

## Study the impact of financial development indicators on growth in the region of Middle East and North Africa, Using Panel data and VAR

" دراسة أثر مؤشرات التطور المالي على النمو في منطقة الشرق الأوسط وشمال إفريقيا،

باستعمال معطيات Panel وتقنية شعاع الانحدار الذاتي VAR

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### Abstract:

This paper will seek through axes to identify the various literature theory and experimental in terms of financial development and economic growth using time-series data (panel data) through the application of Vector Auto Regression technique, a sample consisting of about 13 countries from the Middle East and North Africa during the period from 1980 to 2015, in order to assess the direction of the causal relationship between financial development and economic growth, The statistical results has obtained suggest a positive relationship between the enlarged concept of money and the per capita gross domestic product on the one hand, as well as also a positive relationship between trade index and per capita gross domestic product of the other.

**Keywords:** financial development, the Middle East and North Africa, economic growth, time-series data (panel), vector Auto regression

**Jel Classification Codes:** C23, F43, F65.

ملخص:

لاقت العلاقة بين التطور المالي والنمو الاقتصادي اهتماما لافتا في العقود الأخيرة، ومع ذلك هناك تضارب في وجهات النظر بشأن الدور الذي يمكن أن يلعبه النظام المالي في النمو الاقتصادي، وعليه ستسعى هذه الورقة البحثية من خلال محاورها إلى التعرف على مختلف الأدبيات النظرية و التجريبية فيما

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يخص التطور المالي والنمو الاقتصادي وذلك باستخدام منهج بيانات السلاسل الزمنية المقطعية بواسطة تطبيق تقنية شعاع الانحدار الذاتي لعينة مكونة من حوالي 13 دولة من منطقة الشرق الأوسط وشمال إفريقيا خلال الفترة الممتدة من 1980 إلى 2015، من أجل تقدير اتجاه العلاقة السببية بين التطور المالي والنمو الاقتصادي، وقد كانت النتائج الإحصائية المتحصل تشير إلى إيجابية العلاقة بين المفهوم الموسع للنقود ونصيب الفرد من الناتج المحلي الإجمالي من جهة، وكذلك علاقة إيجابية أيضا بين مؤشر التجارة ونصيب الفرد من الناتج المحلي الإجمالي من جهة أخرى.

**كلمات مفتاحية:** تطور مالي، دول الشرق الأوسط وشمال إفريقيا، نمو الاقتصادي، منهج بيانات السلاسل الزمنية المقطعية (البانل)، شعاع الانحدار الذاتي.

تصنيفات JEL: C23, F43, F65.

## 1. INTRODUCTION

The financial sector is of great importance in the economies of countries because it has a great role in creating efficient investment opportunities and financial intermediation that provides financing for investment and increases its performance. The many functions of the financial sector, which are embodied in the accumulation of savings, better evaluation of investment, risk management and pricing, Clearing and settlement of payments and the mechanism for the transfer of the effects of monetary policy on money supply and the abundance of credit, will benefit the economy and increase the pace of growth, which necessitates financial development.

### **Problematic study:**

Financial policy requires attention in terms of its ability to activate its activity. This aspect is closely linked to the question of the causal link between financial development and growth: if financial development was to be a precursor to growth then an active fiscal policy is needed to stimulate growth. Financial situation arises in that case, based on the above the paper seeks to answer the concern and the following form:

"What is the theoretical basis of the link between financial development and economic growth, and what direction does this relationship take?"

### **Objective of the study:**

In addition to attempting to solve the above problem, this study seeks to clarify the concepts of financial development and growth and to set indicators for measuring financial development in the MENA region in order to clarify the causal relationship between financial development and growth as well as the assessment of mutual influence.

### **Study Approach:**

In order to take note of the aspects of the subject of this paper, we will use the descriptive analytical method in this study in which we seek to answer the most important questions of the problem, using some standard methods.

### **Study plan:**

This study will be covered by the following topics:

The first axis: Definition of financial development and measurement indicators.

