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CORRUPTION, INSTITUTIONAL QUALITY, HUMAN CAPITAL AND ECONOMIC GROWTH IN THE REGION OF MENA: THE DYNAMIC PANEL DATA (GMM)

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ABSTRACT

The interest of this paper is to show that corruption and institutional quality through human capital were among the main key failure factors for the development of the nations of the MENA region and therefore when we speak of "corruption."Indeed, institutional quality through the human direct and indirect influences on economic growth in capital. Our empirical attempt, dynamic panel data (GMM) and during the period 1998 to 2006, trying to clarify the direct and indirect effects of corruption and institutional quality through human capital on economic growth in all parts comparing the results obtained in the MENA region with other regions. Our sample consists of one hundred countries on which we test the impact of institutional quality through human capital and corruption on economic growth.

Key words: Corruption, Human Capital, Institutional Quality, Economic Growth, Dynamic Panel Data (GMM). MENA.

INTRODUCTION

Few years ago, the relationship between institutional quality via human capital and economic increase was an objective for theoretical research and empirical study. This was possible with the progress of endogen growth analysis and the construction of databases concerning the institutions. North (1990) defines the institutions as human constraints that include political, economic and social interaction. They comprise the too formal rules (property laws, constitutions and laws) and informal constraints (customs, traditions and codes of behavior). In effect, the economic institutions aim to restore the macroeconomic balance. Thus, the role of the institutions is more and more fore grounded, « as being a key element for growth, particularly, under the following aspects: protection of the right for property, regulation structures, quality and the independence of the judicial institution and bureaucratic competence». In his essay, "*Do institutions cause growth?*", the economist of Harvard, Edward Glaeser, highlights the problem with the theories which emphasize the importance of institutional reforms. In fact, it is extremely difficult to find a quantitative measure of the institutional quality that could be inserted in a statistic pattern explaining economic growth. According to the World Bank, a universally recognized organization, the backwardness of the countries in the region MENA is dependent to problems of authority (governance). The hypothesis carried reveals that if these countries had bettered off the quality of their public sector management to render them comparable to the performing countries of south East Asia, they would have reached a considerable growth rate.

The present dissertation attempts to clarify the relationship between institutional quality via the human assets and the economic growth in the region of MENA. Furthermore, the recent theories on the endogen growth consider the human assets one of the main factors of economic growth. Indeed, the institutional quality has an impact on the gross national product since it is directly affected by the rate of corruption in all countries. Moreover, corruption could be perceived as a structural problem emanating from the political as well as the economic systems. It also could be seen as a socio-cultural or individual phenomenon (Amundsen, Sissener et Søreide, 2000; Rose-Ackerman, 1989).It goes without saying that corruption is a problem that affects almost all domains in the developing as well as the highly advanced countries. In the public sector as well as in the private one, neither equality nor equity exists when the rate of corruption is very high. It is manifested through favourtism among parents, friends, and political allies.

Embezzlement, the abuse of social properties, carelessness and mismanagement are, indeed, current practical examples. The main idea of the present paper is to know the direct and indirect impact of corruption and the institutional quality via the human assets on the economic growth in the region of MENA during a well- defined period of time and through a comparative analysis between other regions such as the Asiatic region, the OCDE, etc.My analysis will begin with stating the theoretical and empirical literature review. As a second step, the emphasis will be laid on presenting a method based on the dynamic panel model of AlonoBonde (GMM). Our attention will turn, then, to the methodology, the variables used and the assessment of the model.

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By the end of this paper, we should analyze the results and conclude the whole work.

Literature Review

Theoretical literature review

Theoretically, since the classic models (exogenesis) proved insufficient to explain the stable growth for equilibrium, writers like Lucas (1988), Romer (1986), McKinnon et Shaw (1973), Barro et Sala-I-Martin (1995) have developed the endogen growth models. They attempted to understand growth through studying "proxies", the factors of growth. Immediately, the growth of the revenue (income) corresponds with the accumulation of physical and human assets and the increase of productivity. However, the accumulation of assets and the growth of productivity being endogen, these models fail to structurally analyze growth because the cause-effect relations are not certain and reverse causality relations are possible. They, also, do not explain the reason why some companies manage to accumulate and innovate faster than others.

