Interaction between Islamic finance, conventional finance and economic growth in the MENA region: Empirical study

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Abstract:

The purpose of this work is to study the empirical framework that highlights the nature of the relationship between financial development and economic growth while taking into account the role played by Islamic finance as a catalyst for economic growth in the direction of economic development. Investment and public spending and makes human work more efficient (education). Our empirical attempt looks at the impacts between traditional financial development and Islamic financial development on economic growth using several estimation methods, namely the fixed effects method, the random effects method, the GMM method in first differences and the GMM method in system for our MENA study region for twenty successive years (1990-2009).

Keywords: Islamic Finance, Conventional Finance, Economic Growth and the panel data

JEL classification: G32, E44, C13 and C33.

I- Introduction:

To analyze the link between financial development and economic growth, the majority of contributions highlight the relationship between the financial aspect (finance) and the real aspect (economy) and also the mechanisms through which the finance influences economic growth. In addition, there are other analyzes that examine the relationship between financial system development and economic growth. The work of Levine & Zervos (1998) and Beck & Levine (2004) test the relationship between stock market development, banking sector development and economic growth. In this case, the financial development indicators used by the authors are the stock market development ratio and the credit of the deposit banks granted to the private sector in relation to GDP (as an indicator of bank development).

Moreover, the main results show that the banking development indicator does not correlate significantly with economic growth, while the indicator of stock market development is significantly correlated with growth. MCO results stem from a strong positive link between stock market development and economic growth and a strong positive articulation between banking development and economic growth. In this context, the authors argue that the development of banks and stock exchanges has a positive impact on long-term economic growth. A recent study by Shen & Lee (2006) showed that the stock market has a positive effect on economic growth.

Finally, we will recall once again, first of all, that finance is a source of growth. Second, we will study the research methodology and finally, we will estimate and interpret the results found.

II – Literature paper:

1- Finance: Catalyst of Growth:

In this work, the literature will discuss the role of classical finance as a source of economic growth while taking into account the participation of Islamic banks that can not create credit like conventional banks and also that do not have a interbank market.

Indeed, Islamic finance also seems to play a role in economic development through the mobilization of savings. Khan and Mirakhor (1994) complement this vision by showing that Islamic monetary policy takes place in a framework where all the classical tools available in a modern economy are available to the monetary authorities, with the exception of the discount rate. and other tools that involve the use of interest.

In short, Islamic banks do not have the same attributes as conventional banks. The central question how does this Islamic financial system (the development of Islamic finance) contribute to the growth dynamic for the MENA region?

2- Questions and research problem:

Without doubt, the development of the Islamic financial sector plays a very important role in the totality of a country's economic development.

Indeed, many empirical studies have examined the relationship between finance and economic growth, but specific empirical studies that highlight the relationship between Islamic finance and economic growth are rare. Our empirical contribution attempts to clarify the link between Islamic finance and economic growth in some Middle Eastern countries.

In total, this work can give an answer to the following research questions.

- Does Islamic financial development have a significant impact on economic growth for our study area?

- Does Islamic Financial Development Promote Growth for MENA Countries?

a- The shackles of Islamic finance:

Among the obstacles of Islamic finance, we quote the unresolved monetary problems

• Monetary creation problem

• Absence of an interbank market

b- Econometric methods [1]

* Ordinary least squares (OLS) model

The assumptions that make it possible to use the ordinary least squares (OLS) method have a disadvantage that does not imply any heterogeneity.

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[1] **A. Mtiraoui (2017) :** « *Corruption Control, Human Capital and Economic Development :....*».P.P. 217

Given the particular nature of the panel data, this technique is biased, even if the estimators are consistent. Unlike the ordinary least squares method, panel data can track an individual **i (i = 1** to **N)** over a period **T (t = 1** to **T)**, which means that the data is doubly indexed.