The second axis: theoretical rooting of the variables of the study.

The third axis: the standard study of the relationship between financial development and economic growth.

## **2.The first axis: Definition of financial development and measurement indicators**

### **2.1. Definition of financial development:**

The financial system represents an important part of the economic system and is one of the main influences in the level of activity through the functions of its various institutions and markets. The financial system reflects the total bodies and mechanisms that allow certain agents within a certain period of time to obtain funding resources and others by using and employing their savings (Keddi, 2003,p260). The financial system is defined as "all institutions and systems that perform financial intermediation functions to transfer funds from savers to borrowers"( Yongfu Huang, 2010,p03). The evolution of the financial system refers to the factors and policies that lead to increased efficiency and efficiency of financial intermediation and markets, as well as the increase and depth of financial services provided.(Hidjazi, 2014, pp 67-68)

## **2.2. The importance of financial development:**

Financial development plays several important functions to enhance the effectiveness of financial intermediation by reducing transaction and transaction costs, promoting investment activity by identifying new business opportunities and financing, mobilizing savings and also allowing the transfer and handling of investment risks; facilitating exchange of goods and services, These functions increase the efficiency of resource allocation, accelerate the accumulation of physical and human capital and accelerate the pace of technological progress, thereby promoting economic growth.(Crane et al, 2003, p03 )

## **2.3. Indicators of financial development:**

There are a number of indicators used to measure financial development, whether those related to the banking sector or financial markets. As follows:

(Tarek and Meftah, 2014, pp 143-144)

**2.3.1. (M<sub>2</sub> / GDP or M<sub>3</sub> / GDP):** This ratio reflects the monetary value of the economy, also it's used as an indicator of the liquidity and size of the banking sector in relation to the size of the economy. The high level of this indicator is related to the development of financial services.

**2.3.2. QM / GDP ratio:** It gives a clearer picture of the banking system's development. This ratio is the size of non-bank financial intermediation and its importance in financing economic activity through savings deposits.

**2.3.3. Ratio of total deposits to GDP:** The ability of financial intermediaries to mobilize resources of various types, is important for mediation as lending operations are closely linked to the size of deposits.

**2.3.4. Asset size (liabilities) of the banking system to GDP:** This measure measures the size of the banking sector in the economy.

**2.3.5. The size of loans to the private sector to GDP:** an important percentage that reflects the efficient and efficient allocation of financial resources and the efficiency of banks, as credit to the private sector generates significant increases in investment and productivity compared to the public sector.

**2.3.6. Ratio of credit directed to the private sector to total credit:** This ratio reflects the distribution of credit in the economy between the private

and public sectors.

**2.3.7. Indicators of measuring the development of financial markets:**

notably the following:

**2.3.7.1. Ratio of Gross Market Value to Gross Domestic Product (Capitalization Rate):** This ratio measures the size of the stock market and indicates the ability to direct capital and risk distribution.

**2.3.7.2. Percentage of total volume to GDP (volume ratio).**

**2.3.7.3. The ratio of total volume to total market value (volatility ratio).**

The last two indices are complementary to each other, reflecting the liquidity standard and the volume of trading in the financial market compared to the size of the economy.

**3. The second axis: theoretical rooting of the variables of the study**

The relationship between the economic growth and the financial development is still remains debated among academics and decision makers since the contributions of Goldsmith (1969), McKinnon (1973), and Shaw (1973). (De Gregorio, Guidotti , 1995). The theory of economic growth argued early on that economic development is the process of innovation, where innovations in the financial and real sectors interact and provide a driving force for economic growth. In other words, external technological progress determines the long-term growth rate, while the impact of financial instruments on the long-term growth rate is not explicitly determined.

However, the growing growth of contemporary theoretical and empirical literature shows how financial media mobilize savings, allocate resources, diversify risks, and contribute to economic growth (Greenwood, Jovanovic, 1990) (Jbili, Enders & Treichel, 1997).

