

Financial Development and Economic Growth in the MENA Region : What about Islamic Banking Development

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Abstract

The purpose of this paper is to give firstly the theoretical advantages of Islamic banking and the main developmental characteristics of its financing modes and secondly; we assess empirically the relationship between the financial development and growth in some countries in the MENA region. We try to check the specific effect of Islamic sector on the economic growth using the amount of credit issued to the private sector by Islamic banks as measures of Islamic financial development. Thus, peculiarities of Islamic financial system will be detected.

The empirical study is conducted using an unbalanced panel data from 16 MENA region countries. We present evidence based on system GMM estimation of a dynamic panel model. Our empirical results show a no significant relationship between banking and growth which reinforce the idea that banks don't spur economic growth. Besides, we find for some specifications that the banks indicator is significantly negative associated with growth. Another finding is that Islamic banks don't make the exception in the financial markets and show a weak relation with growth but it tends to act positively as theoretically demonstrated.

Finally, we demonstrated that the relationship between the financial development and growth is quite heterogeneous across MENA countries where the relation is negative for Petroleum Exporting MENA Countries and positive but not significant in MENA countries without oil manna.

JEL classification: E44; O16; C33

Keywords: Financial Development, Economic Growth, MENA Region, Islamic Banking.

January 2010

INTRODUCTION

The literature on the relationship between the financial development and growth is well developed. It goes back to the works of Schumpeter (1912), Gurley and Shaw (1960), McKinnon (1973), Shaw (1973). According to the theory, the development of the banking industry is favorable to the economic growth because the activity of the banks increases the mobilization of the saving, improve the efficiency of the resources allowance, and stimulate the technological innovation. However, some experiences of policies aiming the financial liberalization failed to enhance the financial development and the economic growth. This finding is considered as shortcoming for studies which highlight the strong relationship between financial development and economic growth. This doubt persisted with the numerous applied studies: If most studies (including the most recent) emphasize; in accordance with the theoretical predictions; a positive relation between the financial development and the growth (see, Levine, Loayza and Beck, 1999). Other studies like Gregorio and Guidotti, (1992); Fernandez and Galetovic (1994); Ram (1999); B.Naceur and Ghazouani (2007) ;Andersen and Tarp, (2003) and Favara, (2003) suggest that the relation between the financial development can be less general than the traditional literature think and they highlight notably that the results of the econometric studies varies according to the sample and the period considered.

In the last two decades, we see the emergence and the development of a new financial industry: the Islamic banking. This industry is characterized by banking operations excluding the use of the interest rate “interest free banking”. This banking sector have been developed everywhere through the world and record a high and unexpected growth rates.

Several theoretical studies have been undertaken in the different fields of Islamic banking. The theoretical models developed indicate that the Islamic financial system which depends crucially upon the financial instruments is superior to the conventional financial system in terms of equity stability and efficiency¹ . Many economists have highlighted the importance of Islamic financial development in the process of economic development but this relationship never has been empirically tested because aggregate data on Islamic sectors are not yet available.

The present study tries firstly to asses empirically the relationship between the financial development and growth in some MENA countries; and checks some gap which may explain the ambiguous results of the previous studies. Secondly, after the identification of the main socio-economic characteristics of Islamic financial instruments that affect the mechanism of productivity; we will assess empirically the ability of the Islamic banking industry to lead the economic development.

Finally, we try to test the heterogeneity across MENA countries by verifying relationship stability between financial development and growth for Petroleum Exporting MENA Countries and MENA countries without oil manna.

¹ See Mohsin Khan 1987

Section 1 gives to the reader an overview of the literature that focus on the relationship between the financial development and economic growth. Section 2 asses the theoretical advantages of Islamic banking and the main developmental characteristics of its financing modes.

Section 3 discusses the data sources, definitions of the variables used in our empirical work as well as the econometric modeling and section 4 present empirical results. Finally, in Section 5, some concluding remarks are presented.

1. Related literature

1.1 Financial Development and Growth: A literature review

The relation between financial development and economic growth has been recognized by the literature since six decades: Goldsmith (1969), Gurley and Shaw (1955, 1960) were the precursors. Now the financial structure became even one of the fundamentals of the economic development strategy with the impulse of authors as McKinnon (1973, 1991), Shaw (1973), Fry (1988) and recently Thornton (1991, 1994) and, King and Levine (1992, 1993). We can associate to this list the important literatures on the endogenous growth: Bencivenga and Smith (1991), Greenwood and Jovanovic (1990), Pagano (1993), etc.

Explicitly or implicitly, in all studies, we recover the idea that an efficient financial system accelerates the economic development. The main contribution of financial system to growth materialize on the fact that it assures the functioning of an efficient and evolutionary payment system, mobilize the saving and improve its affectation to the investment .So the existence of a reliable exchange system is a necessary condition for growth. The payment systems are developing in parallel and in interaction with the economic growth which involve productivity gains, and also a continuous opportunity of new markets.

Otherwise, the financial markets and banking intermediation can assure a better mobilization of the available saving and can sustain the economic growth. It facilitates the financial resources agglomeration of the economy. It allows the financial intermediation to diversify the risks associated to individual investment projects and to offer to savers more benefit investments, which promote financial saving, rather than the detention of little profitable assets. This saving reorientation can reinforce the financial system development.

The empirical studies reveal that the countries, where the saving and investment rates are the most important, have the most developed financial sectors. The experiences of many developing countries, especially of the Southeast Asia countries, suggest that a developed financial sector improve the efficiency of the resources allowance. Inversely, in a lot of countries where the growth is weak, we find a poor financial intermediation.

Goldsmith (1969) is a pioneer in the economic growth analysis and others indicators nexus. He used the ratio of the financial mediation assets to the GDP to study the available data of 35 countries between 1860 and 1963 and concludes the existence of a parallelism between financial development and economic growth. He concluded that financial structure in the economy “*accelerates economic growth and improve economic performance to the extent that it facilitates*

the migration of funds to the best user, that is, to the place in the economic system where the funds will yield the highest social return” (Goldsmith, 1969).

King and Levine (1993) study a set of systematically financial factors susceptible to affect the long-term growth of 80 countries for the period from 1960 to 1989. They used four indicators to measure the level of financial development : i) liquidity ratio that measures the dimension of financial intermediation through the liquid engagement (the sum of cashes and deposits in banks and non banking financial institutions) divided by the GDP ; ii) the ratio of the credit to private sector by commercial banks to credits by domesticates banks including the central Bank ; iii) the ratio of banking credit allocated to the private companies to the domestic credit ; iv) the ratio of the credit to private sector to GDP. Therefore most measures include the credit allowance .So the financial systems that allocate more credits to private sector are generally more implied in the development. The authors find a significantly positive correlation between the financial development level and growth, investment and capital efficiency.

The financial development can also be related to the financial market development. Atje and Jovanovic (1993), used a sample of 75 countries, and conclude a positive effect of the financial markets on the growth. In the same sense, Laroche and al. (1995) find that the development of the share market doesn't contribute to the economic growth only if there is a control of the prices' variance of stock exchange.

