Do Globalization and Economic Freedom Trigger Economic Growth in MENA Countries? Empirical Evidence and Policy Implications

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Abstract

The present paper examines the impact of globalization and economic freedom on economic growth in 14 MENA countries over the period 1995-2011, through the use of panel data analysis. According to Hausman test, the fixed effects model is the most appropriate one, and it illustrates that the globalization index displays a positive influence on the MENA region's economic growth; also economic freedom exhibits a significant positive effect on economic growth in 14 MENA countries. Based on these findings, it could be concluded that there is a great opportunity for MENA countries to achieve high growth rates through implementing sound trade policies, fostering the financial system development and creating more favorable investment climate, it is also recommended to enact suitable macroeconomic policies and pay more attention to the coherent work of the triptych resources, technology and competition. As well as, the MENA region is committed to strengthen the institutional quality that supports the proper functioning of markets and curbs the pervasive corruption.

Key words   Globalization, economic freedom, economic growth, MENA countries

JEL Codes: F15, O43, O53

1. Introduction

The rapid pace of globalization has erased many political and cultural boundaries; it has also brought countless good effects to the countries engaged in economic integration. The International Monetary Fund and the World Bank have played a fundamental role in the expansion of globalization by calling for liberalization and breaking all restrictions, also the multinational corporations (MNCs) have contributed to the spread of this powerful force through their worldwide activities.

Endogenous growth theory has shed light on technology, knowledge and division of labor that are entailed by higher economic openness. Moreover, institutions have been considered as the missing ingredient in traditional growth models, because they can explain the differences in outcomes among countries (Baliamoune, 2002).

Globalization provides golden opportunities for developing countries to expand production and exports all over the world, and it also improves the scientific and technological progress. Furthermore, the globalized markets induce competition that stimulates innovation and creativity. On the other hand, Economic freedom is considered as a prerequisite for achieving high growth rates, it encourages people to involve in economic activities, and thus living standards could be promoted. In general, globalization and economic freedom are two faces of the same coin, they are the main drivers of knowledge, technology, innovation, competition and skills, and hence they are able to realize the economic prosperity. In addition, these crucial drivers cause a change in policies and outcomes throughout the world, as well as the proponents of globalization argue that economic openness is the best option for closed economies, because specific developing countries that are ultimately involved in the globalization process enjoy robust growth rate.

The Middle Eastern and North African countries have recognized the vital role played by globalization and economic freedom in achieving high levels of economic growth. Despite ongoing efforts to expand economic freedom, the MENA region's economic growth still obstructed by many common challenges, which in turn hinder the liberalization process. It is therefore essential to investigate the impact of globalization and economic freedom on economic growth in 14 MENA countries (Algeria, Bahrain, Egypt, Jordan, Kuwait, Lebanon, Morocco, Oman, Saudi Arabia, Syria, Tunisia, United Arab Emirates, Yemen and Turkey) over the period 1995-2011, through the use of panel data analysis. For this purpose, the remainder of this paper is organized as follows:

2. Theoretical and empirical review on globalization and economic freedom and the links with economic growth

In the 1960s, Marshall McLuhan coined the phrase "the world is a global village" as a metaphor for the tremendous globalization that has erased many political and cultural boundaries**.** This rising phenomenon has been defined in many different ways, Giddens (1990) defined globalization as "the intensification of worldwide social relations which link distant localities in such a way that local happenings are shaped by events occurring many miles away and vice-versa". Harris (1993) defined globalization as "the increasing internationalization of the production, distribution, and marketing of goods and services".

The IMF (1997) defined globalization as "the growing economic interdependence of countries worldwide through increasing volume and variety of cross-border transactions in goods and services, freer international capital flows, and more rapid and widespread diffusion of technology" (Goldstein, World Economic Outlook, May 1997). The World Bank defined globalization as the "Freedom and ability of individuals and firms to initiate voluntary economic transactions with residents of other countries" (Milanovic, 2002). According to OECD (1996) "Globalization of industry refers to an evolving pattern of cross-border activities of firms involving international investment, trade and collaboration for purposes of product development, production and sourcing, and marketing". Moreover, Friedman (1999) stated that "Globalization is not a phenomenon. It is not just some passing trend. Today it is an overarching international system shaping the domestic politics and foreign relations of virtually every country, and we need to understand it as such". Shangquan (2000) has argued that economic globalization reflects the free trade with the outside world, high levels of cross-border capital flows, rapid expansion of technologies. In the same line, Intriligator (2004) pointed out that globalization encompasses noticeable changes in trade, capital flows, and communications technology.

Dreher *et al.* (2008) define globalization as "*the process of creating networks among actors at multi-continental distances, mediated through a variety of flows including people, information and ideas, capital and goods*". The KOF Index of Globalization developed by Axel Dreher covers three sub-indices: economic, social and political globalization; each of these dimensions has a specific definition as follows:

- Economic globalization implies "*the long distance flows of goods, capital and services as well as information and perceptions that accompany market exchanges*".
- Social globalization reflects "*the spread of ideas, information, images and people*".
- Political globalization refers to "*the diffusion of government policies*" (Dreher *et al.*, 2008).