The modern growth theory states that financial instruments and markets exhibit natural evolution in response to market imperfection and thus contribute to long-term growth. Financial institutions and markets arise through natural development to mitigate the effects of information, transactions and cost frictions and affect investment decisions in activities that promote Through the evaluation of future projects and the financing of promising ones. The basic assumption is that financial media can provide

more services to evaluate and control the effectiveness of individuals.

An important group of economists agree that there is a link between finance and economic growth. In theory and experimentally, some authors have shown that there is a causal trend of financial development towards economic growth (McKinnon, 1973), King (Levine, 1993a), Levine (2000), Christopoulos, Tsionas , 2004) who supported this argument. On the other hand, other economists believe that the trend of economic growth towards financial development. As the economy grows, there is a growing demand for financial services, which is causing an expansion in the financial sector. This view was supported by Gurley (Shaw, 1967), Goldsmith (1969) and Jung (1986).

Other writers see the causal trend in two directions. Financial development and economic growth are mutually reinforcing. Evolution supports economic growth and economic growth makes support for financial development. (Patrick, 1966) hypothesized a phased development hypothesis. At an early stage, causality extends from financing to growth, but later the causal relationship extends from growth to funding. At an early stage of economic development, growth funding is induced by stimulating the formation of real individual capital. Later, the economy in the growth stage, there will be an increase in demand for financial services, which drive the expansion of the financial sector as well as the real sector. This means the causality of growth towards financing. Blackburn & Huang (1998) identified a positive causal relationship between growth and financial development.

According to their analysis, private investors seek external financing for their projects through loan-compatible incentive contracts, which are implemented through costly oversight activities that may be authorized by lenders to financial intermediaries. More recently, Khan (2001) has emphasized a positive causal relationship between funding and growth. It has been assumed that when borrowing is limited, producers obtaining loans from financial intermediaries generate higher returns, creating an incentive for others to adopt technology to access investment loans, which in turn reduces funding costs and increases economic growth.

Levine (1997, 2005) has done a lot of empirical research dealing with

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the relationship between the financial sector and long-term growth. Levine (1997) stressed that financial systems can accomplish five functions to improve information, transactions and friction and contribute to long-term growth. These functions are: facilitating the improvement of risk, obtaining information about investments and resource allocation, controlling managers and exercising control over companies, mobilizing savings, and facilitating exchange. These functions facilitate investment, thus achieving higher economic growth.

We conclude from the previous that the results of the studies as individual countries or groups have established a positive effect on the financial depth of economic growth after calculating the other factors contributing to growth and addressing the potential bias resulting from synchronization, omitting variables or country-specific effects (Levine, 2005) That the causality extends from financing to growth (see, Christopoulos, Tsionas, 2004); (Khan, Senhadji, 2003; King, Levine, 1993a, 1993b; Levine and al., 2000). Furthermore, Claessens (Laeven, 2005) related banking competition and industrial growth, and found that rising interbank competition accelerated the growth of industries dependent on finance, suggesting that high financial development was ahead of economic growth.

Demetriades, Hussein, 1996 and Shan & al (2001), using time series techniques, found causality to be bi-directional for most countries in their sample. In addition to studying (Luintel, Khan, 1999), using a sample of 10 developing countries, the study concluded that the causal relationship between financial development and output growth is bi-directional for the 10 countries surveyed. Calderon, Liu (2003), using a sample of 109 developing and developed countries, demonstrates that financial development generally leads to the economic growth of developed countries, but that the causality of Gangerger is two-way for developing countries.

lthough it is difficult to measure financial development, research that attempted to study the relationship between financial depth and growth has taken a number of measures and reached different results (Hassan, Bashir, 2003). (Al-Awad, Harb, 2005 ); (Khan, Senhadji, 2003); (Kink, Levine,

1993a) (Savvides, 1995). However, the general consensus of these studies is that there is a direct correlation between financial development and economic growth.

