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Islamic financial development between politic stability and economic growth in the MENA region: Estimate a model of Simultaneous equations

Abderraouf Mtiraoui*¹

Mongi Lassoued**²

Amine Mtiraoui***³

*E-mail: abderraouf100@yahoo.fr

**E-mail: lassouedmongi4@gmail.com

***E-mail : mtiraoui.amine@courrier.uqam.ca

University of Sousse-Tunisia

Research Units: LAMIDED & LaREMFiq

Abstract : The purpose of this paper is to study the relationship between the development of Islamic finance and economic growth on the one hand while developing an innovative literature review highlighting the role of the development of Islamic finance and also the the nature of the joint between political stability as an indicator of quality of governance and economic growth. And on the other hand, we empirically try to discover the direct and indirect effects of the development of Islamic finance and political stability on economic growth and hence the relationship between Islamic financial developments measured by private sector bank loans divided by GDP and political stability on economic growth. Our empirical validation is based on an estimation method, namely the model with simultaneous equations in some MENA countries during the period (1990-2018).

Keywords: Islamic financial development, Politic Stability, Economic growth and models with simultaneous equation.

JEL Classification: K0, C13, C23

I. INTRODUCTION

The International Monetary Fund (IMF), in 2015, released a report entitled: "*Islamic Finance: Opportunities, Challenges and Strategic Options*". In this context, the IMF shows that Islamic finance can contribute to macroeconomic stability and therefore it stimulates growth since it is based on the principle of sharing profits and losses. Islamic finance is becoming the best known in the world as it offers adequate and innovative solutions that Islamic financial institutions need to be placed under the control of the central bank.

¹ Doctor and Teacher Researcher at the Higher Institute of Finance and Taxation (HIFT) of Sousse-Tunisia.

² Director of the Higher Institute of Finance and Taxation of Sousse-Tunisia.

³ PhD student and Teacher Researcher at the ISFF of Sousse, Sousse University -Tunisia.

However, the nature of central banks and their rather particular operating mechanism, the instruments of regulation used by the central bank represent a sacred challenge precisely, with regard to the establishment of a monetary policy compliant Islamic finance (Sharia).

According to the foundation of monetary creations, the challenges are related to the characteristics of Islamic finance and the context of the objectives assigned to the monetary policy of the countries in which Islamic banks operate. In the majority of the countries these Islamic banks are transforming under the supervision of the central bank that requires legislation to direct the relationship between the central bank and those of Islamic banks. In addition, the Islamic economic doctrine takes into account it seems obvious to say that the perceived interest is a kind of remuneration following a deterioration of the value of the currency under the effect of inflation⁴.

Moreover, the inflationary movements are only the result of an artificial increase in the money supply in circulation following the adoption of an expansionary monetary policy which has an impact on the economic growth of the nations and especially on the growth of the countries MENA, this situation exists when we talk about political instability linked to public power. In this context, monetary policies have mentioned that political stability participates in the economic circuit by attracting direct investment in all these ways to improve economic growth. Such an impact of political stability on financial stability and its diversification at the level of financial development ie Islamic finance that can stimulate economic growth. Faced with the spectacular development of Islamic finance in its contemporary form, the identification and identification of the practices of usury has created as much controversy among Muslim scholars who split into two groups: for the first, the interest refers to any form of interest; while for the second, the term *riba* concerns only the excessive interest.

All in all, the ambiguity between the development of Islamic finance and the notion of political stability will be clarified in the first place while putting into consideration the link between Islamic financial development and economic growth in the second place, third, we let us empirically try to show the direct and indirect effect of political stability on Islamic financial development and growth during the period (1990-2018). To finish the interpretation of the results obtained for our MENA region.

⁴ **Drissi, S. and Angade, K. (2018):** « The conduct of monetary policy in a financial system Islamic». [La conduite de la politique monétaire dans un système financier Islamique]. *Recherches et Applications en Finance Islamique*, Vol. 2, N° 1, pages : 1-23.

II. REVIEW OF THE LITERATURE

II.1. Relationship between Islamic finance and Economic growth⁵

According to the work of McKinnon and Shaw (1973), the diversity of developments observed in countries following the wave of financial liberalization measures of the 1970s and 1980s has cast doubt on the possible positive effects of finance on growth. Studies by King and Levine (1993c) have revived work on the link between finance and growth. These authors have shown through many data the means by which financial development has a positive impact on economic growth and have made convincing theoretical and empirical analyzes to support their hypotheses.