The International Monetary Fund and the World Bank have played a fundamental role in the expansion of globalization by calling for liberalization and breaking all restrictions, this intrinsic idea has been the focus of almost all adjustment programs imposed by these international organizations on developing countries (Sabi, 2007); and it's important to note that the multinational corporations (MNCs) are also known as the main drivers of economic globalization through their worldwide activities. Globalization has also brought countless benefits in terms of productivity, technological level, competition, human capital and employment throughout world (Intriligator, 2004). Endogenous growth theory has shed light on technology, knowledge and division of labor that are entailed by higher economic openness (Bergh, 2006). Furthermore, Aremo and Aiyegbusi (2011) indicated that there is a transmission channel, starting at globalization, and ending at promoting economic growth through the mediation of openness, trade, investment flows, incomes, saving and investment, respectively.

Many labor-abundant and capital-scarce developing nations can achieve good progress through attracting more capital inflows (Antwi and Kwakye, 2010). Globalization provides golden opportunities for developing countries to expand production and exports all around the world, because the globalized markets induce competition that stimulates both innovation and creativity and provide quality goods and services at affordable prices (Marquardt, 2005). Also, Globalization has improved the scientific and technological progress, and it should be referred to the great role played by the internet in spreading knowledge throughout the world, and this kind of spillover engenders without doubt positive effects in all fields (Villaverde and Maza, 2011). Additionally, globalization causes an improvement in income; thereby it reduces poverty that forces children to work instead of going to school (Antwi and Kwakye, 2010).

Specific developing countries that are ultimately involved in the globalization process achieve great progress in terms of international trade (Afzal, 2006). For example, the East Asian countries have realized large gains from fostering exports and FDI activities aimed at boosting economic growth (Greenwood, 2004). As well as, the pursuit of free-market policies by China and India has enabled them to promote their international activities and their relationships with the rest of the world (Ammendola, 2011). In contrast, the benefits of international trade and new technology are out of reach for most developing countries that establish trade restrictions, so these countries would not fully exploit the benefits of globalization by pursuing protectionist policies (Aremo and Aiyegbusi, 2011).

Globalization plays a substantial role in consolidating peace and democracy, for example most MNC's avoid investing in countries characterized by conflicts, wars and social unrest, because all these dire cases entail losses for those companies (Marquardt, 2005). Also, the international movement of capital helps to reduce the regulatory complexity and bad policy implementation (Adams, 2010). In this globalized world, almost all members of the capitalist class push their government to break down the restrictive barriers (Akhter, 2004). In the same vein, Bjørnskov (2006) highlighted that globalization can be a powerful force that contributes to downsizing excessive regulations and improving the protection of property rights. Moreover, he stated that the economic globalization induces institutional improvement through the following ways:

- More globalized nations achieve considerable wealth which in turn requires good institutions to be maintained over time.
- FDI inflows encourage host countries to adopt relevant policies accompanied by good governance.
- Countries that are highly involved in globalization tend to avoid further shocks by strengthening the institutional framework.

- Social globalization makes people aware of their rights which in turn may affect elections, and that's what lead politicians to improve institutional performance (Bjørnskov, 2006).

On the other hand, Globalization helps developing countries realize their economic prosperity, but this target requires the preparation of an institutional background supported by good governance pillars (Kareem *et al.*, 2013; Rodrik *et al.*, 2004); because trade and financial liberalization alone cannot achieve high growth rates without institutional support (Adams, 2010).

In contrast, all opponents have argued that the modern globalization is considered as the second face of the old colonial system. Besides the large positive effects, globalization includes many hazards that generate enormous conflicts and inequalities (Intriligator, 2004; Adams, 2010). One of the worst effects of globalization is the outsourcing which gives employment opportunities to one nation and leaves a gap in other country (Levy, 2013). Also, the rapid pace of globalization has caused a massive rural exodus, urban explosion and migration (Afzal, 2006). Moreover, International trade keeps many developing countries dependent on other affluent countries in order to meet their needs for goods and materials (Maneschi, 2006). Hence, any critical event in the most powerful countries would affect the rest of the world due to the increasing interdependence of nations; moreover the political power of some countries could be eroded by globalization (Intriligator, 2004). Past experiences have revealed important facts implying that the globalization of capital markets does not always generate high and inclusive economic growth; on the contrary, it causes financial crises that spread to other countries engaged in globalization (Ioan, 2012). As well as, Bergh and Karlsson (2010) stated that globalization engenders a race to the bottom which can be described as the tougher competition between countries to obtain high quality capital and labor inputs.

Moreover, economic globalization has extended the existing gap between the Northern and Southern hemispheres. Most opponents argue that in this globalized world, the rich are getting richer and the poor are getting poorer (Neutel and Heshmati, 2006). Adams (2010) indicated that the middle-income countries realize more benefits from financial globalization compared to poor countries, as well as the enormous benefits of globalization have not trickled down to the lower classes in developing countries. Many developing countries have not gained significant benefits from freer trade as a result of export restrictions imposed by developed countries (Afzal, 2006). It is known that the target of realizing a strong and sustainable economic growth induces countries to get involved in globalization's wave; but if authoritarian countries follow the same trajectory, they will probably face instability and rebellion against the regime (Ammendola, 2011).