## **4. RESULTS AND DISCUSSION**

### **4.1. the standard study of the relationship between financial development and economic growth**

Over the course of a few decades, the relationship between financial development and economic growth has received a great deal of attention in economic literature. Although important theoretical and practical studies have made progress in understanding the relationship between money and growth, they have not produced broad consensus on a number of key aspects The role of financial markets in economic development. The debate over the direction of the causal relationship between money and growth is based on the question of whether financial development is one of the main determinants of growth or only follows economic development.

#### **4.1.1. Data and measures taken:**

##### **4.1.1.1. Time series combination:**

The study period extended from 1980 to 2015 and covered an era of financial development and economic growth, as well as expansion of production, money growth, and increased investment volume. The original dataset of 13 countries in the Middle East and North Africa region, using World Bank data for global development indicators (WDI 14/04/2015), to study how financial and real economic growth correlates with economic growth have enabled us to effectively estimate time series Cross-sectional analysis of various time series models within the MENA region

##### **4.1.1.2. Indicators of financial development and economic growth:**

Various indicators have been used in applied studies to measure financial development, from monetary aggregates, to the ratio of the size of the banking system to GDP (Al-Awad, Harb, 2005) (Chuah, Thai, 2004). In this study, we used six variables to measure the financial development and size of the real sector. Financial development indicators include information from banks and other financial intermediaries as well as loan markets.

The first indicator is domestic credit provided by the banking sector as a percentage of GDP (DCBS). The highest value of DCBS indicates a high



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degree of dependence on the banking sector for financing. In other words, the highest value of DCBS means higher value for financial development because banks are more likely to provide five functions to improve information and financial transactions (Levine, 1997). It is assumed, however, that banks are not subject to priority sectors for expensive or binding government bonds, which may not be appropriate for developing countries. Because of this shortfall, we also used domestic credit to the private sector as a percentage of GDP (DCPS) to measure financial development. The high ratio of domestic credit to GDP indicates not only a higher level of domestic investment, but also a higher development of the financial system. Financial systems that allocate more credit to the private sector are likely to be more likely to look for lending institutions, exercise control of institutions, provide control and manage risk, facilitate transactions, and mobilize savings (Levine, 2005), which requires a high degree of financial sophistication Finance.

Broader M3 - as a percentage of GDP - to measure the liquid liabilities of the banking system in the economy. We have used M3 as an indicator of financial depth because two other monetary aggregates (M2 or M1) may be more deficient in economies with backward financial systems because they "are more attached to the ability of the financial system to provide transactional services than the ability to channel funds from savers to borrowers" , Senhadji, 2003). High liquidity means greater intensity in the banking system. The assumption here is that the size of the financial sector is positively correlated with financial services (King, Levine, 1993b).

The fourth indicator of financial development is the ratio of gross domestic saving to gross domestic product (GDS). Pagano (1993) concluded that the steady rate of growth of a country depends positively on the ratio of savings converted to investment, suggesting that the transfer of savings into investment is a channel through which the financial depth can affect growth. In other words, financial development is expected to benefit from higher ratios of domestic savings (GDS), thereby increasing the volume of investment.

Financial braking and credit control lead to negative real interest rates

that reduce savings incentives. According to this view, the high GDS ratio results from the positive real interest rate that stimulates investment and growth (MacKinnon, 1973) (Shaw, 1973).

The fifth and sixth indicators used in this study are the ratio of trade to gross domestic product (TRADE) and the ratio of the government's final consumption expenditure to GDP (GOV), respectively. They effectively measure the size of the real sector, and the weight of fiscal policy.

Many developing countries tend to rely heavily on international transactions to achieve economic growth while continuing financial liberalization. In addition, some countries are using expansionary or shrinking fiscal policies for sustained economic growth by adjusting government spending.