Subsequent studies have confirmed their findings (Rajan and Zingales 1998, Levine, Loayza and Beck 2000) although more recent publications, especially since the global financial crisis, cast doubt on the strength of the links between development and growth (in particular Andersen and Tarp, 2003, Arcand, Berkes and Panizza, 2012 and Panizza, 2014). It also appears that, inasmuch as it increases the probability of a banking crisis, the positive relationship between financial development and growth can be conditional (Guillaumont Jeanneney and Kpodar, 2006).

According to Mirakhor (2010), unbalanced balance sheets are unknown in Islamic finance, as banks do not exhibit imbalances between assets and liabilities, since short-term deposits finance short-term transactions while longer-term deposits are smaller. In Islamic banks in combination with larger cash reserves, explains why these banks performed rather better than others during the last crisis.

Derivatives and other non-transparent products are also prohibited. This leads, with the principle of sharing profits and losses, to a less crisis-prone system (Cihak and Hesse, 2008, Hasan and Dridi, 2010). We can probably legitimately believe that financial stability will be enhanced by diversified banking systems, including Islamic banks alongside conventional banks (Imam and Kpodar, 2013).

II.2. Political Stability and Investment: Supporting Financial Stability

Most of the global boom and bust cycles observed over the last few decades have highlighted several fundamental factors that explain the vulnerability of conventional banks,

⁵ **Patrick Imam and Kangni Kpodar (2015)** : "Islamic Finance and Economic Growth: An Empirical Analysis". [Finance islamique et croissance économique : une analyse empirique]. *Revue d'économie du développement*. Vol. 23, pages 59 à 95

namely, significant leverage, the use of wholesale financing and the use of complex instruments. Demircuc-Kunt et al. (2013) studied behavioral differences between Muslim and non-Muslim populations in several countries.

By getting Muslims to participate in the formal sector by offering products tailored to their needs, we would increase access to finance and formal savings would increase by the same amount. The Islamic banking system can encourage the savings of fervent Muslims who are reluctant to resort to conventional banks because they do not meet their needs and are unwilling to entrust their savings to a financial system that is not based on their principles religious. This could therefore favor the development of financial intermediation.

II.3. the Action of public power⁶

According to Kaufmann et al. (2003), the effectiveness of public action reflects the perception of the quality of public services, the quality of the public service and the degree of its independence from political pressures, the quality of the formulation and the application of policies and the credibility of the government's commitment to these policies.

It is a measure of the competence of the public bureaucracy and the quality of public services. This variable is explained mainly by the following aspects:

- The quality of government policies.
- The reversals that may affect the quality of government staff.
- The quality of the services provided by the State.
- Predictability of changes in rules and laws.
- The waste of government spending.
- The degree of exposure of public services to political interference.

Finally, this tendency to measure "Government Effectiveness" is insufficient to give the exact institutional indicator.

II. 4. Islamic Finance and Political Stability⁷

Islamic finance promotes a fair and equitable distribution of income and wealth. Because it is very connected to the real economy and based on risk sharing, Islamic finance

⁶*The Worldwide Governance Indicators (2010): A Summary of Methodology, Data and Analytical Issues*
http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1682130.

⁷ <https://www.banquemoniale.org/fr/news/feature/2017/02/21/new-report-outlines-actions-to-leverage-islamic-finance-for-development>.

can contribute to improving the stability of the financial sector. It can also make it possible to integrate into the formal financial system those who are currently excluded for cultural or religious reasons. Unlike traditional finance, Islamic finance is based on risk-sharing and asset-backed finance. In Islamic finance, bank customers directly hold real assets in the real sphere of the economy, which reduces their risk aversion. The report proposes a theoretical framework for the analysis of the Islamic economy and finance that is articulated around four fundamental pillars to know a strong institutional structure accompanied by appropriate public policies, prudent governance and responsible leaders, promoting an economy based on risk sharing and entrepreneurship and financial and social inclusion.

