-2020. Annual data for financial and control variables are taken from the World bank database (2022)

3.1. Econometric Model

The starting point for our analysis, has the form

$$GROWTH_{it} = \alpha_i + \beta_0 FD_{it} + \gamma Z_{it} + \varepsilon_{it} \quad (1)$$

Where $GROWTH_{it}$ refers to the growth of real per capita GDP in the i th country for some time-period, which is our measure of economic growth. FD_{it} includes variables that measure financial development, Z_{it} represents a matrix of control variables, α_i is an

unobserved country specific effect, and ε_{it} is the error term of each observation.

An empirical specification that allows one to test that the effect of financial development on economic growth depend up on political stability is a slight variant of equation 1 in which we introduce interaction terms between the political risk variable and financial development indicators (FD* POLRISK):

$$GROWTH_{it} = \alpha_i + \beta_0 FD_{it} + \beta_1 (FD_{it} * POLRISK_{it}) + \gamma Z_{it} + \varepsilon_{it} \quad (2)$$

Our conditional hypotheses center around the coefficients β_0 and β_1 . Four possibilities are created. They are:

If $\beta_0 > 0$ and $\beta_1 > 0$, financial development has a positive impact on economic growth, and the level of political stability favorably affect that positive impact.

If $\beta_0 > 0$ and $\beta_1 < 0$, financial development has a positive impact on economic growth, and the level of political stability adversely affect that positive impact (political risk lessens this positive effect).

If $\beta_0 < 0$ and $\beta_1 > 0$, financial development has a negative impact on economic growth, and the level of political stability mitigates the negative effect of financial development.

If $\beta_0 < 0$ and $\beta_1 < 0$, financial development has a negative impact on economic growth, and the level of political risk aggravate the negative effect of financial development.

To examine the incidence of financial crises on the finance-growth nexus, an interaction terms between financial development variables and dummies for crises periods is introduced in equation (1):

$$GROWTH_{it} = \alpha_i + \beta_0 FD_{it} + \beta_1 (FD_{it} * CRISES_{it}) + \gamma Z_{it} + \varepsilon_{it} \quad (3)$$

3.2. The data

a. Data on financial development

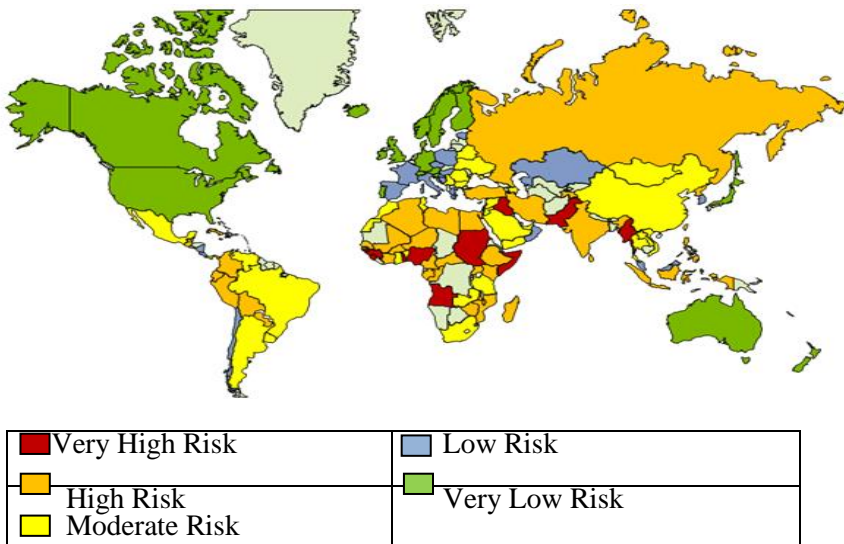
We consider four indicators for financial development: (i) private credit (CRED) equals banking institution credit to private sector as a percent of GDP. It is considered an indicator for financial intermediaries' activity (Demirgüç-Kunt and Levine 1999) (ii) liquid liabilities (LIABILITIES) is the ratio of liquid liabilities of the financial system (currency plus demand and interest-bearing liabilities of banks and non-bank financial intermediaries) divided by GDP. It is a general indicator for the size of financial intermediaries

relative to the size of the economy; (iii) bank assets (ASSETS) equals the ratio of the total assets of deposit money banks divided by GDP, it provides a measure of the overall size of banking sector; and (iv) based on principal component analysis (PCA) we have determined an index of financial development (FDINDEX) that aggregates the information contained in the individual indicators. The financial indicators are extracted from the Global Development Finance (World Bank 2022).