The economic growth index is based on GDPPC and represents the dependent variable as an indicator of economic growth, which has been used in both the neo-classical theory and the internal growth theory developed by Romer (1986-1990), Lucas (1988) It refers to the amount of change in the well-being of the individual throughout the study period, which is obtained by dividing the GDP by the total population. The main source of this variable is World Bank statistics (WDI). GDP represents the total monetary value of goods and services produced In the country (whether by companies) Domestic or foreign) within a year, and the GDP index is the main indicator of measuring economic growth rates, as it includes all sectors of the economy, which gives a clear picture of the current economic situation of the state and the validity of investment, so concerned by the results of all categories of investors, When applying its monetary policy and determining interest rates.

#### **4.2. Results of the applied study:**

The study sample consists of 13 countries from the MENA region comprising Algeria, Bahrain, Egypt, Iran, Jordan, Kuwait, Morocco, Qatar, Saudi Arabia, Sudan, Syria, Tunisia and Turkey. Throughout the study period.

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**Table 1.** Descriptive statistics for the study variables

Variables	Observations	Mean	Median	Std.Dev	Maximum	Minimum
<b>LNGDPPC</b>	442	8.135166	7.791627	1.265988	11.44800	5.549108
<b>DCBS</b>	442	34.70569	32.25869	21.58295	93.54561	1.615531
<b>DCPS</b>	442	35.60032	32.25869	22.42088	93.54561	1.615531
<b>GDS</b>	442	26.00978	22.05911	18.05315	75.62471	-66.95316
<b>GOV</b>	442	17.57333	16.57133	6.776285	76.22212	4.835099
<b>M2</b>	442	59.84343	56.56083	27.09442	192.2391	8.578547
<b>TRADE</b>	442	74.79665	67.59804	38.82663	251.1389	11.08746

**Source:** Ours sample study using Eviews 8

**4.2.1. Time series stability:**

The stability of the time series and segmentation was tested based on the most common and used tests, especially the first and second generation, in the tests of LLC, IPS, Fisher-ADF. This was done in order to detect the properties of the time series of the variables of the model. We have reached the results shown in the following table:

**Table II.** Results of the tests of LLC, IPS, Fisher-ADF to study the stability of the data of the panels

At the first I(1) :differential	I(0) :At the level (Level)	Type of test	
-14.8537 (0.0000)	5.14841 (1.0000)	LLC	LNGDPPC
-12.0223 (0.0000)	5.59949 (1.0000)	IPS	
-10.5454 (0.0000)	5.43957 (1.0000)	ADF	
-12.1281 (0.0000)	1.08842 (0.8618)	LLC	DCBS
-12.7483 (0.0000)	0.89500 (0.8146)	IPS	
-11.3141	0.73151	ADF	

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(0.0000)	(0.7678)		
-9.86141 (0.0000)	1.16742 (0.8785)	LLC	DCPS
-11.5050 (0.0000)	0.34625 (0.6354)	IPS	
-13.0957 (0.0000)	2.53042 (0.9943)	ADF	
-21.5911 (0.0000)	-1.87631 (0.0303)	LLC	GDS
-17.6604 (0.0000)	-1.39179 (0.0820)	IPS	
-18.4870 (0.0000)	-1.17614 (0.1198)	ADF	
-19.0746 (0.0000)	-0.64287 (0.2602)	LLC	GOV
-15.9575 (0.0000)	-2.46680 (0.0068)	IPS	
-16.6688 (0.0000)	-2.46554 (0.0068)	ADF	
-16.1327 (0.0000)	2.86006 (0.9979)	LLC	M2
-14.8358 (0.0000)	-2.40813 (0.0080)	IPS	
-14.8788 (0.0000)	3.08820 (0.9990)	ADF	
-18.6695 (0.0000)	-0.90220 (0.1835)	LLC	TRADE
-16.0743 (0.0000)	-2.62695 (0.0043)	IPS	
-16.8122 (0.0000)	0.48089 (0.6847)	ADF	

**4.2.2. Simultaneous Integration Testing:**

After conducting stability tests on the study variables, the long-term relationship was tested through the Pedroni Simultaneous Integration Test, an extension of the Granger and Engel, 1987 case of the embedded data state, based on the unit root tests of the estimated vectors. Table 3

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summarizes the results of the Pedroni test :