However, the report points out, a number of steps need to be taken to increase the effectiveness of Islamic finance and make full use of its ability to reduce inequality. These actions are as follows for example to know improve the harmonization, implementation and enforcement of regulations, create institutions that provide credit information and other topics to facilitate equity financing, especially for SMEs and microenterprises, develop financial markets and *şukuk* (Islamic law-compliant bonds) to support the financing of major infrastructure projects, ensure regulatory approval of financial products from other jurisdictions and develop markets through international transactions

III. CHOICE OF VARIABLES AND METHODOLOGY OF ESTIMATION

III.1. Simultaneous Equations in Panel Data

Empirical studies have examined very simple models limited to an equation, generally linear where there is an endogenous variable or to be explained. We have assumed (Y) that is explained by a set of exogenous variables and a random perturbation (residue).

Indeed, economic events, which have a little complex, are described by a set of variables, but their modeling requires equations, linking these economic quantities, we are talking about models with simultaneous equations. We specify the endogenous variables, which are determined by the exogenous variables in the model. Then modeling is done by three phases namely to know the design, ie the writing or the specification of the model, estimation of equations of the model and according to adapted techniques. There are a large number of studies on this theoretical field, and many books that are at different levels that describe some problems.

- *Endogenous problem*: The study of several economic models such as GDP, PS and IDF require the consideration of the endogenous problem as long as the variables tested interact simultaneously.

Indeed, there are strong reciprocal causalities between these factors, which brings us back to the problems of endogeneity and simultaneity. The estimation methods that can be used in this framework of simultaneous equation models depend on the identification criteria of the model to be estimated and the problem of endogeneity.

- *Method used "SUR"*: In our case, the presented model is Over-identified. The econometric method adopted was the method **SUR (Seemingly Unrelated Regression)**. This method is adequate for dealing with this kind of model.

However, our model is characterized by the presence of a second order endogeneity problem, by its definition, which is why the estimation by the method of triple least squares would be more recommended. The **SUR** estimation method is based on the principle of applying the ordinary least squares method in three steps. One technique for solving problems of endogeneity is to introduce the variables at the origin of these problems as instrumental variables. However, the version used in our study is that of **STATA 15**. Using the **SLS 2** method, the processing by Stata software allows us to make the complete resolution of the results to be criticized.

III.2. The estimation methodology

We introduce three types of variables in our model. First, the growth variable, which depends on the model. We then guide the indicators of financial development. Finally, we introduce a conditional information matrix to control variables that affect long-term growth.

III.2. a. Sample and period

* *Echantillon*:⁸Our region is a sample which consists of 16 countries namely Bahrain, United Arab Emirates, Jordan, Kuwait, Qatar, Saudi Arabia, Saudan, Tunisia, Turkey, Morocco, Egypt, Iran, Iraq, Algeria, Oman, Yemen. Our sample is made up of 16 countries shared across the MENA and Asia Pacific region and we have built up a truly international macroeconomic data base available in "World Bank CD" .

**Period*: The sample of selected countries consists of 16 MENA countries: 5 African Countries, 10 Gulf countries, 1 a Mediterranean country. Depending on the availability of data, our study period extends from 1990 to 2009 over a period of 20 years⁹. The great

⁸ **Rym Ayachi Ammar , Mehrez Ben Slama and Dhafer Saidane (2013)** : “Does the current practice of Islamic banks promote growth?”. [La pratique actuelle des banques islamiques favorise-t-elle la croissance ?]. *Etudes en Economie Islamique*, Vol.6, No 1&2,p.p. 12

⁹ <http://region-developpement.univ-tln.fr/fr/pdf/R32/%5B3%5D%20E1%20Ghak-Zarrouk.pdf>

diversity in terms of geography and in terms of country performance makes it possible to increase the robustness of our analyzes.

III.1.b. Definitions and measures of variables

- Growth indicator: We chose the GDP growth rate per capita (Beck and Levine, 2004).
- Financial Development Indicators: We propose the following indicators.

Islamic finance*: In their 1998 study, Levine and Zervos add the measure of development of the banking sector to cross-sectional studies of growth. According to these authors, this measure is equal to the credit of the private sector divided by the GDP noted **IDF (Finis / GDP): Qard Hasan, Murabahah, Ijarah, Moudarabah, Moucharakah, Salam, Istisna.. '). In addition, several authors such as Levine and Zervos (1998), Rousseau and Wachtel (2000), Beck and Levine (2004) show that the level of development of the banking sector, measured by credit activity, is significantly positive and correlates with the growth.