b. The political stability indicator:

To measure political stability, we consider the political risk variable which is extracted from ICRG data base. The aim of the political risk rating is to provide a means of assessing the political stability of the countries covered by ICRG on a comparable basis. In every case the lower the risk point total, the higher the risk, and the higher the risk point total the lower the risk. This index is ranked from 0.0% to 100% where a political risk rating of 0.0% to 49.9% indicates a Very High Risk; 50.0% to 59.9% High Risk; 60.0% to 69.9% Moderate Risk; 70.0% to 79.9% Low Risk; and 80.0% or more Very Low Risk. Of the 16 countries of our sample :(i) 1 Country is ranked as a country with high risk, (ii) 8 countries are characterized by moderate political risk, (iii) 6 countries are ranked as to have a high risk, and (iv) 1 country has a very low risk. As shown from Map1, MENA region can be classified among the more instable region.

Map1: Political Risk among the World (data adopted from ICRG database)



c. Financial Crises data

We use the updated IMF crisis database (Leaven and Valencia, 2018) to construct a dummy for financial (banking and currency) crises. Table (1) shows the number of countries in crises at any time during each 4-year period.

Table 1: Number of Sample Countries in Financial Crises during 4-Year Periods, 1997-2020

	1997-2000	2001-2004	2005-2008	2009-2012	2013-2016	2017-2020
Banking Crisis	0	0	0	0	0	0
Currency Crisis	1 (Iran)	1 (Iran)	1 (Libya)	1 (Sudan)	2 (Egypt, Iran)	0

d. Data on other variables

To control for other potential determinants of economic growth in our regression, we consider the most used variables in the empirical growth theory: (i) Initial Level of Development (IIC) equal the logarithm of initial income per capita, which will provide evidence of any convergence effects, (ii) Trade Openness (TO), our proxy for trade openness is the ratio of the sum of exports and imports over GDP. (iii) Government Consumption (GC), is measured by the ratio of government consumption to GDP, (iv) Secondary School enrolments (SSCE) which is an indicator of human capital development, (vii) Inflation (INF), it is included as indicator of macroeconomic stability. All the control variables are extracted from the World development indicators 2022 (World bank database).

4. Empirical Results

We use the GMM estimators developed for dynamic panel data for a sample of 10 MENA countries over the period of 1997-2020. Tables 4,5 and 6 present equations with a four-year average data estimated using the Blundell and Bond (1998) dynamic panel data estimation technique, i.e., two-step system GMM estimations. In fact, we use four-year average data to prevent any biased estimates and to abstract from the business cycle phenomena. This transformation entails that four-year data for all countries exist (1997-2000, 2001-2004, 2005-2008, 2009-2012, 2013-2016, 2017-2020) which make for six non-overlapping periods. The summary

statistics and correlation matrix are reported in Tables 2 and 3 respectively.

The GMM system regressions satisfy both the Sargan test of over-identifying restrictions and the serial correlation test. In all our model specifications, the Hansen test cannot reject the null hypothesis that our instruments are valid. Moreover, the AR2 test fails to reject the null hypothesis that there is no second order autocorrelation in the differentiated residuals.

