The Impact of Country Risk and New Institutional Economics on Foreign Direct Investment

A Panel Data Analysis for Middle East and North Africa Region (1999-2010)

Wesam M. Sedik

National Telecommunication Regulatory Authority, Egypt

wmohamed@tra.gov.eg

Hussien Seoudy

German University in Cairo

Abstract

Despite the significant increase in Foreign Direct Investment (FDI) in the last few decades, the Middle East and North Africa (MENA) region has unimpressive performance in attracting FDI when compared to other developing countries. This performance raises concerns regarding the past economic reforms that have implemented in several MENA countries. In addition, the region is expected to acquire less FDI inflows in the coming few years due to current revolutions and instable political conditions. This research aims to explain the relationship between the risk of the country and its ability to attract foreign direct investments and also aims to investigate whether the New Institutional Economics (NIE) do matter in FDI decisions to the MENA region. Multiple linear regressions and panel data analysis are used to consider unobserved heterogeneity and cross-country differences for twenty MENA countries during the period of 1999-2010. International Country Risk Guide (ICRG) index is used as a proxy for country risk while the NIE approach is defined to cover both the quality of business environment and the quality of institutions, accordingly economic freedom and worldwide governance indicators are used as an operational definition for the New Institutional Economics. The results show that low levels of economic and financial risk has a positive but insignificant impact on FDI while high level of political risk has –unexpectedly- positive and significant impact on FDI flow. New Intuitional Economics measures also have mixed results. Investment freedom, monetary freedom, and regulatory quality have positive and significant impact on FDI while business freedom, and voice & accountability have negative and significant impact. The results show the importance of using the detailed sub-indicators instead of the composite measures. Regarding traditional determinants of FDI, market size and efficiency seeking motives represented in GDP and trade openness have significant positive impact on FDI while resource-seeking motives has negative impact. Based on these results, a set of policy recommendations and implemented actions are suggested for decision makers in order to attract more FDI to the MENA region.

Keywords: Foreign Direct Investment, Country Risk, New Institutional Economics, Economic Freedom, Governance, Panel data analysis, Regression models

1. Introduction

Among different entry modes that are used by MNCs to target international markets, Foreign Direct Investment (FDI) is characterized by its benefits for both of home and host countries. FDI allows MNCs to have control on their international business, acquire knowledge of local markets, and avoiding tariffs barriers (Griffin, Pustay & Gary, 2009). In addition, FDI has several benefits for the economic development in the host country such as balancing domestic saving shortage, reducing poverty, ensuring integration with global economy, creating more jobs, increasing productivity gain, transferring technology and managerial skills, and enhancing skills of employees (OECD, 2008; UNCTAD, 2006; Saravanamuttoo, 1999).

The impact of FDI on economic development is recognized by several MENA countries which face development challenges such as high unemployment, volatile economic growth, shortage in domestic saving, and inefficient public sectors (Sullivan & Nadgrodkiewicz, 2008). Accordingly, MENA countries implemented economic reforms since early eighties in order to attract more FDI, accelerate growth, and diversify their economies (Laabas & Abdmoulah, 2009). These economic reforms include shifting import substitution policies to export led growth, achieving more trade openness (Soliman, 2003), developing FDI incentive regimes such as relaxed ownership restrictions, tax breaks, and liberalization programs (Eid & Paua, 2002).

As shown in figure (1), the global FDI trends increased significantly in the last thirty years. In the last decade only, global FDI increased from US$ 1089 billion in 1999 to reach its peak of US$ 1971 billion in 2007 before it significantly affected by the financial crisis that results in reducing FDI inflows to US$ 1185 billion in 2009. However, positive signs for breaking this down trend appeared in 2010 where the total FDI inflows reached US$ 1244 billion representing a marginal increase by 5 %. This decade also has seen an impressive performance for the developing and transition economies which succeeded in increasing their shares of global FDI from 20 percent in 2000 to more than 50 percent in 2010. Moreover, the strong rebound in FDI flows to developing economies in Asia and Latin America in specific balance a further decline in FDI flows to developed countries in 2010.
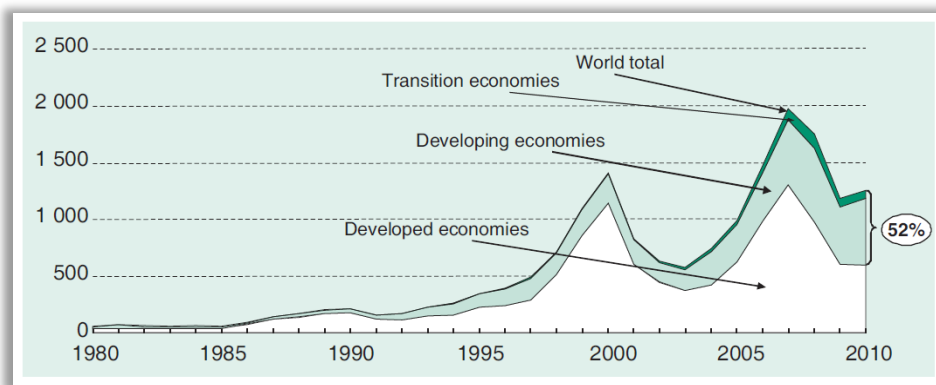
Figure 1: FDI Inflows; Global and by Group of Economies (Billions of US dollars)
Source: UNCTAD's World Investment Report, 2011

However, there is uneven distribution pattern among different regions of developing world. Latin America and Asian economies experienced strong growth in FDI inflows while the performance of the Arab countries and MENA region is unimpressive. The portion of MENA countries in global FDI is limited. As shown in figure (2), Arab countries represent around 16% of FDI inflows to developing nations and only 7% of world FDI in 2009. Moreover, the region realized significant reduction in FDI inflow with US$ 79.2 billion in 2009 from US$ 96.9 billion in 2008 that represents 18.3% decline. The situation doesn't change when including Turkey and Israel to the Arab countries (to represent MENA region); the FDI of the MENA region dropped from US$128 billion in 2008 to US$91.6 billion in 2009 and US$83.77 billion in 2010.
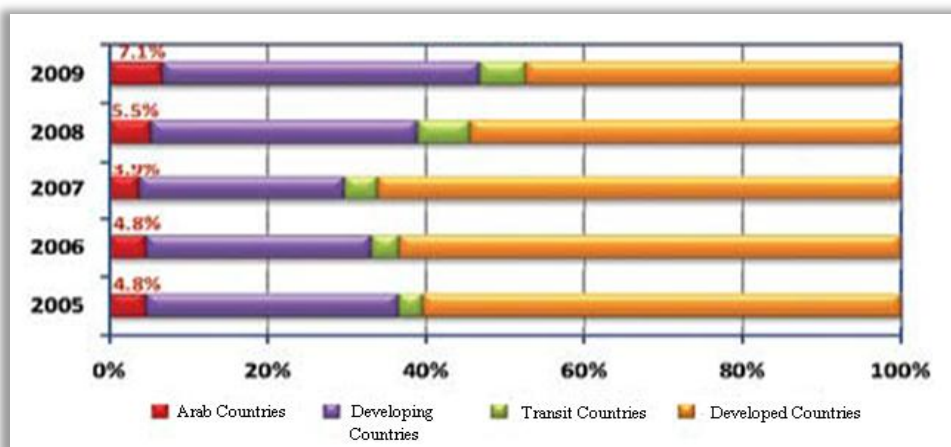

Figure 2: FDI Inflows Trends for the Arab Countries Compared to Other Economies
(Source: UNCTAD, 2010).

The problem statement of this study is represented in the poor performance of MENA countries in attracting FDI as compared to other developing countries. This poor performance raise concerns about the past economic reforms such as whether these reforms were really sufficient or they are far from reaching their goals because they focused only on economic aspects and ignored political and social aspects. The dimension of the problem increases at this period of time where the MENA's share of global FDI is subject to real threat of more decline in near future due to current political instability in the region. Accordingly, empirical research and in-depth analysis are undoubtedly needed to investigate the reasons for such performance in order to suggest reasonable guidelines for policy makers for future policy formulation.

Examining FDI determinants in the MENA region helps in defining the factors affecting FDI and how country or region characteristics matter in attracting FDI. Therefore, the purpose of this research is to examine the impact of country risk, and new institutional economics (NIE) on foreign direct investment decisions in the MENA region while taking into consideration the traditional determinants of FDI.

This paper is structured as follow: first the literature review cover different aspects related to FDI, country risk, and New Institutional Economics and their interrelations. In addition, a proposed model for FDI determinants is introduced that aggregates different conceptual concepts about traditional and non-traditional FDI determinants. The data collocation and Methodology are introduced in section (3). Then, the main results supported by comprehensive discussion are presented in section (4), and finally the study suggests a set of recommendations for decision makers in MENA countries.

2. Literature Review

2.1 The Conceptual Framework for FDI Determinants

This section proposes comprehensive framework that describes FDI determinants from different perspectives. This framework not only aggregates the main conceptual concepts for FDI determinants but also introduces a new dimension for these determinants. Moreover, this framework is used in the empirical part of this study to improve the accuracy, predictability, and explanatory power of the econometric model.

Extensive numbers of literature address FDI determinants since early thirty. FDI motivations was investigated first by Ohlin in 1933 (as cited in Nonnemberg & Cardoso de Mendonça, 2004) when he addressed the high profitability of growing markets, possibility of financing with low interest rates, and overcoming trade barriers as a main reasons for FDI.