We thus note in a general way: $Y_{i,t} = \alpha + \gamma Z_{i,t} + \theta K_{i,t} + \delta X_{i,t} + \varepsilon_{i,t}$ **(E)**

This equation becomes:

$$GDP_{i,t} = \alpha + \gamma IF_{i,t} + \theta CF_{i,t} + \delta_1 Ed_{i,t} + \delta_2 Inv_{i,t} + \delta_3 EXP_{i,t} + \delta_4 Trad_{i,t} + \delta_5 DV_{i,t} + \varepsilon_{i,t} \quad (E')$$

Avec;

$Y_{i,t} = GDP_{i,t}$ (Growth indicator)

$Z_{i,t} = IF_{i,t}$ (Islamic finance)

$K_{i,t} = CF_{i,t}$ (conventional finance)

$X_{i,t} = (Ed_{i,t}, Inv_{i,t}, EXP_{i,t}, Trad_{i,t}$ et $DV_{i,t})$ dont $DV_{i,t} =$ (dummy variable)

$\varepsilon_{i,t} = \alpha_i + \mu_{i,t}$ où α_i and $\varepsilon_{i,t}$ are correlated random disturbances.

The estimation of the equation allows us to adopt a specification in terms of a composite error model.

* Generalized Moment Method (GMM): Dynamic Panel [2]

The "*Generalized Moments*" method in dynamic panel was introduced by Holtz-Eakin, Newey and Robsen (1988), Arrelando and Bonde (1991) and Arrelando and Bover (1995). It is characterized by several very specific advantages in terms of the nature of the data panel and the level of solutions it provides. Indeed, the GMM method in dynamic panel makes it possible to provide solutions to the problems of simultaneity bias, inverse causality and omitted variables. This method makes it possible both to control the specific individual and temporal effects and to overcome the biases. of endogenous variables, especially when there are one or more delays of the dependent variable as an explanatory variable. There are two variants of dynamic panel GMM estimators, namely the first difference GMM estimator and the system GMM estimator.

According to Blundel and Bonde (1998), presents the GMM estimator in a system that combines the first difference equations with the level equations in which the variables are instrumented by their first differences, which appears to be more efficient than the one advanced by Arrelando. and Bonde (1991) .:

- The Sargan / Hansen over-identification test.
- The Arrelano test and Bonde of autocorrelation such as the two hypotheses H0 and H1

With:

H0: lack of self-correlation of the errors of the difference equation

In our empirical work, it is clear that delayed variables persist and exist according to our theoretical development, so it will be necessary to distinguish clearly between the nature of the explanatory variables. The dynamic model is a model in which one or more delays of the dependent variable appear as explanatory variables. Unlike dynamic panel GMMs, standard econometric techniques such as OLS do not provide

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[2] **Greene (2005):** « *Econometrics. 5th edition. French translation led by Schlacther, Azomahou, Couderc, Monjon, Nguyen Van. Editions Pearson Education provided a clarification of the panel data estimate .*» .

unbiased estimates of such a model because of the presence of the delayed dependent variable to the right of the equation.It follows from biased estimates.

The GMM method is based on the orthogonality conditions between the lagged variables and the error term, both in terms of first differences and level. When the dynamic model is expressed in first differences, the instruments are in level, and vice versa. In the model to be estimated, the use of lagged variables as instruments differs according to the nature of the explanatory variables:

• For exogenous variables, their current values are used as instruments.

• For predetermined or weakly exogenous variables (variables that may be influenced by past values of the dependent variable, but remain uncorrelated to future achievements of the error term), their lagged values of at least one period may be used as instruments.

• For endogenous variables, their delayed values of two or more periods can be valid instruments. The validity of the selected instruments can be confirmed or invalidated, based on the Hansen and Sargan tests. There are two variants of the dynamic panel GMM estimator: The GMM Differential Estimator and the GMM System

Table N° 1: summary of the methods used

Nature of the explanatory variables	Delayed variables
Exogenous variables	Their current values
Variables slightly exogenous	Their values delayed by at least one period
Endogenous variables	Their values delayed at least two periods

Source: *work done by the authors.*

Thus, variables that can be influenced by the past of the dependent variable but remain uncorrelated to future achievements of the error term. The subject model has both a problem of endogenous variables and a correlation between the delayed endogenous variable and the residues. Any convergence model is dynamic and, as such, introduces additional endogenicity into the explanatory variables.