The New Institutional Economy (NIE) shows that the efficient institutions could contribute to the success of market reforms. It, even, affirms that the institutions represent one of the determinant factors of the long-term economic growth. North (1990) defines the institutions as "the rules of the game" which shape human behaviours in a given society. The institutions have a great role in the society because they determine the fundamental structure for human interactions in different levels: political, social and economic. Thus, the economists changed their orientation to deeper variables, especially the institutional variables in an attempt to justify the gaps in production between countries unexplained by the economic variables only. Many writers fronted some political and institutional factors in the framework of renewing the models for economic growth. As a matter of fact, there are numerous writers who hold the idea that the efficient institutions would be a vital condition for the success of market economies, for example North (1990, 1995), Kaufmann, Kraay and Mastruzzi (2004), Clague Keeferet and Olson (1995), Alesina and Perotti (1996), to name only a few. The proficient institutions could contribute to the improvement of economic results and the success of reforms. Liberal writers like Acemoglu, Johnson and Robinson (2004), Rodrik, Subramanian and Trebbi (2002) have even asserted that the quality of institutions is pivotal not only for the kick start of economic growth but also for growth itself. It is the only aspect that determines the level of economic development.

Besides, there are many other political and institutional factors which have been taken in consideration: democracy for Barro(1996), the respect of property rights for Clague, Keefer et Olson (1996), political instability for Alesina and Perotti (1994). Rodrik (1999) maintains the idea that agood governance would be an indispensable condition for the success of market economies. Hall and Jones (1999) lay bare that the differences seen in intensity of physical assets as well as the achieved level of education explain only a tiny part in the observed differences of the output levels by all over the world.

The Middle East and North Africa (MENA) crossed the threshold of the new millennium with problematical issues. If the region cannot overcome these problems, it may face a huge number of angry employees as well as political instability and social agitation. To avoid this unenviable situation, the MENA should necessarily encourage investments. Even though some progress has been achieved in various fields, some efforts are still required. Particularly, the complete reorganization of institutional, economic and political contexts in the region is at stake. Build up the best institutions results in some changes. The countries of MENA must try hard to reduce the size of public sector, respect the principle of equality, protect the rights for property, eradicate corruption, respect human rights, promote freedom of press and search for a better integration in the regional and international scale. Indeed, the human, financial and natural resources of the region allow the countries of MENA to construct solid institutional frameworks and attract the investments they need.

The empirical literature review

In the empirical scope, many literatures consider that good governance is crucial for economic growth. As a matter of course, these literatures manifest themselves in the form of transversal studies assembling many countries. Actually, several experimental studies try to verify the economic frequency of corruption, basing on transnational data provided by research centres. Consequently, they appear to indicate that corruption is nurtured by private investment and economic growth. The institutional shortcoming necessarily leads to appalling allowances of resources which display the phenomenon of corruption. The studies have shown that the relationship between corruption, on one hand, and transparency, responsibility and the supremacy of human rights, on the other hand, is reversed. This means that if the mechanisms of responsibility, for example, become more efficient, corruption diminishes and progress is achieve. Mauro, (1995) proved a negative correlation between corruption and investment rates and corruption and growth rate in 67 countries during the period 1960-1985. The empirical tasks (for example, Barro and Sala–i–Martin, 1995) confirm their hopes on expenditures in education. Easterly and Rebelo (1993) argue that spending on equipments has a positive impact.

However, Devarajan et al. (1996) claim a negative effect in case of neutralizing the global expenses. Their justification revolves around the fact that in most countries the spending on equipment is very high while general expenses in the education and health sectors are inadequate in an institutional background. According to the International Institute of Finances (IIF), out of 37 billion dollars of net investments of realized portfolios in the emerging markets in 2003, the majority of portfolio placements (investment) in MENA represent only 500 million dollars. That is to say, about 1.4%. The IIF thinks that this figure has witnessed a significant increase in 2004-2005. The lasting growth requires better allocation of resources and amelioration of the formulation and the use of politics, a task that cannot be accomplished without personnel's and administrators' transparency or sense of responsibility. Moreover, the complexity of corruption leads to an inevitably subjective perception of the phenomenon.

The evaluations afforded by the people interrogated (interviewed) are determined by cultural constituents since both the definition of and the opinion toward corruption vary from one country to another (Seligson, 2006). Accordingly, a considerable gap may appear between the real and the perceived levels of corruption (Čábelková ,2001 ; Sah, 1987 ; Razafindrakoto et Roubaud, 2006). Consequently, it proves to be hard to experientially distinguish between the different forms of corruption: administrative, political, economic and social. In a nutshell, the majority of empirical studies have provided evidence that the poor institutional quality results inevitably in corruption which affects directly or indirectly economic growth.