**Table III.** Results of the Simultaneous Integration Test for Pedroni

<b>Test for Pedroni</b>				
<b>possibility</b>	<b>:(Weighted)</b>		<b>Statistics</b>	<b>:(Com AR)</b>
0.9991	-3.113083	0.9992	-3.161078	:Statistic V
0.9543	1.687668	0.9661	1.826 836	:RHO Statistic
0.7017	0.529421	0.8026	0.850 977	:PP Statistic
0.4941	-0.014805	0.6406	0.359 934	:ADF Statistic
الإحتمال	الإحصائية			:(Indiv AR)
0.9952	2.587896			:RHO Statistic
0.8151	0.896687			:PP Statistic
0.2421	-0.699536			:ADF Statistic

**Source:** Ours sample study using Eviews 8

The results shown in Table (III) indicate the absence of concurrent integration relationships between the differentiated variables of the same grade. This is done through the statistics of V, RHO, PP and ADF. This shows rejection of the alternative hypothesis and acceptance of the null hypothesis. (AR, R, PP, ADF). The absence of synchronous synchronous relationships between the Indiv AR and the nondestructive hypothesis of one of Pedroni's seven hypotheses.

**4.2.3. Test the direction of causation relations for Granger:**

At this stage, the trend of causal relations between the various variables is tested using the Granger method. It is clear that all indicators of financial development are causing economic growth except domestic credit provided by the banking sector DCBS and the domestic credit of the private sector DCPS. In the opposite direction, per capita GDP The total LNGDPPC causes both domestic credit provided by the DCBS banking sector, local credit provided to the DCPS private sector, GOV government expenditure, as shown in following Table :

**Table IV.** Test results for Granger

possibility	F-Statistic	The null hypothesis	d	المشاهدات
0.1105	2.21494	LNGDPPC Do not cause DCBS	2	416
0.0006	7.57084	DCBS Do not cause LNGDPPC		
0.0644	2.76122	LNGDPPC Do not cause DCPS	2	416
0.0008	7.29710	DCPS Do not cause LNGDPPC		
1.E-05	11.4439	LNGDPPC Do not cause GDS	2	416
0.0690	2.69170	GDS Do not cause LNGDPPC		
9.E-09	19.4433	LNGDPPC Do not cause GOV	2	416
0.0012	6.82249	GOV Do not cause LNGDPPC		
3.E-08	18.0982	LNGDPPC Do not cause M2	2	416
0.0836	2.49634	M2 Do not cause LNGDPPC		
0.0070	5.02238	LNGDPPC Do not cause TRADE	2	416
0.0913	2.40803	TRADE Do not cause LNGDPPC		

Source: Ours sample study using Eviews 8

#### 4.2.2. Defining Delays:

The number of lags was selected based on Akaike Information Criterion (AIC; 1973), Schwarz. information Criteria (SC; 1978), (LR) sequential modified LR test statistic, Hannan-Quinn information criterion (1979), (FPE; 1969) Final prediction error. Of the results of the previous five tests, three recorded the lowest value at the second deceleration period and therefore Lag (2) is the optimal value.

Table V . Optimal delay period testing criteria

HQ	SC	AIC	FPE	LR	Delay period
48.51485	48.56247	48.48330	2.68e+12	NA	0
32.65111	33.03208*	32.39867	277505.2	5403.607	1
32.52969*	33.24400	32.05637*	197133.1*	204.2161	2
32.75136	33.79901	32.05715	197462.5	91.37226	3
33.09873	34.47973	32.18364	224463.0	50.50586	4
33.37745	35.09179	32.24147	238473.0	70.09783	5
33.44369	35.49138	32.08683	205129.0	131.1522	6

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33.71634	36.09738	32.13860	217242.8	68.59282	7
33.93230	36.64668	32.13367	217793.6	82.85892*	8