In his eclectic paradigm in 1977 , also known as OLI model, Dunning (as cited in Hauser, 2005) summarized the motives and steps that make corporations expand their market internationally in three categories; Ownership, Location, and Internationalization factors. Based on OECD and IMF definition for FDI and in light of Dunning classification for the location specific factors, the UNCTAD (2006) categorized the factors affecting FDI into the following determinants: market-seeking, efficiency-seeking, resource-seeking, and created assets-seeking determinants. Market-seeking determinants are represented in the advantages that make MNCs expand in new markets or secure existing markets such as the size, potential, and structure of the market. GDP and population are usually used as a proxy measures for market size while GDP per capita and population growth are used as measures for market trend and potential. Efficiency-seeking determines enable MNCs to gain the synergies of international investments through the international integration of production. Labor productivity, manufacturing value added, trade openness, and cost reduction are potential measures for efficiency-seeking determinants. The natural resources are the most common element for resource-seeking determinants; however other resources may help MNCs to secure their production elements such as availability of raw material, natural resources, and cheap labor forces. Finally, the created assets-seeking motives enable MNCs to acquire new assets in the host country.

As any investment decision, FDI is subject to the risk and return relationship. In the case of FDI, there is additional kind of risk represented in country risk which may include different risk categories such as economic, transfer, political, sovereign, and exchange rate (Hauser, 2005; Meldrum, 2000; Nordal, 2001; Daniels et al., 2007). These risk categories are major concerns for MNCs when selecting host countries. On the other hand, return is the other side of the coin. Investor may be interested in higher risk investments if they gain higher return (Brigham & Ehrhardt, 2005).

Recently, there is a trend in FDI literature support that the MNCs' motives to invest internationally have shifted from the above mentioned traditional determinants into new and non-

traditional determinants such as efficient investment climate, quality of business environment, proper governance structure, and well democratic systems (Becchetti & Hassan, 2004; Addison & Heshmati, 2003; Dunning, 2002, 2006; Kobeissi, 2005; and Kim 2010).

The proposed model, as shown in figure (3), aims to aggregate these new determinants in addition to the traditional ones. This can be done by considering the New Institutional Economics (NIE) as an ongoing attempt to expand the neo-classical economic theory to include different aspects of economics, law, organization theory, political science, sociology and anthropology in order to understand the institutions of social, political and commercial life. New Institutional Economics can help in explaining a significant portion about FDI determinants in several ways: first, New Institutional Economics focus on the reduction of transaction costs related to business activities which is the main concern of MNCs that target international markets (Grosse & Trevino, 2005); NIE is also emphasizing the role of governing formal and informal rules and laws as well as the organization arrangements and transactions, this kind of rules and arrangements provide a predictable and transparent frameworks that attract more investments to the host country; finally, the quality of institutions ensures information flow, low corruption levels, and low transaction cost to MNCs.

New Institutional Economics has been applied mainly in developed markets, with very limited studies for the developing market in general and MENA region specifically. This research aims to determine whether the NIE approach and its related concepts do matter in attracting FDI in the MENA region. However, in order to empirically examine whether New Institutional Economics has an impact on attracting FDI, it is important to find first an operational definition for NIE and then find a proper measure for this concept. Accordingly, this research adds to the existing literature by suggesting an operational definition for NIE as follow: "*The New Institutional Economics (NIE) is the integration between the quality of business environment represented by the economic freedom indicators and the quality of institutions represented by the worldwide governance indicators*". Consequently, economic freedom indicators and worldwide governance indicators are used as a proxy measures for the business environment and institutional environment respectively which are the two dimensions of New Institutional Economics.

Dunning's eclectic Paradigm
(1977, 1988)

Ownership

Location

Internationalizati

UNCTAD
2006

Nordal
(2001),
Hauser
(2005),
Meldru
m
(2000) &
Daniel
(2007)

Co
unt
ry
Ris
.

Market
seeking

Efficiency
seeking

Resource
seeking

Created
assets
seeking

Traditional determinants of FDI

New Institutional Economics (NIE) determinants of FDI

Quality of business
environment
"Economic Freedom
indicators"

Quality of institutional
environment
"worldwide governance
indicators"

Pro
fita
bilit
y

Ohlin
(1933),
Macdou
ghall
(1960),
Brigham
&
Ehrhard
t (2005)

Coase (1937)   North (1991)   Williamson (2000)

Dunning (2002, 2006)   Grosse & Trevino (2005)

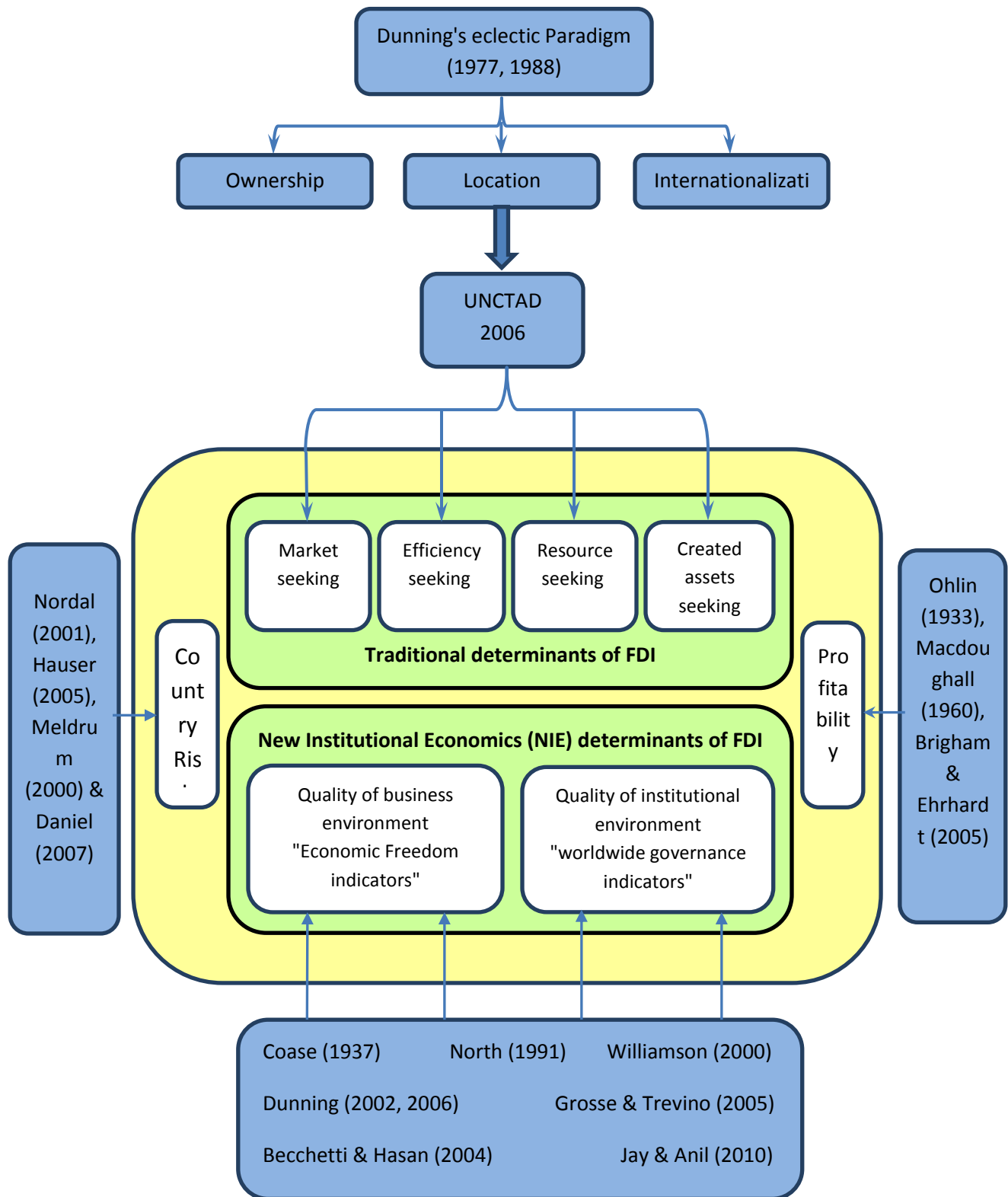Becchetti & Hasan (2004)   Jay & Anil (2010)

Figure 3: Illustrative Diagram for the Proposed Conceptual Framework of FDI Determinants

2.2 Previous Empirical Researches

Caetano and Caleiro (2009) concluded that the level of economic freedom measured by Heritage Foundation index is positively related to the FDI inflows. Calvo and Robles (2001) investigate the relation between economic freedom, FDI and growth in 18 Latin American countries over the period 1970-1999 using a panel data analysis and concluded that economic freedom indicators measured by the Fraser Institute Index are positive determinants for FDI. In a sample of 67 developing countries excluding countries in transition over the period 1990-1998, Kapuria-Foreman (2007) used Fraser and Heritage Foundation Institutions indices – as a proxy for economic freedom – separately due to high correlation between them and found that the impact of the aggregated indices on FDI is insignificant; however the use of sub-components shows different estimates. The study found that protecting property rights, reducing government intervention, and reducing capital flow barriers increase FDI flows. Rasekhi and Seyedi (2011) found that economic freedom eliminates barriers to FDI flow and consequently it is a positive determinant for FDI in developing countries during the period 1995-2004.