Selection of Variables and Assessment Method

Selection of variables

Macroeconomic indicators

Actually, we have built up proper macroeconomic databases with the help of international macroeconomic series available in World Development Indicators (WDI 2012). We have kept in our study different indicators of macroeconomic performance such as:

GDP g/ capital (Growth rate of GDP per capita): It is the logarithm of real PIB per inhabitant. Starting from this variable, we calculate the explained variable, namely the rate of real growth per head by subtracting the logarithm of PIB in the instant (t-1) for logarithm of PIB in the instant (t).
Icg_qog: It is the logarithm related to the level of consumption of the government by percentage of GDP.
Lpop: This variable corresponds to the logarithm of the country's total number of population (i) in the instant (t).
Openness Trade (OT): Relying on Berthélemy and Varoudakis (1998), we introduced the logarithm of the coefficient of trade openings measured by the sum of imports and exports in percentage of PIB. In fact, a growing trade opening hastens economic growth. As a result, the desired sign of this variable is, therefore, positive.
FDI: It is the net flows of the foreign direct investments. The introduction of this variable is justified by the abundant literature stipulating that the foreign direct investment has a positive impact on economic growth such as N. Fosto who proves that the technological transfers stemming from IDE affect growth positively. Thus, the expected sign of this variable is positive.
HK: It is the stock of human assets measured by the ratio of inscription in tertiary education.
Linvest (logarithm of domestic investments): It is the logarithm of domestic investments measured by the percentage of the raw configuration of fixed assets compared to PIB. Further in this study, we intend to provide precious indications on the links that exist between the performances of a country's economy and the institutional structure apprehended by the synthetic indices of the governance.

Institutional indicators

As far as political institutions are concerned, they have figured out as an object of considerable classification on behalf of D. Kaufmann and the World Bank for many years: the program "Governance matters" sets six institutional indicators in the political field:

Political stability and violence (PS): this index (indicator) measures the probability of violent changes of political systems and governments as well as the serious threats caused to public order, including terrorism. The higher it is, the greater is the political stability. It is explained by the following aspects:

- Armed conflicts
- Overthrow of governments
- Social unrest
- Terrorist threats and political violence
- Ethnic tensions
- The split of political spectrum
- The coercive measures to preserve power.
- The constitutional changes.

Expression and democratic responsibility (Voice and Accountability, VA): thisindex measures the political and individual rights enjoyed by citizens. The variable, 'Democracy', represents a mega-indicator, regrouping factors related to the quality of the institutional environment such as:

- The changes in the level of the government, the organized transfers
- Political rights: this sub-index revolves around the plurality of political parties, the quality of the electoral process (if elections are free and equitable), the presence of the countries in question, of a dominant group (thus this sub-indicator revises the degree of political competitions).
- The degree of military intervention in the political life.
- Transparency: this sub-indicator sees whether the government successfully communicates its intentions, that is to say, if the intentions of the government are incontestably accepted by the civil society.

The efficiency of public governance (Government effectiveness GE): it refers to the measure of competence of public bureaucracy and public services quality. This variable is essentially clarified by the following aspects:

- The value of governmental politics
- The value of governmental personnel.
- The authority of the government to conserve new programs.
- The extent of the duration of past time by the economic representatives beside the bureaucrats; being the bureaucratic deadline.
- Service quality provided by the government.
- The anticipation of changes in regulations and laws.
- Transparency in the level of decentralization.
- The waste in the level of government expenditures.
- The degree of the exhibition of public services for political interferences.

The quality of administrative regulation (Quality of Regulation RQ): this indicatormeasures the regulatory bonds to the functioning of markets. It includes the following aspects:

- The degree of government's intervention in the economy.
- Price and salary control.
- Trade policy (the tariff and non-tariff barriers for trade).

- The effectiveness of regulatory measures applied to exports.
- Price control (management).
- Price liberation.
- External trade regulations.
- The degree of public companies' authority over economic activities.
- The efficiency of the fiscal (financial) policy.

The quality of legal procedures, Rule of law (Rule of Law, RL)*: this indicator measures the quality of respect of legal contracts by the judicial system or the police, taking in to account the resort to private violence and its repression. It is also revealed through several aspects:

- Applicability of private contracts (agreements).
- The protection of property rights.
- The effectiveness of the police in protecting the security of individuals.
- The anticipation of the judicial system.
- The efficiency of the judicial system with regard to business transactions.
- The independence of the judicial system.
- The possibility of winning a case against the government.