Wang and Zou (2012) proposed that developing countries shouldn't blindly believe in globalization and financial openness. In this context, the "compensation" hypothesis indicates that governments curb the harmful effects of globalization such as inequality by increasing social expenditures in order to compensate the globalization's losers (Rygner Holm, 2010).

Economic freedom is a prerequisite for achieving high growth rates (Ioan, 2012). In 1995, Heritage Foundation and Wall Street Journal defined economic freedom as "*All liberties and rights of production, distribution, or consumption of goods and services. The highest forms of economic freedom should provide an absolute right of property ownership; full freedom of movement for labor, capital, and goods; and an absolute absence of coercion or constraint of economic liberty beyond that which is necessary for the protection and maintenance of liberty itself*" (Heritage Foundation, 2013). Moreover, the Index of Economic Freedom is based on ten economic freedoms (property rights, freedom from corruption, fiscal freedom, government spending, business freedom, labor freedom, monetary freedom, trade freedom, investment freedom, financial freedom) each one is scaled from 0 to 100, where 100 represents the maximum freedom. These freedoms positively affect the economic growth in the following ways:

The enforcement of property rights motivates individuals to save and invest, moreover the constitutional protection of these rights ensures a stable economic environment; transparency erases all kinds of corruption resulting from complex government regulations, hence economic agents can achieve the expected outcomes without incurring undesirable costs and being stuck in corruption's jaws; the suitable fiscal measures associated with lower tax rates and exemptions increase the profit margin which could be used in other more productive activities; the limited government spending reflects the absence of crowding out effect, and thus promotes private sector participation in economic growth; the government's ability to reduce the excessive regulations and rigid bankruptcy procedures, induces individuals to start and run a business without complexity; a labor market characterized by less government interference reduces unemployment rate and promotes productivity; the reliable monetary policy that curbs inflation and price instability, and makes economic agents able to rely on market prices and create long-term economic value; the removal of protectionist policies is the necessary basis for reaping the benefits of international trade and absorbing advanced technology; the absence of restrictions on capital flows boosts productivity and encourages competition and innovation, and thereby leads to an efficient allocation of resources; an open and effective financial system guarantees transparency and fosters competition that is responsible for introducing the most efficient financial intermediation (Heritage Foundation, 2013). In general, economic freedom encourages people to get involved in economic activities, thus living standards could be promoted; but exceptions may exist for example, China is one of the world's largest economies, and it has enjoyed considerable economic growth despite

lack of democracy and freedom; nonetheless it is an exceptional case where freedom and globalization move in opposite directions (Macedo *et al.*, 2007).

3. Economic growth, globalization and economic freedom in the MENA Region

3.1. Economic growth in the MENA Region

Figure 1. Economic growth (The Annual Percentage Growth Rate of GDP) in MENA countries, 1995-2011
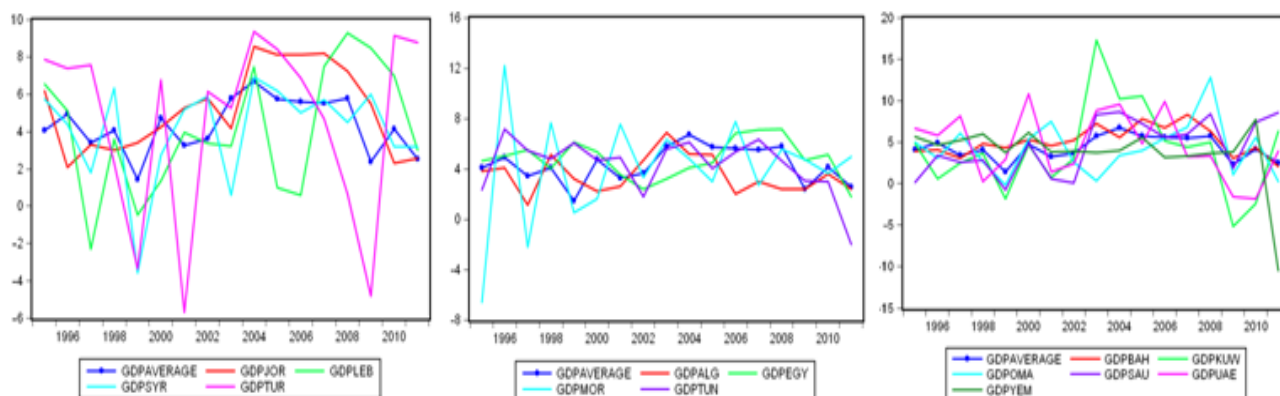
Source: World Bank, World Development Indicators, the data are available online at: http://data.worldbank.org (accessed 01/04/2017)

According to the graph above, most GCC countries have registered high economic growth supported by oil wealth and substantial non-hydrocarbon growth, due to their valuable efforts in promoting technology, physical and social infrastructure, which boost manufacturing and services sectors (Iradian and Abed, 2013). During the nineties Syria, Egypt, Jordan and Tunisia have achieved considerable growth rates as a result of noticeable progress in macroeconomic stabilization and human capital development (Véganzonès and Nabli, 2004). Some countries like UAE, Lebanon, Jordan, Morocco, Egypt, Tunisia, and Bahrain have enjoyed a vital tourism sector that bolsters their economic growth (O'Sullivan *et al.*, 2011). Also, Algeria has a recorded a strong economic growth over the past decade due to high revenues gained from oil abundance that has built a strong financial position (IMF, 2012). The MENA region's economic growth has been characterized by some fluctuations; likewise it has increased slightly at the beginning of the third millennium.