\* Indicates the delay period selected by the standard

**Source:** Ours sample study using Eviews 8

**4.2.5 Estimation of VAR model with fixed effects:**

In order to achieve the model's estimation, and thus to arrive at results that explain the nature of the relationship between economic growth and the indicators of financial development, the data series method was used by applying the Fixed Effects Model. Based on the Eviews 8 program, Results of the following table:

**Table VI.** Model parameters of the estimated study using the fixed effects model

<b>Variables</b>	<b>Estimated value of parameters</b>	<b>Standard deviation of the parameter</b>	<b>T</b>	<b>p-value</b>
C	0.056921	0.157614	0.361144	0.7182
LNGDPPC(-1)	1.161937	0.056832	20.44523	0.0000
LNGDPPC(-2)	-0.202437	0.058967	-3.433052	0.0007
DCBS(-1)	0.002049	0.006818	0.300546	0.7639
DCBS(-2)	-0.010931	0.006920	-1.579741	0.1150
DCPS(-1)	-0.004237	0.006655	-0.636709	0.5247
DCPS(-2)	0.012570	0.006715	1.871746	0.0620
GDS(-1)	-0.000458	0.001856	-0.246586	0.8054
GDS(-2)	0.001519	0.001908	0.796146	0.4264
GOV(-1)	0.008276	0.004439	1.864661	0.0630
GOV(-2)	-0.006363	0.004377	-1.453676	0.1468
M2(-1)	0.004383	0.001242	3.529379	0.0005
M2(-2)	-0.001515	0.001266	-1.196941	0.2321
TRADE(-1)	0.002102	0.001073	1.958569	0.0500
TRADE(-2)	-0.001086	0.001023	-1.061829	0.2890
<b>Statistical indicators</b>				

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R-squared	0.985919	Mean dependent var	8.147396
Adjusted R-squared	0.984977	S.D. dependent var	1.259466
S.E. of regression	0.154368	Akaike info criterion	-0.836248
Sum squared resid	9.269715	Schwarz criterion	-0.574641
Log likelihood	200.9396	Hannan-Quinn criter.	-0.732809
F-statistic	1047.543	Durbin-Watson stat	2.016263
Prob(F-statistic)	0.000000		

**Source:** Ours sample study using Eviews 8

The statistical analysis depends on the economic measurement tools such as the quality test of the model through the approach of the statistical results of the economic theory and make sure that they are compatible or contradictory. Based on these results, it can be said that the relationship between the dependent variable and the explanatory variables is very strong, (1) and TRADE (-1) are significant and their indicators are consistent with the economic theory. In addition, , This shows that the model s Turn on the interpretation of the changes occurring in the per capita gross domestic product (GDP), and the ability of independent variables to explain the change in the dependent variable. The results of this study can therefore be expressed as follows:

- At the level of 5%, M2 variable lagged in one period of the expanded concept of money as a percentage of GDP to measure the liquid liabilities of the banking system in the economy has a positive effect on economic growth in the countries of the study sample represented by the per capita GDP estimated at 0.4% .

The change in trade in one period, which is represented by the ratio of trade to GDP, also has a significant positive effect on the economic growth in the sample countries, which is also the per capita GDP estimated at 0.2%.

## 5. CONCLUSION

The objective of our standard study is to determine and measure whether the financial development of the group of countries used in the analysis has an impact on economic growth. The results show that the financial sector in the Middle East and North Africa, in general, still plays a much smaller role than in countries Others have the same level of income,



but there are significant differences in the level of development of this sector among the countries of the region. Banks have so far dominated financial systems in the region and financial intermediation activities in the Mediterranean are large by international standards. However, the banking sector is not playing a sufficient role in promoting economic development. Despite privatizations, state ownership of banks remains greater than in other similar countries. Capital markets, with the exception of the GCC countries, remain generally underdeveloped and characterized by a low level of market capitalization and volume.

In light of the above, and as a link between financial development and economic growth is a dynamic and continuous process, the following suggestions and recommendations can be made:

- Strengthening legal and regulatory frameworks for the financial sector;
- Restructuring and privatization of banks;
- Improving the functioning of capital markets and their regulatory framework.

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