In total, the dynamic models are treated in first differences by the method of generalized moments. In this framework of analysis, Anderson and Hsiao (1982) propose using the delayed first differences of the endogenous variable as instruments.

Arellano and Bond (1991) add to this list of instruments the delays of the endogenous variable by showing their orthogonality to residues. Then, we will use the Generalized Moment Method (GMM) based

on dynamic panel data that is used as both incoming and outgoing instruments, which yields a double result either by aggregation or by synthetic measurement.

❖ **The principle of the GMM method**[3]

• <u>The principle of the GMM method</u>*:*

The first difference GMM estimator D'Arellano and Bond (1991) consists in taking for each period the first difference of the equation to be estimated in order to eliminate the individual specific effects.

We are getting:

$$\Delta\ GDP_{i,t} = \alpha + \beta\Delta GDP_{i,t-1} + \gamma\ \Delta IF_{i,t} + \theta\Delta CF_{i,t} + \delta\Delta X_{i,t} + \Delta\varepsilon_{i,t} \qquad \textbf{(E'')}$$

It is then a question of instrumentalizing the endogenous variable delayed by its past values of 2 periods and more. However, this method does not make it possible to identify the effect of invariant factors over time.

In addition, Blundel and Bond (1998) have shown using Monte Carlo simulations that the GMM system estimator performs better than the raw difference one, which gives biased results in finite samples when the instruments are used. low.

• GMM in system

The GMM system estimator by Blundel and Bond (1998) combines the first difference equations with the level equations. The instruments in the equation in first differences are expressed in level, and vice versa. We use the Stata11 software, the Hausman test leads us to adopt the random effects model. It also provides a simple description of the dataset used. $\Delta\ Y_{i,t} = \alpha + \beta Y_{i,t-1} + \gamma\ \Delta Z_{i,t} + \theta\Delta K_{i,t} + \delta\Delta X_{i,t} + \Delta\varepsilon_{i,t}$

(E*)

$$Y_{i,t} = \alpha + \beta Y_{i,t-1} + \gamma\ Z_{i,t} + \theta K_{i,t} + \delta X_{i,t} + \varepsilon_{i,t}$$

With : **Y** la variable endogène; **X** , **K** et **Z** sont des variables exogènes; (α, β , θ et δ) the parameters to be estimated; $\varepsilon\_$ (i, t) the error term. α_i is a common fixed effect term (constant) et $\varepsilon_{i,t}$ is the term of disturbance, i denotes countries with i = 1,2, ..., N; N is the number of countries and t denotes time periods with t = 1, 2, ..., T; T is the number of periods of time. The main tests in dynamic panels, are based on the following assumptions, to accept. - Sargan test: H0. The instruments are valid.
- Absence of serial correlation of residues.
H1: Negative 1st order correlation of the residues.
H0: 2nd order correlation of residues.

• *Description of the model*

To empirically study the role played by financial development on economic growth, the following simple model is used:

$$GDP_{i,t} = \alpha + \beta\ GDP_{i,t-1} + \gamma\ IF_{i,t} + + \theta CF_{i,t} + \lambda\ X_{i,t} + \varepsilon_{i,t} \qquad \textbf{(E-1)}$$

This function will be developed and it becomes: $GDP_{i,t} = \alpha + \beta\ GDP_{i,t-1} + \gamma\ IF_{i,t} + + \theta CF_{i,t} +$
$\delta_1 Inv_{i,t} + \delta_2 EXP_{i,t} + \delta_3 Ed_{i,t} + \delta_4 Trad_{i,t} + \delta_5 DV_{i,t} + \varepsilon_{i,t} \qquad \textbf{(E-2)}$

We have created a properly macroeconomic database and the IBIS database [4].

c- Theoretical model [5]

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[3] **Mohamed Goaied and Seifallah Sassi (2012)** : « *Econometrie of panel data under STATA the way of estimating and using software*».*P.P. 39-42.*
[4] http://www.ibisonline.net/