After Patrick (1966); Polak (1989) ; Demirguç-Kunt and Levine (1996) who confirm the relationship between financial development and growth; Beck, Levine and Loayza (1999) try to study empirically this relation with dynamic panel techniques. The contribution of this article was the use of two econometric methods to control the endogenous determination of financial intermediary development with growth and the sources of growth, they used dummies variables that controls for biases associated with simultaneity and unobserved country-specific effects (Anglo-Saxon system, Scandinavian, universal bank...). The first method uses a traditional cross-sectional data with an instrumental variable estimator; as instruments, they used the legal origin of each country to extract the exogenous component of financial intermediary development in the pure cross-sectional regressions. Then they use a cross-country, time-series panel of data and they employ dynamic panel techniques to estimate the relation between financial development and growth, capital accumulation, productivity growth, and savings rates. All estimations confirm a positive relationship between financial development and economic growth and a favorable effect of financial reforms on financial development and economic growth.

In a time-series setting, Arestis et al. (2001) focused their study on only five developed countries² with quarterly data. They confirm a robust effect of banking sector development and stock markets development on growth in these countries. More recently, Hondroyiannis et al. (2005) and Van Nieuwerburgh et al. (2006) used VAR models to assess long term relationship between financial development and growth. Hondroyiannis et al. (2005) study the case of Greece for the period 1986-1999. They find a strong link between financial development and economic growth in the long-run. Van Nieuwerburgh et al. (2006) confirm the same results for the case of Belgium where both banks and stock markets financing affect economic growth in the long-run.

² Germany, USA, Japan, England and France.

Finally, Huang et Lin (2009) reexamine the dynamic relationship between financial development and economic growth on the dataset used in Levine et al. (2000). Using a novel threshold regression with the instrumental variables approach, they support a positive linkage between financial development and economic growth and detect that financial development has an important effect on growth in low-income countries.

1.2 The paradox of the relationship between financial development and growth:

Empirical studies dealing with financial development and growth give some conflicting results. In contrast with the theoretical finding which highlight the positive correlation between financial development and growth³; Andersen's & Tarp (2003) sustain that this positive relationship become negative when the sample is limited to African and Latin American countries. They conclude that the positive effect of the financial development on growth is not sufficiently sustained by the empirical works.

Ram (1999) find on the basis of yearly data set of 95 countries on the period 1960-1989, that the positive and significant relationship between the ratio of liquidity and the growth of the GDP per capita appears only for nine among them. The relation is negative for 56 countries and 16 among them are significant at 5%. Luitel & Khan (1999) detect a negative relationship between financial development and economic growth on seven among ten countries of the used sample.

Gregorio & Guidotti (1992) found a negative and significant impact of the financial development on the growth when the sample is restricted to the Latin American countries. Fernandez and Galetovic (1994) used the same data of King & Levine (1993) and they subdivided it in two sub-samples (OECD countries and others countries). They show that the relationship decreases and becomes non-significant for the OECD countries.

Favara (2003) reexamine empirically the link between the financial development and growth based on transversal data and on panel data with a variety of econometric methods. Two indicators of financial development have been used: The liquid liabilities and the credits to private sector. On cross section data financial development appears positively correlated to the growth in OLS estimates, but this relation disappears when the endogeneity of the financial development treated using the legal origin as instrument. With GMM dynamic panel data estimation, there no evidence on the impact of financial development on growth pattern. As well as the results based on Pooled Mean Group estimator are also ambiguous and non robust.

Aghion, Howitt and Mayer-Foulkes (2004) also find a non significant effect of the financial development on the economic growth. However, the coefficient of the crossed variable of the level of financial development and the initial level of the GDP per capita (relative of those of the United States) presents a significant and negative sign.

In the same vein, Bolbol et al. (2005) study the case of Egypt for the period 1974-2002. They find a positive effect of stock market development indicators on TFP and a negative effect of banks development on productivity. More recently, Ben Naceur & Ghazouani (2007) use a sample of 10

³ see Levine & al 2000

MENA countries and show that the relationship between bank development and growth is negative and significant when controlling for stock market development by using stock market capitalization over GDP as a measure of equity market development.

Finally, this paradox can be linked to underdeveloped financial systems in some countries and the high degree of financial repression in some region. The ambiguous results can be attributed also to the imperfection of the financial development indicators that measure only intermediation activity of financial sectors and omit some features like the financial innovations of the banking system and the efficiency of the financial intermediation. Some economists⁴ explain this finding by a non-linear relationship between finance-growth where this relation depends on a threshold of development.

2. Islamic Banking and Development

The Islamic bank is an institution which its main activity, likely to conventional bank, is the mobilization of funds from the savers and the offer of these funds to the agents having a deficit (companies, business men) and lead all banking activities without the use of interest rate.

So the role and the functions of Islamic bank, like all other bank are besides extremely useful and socially desirable. Unfortunately the role of conventional banks is tarnished by the practice of the interest that limits their activities to operations of money trade. The conventional banks finance more the operations in short-term and personal loans. It doesn't answer the needs of the venture capital so their effect on the economic development will be less the real potential.

The Islamic banks improve more in two senses. Firstly, the Islamic banks offer capital lending more to the process of production and, by its instruments; it aims to contribute in companies' capital. The affectation of the financial resources according to the requirements of production is more efficient than the allocation according of pure lending. It is waited that their impact on the economic development will be more important. Secondly, Islamic banks guarantee to Muslim people that their contract would not include elements of interest, which are forbidden in Islam.

Financial development is an important component of the overall development strategy. And seen the success of Islamic banks, that is characterized by an annual growth rate superior to 11% during the last three decades, several international banking institutions joining the rally by started by establishing their own Islamic units, windows or branches to capture the opportunity.

Some economist believes that this modern generation of banking lead better financial development and growth than conventional banking.

2.1 The advantages of Islamic banking

The Islamic banks provide the same contributions to the financial system and to the economy as the conventional banks, and its present some relative advantages which can be summarized as described below:

⁴ Deidd et Fattouh (2002), Khan et Senhadji (2004), Gaytan et Rancièrè (2004), Rioja et Valev (2004a,b), Kettèni et al. (2007) ; Huang et Lin (2009).

2.1.1 Islamic banks are more efficient

The Islamic banks are more efficient since they are not based on the volatile principle of the interest rate. Friedman (1969) has demonstrated that a zero nominal interest rate is a necessary condition for an optimal allowance of resources. Fixing a zero interest rate, traders will have no reason to substitute real resources for money, so more resources will be conducted to investments. Therefore when fixing a positive price for money, traders would economize money for a fixed return and to reduce their transaction costs. It's demonstrated empirically that zero interest rate is both necessary and sufficient for efficiency allocation in general equilibrium models (Wilson, 1979; Cole and Kocherlakota, 1998).

By excluding interest principle from its mechanism, Islamic banks exclude all speculative activities related to interest rate expectations. Change in money flow will directly reflect on real sphere by a change in demands and supplies of goods and services. Islamic bank integrate the real economic sphere by the use of others rates where the time money value is maintained like the rate of profit-sharing in Mousharaka, markups rate in Moudaraba and a rental rate in leasing. Thus Islamic bank would operate more efficiently.

2.1.2 Economic system stability

International monetary fund⁵ and World Bank consider that the Islamic financial system is steadier and less inflationary than the conventional system based on the interest rate.