Figure 2. GDP per capita (Constant 2005 US$) in MENA Countries, 1995-2011
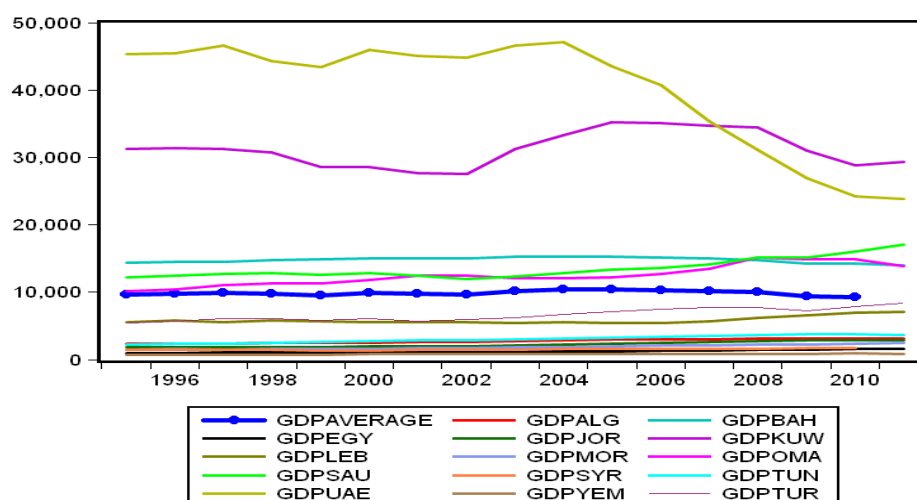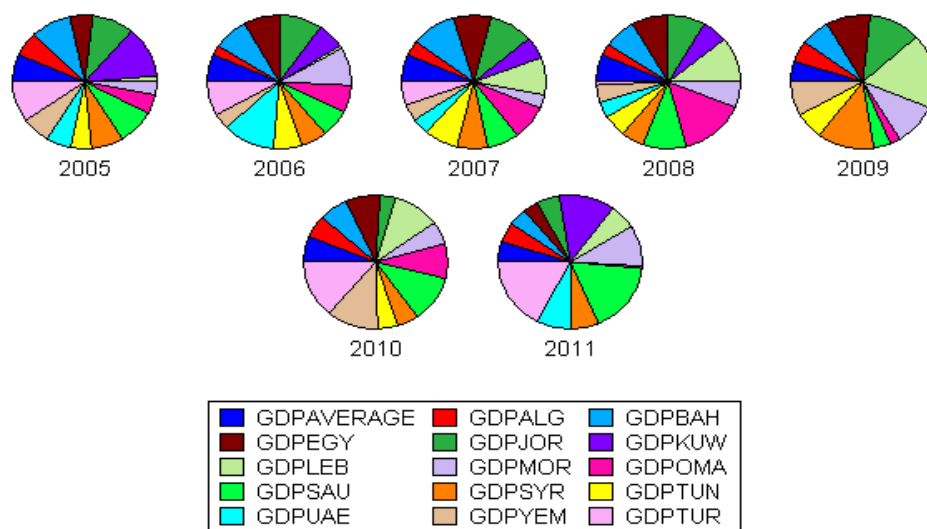

Source: World Bank, World Development Indicators, the data are available online at: http://data.worldbank.org (accessed 01/04/2017)

The figure above shows that the GDP per capita could illustrate the great differences among MENA countries, specifically between GCC countries and the rest of the MENA region.

The bulk of oil exporting countries' economic growth is fuelled by high oil prices, and that's what made these countries more vulnerable to the 2008 financial crisis. As shown on the graph below, this financial meltdown did not spare the GCC

countries because of their linkage to global financial markets, while the other MENA countries were less affected by the crisis (World Bank, 2010).

Figure 3. Economic Growth (The Annual Percentage Growth Rate of GDP) in MENA Countries, 2005-2011


Source: World Bank, World Development Indicators, the data are available online at: http://data.worldbank.org (accessed 01/04/2017)

In 2011, a first-of-its-kind phenomenon known as the Arab Spring has swept the MENA region, countries like Tunisia, Egypt and Syria have witnessed notable negative changes, as well as their growth rates have been severely depressed. Moreover, some neighboring countries such as Lebanon and Jordan have been significantly affected by the negative spillover effects of political and social unrest in those Arab Spring countries (O'Sullivan *et al.*, 2011). Furthermore, Egypt, Syria have faced a slowdown in manufacturing industries, also the recent turmoil and security threats have slashed the investment flows and tourism in those economies and previously mentioned surrounding countries (World Bank, 2013a).