Regarding the effect of political regime on FDI flow, Guerin and Manzocchi (2009) found that the democracy has a positive effect on the amount of FDI flows during the period 1992–2004. Similarly, Busse (2003) found that democracy raises FDI inflows in emerging countries, and then Busse and Hefeker (2007) determined significant factors for FDI inflows such as government stability, absence of internal conflict, and basic democratic rights.

In contrary to conventional concepts, property rights found to be insignificant determinants for FDI flow to African Countries (Onyeiwu & Shrestha, 2004). In addition, a recent study for 48 Sub-Saharan Africa countries over the period 1996-2008 confirmed that as Sub-Saharan countries progress towards more democracy, the FDI flow decline (Okafor, Ujah, Elkassabgi & Ajalie, 2011). The study suggested that when country become more developed, its regulation changes towards domestic productivity and accordingly it becomes resourceful which supersedes the profit maximization interest of MNCs. Similarly, the negative impact of democracy on FDI flow is also supported by Resnick (2001) and Yang (2007).

Beheshtitabar and Irgaliyev (2008) used four economic freedom sub-indictors; freedom from corruption, government size, trade freedom, and investment freedom and test their impact

on FDI. The study covered 12 Middle East countries and 43 other developing countries from 1995 to 2006. The results indicated that only trade and investment freedom have positive and significant impact on FDI in both Middle East and other developing countries. However, this study is criticized because it examined the relation between economic freedom and FDI without inserting any other determinants. In addition, the study ignored country-specific effects.

In their augmented gravity model for intraregional FDI in the MENA region, Laabas and Abdmoulah (2009) found that investment freedom and regulatory quality have positive and significant impact on FDI while political stability, control of corruption, business freedom, financial freedom, and fiscal freedom have – in contrary to conventional wisdom – a negative and significant signs. Samimi, Monfared, Moghaddasi, and Aziz (2011) use International Country Risk Guide (ICRG) Governance index as a proxy for political stability for 16 countries of the Organization of Islamic Conference (OIC) and found that it is negatively correlated with FDI.

In another attempt to study the effect of corruption on FDI in the MENA region, Onyeiwn (2003) compared ten MENA countries with other developing countries using data for relatively large period of time 1975-1999 and found that corruption and bureaucratic red tape measured as the ratio of public expenditure to the GDP is significant for all developing countries and the only significant variable for the MENA countries. In a recent study by Hakro and Omezzine (2011), both regulatory quality and government effectiveness are proved to be the most significant governance indicators that affect FDI positively; however other governance indicators such as voice and accountability, political instability, rule of law negatively affect FDI. Finally, New Institutional Economics approach was introduced by Jay and Anil (2010) where they comprehensively considered that both macroeconomic and institutions do matter in FDI flow in the MENA regions. They found that macroeconomic factors such as economic growth, trade openness, current account deficit has a positive impact on FDI flow as well as other institutional factors such as economic freedom, business freedom, and political freedom. However, this study is criticized in two point; it apply pooled least square regression models only and ignoring cross-countries differences, and the significance levels for most of the above factors is 20 percent which raise concern about the accuracy of results.

Based on the literature review, there is a gap that investigates the relation between country risk measures and new institutional economics approach from one side and FDI from the other

side. This gap is summarized in four main points; first, the lack of comprehensive literature that focuses on MENA region. Second, part of studies that examine the impact of risk, economic freedom, and governance measures on FDI especially in MENA region ignore other conditioning (or controlling) variables. Third, some previous studies used the aggregated index for risk, economic freedom and then generalize the result which may be a false indicator because these composite indicators aggregate several sub-indicators that should be investigated separately. Fourth, the econometric method that is used in some studies especially in MENA region ignored the country-specific effects. These studies deal with the available data as a pool using the ordinary least square regression rather than using panel data analysis techniques. This research aims to fill this gap and overcome these four points, it add to the existing literature by investigating the effect of composite as well as sub-indicators measures of country risk, economic freedom and governance on FDI. The study follows the New Institutional Economics (NIE) approach and tries to explain its impact on FDI, the operational definition used for the NIE in this study is a broad one that includes all economic freedom indicators as a proxy for the quality of business environment and worldwide governance indicators as a proxy for the quality of institutional environment. Moreover, this research doesn't ignore the traditional determinants of FDI which are inserted as conditioning variables in the empirical analysis. Finally, the empirical study considers the country-specific effects or the differences among country by using a panel data analysis with fixed and random effects models that can control for any unobserved effects.

3. Data and Methodology

This research covers all MENA countries except Palestine for lack of data. Therefore, there are 20 countries: Algeria, Bahrain, Egypt, Iran, Iraq, Israel, Jordon, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, Turkey, United Arab Emirates, and Yemen. Moreover, the data used in this research covers the period 1999-2010.

3.1 Data and Research Variables

Two main measures for FDI are used as dependent variables: FDI flow and FDI stock. The use of these two measures is to test the robustness of results. The logarithmic format is used to deal with some extreme values and improve the normality of data.

On the other hand, this research uses four groups of independent variables; country risk, economic freedom, governance, and a set of traditional determinants for FDI. The study uses the composite indices and the sub-indicators to get a better investigation. The International Country Risk Guide (ICRG) index is developed by the Political Risk Group (PRG) to measure the risk for 140 counties on a monthly basis. It is a composite index from 100 points which aggregate three main risk components; economic, financial, and political risks. The economic and financial risk consists of 50 score points while the political risk has a scale of 100 points. It is important to notice that for the composite index as well as the three risk ratings, the higher of index score, the lower risk level in this country.

In addition, the economic freedom index developed by Heritage Foundation and Wall Street Journal is used to reflect the quality of business environment. The subcomponents of the economic freedom index are also used; Business Freedom, Trade Freedom, Monetary Freedom, Government Size/Spending, Fiscal Freedom, Property Rights, Investment Freedom, Financial Freedom, Freedom from Corruption. Each of these indicator has a 100 points scale. The tenth indicator in the Economic freedom index is Labor Freedom which is excluded from this study because it is recently developed in 2005; accordingly a lot of Labor Freedom data are missing.

The worldwide governance indicator is developed by the World Bank and it is used to reflect the quality of institutional environment. It also has six sub-indicators; Voice and Accountability, Political Stability, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption. However, Governance indicators scale is transformed to be a 100 points scale instead of 5 points scale.

Finally, a set of conditioning variables are used which are examined in previous empirical studies as traditional determinants for FDI. This study uses the following variables: GDP, GDP growth as an indicators for market seeking determinants, labor productivity and trade openness as a proxy for efficiency-seeking determinants, a dummy variable is used to represent oil exporting nations as an indicator for the resource seeking determinants, and world's FDI as percentage of world's GDP as an indicator for the global trend in FDI. Accordingly, Table (1) states the selected variables, descriptions, and data sources.

Table 1: The Research Variables; Definitions, and Data Sources

Symbol	Variable	Description	source
Dependent Variables			
log_FDI_f	Log FDI flow	The logarithmic format of inward FDI flows measured in current million US dollars	The digital database of the United Nations Conference on Trade and Development (UNCTAD)
log_FDI_s	Log FDI stock	The logarithmic format of inward FDI stock measured in current million US dollars	
Dependent Variables			
Conditioning/controlling variables			
log_GDP	Log GDP	The logarithmic format of Gross Domestic Product (in current million US dollars). It is used as a proxy for market-seeking determinant.	The data bank of the World Bank
log_GDP_g	Log GDP growth	The logarithmic format of GDP growth is used as a market-seeking determinant	
log_productivity	Log Labor productivity	The logarithmic format of the GDP divided by the number of labor force is used as an efficiency-seeking determinant.	Calculated by author from the data bank of the World Bank
log_openness	Log trade openness	The sum of exports and imports as percent of GDP is used as an efficiency-seeking determinant	Calculated by author from the data bank of the World Bank
OIL	OIL	A dummy variable for oil exporting nations which is time-invariant variable. It is used as a proxy for resource-seeking determinants.	Inserted by the author from the OECD categorization of MENA region based on oil exporting.
log_GLOB	Log_GLOB	The logarithmic format of world's FDI as percentage of world GDP which is country invariant variable is used as indication for the global trend in FDI.	The digital database of the UNCTAD
Country risk variables			
ICRGcomp	Composite Risk	The composite risk rating of the ICRG index. The composite index aggregates economic, financial, and political risks (100 point scale)	International Country Risk Guide (ICRG) Index is developed by Political Risk Group (PRG) *(the higher the score, the lower the risk)*
ICRGecon	Economic Risk	The economic risk rating component of the ICRG index (50 point scale)	
ICRGfin	Financial Risk	The financial risk rating component of the ICRG index (50 point scale)	
ICRGpol	Political Risk	The political risk rating component of the ICRG index (100 point scale)	