On the basis of “z-scores” analysis, Cihák and Hesse (2008) proved that Islamic financial system is financially stronger and less risky than conventional banks. In the conventional system, a depreciation of assets due to an exogenous shock downgrade the bank Equity capital, since its depositors has fixed value securities (the deposits), what risks to provoke the bankruptcy. In an Islamic system, the possessors of investment accounts don't have fixed value securities, in macroeconomic or bank-specific crises investment depositors automatically share the risk, what allows an adjustment of the liability in case of asset reduction.

In the same way, if a borrower can't pay back at time his debts for a difficult circumstance or floating period in the conventional system; he is obliged to pay penalty rates of interest, which are higher than regular rates. In the Islamic bank, the debt value and the profit rate or the mark-up are fixed in advance. So in a proved difficult period and not an irresponsible management, the value of debt can be repaid in installments without an increase in its total value and only financial costs will be paid. So in the two sides, Islamic banks are more reliable than conventional system.

Other argument of the stability of Islamic system puts the fact forward that the Islamic banking system cannot create money and that it is not therefore inflationary. Therefore Islamic banking system is relatively more stable when compared to conventional banking.

⁵ FMI Bulletin, Volume 37, Numéro 6

2.1.3 Reduction of moral hazard and adverse selection problems

Since banks operate in an environment characterized by the asymmetry of information, Islamic bank will benefit certainly from the risk reduction of moral hazard and adverse selection by providing equity and debt finance simultaneously. In addition, by sitting on the firms' boards of directors banks could influence corporate governance and are able to control the performance of the firms financed for a more reduced cost than the conventional banks. Thus Islamic banks are likely to be more efficient in monitoring and surveillance by reducing risks of adverse selection and moral hazard.

2.1.4 More conducive to poverty alleviation

Since the most important criteria for financing project in the conventional system is the ability to repay loan and collaterals and guarantees, only Richs will have most access to financial market. In contrast, Islamic finance provides funds on the basis of sharing profit and loss principle which give importance on only profitability and rate to return. Therefore, whose are not rich and have essential skills to success project like scientists, engineers or craftsmen would have a better chance to acquire finance.

Also it's important to notice the experience of Islamic banks in eradicating poverty through the use of Zakah funds. Other the use of these funds for zero interest credits to customers in needy case, these funds are used to give to the poor a combination of productive resources to maintain at least one household; the idea is to make the poor more productive which in turn contributes to economic development. Many examples of the contribution of Zakah funds can be quoted, The Jordan Islamic Bank is the example of a bank in the MENA region without oil manna; It established a special fund for interest-free loans to needy persons and weath maintenance for the poor. In the three years of 2001 through 2003, the fund provided USD 22 million to more than 40 thousand beneficiaries, an amount that is approximately 230% of the total net profits realized by the bank during these three years.

2.2 The main developmental characteristics of Islamic Modes of financing

2.2.1 The productive characteristic

The essential characteristic of Islamic modes of financing is their direct and un-detachable link to the real economy or physical transactions: Mousharaka and Moudharaba are only possible for productive companies which contribute to real-life businesses that increase the production and improve the quality. The company must generate a profit so that it can be to distribute between the entrepreneur and the bank. Mourabaha and others Sale-based modes must involve a physical transaction of commodities or provision of services. The same thing also applies to leasing where leased assets are the pivotal thing around which financing is built. So all Islamic financing must pass thought the production and/or exchange of real goods and services.

In contrast with conventional banks which focused only on the ability of the entrepreneur to repay loans, Islamic bank concentrated on the profitability of the project which is the necessary

condition. Consequently, Islamic bank lead economic growth by promoting productive projects and supporting the trade of commodities and services.

Another advantage for this foremost characteristic of the Islamic Modes of financing is that they are incompatible and unsuitable for debt rescheduling, debt swap, speculative transfers and other purely monetary activities that make a substantial part of contemporary activities of conventional banks.

2.2.2 The ethical and moral characteristic

The second developmental characteristic of Islamic banking is the incorporation of ethical and moral values in their modes of financing; it can't ignore ethical/moral considerations in project selection process. Regardless of the legality in a given country, Islamic banks don't finance harmful goods such as alcoholic beverages and tobacco or morally unacceptable services such as casinos and pornographies. Such products and activities are indeed profitable but they have a high social and economic cost and a harmful long term effect on the productivity in the economy.

The ethical and moral loyalty of Islamic banks is manifested in another form: it grant zero-interest credits from social funds in cases of dire needs or unexpected circumstances for poor and needy person. These funds are principally financed by yearly Zakah paid by Muslim people and also by interest money accumulated from its deposits in conventional banks and others transactions judged suspicious by Shariah boards in Islamic point of view. Donations from public or countries are also an important source for these charitable funds of Islamic banks which is the case of The Islamic development bank in Jeddah, it has 100 million US\$ in its "Waqf "account spent on research, training, developmental study, research scholarships, technical assistance programs and disaster relief servicing the Muslim countries

In other words, although profit maximization is equally essential to Islamic banks as other businesses, the underlying philosophy of these institutions is conducive toward social commitment and activities that usually cannot be interpreted by the profit motive.

2.2.3 The relational characteristic

The third developmental characteristic of Islamic banks is found in the nature of their relationship with depositors and employees.

Since Islamic banks deals with their depositors on investment grounds, the competition is higher between Islamic banks than between conventional banks which receive current and timed deposits against fixed interest. The competition among Islamic banks drives the profitability to its maximum in both the short run that concerns depositors and the long run that concerns shareholders which make all them more aware and attached to the real market.

But the financial performance of the bank isn't the only criteria of competition; the ability to keep and to raise deposits of Islamic bank depends on a good reputation. For that, Islamic banks launch "culturisation programmes" to instruct their employees on the religious dimensions of their activity. The knowledge of the Shariah combined to a high level of cultural aptitude reinforces the credibility of the bank and generates a competitive advantage.

So the relational characteristic of Islamic banks accomplishes double results. On the internal plan, it reaches the synergy, cooperation, the efficiency and especially the internal legitimacy. On the external plan, it reinforces corporate image of the bank and therefore its external legitimacy towards corporate shareholder. At the end, all this leads to financial performance and real productivity.

2.3 Financial Performance of Islamic Banks

In addition to the theoretical arguments, there is empirical evidence that confirms the good founded by the Islamic system relatively to the conventional system. Some comparative studies⁶ proved the individual performance of the islamic banks and showed that islamic banks, as group, they are greatly better than the conventional banks.

Iqbal, Munawar and al. (1998), tested the performance of Islamic banks; they used a panel of the first 10 banks in the world, the first 10 banks in Asia, the first 10 banks in the Middle East and finally the first 10 Islamic banks. They prove the performance of Islamic banks in a capitalistic environment where the conventional system dominates and they supposed that in a purely Islamic environment, it is waited that the performance of the Islamic banking industry becomes higher.

Janbota & Anju Kishore (2006) examines the performance of Islamic banks in profitability, liquidity, risk and solvency; and efficiency for the period 2000-2004 in the UAE where the Islamic funds are highly concentrated. The study found that the UAE Islamic banks are relatively more profitability, less liquid, less risky, and more efficient compared to the UAE conventional banks. Authors associated this performance the profit-and-loss sharing paradigm.