It is worth to note that in order to boost the MENA region's long-term growth potential, serious consideration should be given to the creation of jobs and competitive business environment, besides the serious deal with water scarcity for reviving the agricultural sector in the region (World Bank, 2010). Also, the MENA region can exploit its youth labor force, natural resources and opportunities of renewable energies to get out of the dark tunnel (O'Sullivan *et al.*, 2011).

3.2. The level of globalization in the MENA Region

Figure 4. The KOF Index of Globalization in MENA Countries, 1995-2011.
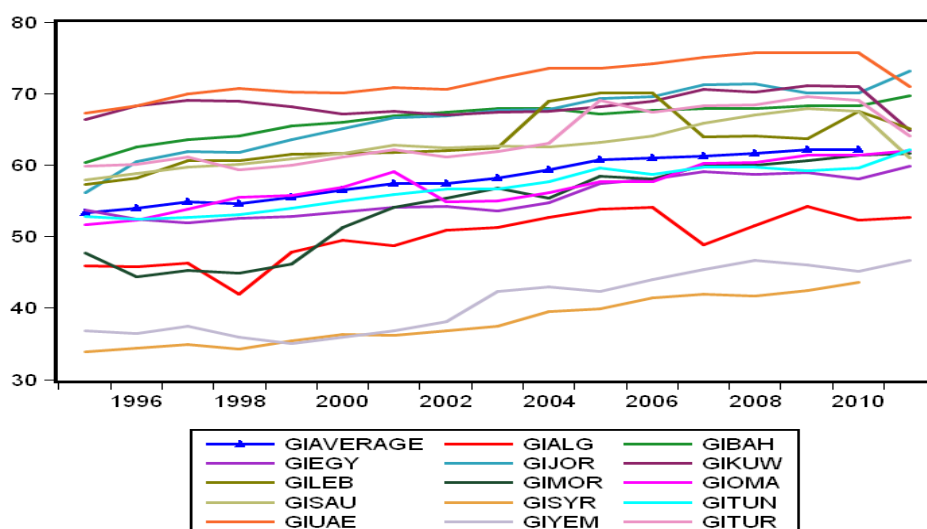
Source: Based on The KOF Index of Globalization, the data are available online at: http://globalization.kof.ethz.ch/ (accessed 01/04/2017)

According to the graph above the MENA region's globalization index has witnessed a slight increase throughout the study period. UAE, Jordan, Kuwait, Bahrain, Turkey, Lebanon and Saudi Arabia are considered as the most globalized countries in the region, whereas Oman, Tunisia, Egypt, Morocco have achieved a globalization level that approximately matches the regional average, whilst Algeria, Yemen, Syria are classified as the least globalized countries in the MENA region. Almost half of MENA countries are unable to keep pace with globalization.

The GCC countries, Jordan, and Lebanon have made significant progress towards promoting financial system development; also some North African countries like Egypt, Morocco and Tunisia have taken considerable steps to strengthen their financial systems, and other MENA countries still follow traditional ways besides the dominance of public banks, and that's what delays the full financial integration, and it's important to note that the MENA oil exporters remain the largest sources of foreign exchange (Abed and Davoodi, 2003). Moreover, UAE and Jordan have supported trade liberalization during last two decades, and this pursuit has enabled them to step up the globalization ladder (Ali, 2003). In contrast, the MENA region's trade freedom remains constrained by burdensome trade restrictions such as tariffs and nontariff barriers especially in Algeria, Syria, Egypt and Tunisia (Abed and Davoodi, 2003), so the most closed MENA countries that continue pulling the region' openness down to the bottom should focus on implementing sound trade policies (Looney, 2005). Furthermore, the MENA region is characterized by sluggish evolution of information technology, notwithstanding the widespread use of the Internet that does not live up to international standards (Abed and Davoodi, 2003).

The Middle Eastern and North African countries suffer from a lack of competitiveness that weakens their performance in global markets and impedes them from realizing all globalization's good effects (Ahmed, 2010). Overall, the MENA region doesn't have tight linkages with the global economy, and there are many challenges ahead.

On the other hand, a country's share of global FDI inflows can reflect its globalization level (Ali, 2003).