Investment*: Abu-Bader and Abu-Qarn (2008) include the investment-to-GDP ratio to determine whether financial development affects economic growth by improving efficiency or, indirectly, by increasing investment resources rated **INV (Invest / GDP)

Control Variables*: For this work, we used the net flow of foreign direct investment (FDI**) ratio as an indicator of macroeconomic stability (Easterly and Robelo (1993) and Fisher (1993)) as the control variables, the value ratio of **Trade** (export + import) / GDP to capture the degree of openness (Sachs and Warver (1995)) noted (**Trade**) and the tertiary enrollment rate to control the accumulation of human capital noted (**HK**).

**Mute variables*: We use this nature of variables (variable dummy: VD) because our study area is formed by countries that apply Islamic finance and other more or month. So we score 1 for countries that practice Islamic finance and 0 for others.

- Politic stability: IMGs are not used by the World Bank Group to allocate resources.

The impact of institutional or politic stability factors that governance quality index: "ICRG indicator of quality of government: The mean value of ICRG variables". After calculating the Governance Quality Index, we will present descriptive statistics.

III. 3. Model specification

- *Equation of economic growth*: We use the endogenous variable in this first equation the annual growth rate of GDP per capita (GDP). Indeed, Andersen (2003) argues that the growth rate of GDP per capita is a good measure of economic growth, and one variable is justified by the abundant literature which states that foreign direct investment has a positive

impact on growth. Such as Ikiara, Moses (2003) and Fosto, which prove that technology transfer from (FDI) is having a positive effect on growth.

Like Berthélemy and Varoudakis (1995), we introduce the indicator of increased **Trade openness (Trade)** accelerates economic growth and therefore the expected sign of this variable is positive. This is why Kaufmann et al. created a variable is the Government Effectiveness (**GE**) reflects the political stability (**PS**) reflects the perception of the quality of public services, the quality of the public service and the degree of independence from political pressures, the quality of formulation and the application of policies and the credibility of the government's commitment to these policies. We will regress, thus, the annual growth rate of GDP per capita on these explanatory variables whose objective is to verify the effect of Government Effectiveness (**GE**) on the growth rate. The model is specified in equation (A) which is the equation of economic growth: $Y_{i,t} = \alpha_0 + \alpha_1 F_{i,t} + \sum_{i=2}^4 \alpha_i X_{i,t} + \varepsilon_{i,t}$

The equation: $GDP_{i,t} = \alpha_0 + \alpha_1 IDF_{i,t} + \alpha_2 HK_{i,t} + \alpha_3 INV_{i,t} + \alpha_4 TRADE_{i,t} + \alpha_5 GE_{i,t} + \varepsilon_{i,t}$

With $F_{i,t} = IDF_{i,t}$ and $X_{i,t}$ it is the vector of economic and politic indicators (**TRADE**, **INV**, **HK**, **GE**) determinants of growth (**GDP**) and specific to the equation (A), where ($i = 1 \dots 16$; $N = 464$; $t = 1 \dots 29$).

- Equation of Politic Stability: The second endogenous variable is stability (**PS**).

There is a relationship of complementarity between this indicator and the indicator effectiveness of public action. The impacts of Government Effectiveness (**GE**) and the Economic Growth Indicator (**GDP**) on an index of (**PS**). So the model is specified in Equation (B) of the corruption check: $PS_{i,t} = \beta_0 + \beta_1 Y_{i,t} + \beta_2 IDF_{i,t} + \sum_{i=2}^3 \beta_3 G_{i,t} + \mu_{i,t}$

The equation becomes like this: $PS_{i,t} = \beta_0 + \beta_1 GDP_{i,t} + \beta_2 IDF_{i,t} + \beta_3 GE_{i,t} + \mu_{i,t}$

With $G_{i,t}$ it is the variable vector (**GE**) specific to the politic stability equation where ($i = 1, 17, N = 464, t = 1, 29$).