Table 2 : SummaryStatistic

Variables	Obs	Mean	Std.Dev	Min	Max
GROWTH (%)	215	1.68	5.532	-42.80	34.65
LIAB(%)	190	64.99	23.61	26.377	127.96
ASSET(%)	202	56.37	25.14	10.83	129.17
CREDI(%)	218	39.51	22.84	4.13	100.61
POLRISK(%)	230	61.99	11.78	10.66	79.16

Table 3 : Correlation Matrix

	(1)	(2)	(3)	(4)	(5)	(6)
(1)GROWTH	1					
(2) INDEX	-0.04	1				
(3)LIAB	-0.07	0.87*	1			
(4)ASSET	-0.04	0.95*	0.76*	1		
(5)CREDI	0.01	0.83*	0.56*	0.73*	1	
(6)POLRISK	0.10*	0.01	0.19*	0.33*	0.17*	1

4.1.Benchmark model

Table 4 reports the empirical results of the regressions on the link between economic growth and financial development for our sample of 10 countries between 1997 and 2020. The first regression reports the results when FDINDEX is considered as the indicator of financial development. In regressions (2)-(4), we have introduced the usual measures of financial sector development that is LIABILITIES, ASSETS and CREDI.

The empirical results indicate that there is a negative association between economic growth and financial development with significance varying with the nature of measure introduced for financial development. Regression 1 (Table 3), show that the

coefficient associated to FDINDEX is significantly negative at 10%. The results also show that both a deeper financial (on form of highest deposit money bank assets to GDP) and a larger financial system (on form of higher liquid liabilities) have a significant negative effect on economic growth. In fact, the coefficients associated to ASSETS and LIAB are negatively significant at 5% and 1% respectively (columns 2 and 3).

Considering the preferred financial development measure in the literature (Levine et al. 2000, Beck et al. 2000), private credit CREDI (regression 4), the evidence shows that banking sector activity has a significant effect on economic growth in MENA countries. The significance level is 5%.

Table 4 : Benchmark Model

Variables	(1)FD=FINDE X	(2)FD=LIA B	(3)FD=ASSE T	(4)FD=CRE D
INCOM	-0.005(-0.09)	-.21**(-2.93)	-.28**(-1.87)	-.086(-0.80)
FDINDE X	-1.94***(-2.03)			
LIAB		-3.88*(-3.49)		
ASSET			-2.82**(-2.21)	
CRED				-.99**(-2.95)
GOVEX	-1.33(-0.83)	.12(0.10)	.145(0.04)	-1.79(-1.63)
SSCE	1.60** (2.57)	1.83*(4.17)	2.90*(4.02)	2.21**(2.59)
TO	1.23*** (2.10)	.77*** (1.86)	.61(0.50)	.51(1.32)
INF	-.46(-1.20)	-.20(-0.89)	-.073(-0.17)	-.51(-1.67)
Cst	3.31(0.73)	8.97(1.74)	.75(0.11)	.63(0.21)
N	38	33	34	35
AR(2)	0.689	0.430	0.422	0.763
Sargan	0.491	0.202	0.915	0.342
Hansen	0.453	0.400	0.788	0.240

Notes: N refers to number of observations included in the estimation. For Sargan test, the null hypothesis is that the instruments are not correlated with the residuals. Hansen statistic tests the validity of our instruments. For the test for autocorrelation AR(2), the null hypothesis is that the errors in the first difference regression exhibit no second-order serial correlation. T-statistics for coefficient in parentheses ***, **, * refer to the 1, 5 and 10% levels of significance respectively.

In summary, these results are not consistent with the models that predict that well-functioning financial systems ease information and transaction costs and thereby enhance resource allocation and economic growth. Moreover, financial development has either a detrimental effect or no effect at all on the growth rate. These counter-intuitive results are particularly surprising, since the most empirical work have typically found a positive nexus between financial development and economic growth. However, these

counter-intuitive results may be reflecting the inadequacy of the linear finance-growth relationship (Khan and Senhadji (2001). Indeed, the finance-growth relationship is very likely to be nonlinear in the sense that the growth effect of finance may vary with alternative macroeconomic and institutional conditions.

Therefore, the aim of the next step of our study is to examine if the counterintuitive results can be explained by the incidence of political instability and the financial crises on financial-growth relationship. In particular, our objective is not to examine how political instability and financial crises affect the economic growth, but rather we are investigating how the above conditions a finance-growth nexus.