*Figure 5.* FDI Net Inflows (% of GDP) in MENA Countries, 1995-2011
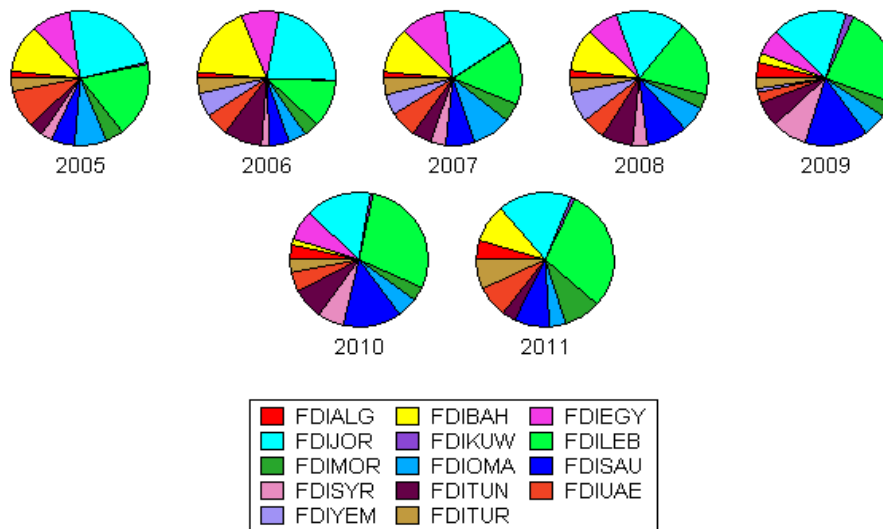
As seen in the graph above, Jordan, Lebanon, Saudi Arabia, Bahrain, Egypt, Morocco and UAE have received large FDI inflows compared to other MENA countries, the seven above-mentioned countries have improved their investment climates through reducing complex regulations and accelerating privatization, these facts confirm that these countries are the most globalized nations in the MENA region. However, investment restrictions remain in many other MENA countries, moreover the differences in FDI inflows among MENA countries can be explained by the slow pace of economic reforms (BrIEf, 2013). However, the bulk of FDI inflows to Algeria, Egypt, Morocco and Tunisia reflect the economic links that potentially exist between Europe and the MENA region (Freund and Braga, 2012). As well as, oil exporting countries are considered as the largest recipients of global FDI inflows in the MENA region (World Bank, 2013b), and thus this region must focus on diversifying the inward FDI away from oil sector, the MENA region should also pay attention to the lack of portfolio investment caused by immature capital markets (Looney, 2005).

The 2008 financial crisis has led to the withdrawal of FDI inflows in some countries, also the Arab Spring has shocked the foreign investors' confidence because the associated violence and uncertainty pose serious threat to the investors' rights; hence countries like Tunisia, Egypt and Syria have seen tremendous deterioration in FDI flows (World Bank, 2013a).
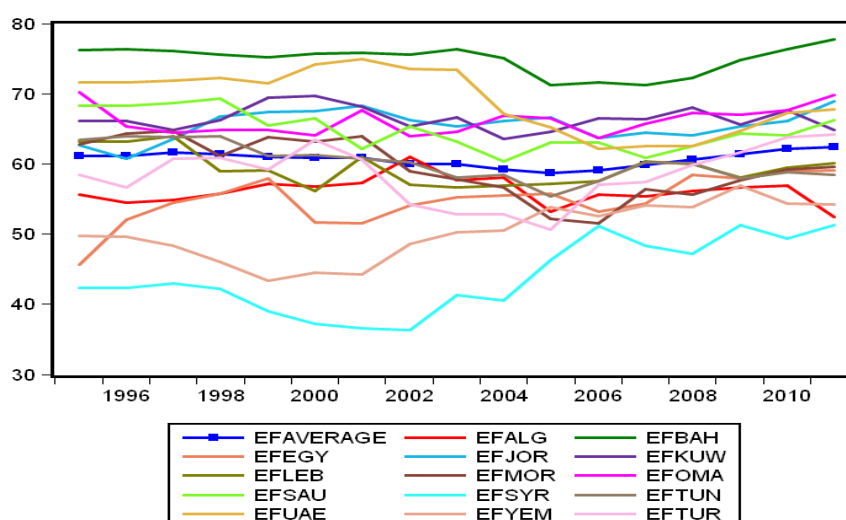
3.3. The MENA Region's economic freedom

Figure 6. The 2013 Index of Economic Freedom by Region
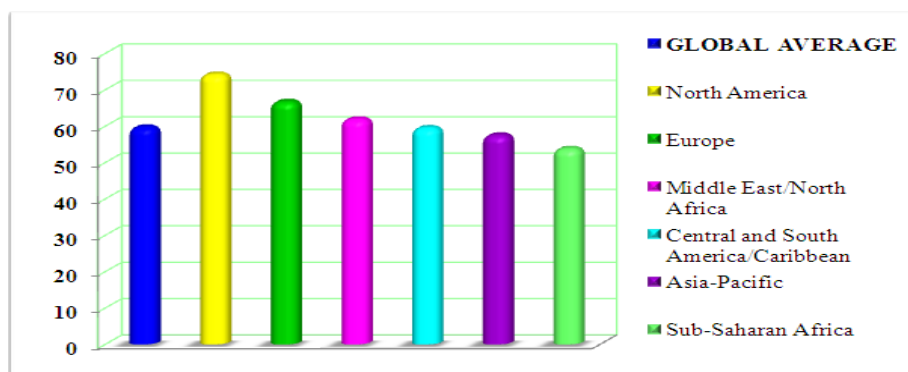
Source: Heritage Foundation's Index of Economic Freedom, the data are available online at: http://www.heritage.org/index/explore?view=by-region-country-year (accessed 01/04/2017)

This graph clearly shows the obvious difference in economic freedom score among all regions in the world. According to the 2013 Index of Economic Freedom, North America has achieved the highest score of economic freedom, while the Middle East and North Africa region has come in third place after Europe, and the last place has been occupied by the Sub-Saharan Africa. The MENA region's economic freedom has deteriorated due to the increasing political instability and social unrest in Libya and Syria that have spread to other countries in the region, besides the remaining institutional and structural problems in most countries. The graph below illustrates on one hand the group of countries that contribute to improve the regional economic freedom, and on the other hand countries that hold down the mentioned score.