Economic freedom variables			
BFcomp	Composite economic freedom index	A composite measure for economic freedom calculated as the average for the ten sub-indicators.	Economic Freedom Index developed by Heritage Foundation and Wall Street Journal
BF	Business Freedom	The ability to create, operate, and close an enterprise quickly and easily	
TF	Trade Freedom	A measure of the absence of tariff and non-tariff barriers that affect imports and exports of goods and services	
FiscalF	Fiscal Freedom	A measure the level of tax burden imposed by the government	
GS	Government Spending	All government expenditures, including consumption and transfers	The composite indicators as well as the sub-indicators are based on 100 point scale.
MF	Monetary Freedom	A measure of price stability with an assessment of price controls	
IF	Investment Freedom	An assessment of the free flow of capital without government restrictions, especially foreign capital	
FinF	Financial Freedom	A measure of banking security as well as independence from government control	(the higher the score, the better the quality of business environment)
PR	Property Rights	An assessment of the ability of individuals to accumulate private property, secured by clear laws that are fully enforced by the state	
CF	Freedom from Corruption	An assessment of the perception of corruption in the business environment, including levels of governmental legal, judicial, and administrative corruption	
Governance and institutions variables			
GOVcomp	Composite governance index	A composite measure for governance calculated as the average value for the six governance indicators	Worldwide Governance Indicators developed by the World Bank
VA	Voice & Accountability	A measure for political and civil rights	
PS	Political Stability	A measure for the likelihood of violent threats to, or changes in government	The composite indicators and the six sub-indicators are modified to be a 100 points scale
GE	Governt. Effectiveness	A measure for the competence and the quality of public service deliver	
RQ	Regulatory Quality	A measure for the incidence of market-unfriendly policies	
RL	Rule of Law	A measure for the quality of contract enforcement, the police and the courts, as well as the likelihood of crime and violence	(the higher the score, the better the quality of institutional environment)
CC	Control of Corruption	A measure for the exercise of public power for private gain, including both petty and grand corruption and state capture	

3.2 Methodology

This research utilizes multiple linear regressions technique. The goal of linear regression is to adjust the values of slope and intercept to find a line that best predicts the dependent variables from independent variables. Ordinary Least Squares (OLS) method estimates the regression coefficients in such a way that minimizes the sum of the squared deviations of the distances of all the points to the line (i.e. residuals). The OLS method uses the following equation for estimation:

$$Y_i = \beta_0 + \sum \beta X_i + \varepsilon_{it} \qquad \textbf{(1)}$$

Where Y_i is the dependent variable, β_0 is intercept, X_i is the set of independent or explanatory variables, β is the set of regression coefficients, and ε_{it} is random error term.

One method of estimate is to apply the OLS by assuming the data set across countries are homogenous and consequently treating the data as a pool (known as pooled OLS). The pooled OLS assumes that all countries have the same intercept (β_0) and ignores any possible individual characteristics between countries. However, Panel data analysis is used when data set contains observations for several countries where each country is observed with two or more observations over time. There are several advantages of panel data analysis (Baltagi, 2005) which allow controlling for: (i) variables that vary across countries but don't vary over time such as cultural and demographic factors which could cause omitted variable bias if it is omitted; (ii) variables that vary over time but don't vary across entity such as global trend or the effect of international agreement; (iii) unobserved variables that can't be measured and so don't included in the regression model.

The simple form of panel data can be explained by inserting the unobserved individual (e.g. country in this research) effect as follow:

$$Y_i = \beta_0 + \sum \beta X_i + \alpha_i + \varepsilon_{it} \qquad \textbf{(2)}$$

Where α_i is the unobserved country specific effect that assumed to be constant over time for the same country and differs across countries.

There are two ways to deal with panel data; the fixed effects and the random effects models (Hsiao, 2003). In the fixed effects model, each country or year has its own individual characteristics that may influence the predictor variables. Fixed effect removes the effect of

those time invariants and/or country-invariant characteristics from the predictor variables and so accessing the net effect of predictors. The unobserved individual specific effect is assumed to be correlated with the independent variables and it is also assumed to be time invariant that has constant value for each individual across time periods, accordingly it could be added to the constant term β_o. The new constant term will be β_i ($\beta_i = \beta_o + \alpha_i$) which means that there is a constant portion in the intercept for all countries (β_o) and a portion that changes for each country (α_i). So, fixed effects model reflects different constant terms or intercepts for each country while the slops of all countries are the same.

$$Y_{it} = \beta_i + \sum \beta_j X_{j\,it} + \varepsilon_{it} \qquad (3)$$

On the other hand, the rationale behind random effects model is that – unlike the fixed effects model – the variation across countries (or the country specific effect) is assumed to be uncorrelated with the independent variables. Instead of being a fixed term as in the fixed effects model, the unobserved country specific effect is assumed to be randomly distributed. The country specific effect (α_i) could be now combined with the error term to form a new error term ($\xi_{it} = \alpha_i + \varepsilon_{it}$) that have a constant time invariant part (α_i) and a second component that varies over time (ε_{it}). Accordingly, equation (2) could be written as follow:

$$Y_{it} = \beta_o + \sum \beta_j X_{j\,it} + \xi_{it} \qquad (4)$$

3.3 The Econometric Model

For the empirical work, the econometric regression model that tests the relation between the independent and dependent variables is specified as follow:

$$\mathbf{Y}_{it} = \boldsymbol{\beta}_0 + \boldsymbol{\beta}_C \mathbf{C}_{it} + \boldsymbol{\beta}_N \mathbf{N}_{it} + \boldsymbol{\beta}_Z \mathbf{Z}_{it} + \alpha_i + \boldsymbol{\varepsilon}_{it} \qquad (5)$$

Where $\mathbf{Y}_{it}$ is inward FDI measures (flow/stock) for country i at year t;

$\boldsymbol{\beta}_0$ is the intercept (the value of dependent variable when dependent variables is zero)

$\mathbf{C}_i$ is a set of country risk ratings;

$\mathbf{N}_i$ is a set of New Institutional Economics (economic freedom and governance);

$\mathbf{Z}_i$ is a set of variables that used as FDI determinants in previous literature;

$\boldsymbol{\beta}_C$, $\boldsymbol{\beta}_E$, $\boldsymbol{\beta}_G$, $\boldsymbol{\beta}_Z$ are the regression coefficients for each set of variables;

α_i is country specific effect; and $\boldsymbol{\varepsilon}_{it}$ is the random error term.

In order to test the first hypothesis regarding the relationship between composite indicators for country risk, economic freedom, and governance as explanatory variables and FDI as dependent variable, equation (5) is written in more details as follow:

$$Y_{it} = \beta_{01} + \beta_{Z1} \text{Log GDP}_{it} + \beta_{Z1} \text{Log GDPg}_{it} + \beta_{Z2} \text{Log\_productivity}_{it} + \beta_{Z3} \text{log\_openness} + \beta_{Z4} \text{OIL}_i$$
$$+ \beta_{Z5} \text{GLOB}_t + \beta_R \text{ICRGcomp}_{it} + \beta_{EF} \text{EFcomp}_{it} + \beta_{GOV} \text{GOVcomp}_{it} + \alpha_i + \varepsilon_{it} \qquad \textbf{(6)}$$

In the above equation, in addition to the composite ICRG country risks rating and the composite index of economic freedom and governance, a set of conditioning variables are included in the model such as GDP, GDP growth, labor productivity, trade openness, global FDI trends, and the nature of the country as oil exporting nation or not.

Then, to test the second hypothesis regarding the relation between the sub-components of country risk, economic freedom, and governance as explanatory variables and FDI measures as dependent variables, the sub-indicators of the explanatory variables should replace the composite measures used in equation (6). So, the second hypothesis could be tested using the following equation:

$$Y_{it} = \beta_{01} + \beta_{Z1} \text{Log GDP}_{it} + \beta_{Z1} \text{Log GDPg}_{it} + \beta_{Z2} \text{Log\_productivity}_{it} + \beta_{Z3} \text{log\_openness} + \beta_{Z4} \text{OIL}_i$$
$$+ \beta_{Z5} \text{GLOB}_t + \beta_R \text{ICRGEcon}_{it} + \beta_R \text{ICRGfin} + \beta_R \text{ICRG\_pol} + \beta_{EF} \text{BF}_{it} + \beta_{EF} \text{TF}_{it} + \beta_{EF} \text{FiscalF}_{it}$$
$$+ \beta_{EF} \text{GS}_{it} + \beta_{EF} \text{MF}_{it} + \beta_{EF} \text{IF}_{it} + \beta_{EF} + \text{FinF}_{it} + \beta_{EF} \text{PR}_{it} + \beta_{EF} \text{CF}_{it} + \beta_{GOV} \text{VA}_{it} + \beta_{GOV} \text{PS}_{it}$$
$$+ \beta_{GOV} \text{GE}_{it} + \beta_{GOV} \text{RQ}_{it} + \beta_{GOV} \text{RL}_{it} + \beta_{GOV} \text{CC}_{it} + \alpha_i + \varepsilon_{it} \qquad \textbf{(7)}$$

Accordingly, to test hypotheses, each regression model in equations (6) and (7) is carried out two times due to the existence of two different measures of FDI as dependent variables (log FDI flow and log FDI stock). Moreover, due to the nature of the cross-section time series data in this research, each one of these two models is carried out using four different methods of estimate. These methods are pooled OLS, fixed effects (with and without time dummies), and random effects.