The control of corruption (CC): this indicator measures the use of the prerogatives of power for personal reasons, especially the empowered individuals who become richer and richer. It is shown through the following characteristics:

- Corruption in the scope of public administration.
- Corruption in the level of political system as a determent to foreign investments.
- The frequency of "additional payments" to obtain a service.

Though they could be effectively linked to the 'governance', these six indicators do not treat public actions equally. The control of corruption and the value of legal procedures cross-refer to the practice of public and governmental action. The efficiency of public action and the quality of regulation rely on the results of public action. Finally, political stability and opposing capacities and expression refer to the manifestations of positions and political orientations. As a matter of fact, these indicators are attained by moderate means starting from other indices. (I haven't understood the meaning)! The indicators take entire values, from -2.5 to +2.5. A high value for a given country in a given date is an index of good quality institutions.

Other institutional indicator

IGQ: Index of governance quality: « *ICRG indicator of qualty of govermenemt*: The mean value of ICRG variables "Corruption", *law and order" and bureaucracy quality*».

Descriptive statistics IGQ*:* After calculating the index of the quality of governance, we present descriptive statistics of this synthetic indicator:

	Minimum	Maximum
Good governance	52	86
Averagegovernance	41	47
Bad governance	15	37

The index of the quality of governance is essentially composed of six indicators made by D. Kaufman Kraay A.et Mastruzzi M. (2003), which are:

- Voice and Accountability, (VA).
- Political stability and violence (PS);
- The efficiency of public governance (GE);
- The quality of administrative regulation (RQ);
- The quality of legal procedures, Rule of law (RL);
- The control of corruption (CC) ;

According to the definition D. Kaufman Kraay A.et Mastruzzi M. (2003), the quality of governance is an important factor for the growth of a country. However, governance is a concept that is composed of several institutional variables. In total, the index of the quality of governance is calculated by:

$$IQG = PSGa * CG^b * RDL^{1-a-b}$$
$$\text{Telle que ; } PSG = VA^c * PS^{1-c}$$
$$CG = GE^d * RQ^{1-d}$$
$$RDL = RL^e * CC^{1-e}$$

With a, b, c, d and **e** represent the proportions related to the importance of each indicator in the index measuring the quality of governance.

- If IQG is greater than 50, then we can conclude that the country is characterized by good governance. If IQG is between 40 and 50, it is said that the country has an average governance (modest governance).If IQG is less than 40, then such a country has a weak governance (bad governance).

Estimation Methodology

Sample and study period

Our sample consists of 100 countries by providing a proper basis of international macroeconomic data in "CD 2012 World bank and institutional Codebook.

The Arellano and Bonde(1991)model

$$Y_{i,t} - Y_{i,t-1} = \theta\, Y_{i,t-1} + \beta\, X_{i,t} + \eta_t + \varepsilon_{i,t} + \mu_t$$
$$Y_{i,t} - Y_{i,t-1} = \theta\, Y_{i,t-1} + \Phi\, K_{i,t} + \varphi\, Z_{i,t} + \eta_t + \varepsilon_{i,t} + \mu_t$$

With:

- $Y_{i,t}$**:** The growth rate of GDP per capita at time t.
- $K_{i,t}$**:** The vector of variables stand ardes growth at time t.
- $Z_{i,t}$**:** The vector of institutional variables growth at time t.
- μ_t**and**$\eta_i$are respectively the unobservable and identifiable factors that affect all countries in the sample at time t.
- The second equation is defined by: $X_{i,t} = (K_{i,t}, Z_{i,t})'$ **et** $\beta = (\Phi, \varphi)$**.**

Descriptive analysis

Descriptive statistics of variables

The descriptive statistics of endogen variables and explicative variables as well as the correlation with the different variables are presented in the following tables:

Table 1. Descriptive statistics of data

Variables	Observations	Average	Standard deviation	Minimum	Maximum
GDP g/ capital	782	0.0199	0.0026	-0.072	0.942
Linvest	863	2 .9791	0.0134	0.5972	4.7323
Lpop	1899	7.0454	.01542	5.3784	9.1073
HK	641	22 .1551	0.8490	0.3711	89.3134
OT	866	4.1430	0.0171	2.7720	5.6171
Icg_qog	854	2.6221	0.013	1.3010	3.6911
FDI	758	5.4950	0.3171	0,0001	145.2001
IGQ	792	50.6391	0.6761	13.2601	88.4002
RQ	792	0.1076	0.0327	-2.9985	1.9258
GE	792	0.0905	0.0392	-2.2495	2.5339
VA	792	-0.3083	0.0361	-1.9642	1.7121
PS	776	-0.1767	0.0377	-3.2201	1.5436
CC	770	0.7941	0.0411	-2.1296	2.5158