In an environment where Islamic finance prevails, there are principles and rules to be followed to promote economic growth, and this relationship between the two spheres is addressed by several studies and empirical methods and diversified modelsIndeed, Arellano and Bo nd (1991) propose a more efficient estimator based on the use of additional instruments, then determining a set of conditions on moments, hence the name of estimation by the generalized method of moments (MMG)[6]. The Arellano and Bond estimator has been widely used for the estimation of panel68 data investment functions (eg Bond and Meghir, 1994, Jaramillo, Schiantarelli and Weiss, 1996 and Mairesse, Hall and Mulkay, 1999). The GMM in first difference of Arellano and Bond (1991)[7] consists in taking for each period the first difference of the equation to be estimated in order to eliminate country specific effects, and then to instrument the explanatory variables of the first difference equation by their level values delayed by one or more periods. In addition, the second difference GMM estimator is obtained by a two-step estimation method.[8]. From a conceptual point of view, we will study the relationship between the development of the Islamic financial sector and economic growth for a few countries in the MENA region. Blundell and Bond (1998) have shown that in the case where the variables are persistent over time, the delayed values of these variables are weak instruments of the first difference equation. This influences the asymptotic and finite sample performance of the GMM difference estimator.

III- Research 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 economic growth.

1- Sample and period

a- Sample[9]

Our region is a sample which consists of 15 countries namely Bahrain, United Arab Emirates, Jordan, Kuwait, Qatar, Saudi Arabia, Bangladesh, Indonesia, Malaysia, Pakistan, Turkey, Egypt, Iran, Sudan, Yemen.Our sample is made up of 15 MENA-shared countries and we have built a database of the truly international macro data available in "World Bank CD"

b- Period:

The sample of selected countries is made up of 15 MENA countries: 2 African countries, 8 Gulf countries, 5 East Asian countries and the Pacific. Depending on the availability of data, our study period extends from 1990 to 2009 over a period of 20 years. The great diversity in terms of geography and in terms of country performance makes it possible to increase the robustness of our analyzes.

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[5] **Abderraouf Mtiraoui (2009)** : « *Openness, Human Capital and Economic Growth in MENA: Dynamic Panel Application (GMM)»*.P.P. 215.

[6] http://theses.univ-lyon2.fr/documents/getpart.php?id=lyon2.2001.joumady_o&part=46624

[7] **Arellano, M. et Bover, O. (1995) :**« *Another look at the instrumental-variable estimation of error-components models* », Journal of Econometrics 68, 29–52.

[8] **Rym Ayachi Ammar , Mehrez Ben Slama and Dhafer Saidane (2013) :** Does the current practice of Islamic banks promote growth? ". Studies in Islamic Economics, Vol.6, No 1&2,p.p. 12

[9] **Rym Ayachi Ammar , Mehrez Ben Slama and Dhafer Saidane (2013) :** "Does the current practice of Islamic banks promote growth? ". Studies in Islamic Economics, Vol.6, No 1&2,p.p. 12

2- Definitions and measures of variables

a - Growth indicator

We chose the GDP per capita growth rate (Levine et al., 2000, Beck et al., 2000, and Beck and Levine, 2004).

b- Financial Development Indicators

We propose the following indicators.

Depth

This variable is proposed by King and Levine (1993a, b). In this context, King and Levine (1993a, b), Levine et al. (2000), Kpodar (2005) admit a significant correlation between financial development and economic growth. To measure the financial depth (Depth), King and Levine (1993a, b), Levine et al. (2000), Kpodar (2005) use the M3 aggregate corresponding to the liquid liabilities of the financial system divided by GDP. In our work, we use the M3 / GDP aggregate provided by the IBIS database for our sample of Islamic banks. This measure is an indicator of the development of Islamic finance and includes the liquid assets of the liabilities of Islamic banks.

Islamic financing.

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 FI (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. In our work, we use the value of Islamic financing which is equal to the sum of the following operations:

Investment

Abu-Bader and Abu-Qarn (2008) include the investment-to-GDP ratio in order to determine whether financial development affects economic growth by improving efficiency or, indirectly, by increasing investment resources rated Inv (Invest / GDP). In our variable work reflects the financial development measured not only by the retail activity but also by the banking activity.