4.2. Political instability and the finance -growth nexus

Table 5 reports the results of regressions analyzing the effect of political instability on the relationship between financial development and economic growth. In columns (1 and 2) the composite index *FDINDEX* is included as the indicator of financial development with the interaction term (*FDINDEX*POLRISK*). The estimated results show that while *FDINDEX* remains significantly negative, the additional interaction variable (*FDINDEX*POLRISK*) is significantly positive suggesting that political stability may very well mitigate the negative effect of *FDINDEX*. That is, while an increase in the *FDINDEX* decreases growth, the negative effect is reduced in countries with more stable political environment.

Looking to the measures of financial sector development, *LIABILITIES*, *ASSETS* and *CREDI*, in most regressions, the political risk variable displays similar results to those when financial sector development is proxied by *FDINDEX*. In fact, the three interaction terms (*LIABILITIES*POLRISK*, *ASSETS*POLRISK* and *CREDI*POLRISK*) are significantly positive (Table 5). The coefficients for *LIABILITIES*, *ASSETS* and *CREDI* are significantly negative suggesting that while a larger, deeper and an active financial system decreases growth, this negative effect is reduced in countries with a more stable political environment.

Therefore, our results imply that the negative effect of financial development on economic growth in MENA region can be explained by the instability of the political system in most countries of this region. In fact, as shown from the Map 1, MENA region is among the more instable region in the World. That is, the most MENA

countries are characterized by both a very high political risk (such as Lebanon) and a high political risk.

Table 5 : Political instability and the finance-growth relationship

Variables	(1)FD=FINDEX	(2)FD=LIAB	(3)FD=ASSET	(4)FD=CR
INCOM	-0.029(-0.39)	-.062(-1.02)	-.069(-1.01)	-.107** (-2.74)
FDINDEX	-7.77**(-2.44)			
FDINDEX*POLRIS	5.54** (2.63)			
LIAB		-8.11** (-2.88)		
LIAB*POLRIS		5.52*(3.27)		
ASSET			-6.66**(-3.01)	
ASSET*POLRIS			4.90**(2.97)	
CRED				-9.81*(-3.82)
CRED*RISK				6.57*(3.45)
GOVEX	-.52(-0.44)	-.77(-0.83)	-1.35(-0.84)	.006(0.00)
SSCE	1.77**(2.63)	1.45*(3.41)	1.22** (2.50)	1.44*(3.25)
TO	-.025(-0.05)	-.42(-1.11)	-.40(-0.93)	-.50(-1.17)
INF	.121(0.27)	-.22(-0.55)	-.27(-0.65)	-.22(-0.56)
Cst	-4.06(-0.73)	2.30(0.33)	2.45(0.54)	1.25(0.24)
N	38	33	34	35
AR(2)	0.466	0.626	0.588	0.573
Sargan	0.153	0.185	0.168	0.169
Hansen	0.536	0.423	0.370	0.251

Notes: N refers to number of observations included in the estimation. For Sargan test, the null hypothesis is that the instruments are not correlated with the residuals. Hansen statistic tests the validity of our instruments. For the test for autocorrelation AR(2), the null hypothesis is that the errors in the first difference regression exhibit no second-order serial correlation. T-statistics for coefficient in parentheses ***, **, * refer to the 1, 5 and 10% levels of significance respectively.

4.3. Financial Crises and the finance-growth nexus

Table 6 reports the results of estimations examining the effect of financial crises on finance-growth relationship. The results from Columns 1, 1' (Table 6) show that while the financial development index (FDINDEX) remains statistically significant with the negative sign, the interactive variables with both the dummies banking and currency crises does not appear statistically significant. Looking to the usual measures of financial development our main findings show that the interactive variables appear significant only when the

liabilities and domestic money bank assets to GDP ratios are considered.

These results imply that financial crises have not played an important role in the determination of the finance-growth relationship in MENA region in the latest decades. These results can be explained by the fact that MENA countries have not experienced several period crises. In fact, of the 10 countries in our sample only four countries have experienced financial crisis (See Table 1).

In most regressions (Tables 4, 5 and 6) the four macro-controlled variables provide reasonable support for the growth theory (Barro, 1991[30] and Barro and Sala-i-Martin, 1997). The secondary school enrolments and trade openness evidently have a positive effect on growth, unlike the inflation rate and government consumption which have a negative effect. We also find significant evidence that countries with lower initial real per capita GDP have faster growth than the initially richer ones, which is consistent with the convergence hypothesis.