Table 2. Correlations between variables

Variables	GDP g/ capital	Linv	HK	Lpop	OT	IGQ
GDP g/ capital	1.0000					
Linv	0.1997	1.0000				
HK	0.1476	0.6994	1.0000			
Lpop	0.1080	0.5732	-0.0147	1.0000		
OT	0.1270	-0.1046	0.1154	-0.3733	1.0000	
IGQ	0.1109	0.6492	0.5989	0.0133	0.1152	1.0000

To detect an eventual relation between the different variables, we will present the different coefficients of correlation in the below tables in order to test the correlation between these variables. A coefficient of elevated correlation (near 1 in absolute value) indicates a strong correlation between the used variables. Generally, the values which are greater or equal to 0.5 signify that the variables are predominantly correlated positively or negatively according to the variable effect in consideration of the other. Relying on the table that represents the different coefficients of correlation, we point out a strong positive correlation between Linvest and HK of (0.6994) and other correlations which are weakly related, for example GDP g/ capital and Lpop of (0.1080). As well, there exist negative correlations between the dependent and independent variables.

RESULTS

The relation between the human asset and economic growth in a context of openings has aroused interest in economic literatures for many years. In this part, we will analyze this articulation on studying the impact of structural and institutional variables on economic growth in different regions, focusing mainly on MENA. This will be carried out through a study based on dynamic panel data for classical equation of growth on a sample of 100 countries during 1998-2006.

Firstly, we will carry out the evaluations concerning the sample as a whole. Secondly, these estimations are made by introducing dummy-regional variations, up on which we carry out the same regressions. This would allow us to verify if the effects of explicative variables (institutional and economic) on growth have the same effects in different regions.

Interpretation of Findings

Regression of the totality of the sample

In the beginning and after the first regression, we notice that all the used variables in the estimation of the standard equation of economic growth have signs which confirm (certify) the theoretic literature and are, generally, significant: the direct foreign investment (FDI), the human Capital (HK),

trade openness (OT) are positively correlated with the rate of growth of GDP per capita and significant respectively by 1% and domestic investment (Linvest) is positively correlated with the rate of increase of GDP per capita and significant by 5%.For the two variables, the logarithm of the population (Lpop) and the consumption of the government (Icrg_qog) are negatively correlated with economic growth. The variable of population is not significant but the consumption of the government is indicative of 5%.

The impact of the level of governmental consumption on economic growth is negative. This complies with the findings of Barro et Sala-i-Martin (1995).After and during the second regression, we introduced the index of governance quality (IGQ). We noticed that this index has a positive impact (0.01%) and indicative of 10% on the economic growth, which affirms the works of Kaufman D., Kraay A. and Mastruzzi M. (2003).For the macroeconomic variables, they remain significant; except the population which has a negative and insignificant effect on the economic growth.Besides, we included, in the third regression, the index of governance quality by region to see the different effects. We notice that the introduction of (IGQ) has a positive impact of 0.34% on economic growth and indicative of 5%. While its impact, regionally speaking, is negatively correlated with economic growth and indicative of 10%, 5%, 10%, respectively for the countries of the African, Latin America, and east and south Asia.

While, for the countries of MENA, the impact of IQG on growth is not indicative.For the coefficients of macroeconomic variables, they have the expected signs, positive for the variables (FDI), (OT), (Linvest), (HK) but negative for (Icrg, qog) and (Lpop). Indeed, the parameters associated with human asset HK and Ipop are not significant. Besides, in many works using the approach of panel data, the direct impact of human asset on growth is hard to notice, for it is not sturdy (strong) enough. In the fourth regression, we include the countries of OCDE instead of those of east and south Asia. We notice that the impact of ((IGQ) on economic growth for all regions (African, Latin America and MENA) changes and becomes positive but not significant as opposed

to a negative effect and significant in the third regression. Moreover, the impact of IGQ on all the samples becomes insignificant. In this regression, the impact of (IGQ) is positive by 0.27% and indicative of 10% only in the (OCDE) countries. In the fifth regression, we notice that all the macroeconomic variables have the expected signs except population and human assets which are not significant. According to the findings of the regression, we notice that the synthetic (IGQ-HK) measures the impact of the governance quality on the human asset as well as their impact on economic growth.