- Equation Islamic developemnt finance: The three endogenous variable is Islamic Developpemnt Finance $F = (IDF)$. There is a relationship of complementarity between this indicator and the indicator effectiveness of public action. The impacts of political stability ie (**PS**) and the Economic Growth Indicator (**GDP**) on an index of Islamic developpemnt Finance (**IDF**). So the model is specified in Equation (C) of the **IDF** check:

$F_{i,t} = \delta_0 + \delta_1 Y_{i,t} + \delta_2 PS_{i,t} + \delta_3 FDI_{i,t} + \delta_4 DV_{i,t} + \epsilon_{i,t}$

The equation becomes like: $IDF_{i,t} = \delta_0 + \delta_1 GDP_{i,t} + \delta_2 PS_{i,t} + \delta_3 FDI_{i,t} + \delta_4 DV_{i,t} + \epsilon_{i,t}$

With $FDI_{i,t}$ it is the variable vector (**FDI**): Foreign direct investment specific to the Islamic developpemnt Finance where ($i = 1, 16, N = 464, t = 1, 29$).

III.4. Preliminary tests

After carrying out the main tests of mandatory hypotheses for the estimation of models in simultaneous equations, a series of usual econometric tests will be directed to the composition of the equations and the variables of the estimated model. First, it is tests of stationarity, collinearity. Subsequently, we turn to the presentation of the main results obtained, their interpretations and debates compared to previous studies.

- Stationarity tests

We know beforehand that to verify the stationarity of the data in panel, we can have recourse to the tests of stationarity of 1st generation. These types of first generation testing of panel data are Levin and Lin (1992); Pesaran (1997); and K. Hadri (2000). This being the case, it is important to note that for the first generation tests, they are only applicable on the cylindrical panels, that is to say without missing data, as is the case with our variables. Pesaran (1997), we find that all the variables used are all stationary in level.

- Collinearity study between independent variables

Before tackling the empirical analysis underlying our objective, it should be noted that the use of simultaneous equation models is exposed to two possible problems, those of the endogeneity of the explanatory variables and the collinearity between the independent variables.

The first difficulty may lead to bias in the estimates. To solve this problem, we must go through the instrumental variables. So, practically, it is not easy to find instruments, it is not easy to have data on these instruments. We assume in this work that the bias due to this problem is zero.

The second difficulty arises when there is a strong correlation between the explanatory variables. A strong correlation leads to poor estimates of the coefficients because the determinant of the matrix (\mathbf{XX}') will be almost zero; with (\mathbf{X}): the matrix of explanatory variables. To solve this difficulty, it is necessary that the invertible matrix. Before proceeding to the estimation of linear regression models, we have found it useful to first test the existence of a multi-collinearity problem at the data level in order to obtain efficient estimators. Subsequently, we distinguish between multi-collinearity and multi-multlinearity.

The problem of bi-varied multi-collinearity arises when two independent variables are strongly correlated, whereas multi-multi-multi-variability arises if several independent variables are correlated. The forms of the models to be estimated in our case thus remain dependent on the results of the tests. Multi-collinearity that we will apply on the data constituting the basis of this study relating to our sample.

- Multi-collinearity problem and model selection

- *Principle:*

The explanatory variables are highly correlated with the explained variable. They must be weakly correlated with each other.

- *Consequences of multi-collinearity:*

Among the consequences existing in this frame is the increase in the estimated variance of some coefficients and also the instability of the least squares estimators. So, in case of perfect multi-collinearity, the matrix $(\mathbf{X}'\mathbf{X})$ is singular, the estimation of the coefficients is then impossible.

- *Klein test:*

This is not a statistical test in the sense of a hypothesis test but simply a criterion of presumption of multi-collinearity. There is an appearance of multi-collinearity if the coefficient of determination of the complete model (\mathbf{R}^2) is smaller than the correlation coefficients ($\mathbf{r}_{xi, xj}^2$) and we have to compare the \mathbf{R} with the correlation coefficients ($\mathbf{r}_{xi, xj}$) that appear in the matrix correlation coefficients.

- *Farrar and Glauber test:*

Insofar as the empirical value of χ^2 is superior to the value read in the table, there is an assumption of multi-collinearity.