Control Variables.

For this work, we have used the public expenditure / GDP (EXP) ratio as an indicator of macroeconomic stability (Easterly and Robelo (1993) and Fisher (1993)) as the control variables for this work, the value ratio of trade (export + import) / GDP to capture the degree of openness (Sachs and Warver (1995)) noted (Trad) and

The tertiary enrollment rate to control the accumulation of human capital noted (Ed).

Mute variables

We use this nature of variables (variable dummy: DV) 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.

2- Empirical model:

In the specificity of the model, we used macroeconomic variables. We explain the nature of the effects of these variables on growth, we use a then fixed or random model to study the effects of variables on growth over a very well-defined period while updating the data used and while changing endogenous variables and exogenous variables.

Indeed, we seek to quantify the impact of financial development on growth. We refer to the methodology of Beck and Levine (2004). Thus, to measure the impact of Islamic financial development on economic growth, we use the Generalized Moment Method (GMM) developed for dynamic panel models by, Arellano and Bond (1991) and Arellano and Bover (1995).

The estimated model is as follows. It also provides a simple description of the dataset used.

$$Y_{i,t} - Y_{i,t-1} = \beta Y_{i,t-1} + \lambda X_{i,t} + \varepsilon_{i,t} + \mu_t + \eta_t$$

$$Y_{i,t} - Y_{i,t-1} = \beta Y_{i,t-1} + \gamma Z_{i,t} + \theta K_{i,t} + \delta V_{i,t} + \varepsilon_{i,t} + \mu_t + \eta_t$$

$\mu_t + \eta_t$ are respectively the unobservable and identifiable factors that affect all countries in the sample at time t.

- The second equation is defined by: $X_{i,t} = (K_{i,t}, Z_{i,t} \ et \ V_{i,t})$'et $\lambda = (\gamma, \theta, \delta)$

VI- Estimates, interpretations and conclusions

1- Descriptive analysis

a- Descriptive statistics

Table N° 2: Descriptive statistics of variables

Variables	Obs.	Mean.	Std. Dev.	Min.	Max.
GDP	320	4.79819	4.861579	-10.04967	33.99047
CF.	320	8.045258	46.59423	0.0000383	540.1351
Inv/PIB	320	1.271845	5.012045	-6.462162	24.01051
IF.	320	0.1149592	0.6755422	0.0000177	11.98022
EXP	320	0.5677975	0.1441396	0.1666667	0.8733797
Ed.	320	1.110093	0.3253679	0.0002012	1.663964

Trad.	320	- 0.2142848	1.27513	-4.670521	1.740128
VD	320	0.8125	0.3909237	0	1

Table N° 3 : *Matrix of correlations between variables*

Variables	GDP.	CF.	Inv/GDP	IF.	EXP/GDP	Ed.	Trad.	VD
GDP.	1.0000							
CF.	-0.1101	1.0000						
Inv/GDP	0.0837	0.6848	1.0000					
IF.	-0.0282	0.0294	-0.0604	1.0000				
EXP/GDP	0.0919	-0.0682	-0.0978	-0.1328	1.0000			
Ed.	0.0747	0.0219	0.0598	0.0255	-0.0747	1.0000		
Trad.	0.1471	-0.0091	-0.0143	-0.2016	0.6362	0.1338	1.0000	
D.V	0.0463	0.0741	0.1174	0.0600	-0.0025	-0.1823	-0.2423	1.0000

From the Correlation Matrix Table, we note that there is a strong positive correlation (greater than 0.5) between conventional finance (CF) and the ratio of investment to   GDP (Inv / GDP) **(0.6848)**.

In addition, there is a weak negative relationship between education and the dummy variable (Dummy) **(-0.2423)**.