The success of Islamic banks, justified by a high growth rate, may be attributed to the productive characteristic of Islamic products more than borrowing on the basis of profit-loss sharing principal. Jordan's statistics showed that the emergence of Islamic banks in the country didn't decrease the deposits already existing in the conventional banks. So the Islamic banks have attracted the reserves funds which lead the growth.

Economists are favorable to the emergence of Islamic banking since they vary the financial product range and improve the institutional quality of the financial sector; as a result under this new banking alternative offer a better funds distribution.

3. Data and Econometric modeling

The data set was extracted from the "World Development Indicators" and refers to an unbalanced panel of 16 MENA countries observed from 1962 to 2006⁷.

We use the Panel system GMM procedure (SYSGMM) of Arellano and Bover (1995) and Blundell and Bond (1998).

The growth regression is as follows:

$$y_{it} = \text{IIC}_{it} + \beta X_{it} + \gamma \text{FIN}_{it} + v_{it} \quad (1)$$

$$v_{it} = \mu_i + v_t + \varepsilon_{it} \quad (2)$$

⁶ See Kabir Hassan and M. Bashir : *Determinants of Islamic Banking Profitability*

⁷ See Appendix TableA1

where y_{it} is the GDP per capita growth in country i in period t , IIC_{it} is the logarithm of initial income per capita, X_{it} is a vector of control variables of growth, FIN_{it} is an indicator of financial development and v_{it} is a general disturbance, including a country specific unobservable effect, μ_i , a time specific factor v_t and an idiosyncratic disturbance ε_{it} .

3.1 Financial Variables

We choose two financial indicators proposed by Favara (2003): The ratio LLY (M3/GDP) measures the amount of liquid liabilities of the financial system, including liabilities of banks, central banks and other financial intermediaries. King & Levine (1993) believe that the rate of liquidity is a reliable indicator of the financial development. Fry (1997) indicates that the rate of liquidity is probably a correct measure of the banking development only in developing countries, for the fact of the predominant weight of the banks in the companies' financing. In fact, in the developed financial systems, it is possible that the velocity of money tends to increase faster than money supply does. In this case, the ratio of liquidity to GDP could be negatively correlated with the GDP growth.

The second indicator, CPS, is defined as the value of loans made by deposit money banks and other financial institutions to the private sector. CPS is probably a better proxy for financial development since it only accounts for credit granted to the private sector, as opposed to credit issued to government and other non private institutions. It also excludes credit issued by the central bank, therefore, it is a more accurate measure of the savings that financial intermediaries channel to the private sector.

3.2 Control Variables

As indicators of macroeconomic stability, we use a standard set of conditioning variables that includes the ratio of exports plus imports to GDP (TO) as a measure of trade openness of the economy, the inflation rate (INF) and the ratio of government consumption to GDP (GC).

Table 1 presents summary statistics about the variables used in the econometric analysis for the 16 MENA countries observed during the period 1962-2006 and extracted from the World Development Indicators.

Table 1: Summary statistics

	Obser	Mean	Std.dev	Min	Max
GDP per capita growth	506	1.795	6	-21.02	34.62
IIC	506	5065.035	8207.371	238.9	50620.5
CPS	505	35.726	21.848	1.62	97.47
LLY	506	52.6	35.416	5.40	234
INF	370	11.65	17.655	-0.82	132.823
GC	488	19.2	7.266	4.49	64.39
TO	487	76.09	37.3	12.96	225.759

Table 2: Pairwise Correlation Matrice

	y	IIC	CPS	LLY	INF	GC	TO
y	1						
IIC	0.0242	1					
CPS	-0.0895	0.4441	1				
LLY	-0.0356	0.3	0.7022	1			
INF	0.0121	-0.4287	-0.3347	-0.1012	1		
GC	-0.1277	0.3749	0.4477	0.3001	-0.3464	1	
TO	0.0856	0.5466	0.4419	0.3375	-0.3586	0.4422	1

Table 2 provides empirical correlations between variables. The dataset shows that financial development is negatively correlated with GDP per capita growth. Macroeconomic indicators have the expected correlation sign with the economic growth: growth rate of GDP per capita is negatively correlated with Government Consumption and positively correlated with trade and inflation. We note also a strong positive correlation between credit to private sector and liquid liabilities (0.7022).

3.3 Instrumentals Variables

Under the assumption that the error ε_{it} is serially uncorrelated, and the regressors (IIC_{it} , FIN_{it}) are endogenous, valid instruments for the equation in first difference two period lagged variables in level. In addition, assuming that X_{it} are exogenous, they are valid instruments for the equation in levels. The absence of second order correlation is checked by Arellano-Bond test for AR(2) in first differences.

The validity of the instruments is tested using the standard Sargan test for over-identifying restrictions and for the absence of serial correlation of the residuals, since the moment conditions are valid if the error term is not serially correlated. The validity of variables in difference and in levels as instruments in two system GMM is tested by Hansen test.

4. Empirical results

4.1 GMM estimates of the relationship between banks and growth:

The system GMM estimates can be based on either a one-step or a two-step estimator. In the one-step estimator, the error term ε_{it} is assumed to be independent and homoskedastic across countries and time; in the two-step estimator, the residuals of the first step are used to consistently estimate the variance-covariance matrix of the residuals, relaxing the assumption of homoskedasticity. Although the two-step estimator is asymptotically more efficient in the presence of heteroskedasticity of the error term ε_{it} . The results are shown in Table 3 as follows:

Table 3
Dynamic panel-data estimation, annual data
Dependent Variable GDP per capita growth

Regressions	One-Step SYS GMM		Two-Step SYS GMM	
	(1)		(2)	
Constant	39,697*** (2,48)	-13,425 (-0,9)	32,773* (1,67)	-6,279 (-0,81)
Log (IIC)	-3,495 (-1,38)	4,094* (1,78)	-3,115 (-1,15)	2,852** (2,14)
Log (TO)	5,083*** (3,7)	1,734 (1,3)	3,764** (2,22)	2,439* (1,88)
Log (IR+1)	-1,200 (-1,57)	0,331 (0,45)	-1,406* (-1,9)	0,160 (0,55)
Log (GC)	-4,617*** (-3,94)	-1,982* (-1,75)	-4,329*** (-3,74)	-2,829** (-2,45)
Log (LLY)	-4,552 (-1,54)		-2,342 (-0,72)	
Log (CPS)		-5,116*** (-3,35)		-4,865*** (-6,62)
Statistic F	6,96	7,71	5,85	52,21
M2 Test	0,053	0,118	0,117	0,261
Sargan Test	0,305	0,067	0,305	0,067
Hansen Test			0,772	0,566
N.Countries	16	16	16	16
N.Obs	370	370	370	370

T-Student are reported in parentheses. ***, **, and * indicate significance levels at 1, 5, and 10 percent, respectively. For Sargan test, the null hypothesis is that the instruments used are not correlated with the residuals. For the M2 test for autocorrelation, the null hypothesis is that the errors in the first-difference regression exhibit no second-order serial correlation.

Results show that there is no association between economic growth and bank development when the Liquid Liabilities to GDP used as proxy of the financial development. However, the relationship between bank development and growth become negative and significant at 1% level when measuring the banking intermediation development by the credit to private sector over GDP.