The important question here is that which method is more efficient and consistent. A series of diagnostic test is used to answer this question. First, testing for the presence of random effects is done by using Lagrange Multiplier test developed by Breusch and Pagen. This test is used to compare between random effect and pooled OLS with the null hypothesis that variance across countries is zero or there is no random effects [Ho: var (μ) = 0]. Significance p-value less than 5 percent enable us to reject the null hypothesis and therefore ensure that there is a random effect. Similarly, the presence of fixed effects is done by using

a F-test that compares for the restricted pooled OLS model results with the results from the fixed effects. The rejection of null hypothesis indicates that fixed effect is present. Then, in case of the presence of both fixed effects and random effects, Hausman test is used to decide whether to use fixed effects or random effects. The null hypothesis of Hausman test is that the individual (e.g. country) specific effect is uncorrelated with the explanatory variables and therefore both random effects and fixed effects are the same while the alternative hypothesis is that only fixed effects is consistent. If we reject the null, the fixed effect should be used instead of random effects. Finally, in case of selecting fixed effects as the best consistent method, the final question is whether to include the time effect (time dummies) in the fixed effects model. This could be done by inserting the time dummies in the fixed effects models and testing for the null hypothesis that all time dummies are not jointly significant. This null hypothesis could be rejected if the p-value is smaller than 5% and consequently the fixed effects model should include time effects.

Figure (4) shows a proposed flow chart for the steps and statistical tests used to compare between the four methods in order to select the best method of estimate.

This research compares the different methods of estimate as a natural test of robustness (Calvo & Robles 2001). Applying this approach can be considered as sort of sensitivity analysis by comparing the results between pooled OLS, fixed and random effects. By applying this technique, the coefficients for the selected estimation method are those used to report the magnitude of the impact of the independent variable on the dependent variable. However, all methods are used to check the direction and significance levels of the relationship
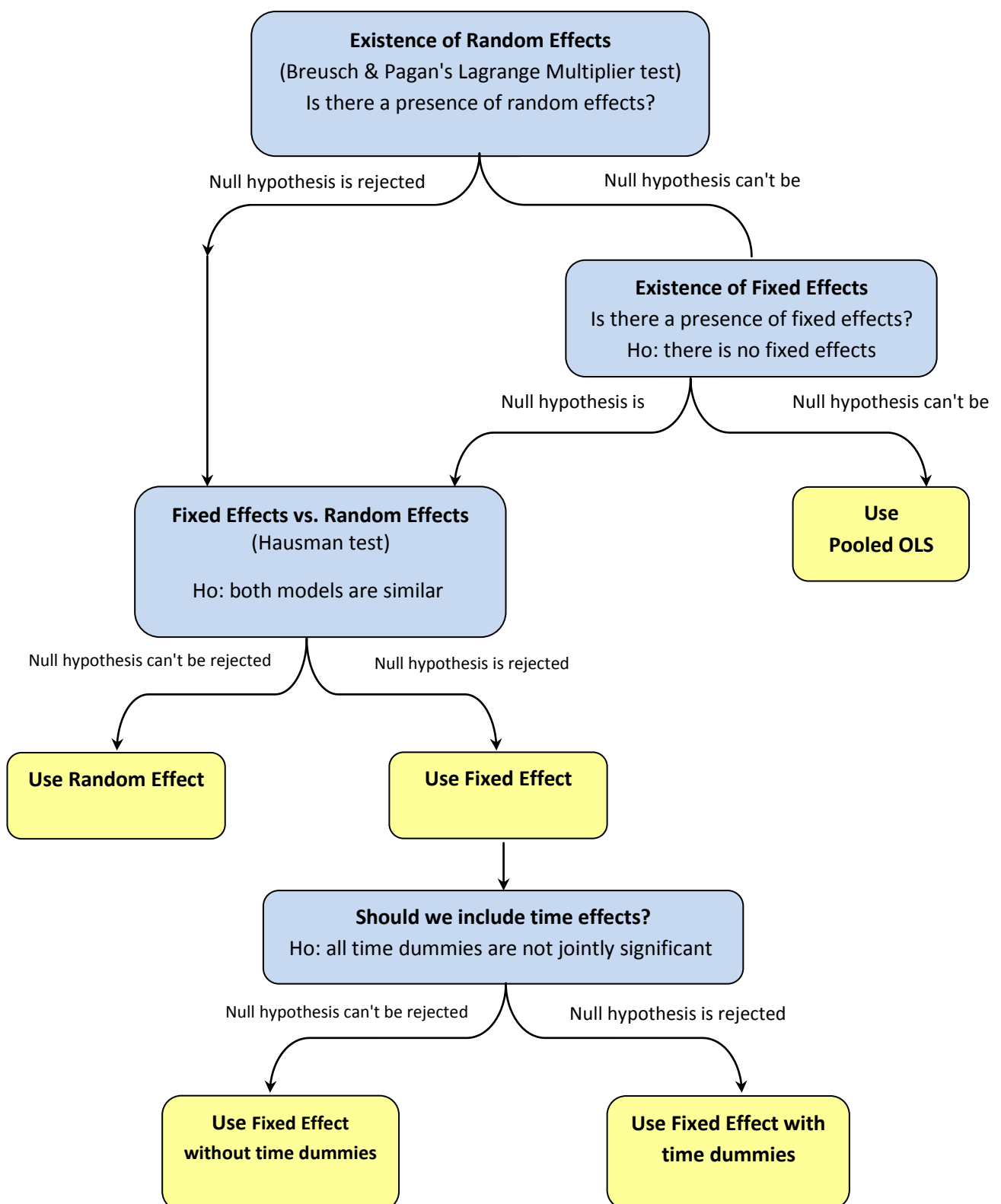
Figure 4: A proposed Flowchart for Testing the Best Consistent Method of Estimate

4. Research Results

4.1 Summary of Descriptive Statistics

Table (2) shows the summary statistics of the dependent and independent variables. It is shown that the minimum and maximum values of research variables indicate a wide range of experiences that help for robust empirical analysis. However, the mean of the FDI measures (FDI flow and FDI stock) is higher than median; this is because the distributions of FDI measures are skewed to the left due to the extreme values of certain countries like Saudi Arabia and Turkey in certain years. The use of logarithmic format for FDI measure significantly enhance the results where the median and mean become close to each other. The reaming variables show small difference between mean and median indicating the absence of extreme observations. The need for using the logarithmic format for the dependent variables also appears when investigating the kurtosis and skewness values which can be used to test the normality of data. Kurtosis and skewness values in the range of -1 to +1 indicate normal distribution of data. As shown, FDI measures are far away from that range while the logarithmic transformation of the two FDI measures results in acceptable kurtosis and skewness values in the required range. The other independent variables have kurtosis and skewness values either within or very close to the -1/+1 range. Accordingly, the independent variables of this research as well as the dependent variables after transformation to the logarithmic format are not violating the normality distribution assumption.

The mean values of the composite ICRG country risk rating and the index of economic freedom are 69.9 and 57.5 respectively. Overall, the samples of MENA region indicate moderate scores for country risk and economic freedom. However, the MENA region shows poor performance for the governance indicators where the mean value of the composite governance index is only 42.9. Finally, the table also indicates that there are missing data for economic freedom indicators where only 220 observations exist; these missing values are due to some missing data of economic freedom for Iraq and Sudan. However, the labor freedom indicator which is the 10th economic freedom indicator is represented only by 108 observations because it was recently developed and the available data are those after 2004. Accordingly, the use of labor freedom will create a large number of missing values and significantly affect the degree of freedoms. Consequently, the labor freedom is not used in this research.