We, also, note an insignificant effect of the (IGQ-HK) variable on economic growth, carrying the governance to a direct positive impact of 0.34% on economic growth and significant by 5% while its indirect impact is negative and not significant. Next and in the sixth regression, the inclusion of the synthetic variable (IGQ-HK) which measures the governance quality on the human asset as well as its indirect impact on on growth.

Furthermore, the variable (IGQ) which measures the direct impact of the governance on growth renders the macroeconomic variables (linvest) and (lpop) not significant while the variable (HK) becomes positively correlated with growth and significant of 5%.According to the findings, we notice that (IGQ) has a direct positive impact of 0.56% on growth and significant of 1%, while the indirect impact of the synthetic variable(IGQ-HK) on the different regions have a negative impact and significant by 5% for African, America, OCDE, and Asia.

The synthetic variable (IGQ-FDI), in the seventh regression, measures the impact of the governance quality on the direct foreign investments which has an indirect long-term impact on economic growth. According to this regression, we notice that this synthetic variable (IGQ-FDI) has a positive impact and significant by 5% on economic growth, that is to say, the direct foreign investment plays a great role in the economic growth of a given country.

Table 5. Effects of structural, institutional and human capital variables on economic growth of the total sample and also parts: MENA, OCD, Africa,Asia and America

Regressions Variables	(1)	(2)	(3)	(4)	(5)	(6)
Constant	-0.111***	-0.106***	-0.083**	-0.09**	-1.0003***	-1.05***
	(-3.4)	(-3.28)	(-2.61)	(-2.61)	(-3.44)	(-2.72)
HK	0.002***	0.0001*	5.59e-06	5.59e-06	0.0004	0.001**
	(3.16)	(1.92)	(0.05)	(0.05)	(1.55)	(2.37)
Lpop	-0.0004	-0.0003	-0.0003	-0.003	-0.0003	-0.0002
	(-1.55)	(-1.37)	(-1.34)	(-1.34)	(-1.12)	(-0.84)
OT	0.01***	0.009***	0.008**	0.008**	0.009***	0.009**
	(3.18)	(2.77)	(2.26)	(2.36)	(2.79)	(2.25)
FID	0.003***	0.003***	0.003**	0.003**	0.0042**	0.0033**
	(2.73)	(2.84)	(2.33)	(2.33)	(2.78)	(2.46)
Linvest	0.01**	0.009**	0.008	0.008*	0.009	0.0065
	(2.55)	(2.4)	(1.69)	(1.69)	(2.23)**	(1.39)
Icrg_qog	-0.013**	-0.01**	-0.012**	-0.014**	-0.014***	-0.015***
	(-2.34)	(-2.39)	(-2.19)	(-2.31)	(-2.54)	(-2.77)
IGQ		0.001* (1.62)				
IGQ-Africa			-0.0002*	0.00001		
			(-1.91)	(0.09)		
IGQ- America			0.0001**	0.0004		
			(-2.37)	(0.34)		
IGQ-MENA			-0.0001	0.00008		
			(-1.35)	(0.65)		
IGQ- OCDE				0.0002*		
				(1.79)		
IGQ-HK					-4.82e-06	
					(-1.07)	
IGQ-HK-Africa						-0.0003**
						(-2.42)
IGQ-HK-America						-0.00001**
						(-2.37)
IGQ-HK-Mena						-0.00001
						(-1.49)
IGQ-HK-OCDE						-0.0001**
						(-2.08)
IGQ-HK-Asia						-0.00002**
						(-2.55)
N	360	360	360	360	354	360
Sargan Test Chi2(20)	40.13	39.32	41.13	40.7	37.8	39.38
Prob> chi2	0.0048	0.0061	0.0036	0.041	0.0094	0.006
Regressions Variables	(7)	(8)	(9)	(10)	(11)	(12)
Constant	-0.047*	-0.10***	-0.09***	-0.08**	-0.097***	-0.09***
	(-1.85)	(-3.39)	(-2.83)	(-2.51)	(-2.73)	(-2.93)
Icrg_qog	-0.007	-0.013** (-2.34)	-0.017**	-0.015**	-0.013**	-0.013**
	(-1.41)		(-2.76)	(-2.55)	(-2.41)	(-2.28)