The control variables have the expected sign and are tightly estimated. Moreover, the Sargan test, Hansen test and the M2 test do not detect any problem with instrument validity.

The results of column (2) are, by and large, similar to those B.Naceur & Ghazouani (2007) .The estimates associated with the credits to private sector are negative and highly significant, based on annual panel data. Authors suggest the use of data over five years instead of annual to prevent any biased estimates and to abstract from business cycle relationship. Therefore, to check whether the results change across data over five years, we use data over five years of 12 MENA countries⁸ extracted from the IMF dataset.

⁸ Algeria, Bahrain, Egypt, Iran, Jordan, Kuwait, Lebanon, Morocco , Oman, Syria, Saudi Arabia and Tunisia.

The system GMM results are shown in Table 4 as follows:

Table 4
Dynamic panel-data estimation, 5 year data
Dependent Variable GDP per capita growth

Regressions	One-Step SYS GMM		Two-Step SYS GMM	
	(1)		(2)	
Constant	6,127 (0,76)	-9,850 (-0,72)	9,339** (2,67)	-13,512 (-1,59)
Log (IIC)	-0,19 (-0,09)	1,274 (0,45)	-0,222 (-0,15)	2,158** (2,15)
Log (TO)	2,0184 (0,93)	1,878 (0,79)	1,705 (0,82)	0,683 (0,38)
Log (IR+1)	0,1683 (0,38)	-0,127 (-0,3)	-0,210 (-0,56)	0,071 (0,3)
Log (GC)	-4,118** (-2,12)	-3,454* (-1,9)	-4,394*** (-5,29)	-2,891** (-2,12)
Log (LLY)	-0,577 (-0,32)		-0,101 (-0,12)	
Log (CPS)			-3,371** (-2,03)	-3,006*** (-3,29)
Statistic F	2,03	3,32	197,09	53,07
M2 Test	0,414	0,426	0,44	0,387
Sargan Test	0,436	0,456	0,436	0,456
Hansen Test			0,783	0,92
N.Countries	12	12	12	12
N.Obs	73	73	73	73

T-Student are reported in parentheses. ***, **, and * indicate significance levels at 1, 5, and 10 percent, respectively. For Sargan test, the null hypothesis is that the instruments used are not correlated with the residuals. For the M2 test for autocorrelation, the null hypothesis is that the errors in the first-difference regression exhibit no second-order serial correlation.

Results on Table 4 confirm exactly our finding with annual data set: GDP per capita growth rate has a weak relationship with Liquid Liabilities to GDP (LLY), however, it shows a negative association with credits to private (CPS). The only control variable that has a strong statistical significance with the dependant variable is the government consumption expenditure (GC). The p-values associated with the Hansen and Sargan test continue to confirm for the whole specifications the validity of the instruments and no correlation between the used instruments and the residuals.

These results can be explained by the high degree of financial repression in the MENA region. Like demonstrated by many papers, the financial repression seems to have a harmful influence on the growth, therefore accompanied with an inadapted legal and macroeconomic environment, it is possible that the financial development generates a financial instability. Whereas the first

stimulates the growth, the second reduced it. So the positive impact of the financial development on the growth is mitigated by the unfavorable impact of the financial instability.

Berthelemy & Varoudakis (1998) have been confronted to this paradox and the only effect of the financial development that they success to put in evidence, is a negative effect. They try to explain this paradox by the theory of threshold. They suppose the existence of multiple equilibrium of the link between growth and the development level of the financial system. The considered mechanism explained by the existence of external causality between the financial sector and the real sector: the financial development increases the investment efficiency and reinforces the growth but, at the same time, the growth of the real sector support the saving and the financial market development, what lead a positive effect on the financial intermediation efficiency, which generate two steady equilibrium: a «High equilibrium» with high growth and standard financial development and a «low equilibrium » with weak growth and where the economy doesn't succeed in developing its financial sector. Between the two equilibriums, there is an unsteady equilibrium that defines a threshold of the financial development on the growth. Within this threshold, the economy remains blocked in a situation of "poverty trap".

Another explanation to this finding has been explained by the thesis of the inverse causality that has been treated by Robinson (1952), Patrick (1966), Boyd & Smith (1996) and Greenwood & Smith (1997). The idea is that the financial development is the results of the growth: The increase of the economic activity generates a growth of the financial service demand, and therefore a financial development; because the growth of the economic activity increases the success probability of the projects and therefore decreases the default on payment of the borrowers.

Finally this paradox can be also explained by the non linearity of the relationship between the financial development and the economic growth, or the imperfection of the financial development indicators that don't allow measuring the non banking financial mediator activity, the financial innovations out of the banking system as well as the efficiency of the financial intermediation.

4.2 The empirical relationship between Islamic banks development and economic growth:

In this section, we examine the empirical relationship between Islamic financial intermediation and economic growth using the same panel techniques as previous tests. Many economists have highlighted the importance of Islamic financial development in the process of economic development while this relationship never has been empirically tested because aggregated data on Islamic sectors are not available yet.

4.2.1 Methodology:

World Development Indicators is the source for all variables except the proxy for Islamic banking development. The proxy "Credits to Private Sector" was chosen to measure the Islamic financial development since it measures the main function of the banking activity: The mobilizing of saving toward the investors. This indicator isolates the credits to private sector from those allocated to the government and the public corporations, as well as the credits of the central bank. And to calculate the Credits to Private Sector allocated by Islamic banks we follow three steps:

1-We made an exhaustive list of Islamic banks in selected MENA countries.

2- Assuming that all credits provided by Islamic banks are allocated to private sector because, as demonstrated in section 2.2.1, the main selection criteria of projects in Islamic banks is the productivity. So we aggregate different totals of credits from banks balance sheets to get the overall credits to private sectors by Islamic banks for each country. Data source is Bankscope database compiled by IFIS dataset⁹.

3- Extract the part, in percentage of GDP, of Islamic credits from the total credits. Hence the CPS is dispatched into two variables: The conventional part "CPSCB" and the part of Islamic banks (Credits to Private Sectors by Islamic Banks "CPSIB").

4.2.2 Econometric modeling and results

Our empirical test has been carried out for a sample made of 15 MENA countries during the period 1993-2006 .Variables introduced in the regression are:

- **Y_{it}**: GDP per capita growth (annual %)
- **IIC** : Initial income per capita (constant 2000 US\$)
- **CPSIB** : credit to private sector by Islamic banks (% of GDP)
- **CPSCB** : credit to private sector by Conventional banks (% of GDP)
- **INF**: Inflation, consumer prices (annual %)
- **TO** :(IMP+EXP) (% of GDP)
- **GC** : General government final consumption expenditure (% of GDP)

The growth equation is represented by the following one:

$$Y_{it} = \beta_{0i} + \beta_1 \ln(\mathbf{IIC})_{it} + \beta_2 \ln(\mathbf{CPSIB})_{it} + \beta_3 \ln(\mathbf{CPSCB})_{it} + \beta_4 \ln(\mathbf{INF}+1)_{it} + \beta_5 \ln(\mathbf{TO})_{it} + \beta_6 \ln(\mathbf{GC})_{it} + \varepsilon_{it}$$

$i = 1, \dots, N \quad t = 1, \dots, T$

The used specifications are the same as all previous regression applied to panel 1. Correlation between different proxies in Table A4 shows that credit to private sector by Islamic banks and credit to private sector by conventional banks are negatively correlated with GDP per capita growth rate.