- *Correct multi-collinearity:*

When specifying the model, we eliminate explanatory series likely to be correlated and to represent the same phenomena and increase the sample size if the added observations differ from the first. To correct the regression chain: this is a purely numerical response that consists of transforming $\mathbf{X}'\mathbf{X}$ into $(\mathbf{X}'\mathbf{X} + \alpha\mathbf{I})$ where α is an arbitrarily chosen constant. We thus increase the first diagonal and the "numerical" effects of multi-collinearity are reduced.

- *Other methods:*

The first method is the stepwise regression procedure identical to the previous one, except that after incorporation of a new variable explanatory, the (t) of Student of each of the explanatory variables previously selected are examined and the variables whose (t) Student's is below the critical threshold are eliminated.

The second method is the regression by stage which process of selection of the explanatory variables allowing to minimize the inter correlations between the explanatory series by study of the residue:

- Problem of identifying model equations

The conditions of identification of a model are determined equation by equation. Three scenarios can arise. The model is under-identified, if a model equation is under-identifiable. In such a situation, the system is impossible to solve. When all the equations are "just" identifiable, the model would be "just" identified.

The model is over-identified if the equations of the model are either "just" identifiable or over-identifiable. When the model is under-identified, it is impossible to estimate its parameters and the modeling must be re-specified. The conditions for identifying a model are sometimes complex. In what follows, we will limit our analysis to the study of simple rules that are, in practice, applied in the first place. The most applied identification conditions are order conditions and rank conditions.

However, to perform these identifications, it is essential to check whether there are restrictions to be taken into account in our study or not. There is a restriction on a coefficient of the structural form, whenever a parameter is forced to be equal to a given value. There are two types of restrictions that can be identified, namely exclusion restrictions and linear restrictions.

➤ *Exclusion restrictions:*

This restriction consists of assigning a null coefficient for each endogenous or exogenous variable that does not appear in a structural equation.

In our model, the variable "FDI" figureau level of the last equation is endogenous whose exogenous variables "PS", "TRAD" and "HK" appear only at the level of the last equation and do not appear at the level of the first equation or the second equation. There are variables that appear at the level of the first and third equations and do not appear at the level of the second (IQG).

➤ *Linear restrictions:*

Some model specifications require variables to be assigned the same coefficient. This type of restriction is not present in our model. Once the restrictions on the coefficients have been made, it is essential to proceed to the identification of the system of equations. There are two identification conditions: the order conditions (necessary conditions) and the rank conditions (sufficient conditions).

- The necessary conditions: Conditions of order

After selecting the variables to be included in the model, a step prior to the simultaneous equation model processing step is to perform model identification tests to select the most appropriate estimation method.

In our case, we find for the model to be studied, that all the equations are over-identified. Indeed, we have three endogenous variables in the model ($W = 3$) "GDP", "PS" and "IFD" and five exogenous variables: "TRAD", "INV", "FDI", "VD", "GE" and "HK"; ($K = 6$)

The first equation has five exclusion restrictions and no constraint restrictions. Applying the conditions of identification, the variables in the human capital equation give: $W' = 1$, $K' = 5$ and W' is the number of endogenous variables in an equation and K' is the number of exogenous variables in an equation. Therefore: $W - W' + K - K' = 3 - 1 + 6 - 5 = 3 > W - 1 = 3 - 1 = 2$, so the first equation is over-identified.

The second equation has five exclusion restrictions but no constraint restrictions. We have therefore: $W = 3$, $K = 6$, $W' = 1$, $K' = 3$, which gives us: $W - W' + K - K' = 3 - 1 + 6 - 3 = 5 > W - 1 = 2$, this equation is therefore over-identified.

The third equation has six exclusion restrictions but no constraint restrictions. We thus have $W = 3$, $K = 6$, $W' = 1$, $K' = 4$, which implies $W - W' + K - K' = 3 - 1 + 6 - 4 = 4 > W - 1 = 2$, the third equation is therefore over-identified. Since in our model all the equations are over-identified, the model will be over-identified.

- Sufficient conditions: Rank conditions

If the order conditions are verified, it is also necessary to check the conditions of rank (sufficient conditions). However, in practice they are difficult, if not impossible, to implement. This is what drives us to limit our analysis to the level of verification of condition conditions qualified as condition.