Table 2: Summary of Descriptive Statistics for the Research Variables

Variable	Discription	# Obs.	Mean	Median	Std. Dev.	Kurtosis	Skewness	Range	Min.	Max.
FDI_f	*FDI flow*	240	2903.11	1342.58	5136.56	17.15	3.75	39136.34	-985.34	38151.00
log_FDI_f	*log FDI flow*	225	3.05	3.17	0.72	1.10	-0.75	4.02	0.56	4.58
FDI_s	*FDI stock*	235	19563.43	11519.60	28142.19	12.41	3.20	181636.93	264.07	181901.00
log_FDI_s	*log FDI stock*	235	3.93	4.06	0.61	-0.43	-0.33	2.84	2.42	5.26
log_GDP	*log GDP*	240	4.72	4.67	0.48	-0.73	0.33	2.05	3.82	5.87
log_GDPg	*log GDP growth*	224	0.64	0.69	0.36	3.47	-1.26	2.63	-0.89	1.73
log_openness	*log trade openess*	228	-0.10	-0.08	0.20	0.46	0.14	1.28	-0.64	0.64
log_productivity	*log labor productivity*	240	4.12	4.08	0.48	-1.08	0.05	2.07	3.02	5.09
OIL	*oil exporting nations*	240	0.50	0.50	0.50	-2.02	0.00	1.00	0.00	1.00
log_GLOB	*log FDI world growth*	240	0.39	0.37	0.14	-1.11	0.26	0.45	0.18	0.64
ICRGcomp	*composite country risk*	240	69.93	71.00	10.26	1.42	-0.93	63.25	23.50	86.75
ICRGecon	*economic country risk*	240	37.09	36.50	7.05	1.01	-0.54	44.00	6.00	50.00
ICRGfin	*financial country risk*	240	38.96	39.50	6.27	1.25	-0.82	40.00	9.50	49.50
ICRGpol	*political country risk*	240	63.82	65.00	11.07	0.81	-1.06	48.50	31.00	79.50
EFcomp	*composite economic freedom*	222	57.51	60.05	11.62	1.56	-1.16	60.70	15.60	76.30
BF	*business freedom*	222	63.48	68.60	13.12	1.26	-0.82	65.00	20.00	85.00
TF	*trade freedom*	222	64.07	69.30	17.16	0.25	-0.92	75.00	15.00	90.00
FiscalF	*fiscal freedom*	222	78.08	81.05	20.12	0.88	-0.94	89.90	10.00	99.90
GS	*government spending*	222	63.50	66.90	16.55	2.08	-1.31	87.50	7.60	95.10
MF	*monetry freedom*	222	74.06	78.25	14.93	9.88	-2.66	94.00	0.00	94.00
IF	*investment freedom*	222	44.66	50.00	18.65	-0.31	0.00	90.00	0.00	90.00
FinF	*financial freedom*	222	42.34	50.00	20.07	-0.65	0.03	80.00	10.00	90.00
PR	*property right*	222	43.92	50.00	19.11	-0.25	-0.05	80.00	10.00	90.00
CF	*freedom from corruption*	222	42.56	43.00	21.27	-0.76	0.14	80.00	10.00	90.00
LF	*labor freedom*	108	60.69	62.20	17.45	-0.02	-0.76	69.40	20.00	89.40
GOVcomp	*composite governance index*	240	42.89	44.19	13.37	-0.94	-0.32	51.89	12.46	64.35
VA	*voive & accountability*	240	31.55	31.59	11.91	0.52	0.55	56.08	9.32	65.40
PS	*political stability*	240	39.10	39.94	18.95	-0.67	-0.25	72.35	0.00	72.35
GE	*government effectiveness*	240	46.63	47.93	14.95	-0.73	-0.23	63.19	12.20	75.39
RQ	*regulatory quality*	240	45.43	48.55	16.47	-0.65	-0.42	72.57	1.83	74.40
RL	*rule of law*	240	47.22	49.47	15.26	-0.61	-0.56	61.90	9.05	70.96
CC	*control of corruption*	240	47.43	46.51	15.28	-0.93	0.10	66.39	16.40	82.78

Before applying the regression models, the correlation analysis is used to examine the levels of correlation between independent variables. As shown from the correlation matrix in tables (3), there are a correlation between the explanatory variables and FDI measure where GDP and trade openness are the variables with highest correlation coefficients while other explanatory variables have lower correlation coefficients with FDI. In addition, the composite measures for country risk, economic freedom, and governance show high correlation coefficient with their sub-indicators that exceed .80 in several cases which is expected because these composite measures are the average values of their sub-indicators.

However, the importance of correlation analysis appears when monitoring the correlation among the explanatory variables. High correlation among independent variables may result in existence of multicollinearity that refers to excessive correlation of the predictor variables which can be considered as a violation of one of the important assumptions of the parametric analysis. Accordingly, correlation analysis is mainly carried out in order to determine whether to include these set of indicators together in the regression model or there is high level of correlations that may cause multicolinearity problem.

The correlation results indicate that there is high correlation (.78) between the political risk component (ICRGcomp) and the political stability as a one governance indicator. Moreover, as there are two measures for corruption (the freedom from corruption indictor as a one of the economic freedom indicators and the control of corruption as one of the governance indicators), high correlation exist between these two measures with a correlation coefficient value of .82. Finally, all governance indicators show high correlation with other variables such as property right and corruption freedom as well as high correlation among themselves.

The above reasons indicate high correlation between governance indicators and other explanatory variables. Accordingly, the governance indicators will be treated separately when testing the second hypothesis.

	log_FDI_f_1	log_GDP	log_GDPg	log_openness	log_productivity	OIL	log_GLOB	ICRGcomp	ICRGecon	ICRGfin	ICRGpol	EFcomp	BF	TF	FiscalF	GS	MF	IF	FinF	PR	CF	LF	GOVcomp	VA	PS	GE	RQ	RL	CC
log_FDI_f_1	1.00																												
log_GDP	0.55	1.00																											
log_GDPg	0.08	-0.08	1.00																										
log_openness	0.04	-0.30	0.08	1.00																									
log_productivity	0.24	0.37	0.03	0.44	1.00																								
OIL	-0.14	0.11	-0.02	0.32	0.45	1.00																							
log_GLOB	-0.02	-0.04	-0.01	-0.01	-0.01	0.00	1.00																						
ICRGcomp	0.00	0.20	0.00	0.39	0.65	0.38	-0.07	1.00																					
ICRGecon	0.04	0.17	0.10	0.25	0.55	0.45	-0.03	0.85	1.00																				
ICRGfin	0.04	0.31	-0.15	0.23	0.41	0.48	-0.08	0.78	0.65	1.00																			
ICRGpol	-0.05	0.08	0.01	0.42	0.63	0.14	-0.06	0.87	0.56	0.46	1.00																		
EFcomp	0.07	0.03	0.08	0.57	0.56	0.05	-0.05	0.48	0.28	0.19	0.61	1.00																	
BF	-0.09	-0.03	-0.07	0.30	0.21	-0.03	0.00	0.19	0.06	0.09	0.26	0.70	1.00																
TF	0.22	0.32	0.11	0.30	0.64	0.26	-0.06	0.30	0.20	0.19	0.31	0.60	0.27	1.00															
FiscalF	0.03	0.03	0.08	0.60	0.56	0.31	-0.08	0.55	0.34	0.36	0.58	0.71	0.33	0.49	1.00														
GS	0.08	0.12	0.06	-0.09	-0.14	0.07	-0.04	0.15	0.05	0.12	0.17	0.12	0.02	-0.12	0.28	1.00													
MF	-0.08	-0.13	-0.03	0.55	0.31	-0.05	-0.11	0.56	0.38	0.32	0.61	0.62	0.33	0.12	0.50	0.16	1.00												
IF	0.15	0.00	0.05	0.08	0.08	-0.43	-0.10	0.04	-0.05	-0.14	0.20	0.58	0.46	0.23	0.03	-0.13	0.36	1.00											
FinF	0.08	-0.18	0.07	0.50	0.39	-0.13	-0.02	0.14	0.01	-0.13	0.34	0.78	0.54	0.44	0.46	-0.03	0.39	0.59	1.00										
PR	-0.01	0.01	0.06	0.34	0.46	-0.07	0.08	0.32	0.18	0.03	0.47	0.82	0.67	0.46	0.41	-0.21	0.40	0.54	0.65	1.00									
CF	-0.04	0.02	0.10	0.48	0.61	0.29	0.01	0.52	0.42	0.24	0.55	0.78	0.55	0.51	0.48	-0.17	0.45	0.38	0.48	0.77	1.00								
LF	-0.12	-0.06	-0.05	0.27	0.22	0.13	-0.07	0.17	0.12	0.00	0.26	0.58	0.27	0.30	0.50	-0.05	0.07	0.11	0.20	0.41	0.37	1.00							
GOVcomp	0.09	0.17	0.06	0.39	0.76	0.10	-0.01	0.69	0.47	0.28	0.81	0.82	0.51	0.56	0.50	-0.09	0.52	0.48	0.61	0.80	0.82	0.32	1.00						
VA	0.09	0.14	0.05	0.17	0.43	-0.27	0.01	0.19	0.06	-0.08	0.36	0.58	0.43	0.48	0.09	-0.32	0.34	0.66	0.58	0.63	0.47	0.13	0.69	1.00					
PS	-0.09	0.04	0.05	0.37	0.64	0.33	0.04	0.78	0.55	0.40	0.88	0.42	0.11	0.20	0.49	0.13	0.37	-0.03	0.17	0.37	0.54	0.07	0.75	0.17	1.00				
GE	0.14	0.20	0.05	0.37	0.72	0.04	-0.02	0.63	0.41	0.24	0.76	0.79	0.54	0.54	0.42	-0.07	0.49	0.50	0.58	0.75	0.78	0.32	0.97	0.71	0.68	1.00			
RQ	0.16	0.13	0.07	0.46	0.69	-0.03	-0.03	0.57	0.38	0.20	0.70	0.90	0.59	0.60	0.54	-0.11	0.53	0.62	0.75	0.83	0.78	0.35	0.93	0.72	0.56	0.91	1.00		
RL	0.19	0.26	0.05	0.17	0.69	0.08	0.00	0.56	0.42	0.25	0.63	0.78	0.50	0.57	0.47	-0.08	0.44	0.40	0.58	0.78	0.77	0.35	0.87	0.54	0.56	0.81	0.79	1.00	
CC	0.03	0.17	0.06	0.38	0.76	0.21	-0.04	0.70	0.52	0.32	0.78	0.75	0.49	0.51	0.46	-0.12	0.48	0.39	0.48	0.74	0.82	0.38	0.96	0.63	0.73	0.93	0.86	0.81	1.00

4.2 The Impact of Composite Measures of Country Risk, Economic Freedom, and Governance on FDI Measures

Table (4) shows the results for testing the first hypothesis regarding the impact of composite indicators of country risk, economic freedom, and governance on FDI. As shown, all model are significance with p-value <.0001 which indicate that the regression models are accepted and useful to investigate the relationship between the independent variables and FDI. Regarding the explanatory power of the models, R-square values are high which indicate that a big portion of variations in FDI measures are explained by the selected set of explanatory variables.