  2- Simple **regression**

Table N°4: *Simple Regression of Finance on Economic Growth*

Number of obs = 320 **F(7, 312)** = 5.27 **Prob > F** = 0.0028						
R-squared = 0.485 **Adj R-squared** = 0.272						
GDP	**Coef.**	**Std. Err.**	**t**	**P>|t|**	**[95% Conf. Interval]**	
CF.	-0.0017897	0.0079514	**(-3.25)****	0.0213	0 .0255769	.0057134

Inv/GDP	-0.0357183	0.0749202	-0.48	0.634	-0.183131	0.1116944
IF.	-0.0802814	0.0749202	**(-1.96)***	0.044	-0.183131 0.1116944	
EXP/GDP	-0.9371529	2.530136	-0.37	0.711	-5.91544	4.041134
Ed.	1.102354	.8611983	1.28	0.201	-0.5921367 2.796845	
Trad	0.6888273	.2970493	**(2.32)***	0.021 .	0.1043542	1.2733
V.D	1.430727	0.7367556	**(1.94)***	0.053	-0.018911 2.880365	
Cst.	3.220107	1.958773	1.64	0.101	-0.6339677	7.074181

Source: *the Stat11 output made by the authors*

The results in this table indicate that the growth indicator **(GDP)** and financial development indicators (**IF** and **CF**) are two negative coefficients respectively **(-0.00099)** and **(-0.03),** so the share of these two variables is not explanatory since the effects on the growth indicator (**GDP**) are negative.

The equation, in this case, is written as follows:
$$GDP_{i,t} = 3.2201 - 0.001783 \ CF_{i,t} - 0.035 \ Inv_{i,t} - 0.937 EXP_{i,t}$$

(T-St)   *(1.64)*   *(-2.25)*   *(-0.48)*   *(-0.37)*

$$-0.08028 IF_{i,t} + 1.430 \ DV_{i,t} + 0.688 Trad_{i,t} + 1.102 ED_{i,t} + \varepsilon_{i,t} \qquad (E)''$$

(-1.96)   *(1.94)*   *(2.32)*   *(1.28)*

The explanatory power (**R^2**) is less than **0.48** of which (**R-Squared** = **R^2 = 0.2175**). This explains the residual power formed by other variables can be among the variables of the equation.

3- Estimates, interpretations and comments

A-Estimates

Table N°4: *Regressions by four estimation methods*

Regs Vbles	Eq (1)	Eq (2)	Eq (3)	Eq (4)
GDP$_{i,t-1}$	-----	-----	.2031842 (3.36)***	0.182997 (3.82)***
Cste	2.66e-15 (0.62)	-7.94e-15 (-0.66)	12.28671 (2.96)***	0.1829971 (3.82)***
CF	-1.60e-17 **(-3.34)***	-4.66e-18 (-0.87)	-0.0227013 (-2.36)***	-0.1702166 ((-1.84)*

Inv/GDP	3.71e-16 (**4.68**)***	8.15e-17 (0.92)	-0.117447 (-0.44)	-0.2313967 (-1.38)
IF	-8.33e-17 (-1.93)*	3.41e-16 (2.01)**	-0.1479271 (-0.38)	-0.03152082 (-0.88)
EXP/PIB	-5.01e-15 (-1.93)*	1.36e-15 (0.47)	-2.939561 (-0.60)	-2.4528742 (-0.55)
Ed	1.39e-17 (0.01)	-1.02e-14 (-6.26)***	-5.5674861 (-2.18)**	-3.365841 (-1.89)*
Trad	4.22e-14 (**2.83**)***	3.88e-15 (2.45)***	2.455997 (0.63)	.3255109 (037)
V.D	-------	1.83e-14 (1.45)	-----	7.067355 (2.24)***
N.Obs.	320	320	288	304
F.	12.000	-----	0.356	0.298
T.Wald			23.50	30.46
Sargan-T $\square^{\square}\square\square$	-----	-----		
Prob >chi2	0.00010	0.00000	0.0001	0.00002

Source: *the Stat11 output made by the authors*

➕ **Equation N° 1 :** We use the fixed effects method

➕ **Equation N°2:** We use the random effects method.