⁹ Islamic Finance Information Service

Table 5
Dynamic panel-data estimation, annual data
Dependent Variable GDP per capita growth

Regressions	One-Step SYS GMM	Two-Step SYS GMM
	(1)	(2)
Constant	-20,654** (-2,02)	-23,580** (-2,46)
Log (IIC)	4,110** (2,39)	4,785*** (3,22)
Log (TO)	0,810 (0,61)	1,676 (1,21)
Log (INF+1)	-0,314 (-0,44)	-0,303 (-0,39)
Log (GC)	-0,922 (-0,57)	-3,140* (-1,74)
Log (CPSCB)	-3,162** (-2,47)	-3,613*** (-3,68)
Log (CPSIB)	0,030 (0,06)	-0,590* (-1,78)
Statistic F	1,4	18,41
M2 Test	0,731	0,67
Sargan Test	0,215	0,215
Hansen Test		0,643
N.Countries	15	15
N.Obs	101	101

T-Student are reported in parentheses. ***, **, and * indicate significance levels at 1, 5, and 10 percent, respectively.

Results on table 5 show that the impact of conventional banking sector on growth is fairly negative at 5% significance level whatever the estimator technique applied, while Islamic banking sector has the same affect on growth but at 10% significance level in the two-step system GMM.

So the impact of the financial development on the economic appears like an increasing function in regressions estimated in System GMM as well as the conventional banks as Islamic banks, what proves that this variable doesn't act differently of the global financial development on the economy.

4.3 Checks of Sub-sample stability

We will compare the SYS-GMM estimates with panel 1 used in Table 3 and checks whether the results change across sub-samples. We subdivide the sample in two sub-samples: Petroleum Exporting MENA Countries¹⁰ and MENA Countries without oil manna¹¹. This choice is based on the importance of the hydrocarbons returns in the MENA region since the oil volume merchandised by the MENA region represents the half of the world consumption. Also MENA region constitute 1/3 of the world production of oil and 2/3 of the world reserves of hydrocarbons. The oil manna constitutes an important source of foreign currency even for the non producer's countries in MENA because its capture a part of the oil returns thanks to the received workers' remittances and compensation of employees.

Table 6
Dynamic panel-data estimation, annual data
Dependent Variable GDP per capita growth

Regressions	Petroleum Exporting MENA Countries				MENA Countries without oil manna			
	One-Step	Two-Step	One-Step	Two-Step	One-Step	Two-Step	One-Step	Two-Step
Constant	96,180*** (3,54)	70,789 (1,27)	46,827 (1,65)	76,318 (0,72)	25,543** (2,11)	52,258 (0,48)	24,446** (2,21)	37,046* (1,89)
Log (IIC)	-6,396** (-2,28)	-3,820 (-1,34)	-2,610 (-0,74)	-0,145 (-0,01)	-5,631 (-1,76)*	-11,317 (-0,77)	-4,610** (-2,06)	-62,672* (-1,91)
Log (TO)	6,292*** (3,44)	4,259** (2,35)	4,730** (2,11)	7,295 (0,18)	3,646** (2,7)	6,776 (0,24)	3,083** (2,00)	36,617 (1,7)
Log (IR+1)	-2,701** (-2,46)	-1,680 (-0,83)	-1,986 (-1,53)	-3,324 (-1,41)	-0,596 (-1,33)	-0,936 (-0,52)	-0,265 (-0,55)	-6,412 (-1,67)
Log (GC)	-9,170*** (-4,32)	-6,759 (-1,68)	-7,406** (-2,92)	-15,302 (-0,32)	-3,596** (-2,2)	-7,479 (-0,24)	-3,268** (-2,31)	-62,778* (-1,78)
Log (LLY)	-9,414** (-3,06)	-8,564 (-1,00)			2,834 (0,96)	5,522 (0,3)		
Log (CPS)			-5,299 (-2,9)**	-15,709 (-0,47)			1,795 (0,7)	28,158* (1,9)
Statistic F	10	3,58	8,94	1,77	1,79	0,46	0,12	0,81
M2 Test	0,857	0,848	0,709	0,795	0,062	0,257	0,06	0,147
Sargan Test	0,622	0,622	0,285	0,285	0,262	0,262	0,239	0,239
Hansen Test		0,991		0,999		0,814		0,996
N.Countries	8	8	8	8	8	8	8	8
N.Obs	182	182	182	182	188	188	188	188

T-Student are reported in parentheses. ***, **, and * indicate significance levels at 1, 5, and 10 percent, respectively. For Sargan test, the null hypothesis is that the instruments used are not correlated with the residuals. For the M2 test for autocorrelation, the null hypothesis is that the errors in the first-difference regression exhibit no second-order serial correlation.

¹⁰ Algeria, Bahrain, Iran, Kuwait, Oman, Qatar,UAE and Saudi Arabia.

¹¹ Egypt, Jordan, Lebanon, Mauritania, Morocco, Sudan, Tunisia and Yemen.

The distribution of this two sub-sample let us to detect if there is a particular impact of the financial development on the economic growth in countries with oil manna, assuming that the black gold's returns can finance productive investments. So we reduce the heterogeneity bias of Mena countries since petroleum exporting countries has the same politics specifications and apply the same development programs and budgetary politics. We use the same model and we apply the same GMM estimates with the control variables as Table1. The results are shown in Table 6 as above. For each sub-sample, we apply one-step sys GMM and two-step sys-GMM for the two proxies of financial development. Unfortunately the two step sys GMM give poorly estimates as consequence of a small N and large T panel.

The estimates of Petroleum Exporting MENA Countries assess the stability of the GMM estimates shown in Table 1. The negative impact on GDP per capita growth from LLY is always deeply proved. Similar results emerge when the regression includes CPS. The control variables have the expected sign and are tightly significant at 5% level: higher levels of inflation and government consumption expenditure have harmful effects on economic growth and higher level of trade openness lead the economic growth in MENA countries with oil or gas manna.

The bottom part of the table proves the validity of the instruments, the absence of a second-order serial correlation of the residuals in the differenced regression and hence, the consistency of the GMM estimates.

In the sample of MENA Countries without oil manna, the proxies CPS and LLY are poorly estimated and their statistical performances appear to change substantially across sub-sample.

What is important that there is no negative association between bank development and growth. Rather a significant and positive effect is obtained between credit to private sector and growth. This finding prove the theory of the oil malediction which explain the failure of economic politics in some petroleum exporting countries as consequence of the lack of technology and man-power and managers well trained to permit the transformation of the rent to development.

5. Conclusion

In this paper, we found that the financial development has unfavorable effect on growth in MENA region; even Islamic banks don't make an exception in the financial markets and show a weak relation with growth. It's not proved that MENA economies have benefited from a strong banking system or a developed financial sector: "*Studies highlight the deficiencies of the financial sector as an effective means of boosting the development of the private sector and the growth prospects of the region*" (Nabli, 2000) . This finding may be explained by the financial instability and the high degree of financial repression in the MENA region. The policies of trade openness practiced by MENA countries are classified among the most closed economies in the world which can also explain this finding.