Using t-test, model (1) shows that GDP and trade openness have positive and significant impact on FDI flow. By using the values of the fixed effect without time dummies methods as the best method of estimate for model (1), every one percent increase in GDP and trade openness results in a 2.239 and 2.638 percent increase in the FDI flow respectively. On the other hand, the use of dummy variable (OIL) for the oil exporting nation shows interesting results. Its coefficient has a negative sign and significant values for all methods but the fixed effects with time effect which has positive sign but insignificant. This raises a red flag to monitor this variable in the following regression model because its result is opposite to the conceptual point of view about the resource-seeking determinants of FDI.

For the main independent variables, the composite measures of country risk, economic freedom, and governance show different signs among different method of estimate, in addition they are insignificant. Accordingly, the composite measure for country risk, economic freedom, and governance indicators have no significant impact on FDI flow.

In the right part of table (4), the use of FDI stock as dependent variable (model 2) gives similar findings which indicate the robustness of the results. Again, both GDP and trade openness have positive and statistically significant impact. Each one percent increase in GDP and trade openness results in 2.179 and 2.215 percent increase in FDI stock respectively based on fixed effects with time dummy method as the best estimation method for mode (2). The OIL coefficient is negative and significant for all method except the fixed effect with time dummies method. However, model (2) has two different results for the composite index for country risk which has a negative but insignificant impact on FDI stock and the composite measure of governance which give positive but insignificant impact on FDI stock.

24

Table 4

Results of Regression Models for Testing the First Hypothesis regarding the Impact of Composite Measures of Country Risk, Economic Freedom, and Governance on FDI Measures

| | Model (1) log FDI flow as Dependent Variable | | | | | Model (2) log FDI stock as Dependent Variable | | | | |
| | | | Fixed effects | | | | | Fixed effects | | |
	Naïve Model	pooled OLS	country dummies only	country&year dummies	Random effects	Naïve Model	pooled OLS	country dummies only	country&year dummies	Random effects
log_GDP		1.285 (12.2)***	2.239 (2.86)***	2.183 (2.44)**	1.684 (8.2)***		1.220 (15.7)***	2.107 (6.4)***	2.179 (6.09)***	1.450 (10.0)***
log_GDPg		.2955 (2.65)***	.0951 (.99)	.0788 (.78)	.1579 (1.65)*		.0553 (.76)	-.0511 (-1.4)	-.0294 (-.76)	-.0404 (-1.1)
log_openess		2.366 (6.85)***	2.638 (5.0)***	2.453 (2.84)***	2.525 (5.3)***		1.604 (6.8)***	1.537 (7.2)***	2.215 (6.66)***	1.589 (7.6)***
log_productivity		.0167 (.12)	-.6407 (-.60)	.0757 (.07)	-.0926 (-.31)		-.1432 (-1.47)	-.8018 (-1.8)*	-.6963 (-1.58)	.0259 (.13)
OIL		-.3814 (-3.8)***	-.398 (-2.34)**	.514 (1.34)	-.7016 (-2.9)***		-.4053 (-5.8)***	-.714 (-9.87)***	.0184 (.12)	-.627 (-3.1)***
log_GLOB		.2923 (1.08)	.3494 (1.61)	omitted	.3172 (1.5)		-.1871 (-1.0)	-.1202 (-1.32)	omitted	-.173 (-1.94)*
ICRGcomp	-.0036 (-.53)	-0.0173 (-2.5)**	.0097 (1.02)	-.0037 (-.35)	.0012 (.13)	-.0134 (-2.53)**	-.0150 (-3.2)***	-.0066 (-1.7)*	-.0031 (-.73)	-.0059 (-1.5)
EFcomp	.0061 (.264)	-.0043 (-.87)	.0038 (.41)	.0106 (1.15)	-.0034 (-.45)	.0178 (4.26)***	.0116 (3.5)***	-.0051 (-1.36)	-.0082 (-2.24)**	-.0027 (-.76)
GOVcomp	.0135 (1.67)*	-.0057 (-.74)	.0084 (.57)	.0212 (1.33)	-.0121 (-1.19)	.0123 (1.93)*	.0048 (.91)	.0043 (.70)	.0045 (.69)	.0040 (.77)
constant	2.95 (6.05)***	-1.535 (-2.5)**	-5.77 (-5.1)***	-8.42 (-2.95)***	-4.097 (-4.5)***	3.88 (10.4)***	.0278 (.07)	-1.628 (-3.5)***	-3.01 (-2.64)***	-1.89 (-4.3)***

	Model (1) log FDI flow as Dependent Variable					Model (2) log FDI stock as Dependent Variable				
			Fixed effects					Fixed effects		
	Naïve Model	pooled OLS	country dummies only	country&year dummies	Random effects	Naïve Model	pooled OLS	country dummies only	country&year dummies	Random effects
# of observations	208	191	191	191	191	218	201	201	201	201
F statistics (prob. F)	.64 (.527)	29.05 (.000)	23.48 (.000)	15.23 (.000)		9.66 (.001)	48.55 (.000)	108.7 (.000)	23.76 (.000)	
R-square	0.0062	.561	.6026	.639	.610	.082	.669	.819	.846	.609
mean VIF	1.13	1.98	2.54	2.77	2.57	1.15	1.97	5.52	6.49	2.56
FE vs. pooled OLS (F-test)			F= 9.18 prob>F= .000					F= 43.33 prob>F=.000		
RE vs. pooled OLS (Breusch Pagen LM test)					chi2 = 47.5 prob>chi2 =.000					chi2 = 459 prob.>chi2 = .000
Hausman test			chi2 = 24.60 prob. > chi2 = .0009					chi2 = 251.30 prob. > chi2 = .0000		
Test for time-fixed effects				F = 1.67 prob.>.085					F = 2.84 prob.>.0020	

Note ***, **, and * indicate statistical significance of the independent variables at 1, 5, and 10 percent significance level respectively.

T-statistics of the coefficients are reported in parentheses.

4.2.3 The Impact of Sub-Indicators of Country Risk and Economic Freedom on FDI Measures

In order to test the second hypothesis, the sub-indicators of country risk, economic freedom, and governance is inserted in the model instead of the composite indices. However, the correlation analysis indicates that the governance indicators are highly correlated with other independent variables especially political risk, financial freedom, property right, and freedom from corruption. Accordingly, inserting governance indicators with the other set of variables in the same regression model may cause a problem of multicolinearity. In order to avoid this problem, models (3&4) use the risk and economic freedom indictors only and exclude the governance indicators which are tested separately in models (5&6).

Table (5) shows the results of the regression models that are used to test the impact of the sub-indicators of country risk and economic freedom on FDI measures. In this table, log FDI flow is used as dependent variable in model (3) while log FDI stock is used in model (4). By applying the diagnostic tests to select the proper method of estimate, it is found that fixed effects without time dummies method is more consistent in model (3) while fixed effects with time dummies method is more consistent for model (4).

Regarding the sub-indicators of the country risk, both economic and financial risk indicators has a positive but insignificant impact on FDI flow. However, political risk has a negative and significant impact on FDI flow and negative but insignificant impact on FDI stock. Based on the fixed effect without time dummies method, for every one unite increase in the political risk rating, the FDI flow decreased by around 1.58 percent. Since the high score in the ICRG indicators represents lower risk for this country, the result of the regression model regarding political risk is unexpected and opposite to theoretical point of view.

Although this result is inconsistent with the conceptual point of view, it is in light of several empirical studies (Click, 2005; Wheeler & Mody, 1992; Trevino et al, 2002). This research suggests two reasons to interpret such unexpected finding regarding the impact of political risk on FDI. First, a significant portion of the FDI in the MENA region is intraregional or among MENA countries which may explain that the investors in the regions are used to deal with political instability conditions in their countries and accordingly they don't consider this political instability as a constraint for their investments. The second reason is the wide use and expansion in the political risk insurance mechanisms in the region during the last ten years.

Regarding the impact of the quality of business environment as the first dimension of the New Institutional Economics on the FDI, the economic freedom sub-indicators show mixed results. Investment freedom is positively significant with FDI flow. Each one point increase in the investment freedom index is associated with .96 percent increase in FDI flow. Investment freedom has also positive but insignificant impact on FDI stock. In addition, monetary freedom has positive insignificant impact on FDI flow, and this impact turn to be significant in case of FDI stock. Each one point increase in the monetary freedom index is associated with an increase of .55 percent in FDI stock. This finding concludes that among all economic freedom indicators, the MNCs and foreign investors consider the absence of any investment restrictions such as capital and profit transfer as well as the stability of price without government interventions are the most important characteristic needed to encourage them for more investment in the region.

On the other hand, business freedom has negative and significant relationship with both FDI flow and stock which is consistent to the result of Laabas and Abdmoulah (2009). Each one point enhancement in the business freedom index is associated with a decline in FDI flow by 1.32 percent and in FDI stock by 1.0 percent. This can be explained as follow; the competition in the market increases due to removing entry and exit barriers and facilitating business for the new entrants, such conditions may not preferred by historical big companies that are already exist in the market and achieved historical returns in the period of monopoly or less competitive market conditions. This new competition forces these companies to benefit from other opportunities in other markets and therefore outflow their investment from the host country.