IV. ESTIMATES, INTERPRETATIONS AND CONCLUSIONS

IV.1. Descriptive analysis

Table 1 : Matrix of correlations between the variables

Variables	GDP	IDF	PS	GE	INV	TRADE	HK	FDI	DV
GDP	1.000								
IDF	0.206	1.000							
PS	0.221	-0.302	1.000						
GE	0.126	-0.101	0.569	1.000					
INV	0.002	0.047	0.180	0.056	1.000				
TRADE	-0.280	0.045	0.183	0.076	0.619	1.000			
HK	0.013	0.026	0.062	0.252	0.136	0.194	1.000		
FDI	0.091	0.425	0.185	0.084	0.085	0.068	0.316	1.000	
DV	0.087	0.382	0.126	0.013	-0.445	0.433	0.055	0.129	1.000

Source: *the output of Stat15 made by the authors*

From the table of correlation matrices, we note that there is a strong positive correlation (greater than **0.5**) between **Trade (TRADE)** and the ratio of investment (**Inv**) (**0.619**).

In addition, there is a weak negative relationship between investment (**Inv**) and the dummy variable (**D.V**) (**-0.445**).

IV.2. Analysis of the results of the model

❖ *Effect of politic stability on Islamic development Finance and on Economic growth*

The results of the estimation of the simultaneous equations by the double least squares method of the direct and indirect effects of Politic Stability (**PS**) on the development of Islamic finance (**IDF**) and on growth (**GDP**) are given in Table 2.

Table 2: The impact of political stability on the development of Islamic finance and economic growth in the MENA region while resorting to the model of simultaneous equations.

<i>Variables</i>	<i>GDP</i>	<i>PS</i>	<i>IDF</i>
<i>Cons.</i>	4.5826) *** (9.09)	0.5618*** (70.27)	0.21970* (1.84)
<i>GDP</i>	-----	0.0011* (1.76)	0.0057* (1.85)
<i>IDF</i>	0.5144* (1.87)	-0.0148* (-1.89)	-----
<i>PS</i>	-----	-----	-0.2971** (-2.01)
<i>GE</i>	1.1575*** (2.90)	0.0329*** (3.79)	-----
<i>INV</i>	0.2082* (1.79)	-----	-----
<i>TRADE</i>	(-0.1140)* (-1.81)	-----	-----
<i>HK</i>	0.01723 (0.74)	-----	-----
<i>FDI</i>	-----	-----	0.0046 (-1.76)*
<i>DV</i>	-----	-----	0.1217** (1.98)
<i>Obs.</i>	464	464	464
<i>R²</i>	0.19	0.30	0.29

Remarque: Les termes entre parenthèses correspondent à t-Student et *, **, ***: significatif à un seuil de 10%, 5% et 1% respectivement.

IV.3. Results interpretation

Table 2 outlines the results obtained using a simultaneous equation model that highlights the effect of Islamic finance development (**IDF**) on growth (**GDP**) taking into account the political stability (**PS**) for the MENA region lasted a definite period (1990-2018).

This study therefore tests the direct and indirect effects of political stability (**PS**) as an indicator of the quality of governance on economic and financial variables. The latter participate in the creation of the wealth of a country? *The development of Islamic finance (IDF), in this case, as an endogenous element plays a key role in economic growth through a certain political stability (PS)?*

Our intuition is to know if political stability leads to the development of Islamic finance, on the one hand. On the other hand, this work clarifies the relationship between Islamic financial development and growth by existing political stability or instability.

This first concerns the effect of the development of Islamic finance (**IDF**) on economic growth (**GDP**). The results found show that the development of Islamic finance (**IDF**) is significant at **10%** and positively (**0.5143**) colored with economic growth. In this context, Mamun A., Basher S, Hoque N, and Ali M. (2018) examined the role of stock markets in the economic growth of four Asian countries, namely Bangladesh, India, and China. In the short term, they have noticed that stock markets also have a positive relationship with economic growth in all countries. Also, Pradhan, Arvin, Hal and Bahmani (2014), studied the relationship between banking sector development, stock market development, economic growth, and four other macroeconomic variables while using a principal component analysis for development indices and a panel vector autoregressive model to test for Granger causality, this study finds both unidirectional and bidirectional causal links between these variables.