➕ **Equation N°3 :** GMM in difference: Arellano- Bond (1991)

➕ **Equation N°4 :** GMM in system: Blundel et Bond (1998)
➕
➢ ***** Significant at 1%, ** Significant at 5%, * Significant at 10%.**

b- Interpretations:

Table N°5 presents the results obtained, while estimating the growth model based on four estimation methods namely the fixed effects method, the random effects method, the GMM method in first differences and the method. from GMM to the system for our region.

➢ *The fixed effects method*

The results of equation N ° 1 show that Islamic finance (**IF**) has a negative effect   (**-8.33e-17**) and a significant 10% on growth (**GDP**) so for conventional finance (**CF**) is negatively significant **1%** for MENA countries.

Indeed, an increase in **IF** to **10%** introduces an **8**-point decrease in economic growth, while a **1%** increase in **CF**(Depth) hinders economic growth (Icran) with a drop of **1.6.**

In addition, the indicators (**Inv / GDP**) and (**Trad**) have two positive and significant effects on economic growth, which favors the idea of a growth engine. Almost an increase of (**Inv / GDP**) and (**Trd**) at **1%** introduces a successive rise of 4 and 5 points.

In this context of estimation and apart from the indicators (**Inv / GDP**) and (**Trad**) that collaborates most empirical studies, the **IF** and **CF** do not validate the hypothesis that Islamic finance plays an important role as a catalyst of growth in the sense of Schumpeter recently.

➢ *The random effects method*

The results of Equation 2 show that Islamic finance (**IF**) has a positive effect (**3.4**) and a significant **5%** on growth (**GDP**) so for conventional finance **CF** is negatively insignificant for MENA countries.

In fact, an increase of **IF** to 5% introduces a 3.4 point increase in economic growth. Also, the indicator of commercial openness (**Trad**) is significantly positive in relation to the indicator of growth (**GDP**) which approves the review of the existing literature. Moreover, some studies consider that Islamic finance can have an effect on improving financial development and accelerating growth (Chapra, 1993, Kazarian, 1993, Siddiqui, 1983). In addition, Islamic finance also appears to play a role in economic development through the mobilization of savings (Zaher and Hassan, 2001). Khan and Mirakhor (1994) complement this vision by showing that Islamic monetary policy takes place in a context where all the classical tools.

➢ *The GMM method of Arellano and Bond (1991) in difference*

In this framework of estimations, we have introduced each time a variable passing through the following indicators **CF, EXP / GDP**, **Ed** and Trad in the first place, we finally manage to regress all the used variables including **IF**, **Inv / GDP** and **V.D** on the economic growth (**GDP**) for the GMM method of Arellano and Bond (1991) in difference.

The results of equation N ° 3 show that conventional finance (**CF**) has a negative (**-0.22**) and significant **1%** effect on growth (Icran) so for Islamic finance is negatively insignificant for MENA countries. The same thing for education (**Ed**) has a negative effect (**-5.56**) and significant at 5% on growth (**GDP**).

In this context of estimation, it is not possible to validate the hypothesis that Islamic finance plays, for the moment, an important role as a growth engine within the meaning of Schumpeter.

➢ *GMM method of Blundel and Bond (1998) in System*

In this framework of estimations, we have introduced each time a variable passing through the following indicators **CF, EXP / GDP**, **Ed** and **Trad** in the first place, we finally manage to regress all the used variables including **IF, Inv / GDP and DV** on economic growth (**GDP**) for the GMM method of Blundel and Bond (1998) in System.

In fact, the results of Equation 4 show that conventional finance (**CF**) has a negative (**-0.17**) and a significant 10% effect on growth (**GDP**) for MENA countries.

Moreover, an increase of 10% in **CF** (**M3 / GDP**) is hindering economic growth (**GDP**) with a drop of almost one point.

In this context of regression of the equation N ° 4, ***the estimate does not approve the hypothesis that Islamic finance is a growth engine in the sense of*** *Furqani and Mulyany (2009) and Majid and Kassim (2010[10]).*

c- Comments

We performed almost four different regressions according to the method adopted to interpret the good result.