The development of the Islamic banking sector and the conventional sector must be accompanied with a steady macroeconomic environment, a progressive economic opening, an adequate regulation and supervising of banking system and a respect of the international accountancy's rules and the legal environment. In these conditions, the emergence of a reliable and strong financial system would be favorable to the economic growth, and also to the reduction of poverty.

Appendix

Samples Description

Table A1

Panel 1-Annual Data-WDI
Dependent Variable GDP per capita growth

	Country	Period		N.Obsr
		From	to	
1	Algeria	1970	2006	37
2	Bahrain	1982	2005	21
3	Egypt	1963	2005	43
4	UAE	1975	2005	31
5	Iran	1967	2005	39
6	Jordan	1977	2006	30
7	Kuwait	1996	2005	10
8	Lebanon	1990	1994	5
9	Mauritania	1986	2003	17
10	Morocco	1993	2006	14
11	Oman	2001	2004	4
12	Qatar	2002	2005	4
13	Saudi Arabia	1970	2005	36
14	Sudan	1962	2005	44
15	Tunisia	1984	2006	23
16	Yemen	1992	2003	12
		Total		370

Table A2

Panel 2- Annual Data -WDI
Islamic Banking Test

	Country	Period		N.Obsr
		From	to	
1	Algeria	2001	2005	5
2	Bahrain	2002	2005	4
3	Egypt	2000	2006	7
4	UAE	1991	2006	15
5	Iran	1996	2005	10
6	Jordan	2002	2006	5
7	Kuwait	2002	2005	4
8	Lebanon	2004	2005	2
9	Mauritania	1998	2006	9
10	Oman	2002	2004	3
11	Qatar	2002	2005	4
12	Saudi Arabia	2002	2005	4
13	Sudan	1996	2006	11
14	Tunisia	1993	2006	14
15	Yemen	2003	2006	4
		Total		101

Table A3 :Summary statistics of panel 2

	Obser	Mean	Std.dev	Min	Max
GDP per capita growth	101	2.963178	2.707122	-4.67	14.046
IIC	101	4898.999	7739.152	310.297	36780.23
CPSIB	101	6.69893	11.45075	3.49E-06	40.921
CPSCB	101	32.2193	30.18951	0	97.46657
INF	101	10.92632	16.21868	-0.718	146.817
Trade	101	75.34775	37.48095	16.99544	170.6423
GC	101	14.95823	5.128452	4.493415	30.12162

Table A4 : Correlations between the variables of panel 2

	y	Log IIC	log CPSIB	Log CPSCB	Log (INF+1)	Log trade	Log GC
y	1						
Log IIC	0,0467	1					
log CPSIB	-0,0261	-0,1806	1				
Log CPSCB	-0,0535	0,6231	-0,7369	1			
Log (INF+1)	0,1676	-0,1399	0,4258	-0,5246	1		
Log trade	0,0102	0,576	-0,6268	0,7342	-0,3426	1	
Log GC	-0,0809	0,4164	-0,39	0,5516	-0,3513	0,6951	1

References

- A. Demirgüç-Kunt and R. Levine 1996:** "Stock Market Development and Financial Intermediaries: Stylized Facts" *World Bank Economic Review*
- Aghion P., Howitt P, Mayer-Foulkes D.** 2004: "The Effect of Financial Development on Convergence: Theory and Evidence", *NBER Working Paper I0358*.
- Al-Jahri and Munawar Iqbal** 2001: "Islamic Banking: Answers to Some Frequently Asked Questions" *Islamic Research and Training Institute, Islamic Development Bank*.
- Andersen T. et Tarp F.** 2003: "Financial Liberalization, Financial Development and Economic growth in LDCs", *Journal of International Development*.
- Arestis, P., Demetriades, P., Luintel, K.B.,** 2001 : "Financial development and economic growth: the role of stock markets" *Journal Money Credit Bank*. 33, 16–41.
- Arestis & Demetriades** ,1997: "Finance and Growth: Insitutional Considerations, Financial Policies and Causality" *Zagreb International Review of Economics and Business Volume II*.
- Beck T., Levine R., Loayza n.** , 1999: "Finance and the Sources of Growth", *Policy Research Working Paper, Février WPS N°2057*.
- Bencivenga V.R. and Smith B.D.,** 1991: "Financial Intermediation and Endogenous Growth", *Review of Economic Studies*, Vol. 58, n° 2, p. 195-209.
- Bernard Eric.** ,2000 : "Développement financier, politique monétaire et croissance économique: validations empiriques en données de panel"
- Berthelemy J.C et Varoudakis A.** ,1998 : " Développement Financier, Réformes Financières et Croissance : une Approche en Données de Panel". *Revue Economique*, Janvier, Vol (49) N°1.
- Bjorvatn, Kjetil** 1998 : "Islamic Economics and Economic Development" *Forum for Development Studies, N° 2*
- Bolbol, A., Fatheldin, A., Omran, M.,** 2005. " Financial development, structure, and economic growth: the case of Egypt, 1974–2002" .
- Boyd, J. and B. Smith,** (1996) : "The Coevolution of the Real and Financial Sectors in the Growth Process" - *The WorldBankEconomic Review*, 1996
- Dornbush R. and Reynoso A.** , 1989: "Financial Factors in Economic Development", *American Economic Review*, Vol. 79, n° 2, p. 204-209.
- Favara G.** 2003: "An Empirical Reassessment of the Relationship between Financial Development and Economic Growth", *IMF Working paper WP/03/I23*.
- Fernandez D. et Galetovic A.** 1994 : "Schumpeter Might Be Right-But Why? Explaining the Relation between Finance, Development, and Growth", *Johns Hopkins University SAIS Working Paper in International Economics N° 96-01*.
- Farhad Nomani** 2003: "The Problem of Interest and Islamic Banking in a Comparative Perspective: The Case of Egypt, Iran and Pakistan" *Review of Middle East Economics and Finance*
- FMI.** , 1996 : "L'ajustement macro-économique et structure au Moyen-Orient et en Afrique du Nord", *Perspectives de l'économie mondiale*, annexe 2, Mai, p. 112-120.
- Ghazi Boulila and Mohamed Trabelsi.** 2003: "The Causality Issue in the Finance and Growth Nexus: Empirical Evidence from MENA Countries".
- Goldsmith R. W.** , 1969: "Financial Structure and Economic Growth in Avanced Countries", *in National Bureau Committee for Economic Research, Capital Formation and Economic Growth, Princeton, University Press*.
- Greenwood J. and Jovanovic B.** , 1990: "Financial Development, Growth and the Distribution of Income", *Journal of Political Economy*, n° 98, p. 1097-1107.
- Greenwood, Jeremy and Smith, Bruce D.** 1997: "Financial markets in development, and the development of financial markets," *Journal of Economic Dynamics and Control*.