Moreover, some studies consider that Islamic finance can have an effect on improving financial development and accelerating growth (Chapra, 1993, Kazarian, 1993). In addition, Islamic finance also appears to play a role in economic development through the mobilization of savings and Islamic finance also seems to play a role in economic development through the mobilization of savings (Zaher and Hassan, 2001)¹⁰. Khan and Mirakhor (1994) complement this vision by showing that Islamic monetary policy takes place in a framework where all the classical tools.

¹⁰ **Zaher and Hassan (2001):** ‘‘A Comparative Literature Survey Of Islamic Finance And Banking’’. *Financial Markets, Institutions & Instruments*, Vol. 10, N^o. 4, pp: 155-195.

Then, the effect of the action of the public power (**GE**) remains always significant to 1% and positively colored (**0.61**) with the political stability (**PS**), two institutional indicators are very related and complementary. **Directly**, the action of the public power (**GE**) has a positive impact (**1.16**) and significant to **1%** with the economic growth. **This effect indirectly** reflects a positive relationship between political stability (**PS**) and economic growth in the MENA region [Positive (**0.61 * 1.17**) and significant (**1% * 1%**)].

According to Marc Simard (2012), political stability is the secession of a state suggests that the country is unstable at the political level; this factor is considered in foreign investment in Africa; Slovakia could lack (**FDI**) if only this evaluation criterion.

In addition, the model's estimation results show the relationship between the indicator of political stability (**PS**) and the development of Islamic finance (**IDF**) is significant at 5% and negatively articulated (**-0.015**) for member countries from the MENA region. ***This result shows that the development of Islamic finance (IDF) exists when it will have a condition of political instability (the absence of political stability).***

However, the rules applied by Islamic institutions are based on the principles of Anglo-Saxon theories of organizations, on the one hand, and Islamic law, on the other. The directors of these institutions are in fact subject to governance rules that are at the same time shareholding, partnership and religious¹¹.

¹¹ **Imane Bari and Bouchra Radi (2011)** : “Beyond the crisis. Is Islamic finance a means of regulation?”. [Au-delà de la crise. La finance islamique est-elle un moyen de régulation ?]. *Revue internationale d'éthique sociale et gouvernementale*. Vol. 13, N° 2

V. CONCLUSION

The link between the development of Islamic finance and economic growth via the governance indicator "political stability" proposes another angle of research to clarify the direct and indirect effects of political stability on Islamic finance and economic growth . The central question raised in this section is to highlight the effectiveness of the development of Islamic finance to stimulate economic growth in a context of political stability for our region of study (MENA) and during the period (1990-2018).

En effet, il est nécessaire d'adopter la notion de la gouvernance au niveau de l'efficacité du pouvoir public pour lutter contre corruption en améliorant la productivité des nations surtout les régions d'étude. En comparant les résultats trouvés à partir des estimations différents pour le cas la zone MENA. La qualité de gouvernance (efficacité gouvernementale) montre quelques défaillances pour la région MENA au niveau des décisions d'investissement dans le secteur public surtout dans les secteurs productifs. Selon Laffont (1998) : « *les pays en développement souffrent de la faiblesse de leurs institutions, déterminées par l'inefficacité du système d'imposition, l'insuffisance de compétences en management, la faiblesse de la connaissance technologique, la corruption, l'inefficacité du marché financier, la faible crédibilité des Etats, les phénomènes de capture* ».

D'ailleurs, l'efficacité de l'action publique est accompagnée par une décision de la lutte contre la corruption pour accélérer la croissance qui est une condition nécessaire et insuffisante pour le développement économique des pays. Guetat (2006)¹² a reporté que « *l'impact indirect de la corruption sur la croissance économique de long terme de la région MENA est transmis via l'investissement et le capital humain. L'implication de toutes ces recherches est que la corruption est un dommage qui affaiblit les facteurs principaux dont découle la croissance à long terme* ».

Au totale, l'ambiguïté du lien existant entre la qualité de l'action publique et le développement économique via les secteurs sociaux de base reste un autre chemin de recherche complémentaire pour enrichir ce travail qui sera traité dans le chapitre suivant.

¹² *Guetat (2006), dans sa contribution intitulée "Corruption Effect on the MENA Countries Growth", a prouvé l'effet direct et indirect de la corruption sur la croissance et elle a montré l'existence d'un impact indirect de la corruption à long terme sur la croissance de la region MENA via l'investissement et le capital humain.*

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