HK	0.0016*	0.002**	0.0001*	0.0001**	0.0001*	0.0002*
	(1.65)	(2.29)	(1.89)	(2.00)	(1.90)	(1.82)
Lpop	-0.0002	-0.0004	-0.0004	-0.0004	-0.0004	-0.0004
	(-0.79)	(-1.43)	(-1.57)	(-1.37)	(-1.38)	(-1.51)
OT		0.01***	0.01***	0.008**	0.009***	0.01***
		(3.11)	(3.03)	(2.47)	(2.81)	(2.95)
FID	0.001	0.003***	0.0028**	0.002**	0.002**	0.02**
	(1.10)	(3.05)	(2.32)	(2.38)	(2.55)	(2.46)
Linvest	0.008**	0.01**	0.013***	0.0011***	0.009**	0.01**
	(2.07)**	(2.53)	(3.08)	(2.62)	(2.21)	(2.33)
IGQ-FID	0.0001					
	(1.97)					
VA		0.002*				
		(1.78)				
VA-Africa			0.01*			
			(1.91)			
VA-America			0.003			
			(0.68)			
VA-MENA			0.015**			
			(2.35)			
VA-Asia			0.012**			
			(2.09)			
PS				0.003*		
				(1.73)		
GE					0.003*	
					(1.78)	
RQ-America						-0.0007
						(-0.02)
RQ-A-MENA						0.01*
						(1.72)
RQ-OCDE						0.00'
						(1.13)
RQ-Asia						-0.003
						(-0.49)
N	354	360	353	360	360	358
Sargan Test Chi2(20)	36.58	39.34	38.55	39.84	41.61	39.96
Prob> chi2	0.0131	0.00061	0.0076	0.007	0.0031	0.0051

• The dependent variable is the growth rate of real per capita GDP.
• The terms in parentheses are t-Student.
• ***, **, *: significantat 1%, 5% and 10% respectively.

Including this variable in the different regions of our sample, we notice that it is significant by 1% for the OCDE countries while it is not significant for the other regions (MENA, America, African and Asia).As far as the eighth regression is concerned, we notice that the democracy (VA) is positively correlatedand significant by 10% for the economic growth in the whole sample, which corroborates with the works of Mankiw, Romer and Weil (1992). Through scolarization, the democracy constitutes a favourable factor in the economic growth.Adopting democracy corresponds, also, to taking an egalitarian position. We are waiting, thus, for the choice that encourages the access to the decision of the poorer segment in the society and results in a certain redistribution of revenues in the economy. Because it seems that the inequality of revenues and growth are to be correlated negatively (Alesina and Perotti, 1996), the democracy should again affect growth positively. Concerning the ninth regression, the introduction of the synthetic variable democracy in the different regions renders the impact of the variable (VA) negative and insignificant. However, its impact on the region is positive by 1.16% on growth in the African Sub-Saharan countries and significant by 10%. In the countries of MENA and east and south Asia, democracy has a positive impact of 1.55% and 1.21% respectively and significant with 5%.   Only in American countries that the impact of democracy is not significant. If we refer to the works of Dornbusch and Edwards (1991), the countries of South America have primarily experienced specific forms of democracy defined as populist.

Several distinctive features associate populism with poor economic performance. Based on examples from Argentina, Brazil and Chile, these authors show, also, that democracy, more than the authoritarian regimes, has been conducive to the development of populist practices. Their arguments in this regard are similar to those put forward by Alésina and Rodrik (1991), since they emphasize the uninfluenced character of strong regimes (which cares little about popular legitimacy). According to them, the transitional democracies (succeeding authoritarian regimes) are the most vulnerable types of power (temporal horizon of decision-makers, countries calling for economic and social reforms ...).

They demonstrate that Latin American countries, where the tradition of Democracy is not anchored, are particularly subject to these populist temptations. It may be that the form of democracy adopted by the countries of Latin America has been particularly detrimental to their economic growth. This cuts the general impression of lack of confidence in democratic institutions in Latin America, mainly in Argentina and Brazil and a search for stability and economic development through the authoritarian regims.In the tenth regression, we introduced the variable of political stability (PS) which has a direct positive impact by 0.38% on the economic growth and significant of 10%. These effects on growth by region are all insignificant. Numerous publications have found data certifying (proving) positive impact of political stability.

Barro (1991) and Barro and Sala–i–Martin (1995) include a measure of revolutions and political assassinations, but it is not always significant. Alesina et al. (1996) analyze the impact of overthrowing an existing regime and conclude that it is negative for the countries to witness unconstitutional changes of governments. Alesina and Perotti (1996) study the influence of a measure composite of the political instability on the investment and show the expected negative impact. Svensson (1998) points out to the negative impact of instability on investment. Finally and in the last regression, the introduction of the variable "governance effectiveness" (GE) gives us a positive impact of 0.33% on economic growth and significant by 1%. That is to say, a country that has efficient governance (good quality provided by the state, the competence of public sector personnel, the thrift in the level of governmental expenditures) affect positively on economic growth. The impact of efficiency of governance by region produces insignificant results.