- Gregorio, J. de, and P.E. Guidotti 1992:** "Financial Development and Economic Growth", *WP/92/101, Washington DC: International Monetary Fund.*
- Gurley J. and Shaw E.** , 1955:"Financial Aspect of Economic Development" *American Economic Review*, Vol. 45, Septembre, p. 515-538.
- Gurley J.G. et Shaw E.S.** ,1960 : "La monnaie dans une théorie des actifs financiers", *traduit par le Centre de Traductions Economiques de Perpignan, Cujas, 1973.*
- Hasan, Z.** 1995: "Economic Development in Islamic Perspective: Concept, Objectives, and Some Issues" *Journal of Islamic Economics 1(6), 80-111*
- Hondroyannis, G., Lolos, S., Papapetrou, E.,** 2005. "Financial markets and economic growth in Greece, 1986–1999" *Journal International Finance Markets Inst. Money 15, 173–188.*
- Huang .H and Shu-Chin Lin** 2009: "Non-linear finance—growth nexus : A threshold with instrumental variable approach" *Economics of Transition*, Volume 17(3) 2009, 439–466
- Irène Björklund and Elisabeth Lundström.** , 2004 : "ISLAMIC BANKING An Alternative System" *Kristianstad University*
- Iqbal Munawar, Ausaf Ahmed and Tariqullah Khan,** (1998) Challenges Facing, Islamic Banking, Occasional Paper No. 1, IRTI, IDB, Jeddah.
- Janbota Meiram Kader and Anju Kishore Asarpota** "Comparative Financial Performance of Islamic Banks vis-à-vis Conventional Banks in the UAE"
- Kabir Hassan FDI.**"Information Technology and Economic Growth in the MENA Region." *University of New Orleans*
- Kangni R. KPODAR,** 2003"Le Développement Financier et la Croissance : L’Afrique Subsaharienne est-elle Marginalisée?" *Université d’Auvergne,France*
- Khan, A., Qayyum, A. Sheikh,** 2005: "Financial Development and Economic Growth: The Case of Pakistan" *Pakistan Development Review 44 : 4 Part II pp. 819–837*
- King R.G. and Levine R.** ,1993a:"Financial Intermediation and Economic Development", *in Capital Markets and Financial Intermediation*, Mayer C., Vives X. (eds), , CEPR, Cambridge University Press, London, p. 156-189
- King R.G. and Levine R.** ,1993b:"Finance and Growth: Schumpeter Might be Right", *The Quarterly Journal of Economics*, Vol. 108, Issue 3, p. 717-737.
- King R.G. and Levine R.** , 1993c: "Finance, Entrepreneurship, and Growth, Theorie and Evidence", *Journal of Monetary Economics*, Vol. 32, n°3, Décembre.
- Laroche A., Lemoine E. Millien A. et Zhangy J.,** 1995 : "Croissance et marchés financiers : une approche empirique", *Economie Internationale*, CEPIL, n° 64, quatrième trimestre, p. 39 60.
- LEVINE R.** 1997: "Financial Development and Economic Growth: Views and Agenda", *Journal of Economic Literature*, Vol (35) N°2 pp: 688-726.
- Lucas R.E.,** 1989, "On the Mechanics of Economic Development", *Journal of Monetary Economics*, Vol. 22, n° 1, p. 3-42.
- Luintel, K.; M. Khan,** 1999. "A quantitative reassessment of the finance-growth nexus: evidence from a multivariate VAR" *Journal of Development Economics 60, 381-405.*
- M. Cihák and H. Hesse** 2008 "Islamic Banks and Financial Stability: An Empirical Analysis" *IMF Working Paper No. 08/16*
- M. Kabir Hassan and Abdel-Hameed M. Bashir.** 2001:"Determinants of Islamic Banking Profitability".
- M. Kabir Hassan and Jung-Suk Yu** 2007: "Financial Development and Economic Growth: New Evidence from Panel Data"*Andiana State University*
- M. Nabli and M. Varoudakis** 2004 : "Reforms and Growth in MENA Countries: New Empirical Evidence" *World Bank*
- Mabid Ali Al-Jarhi** 2004 "Islamic Finance and Development"

- McKinnon R.I.**, 1973: "Money and Capital in Economic Development", *the Brookings Institution, Washington, DC*.
- McKinnon R. I.**, 1991: "The Order of Economic Liberalization: Financial Control in the Transition to a Market Economy", *John Hopkins University Press, Baltimore*.
- Mohammed El Qorchi** 2005 "Islamic Finance Gears Up" *Finance&Development IMF magazine*.
- Mohamed TRABELSI**. 2002:" Finance and Growth, Empirical Evidence from Developing Countries: 1960-1990".
- Mohsin S. Khan and Abbas Mirakhor** ., 1987, "Theoretical Studies in Islamic Banking and Finance", *the Institute for Research and Islamic Studies, Houston*, 245 p.
- Monzer Kahf**. 2005:" Islamic Banking and Development: an alternative Concept?" *Handbook of Islamic banking Edited by M. Kabir Hassan and Mervyn K. Lewis*.
- Nabli, Mustapha Kamel** 2000 "Breaking The Barriers To Higher Economic Growth: Better Governance And Deeper Reforms In The Middle East And North Africa" *World Bank Pub*
- Nienhaus, Volker**. 2006: "Islamic Economic System – A Threat to Development?"
- Pagano M.** 1993:"Financial Markets and Growth, an Overview", *European Economic Review*, n° 37, p. 613-622.
- Patrick H.T.** 1966: "Financial Development and Economic Growth in Underdeveloped Countries", *Economic Development and Culural Change*, Vol. 14, n° 2, p. 174-189.
- Polak J.J.** 1989 : "Politiques financières et développement", *Etudes du Centre de Développement, OCDE*.
- Ram R. 1999** : "Financial Development and Economic Growth: Additional Evidence", *Journal of Development Studies*.
- Roubini N. ET X.Sala-I-Martin**. 1992: "Financial Repression and Economic Growth ", *Journal of Development Economics*, Vol (39), and pp: 5-30.
- Ross Levine and Sara Zervos** ,1998 , "Stock Markets, Banks, and Economic Growth" *The American Economic review*, Vol88, No3pp.537-558
- S. Guillaumont Jeanneney and K. R. Kpodar** 2004 , "Développement financier, instabilité financière et croissance économique" *CERDI, Etudes et Documents, E 2004.13*
- S.Ordody DE Ordod**. "Le principe du partage des profits et pertes et la fonction transactionnelle de la monnaie (tontines et modèle financier islamique) " *Crédit Lyonnais, France*.
- Said Al Hallaq** 2006 "Contribution of Islamic Banks to the Development of the Jordanian Economy" *Islamic Finance News Guide*
- Saleem, Shahid** 2007 "Role of Islamic banks in economic development" *Hailey College of banking & finance (PAK), C.I.M.A. (U.K.)*
- Samy ben Naceur and Samir Ghazouani**. 2007:"Stock markets ,Banks and Growth in some Mena region countries".
- Shaw E.S.** 1973: "Financial Deepening in Economic Development", *Oxford University Press, New York*.
- Tarek S. Zaher & M. Kabir Hassan**. 2001:"A Comparative Literature Survey of Islamic Finance and Banking".
- Tarik Yousef**. 1996: "Islamic Banking; Financial Development and Growth".
- Thomas A. Timberg** "Islamic Banking and Its Potential Impact" *International Conference on Best Practices*
- Thornton J.** 1991: "The Financial Repression Paradigm: a Survey of Empirical Research", *Savings and Development*, n° 1, XV, p. 5-17.
- Van Nieuwerburgh, S., Buelens, F., Cuyvers, L.,** 2006. "Stock market development and economic growth in Belgium".