Table 6: Financial Crises and the finance-growth relationship

Variables	FD=FINDEX		FD=LIAB		FD=ASSET		FD=CRED	
	(1)	(1')	(2)	(2')	(3)	(3')	(4)	(4')
INCOME	.025 (0.71)	-.31 (-1.58)	-.11 (-1.09)	-.12 (-0.50)	-.10 (-0.87)	-.024 (0.06)	-.098 (-0.89)	-.15 (-1.15)
FDINDEX	-2.53** (-2.60)	-2.56** * (-1.82)						
FDINDEX* BANCRI	.078 (1.21)							
FDINDEX* CURCRI		-.11 (-0.27)						
LIAB			-1.87 (-1.76)	-2.10 (-0.95)				
LIAB* BANKCRI			-.76** (-2.98)					
LIAB* CURCRI				.46 (0.85)				
ASSET					-.56 (-0.67)	-.53 (0.26)		
ASSET* BANCRI					-.77* (-)			

*Political stability, Financial Crises and the Finance-Growth Nexus:
Evidence from MENA Region*

					4.65)			
ASSET* CURCRI						.845 (1.34)		
CRED							- 1.43** * (-1.83)	- 1.58** * (-1.89)
CRED* CURCRI							-0.10 (-0.01)	
CRED* CURCRI								.41 (0.64)
GOVEX	-.65 (-0.48)	.40 (0.30)	-1.76 (- 1.60)	.11 (0.07)	-2.17 (- 1.47)	-.52 (- 0.34)	-.56 (-0.43)	.46 (0.46)
SSCE	.89** (2.44)	2.61** * (1.86)	.77 (1.05)	1.13 (0.75)	1.57* * (2.57)	.79 (0.35)	3.07** (2.29)	2.24** * (1.86)
TO	-.03 (-0.06)	.24 (0.23)	1.18 (1.66)	.90 (0.94)	.42 (0.49)	1.03 (0.87)	-.26 (-0.18)	.80 (0.80)
INF	- .70*** (-1.86)	.13 (0.22)	-.09 (- 0.27)	-.22 (- 0.30)	-.52 (- 1.59)	-.535 (- 0.70)	-.44 (-1.07)	-.18 (-0.40)
Cst	6.76** * (1.83)	3.16 (0.69)	8.17* * (2.92)	3.20 (0.59)	4.18 (1.24)	-1.36 (- 0.34)	-1.28 (-0.22)	-5.09 (-0.95)
N	33	35	37	35	35	35	34	33
AR(2)	0.963	0.232	0.591	0.53 3	0.966	0.59 1	0.773	0.594
Sargan	0.195	0.388	0.545	0.24 5	0.272	0.33 1	0.692	0.376
Hansan	0.231	0.376	0.794	0.44 4	0.432	0.49 6	0.653	0.443

Notes: N refers to number of observations included in the estimation. For Sargan test, the null hypothesis is that the instruments are not correlated with the residuals. Hansen statistic tests the validity of our instruments. For the test for autocorrelation AR(2), the null hypothesis is that the errors in the first difference regression exhibit no second-order serial correlation. T-statistics for coefficient in parentheses ***, **, * refer to the 1, 5 and 10% levels of significance respectively.

5. Conclusion

In this paper, we re-investigate how financial development affects economic growth in MENA countries. Specifically, we examine if the unimportant effect of financial development on economic growth can be explained by the political instability and financial crises in this region.

Applying a GMM-system method of estimation for a sample of 10 countries over the period of 1997-2020 we find that financial development is unimportant or even harmful for economic growth in

MENA region. When we based on a model which introduces a linear interaction between the indicator of financial development and political stability (FD*POLRISK), we find that political stability mitigates the negative effect of financial development on economic growth. When the interactions between the indicator of financial development and financial crises are considered, our results have shown that financial crises do not played an important role on the finance-growth relationship in MENA region.

As policy implications, besides the improvement of financial system, MENA countries they need to do significantly more to reinforce their political stability and improve institutional environment.

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