Figure 7. Economic freedom score in MENA countries, 1995-2011

Source: Heritage Foundation's Index of Economic Freedom, the data are available online at: http://www.heritage.org/index/explore?view=by-region-country-year (accessed 01/04/2017)

As is clearly visible in the graph above, Bahrain, Oman, Jordan, UAE, Saudi Arabia, Kuwait and Turkey have economic freedom scores higher than the MENA region average, these countries have witnessed a notable improvement in openness, economic diversification, and control of government spending, they have also reduced the restrictive business practices, moreover they have created an appropriate environment for stimulating entrepreneurial activities. In contrast, Syria, Algeria, Yemen, Tunisia, Egypt, Morocco and Lebanon score lower than the MENA region average, because these countries have failed to make considerable progress towards promoting the business environment, regulatory efficiency, monetary policy and trade freedom, as well as the heavy government spending and state interference continue to outweigh economic freedom especially in Algeria. Furthermore, the political turmoil associated with social and civil unrest has worsened the economic situation in Syria, Egypt and Yemen. In general, the MENA region remains suffering from inefficient judicial system and institutional weaknesses (Heritage Foundation, 2013).

4. Data and empirical results

4.1. Data

This study examines the impact of globalization and economic freedom on economic growth in 14 MENA countries (Algeria, Bahrain, Egypt, Jordan, Kuwait, Lebanon, Morocco, Oman, Saudi Arabia, Syria, Tunisia, United Arab Emirates, Yemen and Turkey) over the period 1995-2011 using the following variables:

GDP: GDP per capita (constant 2005 US$) is used as a proxy for economic growth, from the World Development Indicators.

GI: The KOF Index of Globalization developed by Axel Dreher, and a positive sign is expected.

EF: Economic Freedom introduced by Heritage Foundation, it is supposed to have a strong positive influence on economic growth.

4.2. Data analysis tools

The panel data estimation is used in order to examine the effect of globalization and economic freedom on economic growth in 14 MENA countries using Eviews 8.0 software package. Because the panel data analysis has several advantages, such as controlling for both observed and unobserved heterogeneity, increasing the degree of freedom and reducing the collinearity problems, hence improving the efficiency of econometric estimates (Hsiao, 2003), there are three main models as follows:

Pooled OLS Model indicates that all the data are pooled in the OLS regression; moreover it assumes that all coefficients are the same across countries and time periods (Jeffrey, 2002; Brooks, 2008).

$$y_{it} = \alpha + \beta x_{it} + u_{it} \quad ; \qquad \begin{cases} t = 1, \ldots \ldots, T; \\ i = 1, \ldots \ldots, N. \end{cases} \tag{1}$$

Where α denotes the intercept term,

β is a $k \times 1$ vector of parameters to be estimated on the independent variables;

and x_{it} is a $1 \times k$ vector of observations on the independent variables;

u_{it} is the disturbance term.

Fixed Effects Model assumes that the intercept differs across cross-section units (Brooks, 2008). In other words, it recognizes only the within-group variation (Allison, 2005).

$$y_{it} = \alpha + \beta x_{it} + u_{it} + v_{it} \quad ; \qquad u_{it} = u_i + v_{it} \quad \begin{cases} t = 1, \ldots \ldots, T; \\ i = 1, \ldots \ldots, N. \end{cases} \tag{2}$$

μ_i denotes the individual specific effect;

v_{it} represents the remainder disturbance that varies over time and entities (Brooks, 2008).

Random Effects Model assumes that a random variable (which differs across cross-section units but is constant over time) is added to the intercepts for each cross-sectional unit (Brooks, 2008).

$$y_{it} = \alpha + \beta x_{it} + \omega_{it} \quad ; \qquad \omega_{it} = \epsilon_i + v_{it} \quad \begin{cases} t = 1, \ldots \ldots, T; \\ i = 1, \ldots \ldots, N. \end{cases} \tag{3}$$

ϵ_i measures the random deviation of each entity's intercept term from the 'global' intercept term α.

Hausman test. This test is usually used in order to choose the appropriate model between fixed and random effects models, and the Hausman statistic is given by:

$$H = (\hat{B}_{FE} - \hat{B}_{RE})' \, (Var(\hat{B}_{FE}) - Var(\hat{B}_{RE}))^{-1} \, (\hat{B}_{FE} - \hat{B}_{RE}) \tag{4}$$

Which is distributed as χ^2 under the null hypothesis with k dergees of freedom, and $\hat{B}_{FE}, \hat{B}_{RE}$ represent the vectors of parameter estimates of the fixed effects and random effects models, respectively; $Var(\hat{B}_{FE}), Var(\hat{B}_{RE})$ represent the variance-covariance matrices of FE and RE estimators, respectively ; there are two hypotheses as follows:

H_0: α_i is not correlated with x_{it}
H_1: α_i is correlated with x_{it}
If the null hypothesis is rejected, the fixed effects model is favored (Jeffrey, 2002; Maki, 2011).

4.3. Analysis of empirical results

Descriptive statistics for all the variables included in the model are shown below in Table1.