Indeed, empirical checks on the link between Islamic financial development and macroeconomic growth are very limited in the sense of these authors namely: Abduh and Omar (2012)[11], Abduh and Chowdhury (2012)[12], Furqani and Mulyany (2009)[13] and Majid and Kassim (2010). In addition, ***the unavailability of data in Islamic finance for the majority of MENA countries does not help to clarify the important role of finance in general as a catalyst for economic growth.***

Despite these shortcomings of the data, there are empirical studies and attempts that show the weight of finance to the economic circuit and in this sense other works consider above all Islamic finance as playing an important role in the fight against social exclusion and improving well-being (Bremer, 2004 and Ebrahim, 2009). Certainly, ***beyond their role in providing social services, Islamic charities have served as redistributive mechanisms to reduce gaps and inequities by providing aid to the poor.***

These organizations offer the opportunity to the rich to be in solidarity with the poor. They recognize their obligations to help and fight against poverty its causes and effects (Bremer, 2004 and Ebrahim, 2009).

All in all, this type of work examines the link between financial development (financial sphere) and economic growth (real sphere) during small periods of five years, so our contribution on the one hand clarifies this relationship for twenty successive years (long period) and for countries from different continents (golf country, North Africa country, Asian country).

V- Conclusion:

In our study, we examined the role of Islamic finance from the banking system that describes the financial development of nations and promotes economic growth for many authors.

Indeed, for our study region (MENA) which consisted of 15 countries, out of five period from 1990 to 2009, we estimated by four different methods namely the fixed effects model (this type of work exists in the empirical review), the random effect model (few studies persist), the dynamic panel model according to the Arellano and Bond (1991) approach, while regressing the type of the model by adding a variable each time (in first difference), and according to the contribution Blundell and Bond (1998) while integrating the data into a system (this type of contributions and econometric contributions are not numerous).

In our estimation, the three variables measuring the development of Islamic finance (**Depth, Invest / GDP** and **IF**) are statistically significant. ***The depth of Islamic finance (Depth) measured by the ratio M3 / GDP has a negative sign. This reflects the fact that this financial deepening, measured by the increase in the money supply in the presence of an unfavorable environment can not be effective.***

[10] **Majid, S.A. et Kassim, S. (2010),** "*Islamic finance and economic growth: The Malaysian experience*", In: Kuala Lumpur Islamic Finance Forum, Kuala Lumpur, 2-5.

[11] **Omar (2012),** « *Islamic banking-growth nexus: Evidence from todayamamoto and bootstrap granger causality test* ». J. Islamic Finance, 1: 59-66.

[12] **Abduh and Chowdhury (2012) :** « *Does Islamic banking matter for economic growth in Bangladesh?* » J. Islamic Economics, Bank. Finance, 8: 104-113.

[13] **Furqani, H. et Mulyany, R. (2009**), « *Islamic banking and economic growth: Empirical evidence from Malaysia", Journal of Economic Cooperation and Development* », Vol. 30, pp. 59-74. Available from: www.sesric.org/files/article/308.pdf

On the other hand, Islamic financing (IF) and Investment (Invest / GDP) have a positive sign. ***These two indicators have a positive impact on economic growth In Equation N • 2 which validates the hypothesis that Islamic finance plays, for the moment, an important role as a growth engine in the literal sense of the literature*** .

In addition, the effect of this bank credit on the growth indicator of MENA countries shows Islamic banks are limited effects on growth may be a consequence of the non-maturity of the Islamic financial system.

Zaher and Hassan (2001)[14] also show that size is one of the major challenges that Islamic banks will face in the next few years in order to better assert their competitiveness. ***This weakness in size does not favor the economies of nations.***

In total, there is also the question of monetary creation which remains embryonic in academic work. This last aspect of macro-monetary nature is undoubtedly one of the points to be clarified through further studies.

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[14] **Zaher, T. S. et Hassan M. K. (2001) ;**« *A Comparative Literature Survey Of Islamic Finance And Banking »*, *Financial Markets, Institutions & Instruments*, V. 10, No. 4, pp: 155-195 November.

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