Conclusion

In our attempt of the empirical validation, we tried to see the impact of institutional variables on economic growth, seeking to demonstrate their importance in the different regions of the world. To achieve this aim, we carried, firstly, a preliminary descriptive analysis of data based on panel data carried out among 100 countries between 1998- 2006 on the institutional variables (indicators of governance) on economic growth. Besides, the focus on the regression of institutional variables is not marginalized. Indeed, their impact differs from one country to another and depends on macroeconomic variables such as direct foreign investment, investment and human asset.

Therefore, our findings reveal a positive and significant impact of the quality of the governance for the whole sample, which signifies that good governance is very important for the development of the country. Yet, this variable remains negative in the different regions except for the OCDE countries which mark a positive and significant impact of (IGQ) in the region. Through a synthetic variable, we have been able to measure the direct and indirect impact of the governance on economic growth from which we noticed that (IGQ) keeps its positive direct and significant impact on economic growth while its indirect impact through the human asset remains negative and insignificant. The indirect impact of this synthetic variable (IGQ-FDI) by region is negative and significant for the different regions.

Generally, we notice that the direct impact of institutional variables on economic growth is significant especially for democracy which has, also, an indirect positive impact on the Africa countries, MENA and Asia. These findings are meant to confirm the idea that the governance is a privileged canal through which these indicators seem to affect the economic growth. This positive association between the governance and economic growth comply with the works of D., Kraay A. And Mastruzzi M. (2003).The economy of institutions displays a shift in the field of economics towards more realism. The present dissertation intended to study the existing links between the political variables of the economic growth, namely democracy, political stability, the regulation qualities and calculate a synthetic variable (index of governance quality) in order to deepen our work.

As has been judged, it is necessary to firstly develop the different definitions and current institutional variables on referring to articles written by Douglas North and Ronald Coase and show the advantages and disadvantages of these variables on growth starting from theoretical arguments that plead (defend) in favour of the capacity of institutional variables to favour a process for strong and dynamic growth towards which the different countries converge. Secondly, we studied the role of the quality of economic, social and institutional variables in the economic growth by showing the importance of democracy, political stability, corruption and the judicial system in the economic growth. After that, we displayed the main works in which the political institutions play a pivotal role in determining economic growth, for example, Mauro (1995), Knack and Keefer (1995), Kormendi and Meguire (1985) , Kaufman Kraay and Zoido-Labaton (2003), to name only a few. We, also, highlighted the variation of institutional problems from one country to another. Opposite to this controversy, we tried to experientially verify the nature of relationship between the political institutions and economic growth, balancing a study on panel data for a sample of 100 countries during 1998-2006.Subsequently, we carried out the assessment of standard economic growth equation, taking into consideration macroeconomic variables and including the signifying variables of political institutions (the governance indicators) as well as a calculation of synthetic variable (the index of governance quality) to show its influence on economic growth.

The findings seem encouraging for the countries under study, where the governance quality and its indicators are noticeably pertinent in the (analysis) explanation of economic growth. We, also, succeeded in emphasizing a proper positive correlation between the index of governance quality and economic growth, which is considered as a privileged canal through which the improvement of the quality of political variables (indicators of governance) is led to promote economic growth confirming, thus, the findings of Kaufman D., Kraay A. and Mastruzzi M. (2003), Barro and Sala–i–Martin (1995) and Mankiw, Romer and Weil (1992).At the end of this work, it is worth noticing that this paper does not answer all questions related to the topic dealt with, notably the interrelatedness between the quality of institutional variables and economic growth.

However, it may provide an interesting data for later readings (reactions/reflections). The introduction of the cross variables between credits allocated to the private sector and institutional quality brought in answers concerning unexpected notions. Surely, the findings suggest that the positive impact of the development of the nations interested in the good governance on economic growth is, on the contrary, conditioned by a certain level of institutional development. In other terms, the estimations reveal that the progress of the financial sector can occur only from the starting point of institutional development. In a nutshell, the organizations of the civic society could, as well, influence the governmental decisions, especially those which affect their interests, development priorities, the manner how public services are provided and how public resources are used. They are called to play important roles, particularly in the protection of citizens against the arbitrary control of public action and the organization of people's contribution to the development process.

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