Table 1. Summary Statistics

	GDP	**GI**	**EF**
Mean	9862.388	58.32111	60.64076
Median	4598.748	60.05167	61.0500
Maximum	47081.16	75.72185	77.70000
Minimum	705.8190	33.89723	36.30000
Std. Dev.	11850.45	10.28333	8.326891
Skewness	1.701778	-0.652176	-0.459248
Kurtosis	5.046268	2.648382	3.285986
Jarque-Bera	156.3997	18.09762	9.177123
Probability	0.000000	0.000118	0.010167
Sum	2347248	13880.42	14432.50
Sum Sq. Dev.	3.33E+10	25062.00	16432.89
Observations	238	238	238

Source: Author's Computation Using Eviews 8.0.

Table 2. Regression results for 14 MENA countries

Dependent Variable: GDP			
Coefficient Estimates (P-value)			
Independent Variables	Pooled OLS Model	Fixed Effects Model	Random Effects Model
GI	465.7696 (0.0000) ***	31.06314 (0.4803)	48.29643 (0.2666)
EF	390.3938 (0.004) ***	127.3827 (0.0108)**	143.4743 (0.0038) ***
R-squared	0.404425	0.961701	0.039648
Prob (F-statistic)	0.000000	0.000000	0.008621

Significant at 1% (***), 5 %(**), 10% (*).

Source: *Author's Computation Using Eviews 8.0.*

Table 3 summarizes the results of the following models: Pooled OLS, Fixed Effects and Random Effects. As expected, the independent variables have exerted a positive impact on economic growth in all regressions. Additionally, economic freedom is highly significant in all three models, while globalization index appears to be statistically significant only in the Pooled OLS model.

In order to select the suitable model between fixed and random effects models, Hausman test has been used as follows:

Table 3. Hausman test

Correlated Random Effects - Hausman Test			
Equation: United			
Test cross-section random effects			
Test Summary	Chi-Sq.Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	6.032071	2	0.0490

Source: Author's Computation Using Eviews 8.0.

The P-value=0.0490 is less than 0.05, thus the alternative hypothesis has been accepted, in other words Hausman test suggests that the fixed effects model is the most appropriate one, so we focus on it in this paper.

Table 4. Fixed effects model

Dependent Variable: GDP				
Method: Panel Least Squares				
Sample: 1995 2011				
Periods included: 17				
Cross-sections included: 14				
Total panel (balanced) observations: 238				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	326.1692	3973.199	0.082092	0.9346
GI	31.06314	43.94022	0.706941	0.4803
EF	127.3827	49.54372	2.571116	0.0108
R-squared	0.961701			
Prob(F-statistic)	0.000000			

Source: Author's Computation Using Eviews 8.0.

The results of the fixed effects model illustrate that the economic freedom exhibits a significant positive impact on economic growth in 14 MENA countries, and this is consistent with theory. Also, globalization index displays a positive effect on the MENA region's economic growth, but it appears insignificant at 5% level of significance. Moreover, the value of R^2 is 0.96, which indicates that the economic freedom and globalization index explain about 96% of the variation in economic growth, as well as the probability (p) of the F statistic is equal to zero (0), hence the joint influence of explanatory variables on economic growth has been confirmed.

To sum up, economic freedom and globalization seem to play a substantial role in explaining the economic growth of selected MENA countries.

5. Conclusions

This paper analyzes the impact of globalization and economic freedom on economic growth in 14 MENA countries (Algeria, Bahrain, Egypt, Jordan, Kuwait, Lebanon, Morocco, Oman, Saudi Arabia, Syria, Tunisia, United Arab Emirates, Yemen and Turkey) over the period 1995-2011, through the use of panel data analysis, including Fixed Effects Model, Random Effects Model and Hausman test.

As expected, globalization and economic freedom exert a positive impact on economic growth in all regressions. According to Hausman test, the fixed effects model is the most appropriate one, and it illustrates that the economic freedom exhibits a significant positive effect on economic growth in 14 MENA countries, and this is consistent with theory. Also, globalization index displays a positive influence on MENA region's economic growth, but it appears insignificant at 5% level of significance. Moreover, Analysis shows that almost all MENA countries that enjoy high levels of economic freedom and globalization have also considerable growth rates and vice versa. To sum up, economic freedom and globalization seem to play a substantial role in explaining the economic growth of selected MENA countries.

Based on these findings, it could be concluded that there is a great opportunity for MENA countries to achieve high growth rates by adopting more open and transparent policies in terms of trade, FDI and financial markets that allow the least globalized countries in the MENA region to rise from the bottom and ride the wave of economic prosperity. It is also recommended to enact suitable macroeconomic policies and implement relevant fiscal and monetary policies that induce investment and productive activities. Moreover, there is a dire need to diversify the economy in order to minimize the dependence on hydrocarbons wealth especially in rich oil countries, besides modernizing the information and communication infrastructure and attracting more FDI in the manufacturing sector. Furthermore, attention should be paid to the coherent work of the triptych resources, technology and competition, that will foster without doubt the economic development. As well as, the MENA region is committed to strengthen the institutional quality that supports the proper functioning of markets and curbs the pervasive corruption, because the serious economic and political issues require radical solutions that could be embodied in transparent policies, practices and well-targeted strategies, deeper economic and institutional reforms.

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