Moreover, property rights index has a negative and significant impact on FDI stock but has no impact on FDI flow; each point increase in property right index is associated with a .44 percent decrease in FDI stock. Finally, other economic freedom measures such as government spending, freedom from corruption, trade freedom, financial freedom, and fiscal freedom show no significant relationships with either FDI flow or FDI stock. This results don't confirm that these measures are not important for attracting FDI in the MENA region, instead it show that such measures are not yet proved to be a considerable determinants for FDI in the region and the MENA countries' efforts to improve these variables are still far from achieving its goals in attracting more FDI.

Table 5: *Results of Regression Models for Testing the Impact of Sub-Indicators of Country Risk and Economic Freedom on FDI Measures*

	Model (3) log FDI flow as Dependent Variable					Model (4) log FDI stock as Dependent Variable				
			Fixed effects					Fixed effects		
	Naïve model	pooled OLS	country dummies only	country&year dummies	Random effects	Naïve Model	pooled OLS	country dummies only	country&year dummies	Random effects
log_GDP		1.156 (9.58)***	3.262 (3.61)***	2.776 (2.77)***	1.156 (9.6)***		1.062 (13.9)***	2.278 (6.43)***	2.69 (7.68)***	1.062 (13.9)***
log_GDPg		.159 (1.44)	.0164 (.17)	.0006 (.01)	.1592 (1.44)		.0185 (.27)	-.0566 (-1.58)	-.0243 (-.71)	.0185 (.27)
log_openess		2.408 (6.52)***	2.893 (5.04)***	2.618 (2.94)***	2.408 (6.5)***		1.239 (5.21)***	1.184 (5.34)***	1.911 (6.16)***	1.239 (5.2)***
log_productivity		.360 (1.92)*	-1.694 (-1.47)	-.587 (-.47)	.3603 (1.9)*		.1006 (.86)	-1.246 (-2.7)***	-1.813 (-4.05)***	.1006 (.86)
OIL		-.586 (-4.2)***	omitted	-.025 (-.03)	-.5856 (-4.2)***		-.536 (-5.8)***	omitted	-1.711 (-4.76)***	-.5364 (-5.8)***
log_GLOB		.354 (1.39)	.4465 (1.99)**	omitted	.3537 (1.4)		-.0391 (-.23)	-.0489 (-.54)	omitted	-.0391 (-.23)
ICRGecon	.0098 (.94)	.0063 (.67)	.0046 (.50)	.0052 (.53)	.0063 (.67)	-.0162 (-2.04)**	-.0097 (-1.6)	-.0016 (-.43)	.0007 (.20)	-.0097 (-1.59)
ICRGfin	.0081 (.69)	.0045 (.49)	.0089 (.66)	.0037 (.27)	.0045 (.49)	.0098 (1.11)	.0003 (.05)	-.0065 (-1.22)	-.0059 (-1.23)	.0003 (.05)
ICRGpol	-.0115 (-1.42)	-.0252 (-4.1)***	-.0158 (-1.62)*	-.0209 (-2.13)**	-.0252 (-4.1)***	-.0018 (-.28)	-.0044 (-1.07)	-.0037 (-.94)	-.0012 (-.34)	-.0044 (-1.1)
BF	-.0148 (-2.64)***	-.0149 (-3.7)***	-.0132 (-2.9)***	-.0122 (-2.66)***	-.0149 (-3.7)***	-.0044 (-1.02)	-.0033 (-1.26)	-.0079 (-4.5)***	-.0100 (-6.08)***	-.0033 (-1.3)
TF	.0127 (3.27)***	-.0018 (-.56)	.0002 (.06)	.0040 (1.09)	-.0018 (-.56)	.0130 (4.34)***	.0012 (.57)	.0020 (1.51)	-.0007 (-.54)	.0012 (.57)
FiscalF	.0021 (.50)	-.0025 (-.79)	-.0036 (-.77)	-.0033 (-.68)	-.0025 (-.79)	-.0009 (-.29)	-.0018 (-.90)	.0033 (1.76)*	.0027 (1.61)	-.0018 (-.90)
GS	.0105 (2.63)***	.0126 (3.90)***	-.0038 (-1.06)	-.0025 (-.67)	.0126 (3.9)***	.0134 (4.45)***	.0113 (5.40)***	-.0005 (-.36)	-.0009 (-.65)	.0113 (5.4)***
MF	.0011 (.19)	.0006 (.14)	.0064 (1.17)	.0018 (.30)	.0006 (.14)	.0036 (.80)	.0051 (1.66)*	.0006 (.28)	.0055 (2.58)**	.0051 (1.7)*
IF	.0138 (3.41)***	.0098 (3.06)***	.0096 (3.0)***	.0101 (3.17)***	.0098 (3.1)***	.0134 (4.52)***	.0054 (2.59)***	.0017 (1.34)	.0016 (1.44)	.0053 (2.6)***
FinF	-.0005 (-.11)	.0019 (.56)	-.0017 (-.45)	-.0015 (-.38)	.0019 (.56)	-.0005 (-.14)	.0067 (3.02)***	.0003 (.18)	-.0012 (-.88)	.0067 (3.0)***
PR	.0028 (.50)	-.0036 (-.81)	.0042 (.80)	.0062 (1.17)	-.0036 (-.81)	-.0011 (-.26)	-.0083 (-2.9)***	-.0041 (-2.10)**	-.0044 (-2.44)**	-.0083 (-2.9)***
CF	-.0056 (-1.31)	.0027 (.75)	-.0044 (-1.14)	-.0039 (-.99)	.0027 (.75)	-.0008 (-.23)	.0057 (2.46)**	-.0006 (-.39)	-.0001 (-.10)	.0057 (2.5)**
constant	1.812 (2.72)***	-2.537 (-3.2)***	-4.467 (-2.39)**	-6.69 (-1.88)*	-2.537 (-3.2)***	2.167 (4.28)***	-1.709 (-3.4)***	-.183 (-.25)	.329 (.26)	-1.71 (-3.4)***

	Model (3) log FDI flow as Dependent Var.					Model (4) log FDI stock as Dependent Variable				
			Fixed effects					Fixed effects		
	Naïve model	pooled OLS	country dummies only	country&year dummies	Random effects	Naïve Model	pooled OLS	country dummies only	country&year dummies	Random effects
# of observations	208	191	191	191	191	218	201	201	201	201
F statistics (prob. F)	3.31 (.0002)	18.11 (.000)	19.02 (.000)	15.67 (.000)		6.45 (.000)	33.17 (.000)	93.06 (.000)	93.71 (.000)	
R-square	0.169	.655	.658	.691	.655	.274	.766	.855	.894	.766
mean VIF	2.37	3.13	2.92	3.24	2.90	2.41	3.12	6.90	9.43	4.27
FE vs. pooled OLS (F-test)			F= 7.14 prob>F= .000					F= 35.24 prob>F= .000		
RE vs. pooled OLS (Breusch Pagen LM test)					chi2 = 17.9 prob>chi2 = .0000					chi2 = 284.8 prob>chi2 = .0000
Hausman test			chi2 = 32.64 prob>chi2 = .0125					chi2 = - 96.26 < 0 data fails to meet asymptotic assumptions of Hausman test. So, Hausman test is NA		
Test for time-fixed effects				F= 1.79 prob>F= .061					F= 5.11 prob>F= .000	

Note ***, **, and * indicate statistical significance of the independent variables at 1, 5, and 10 percent significance level respectively.

T-statistics of the coefficients are reported in parentheses.

4.2.4 The Impact of Sub-Indicators of Governance on FDI Measures

In table (6), models (5 & 6) use the governance indicators solely as explanatory variables in order to overcome the problem of high correlation between these indicators and country risk and economic freedom indicators. The set of diagnostic tests confirm that random effect is the most appropriate estimation method while fixed effects with time dummies method is the appropriate estimation method in model (5). Regarding the traditional determinants of FDI, the results are similar to the previous models. In model (5), Although GDP and trade openness are positive but insignificant for the fixed effect with time dummies method; both of these two variables are positive and significant for all other methods. GDP growth is positively associated with FDI flow for all methods while significant only in pooled OLS and random effects methods. OIL dummy variable indicates negative impact on FDI flows. In model (6), only GDP and trade openness have significant and positive impact on FDI stock.

Regarding the institutional environment dimension of the New Institutional Economics, the governance indicators show mixed results. The regulatory quality is the most important governance indicator in the MENA region. It has positive impact on FDI stock as well as positive and significant impact on FDI flow. Each one point increase in the modified index for regulatory quality (scale of 100 points rather than the original index with 5 points) is associated with an increase of 2.9 percent in FDI flow. Rule of law has a positive but insignificant impact of FDI flow while Government effectiveness index has positive but insignificant impact on FDI stock. However, Voice and accountability indicator has negative and significant impact on both FDI flow and FDI stock which is similar to the results of Hakro and Omezzine (2011). Each one point increase in the modified score for voice and accountability is associated with a decline by 2.18 and 1.53 percent in FDI flow and stock respectively. This result, although inconsistence with conceptual point of view, is not surprising for the MENA region due to several decade of lack of democracy and single party control in almost all MENA countries. Such situation could be accepted from foreign investors that are willing to operate in undemocratic markets as long as they have high return on investment (Onyeiwn, 2003).

Table 6

Results of Regression Models for Testing the Impact of Sub-Indicators of Governance on FDI Measures

	Model (5) log FDI flow as Dependent Variable					Model (6) log FDI stock as Dependent Variable				
			Fixed effects					Fixed effects		
	Naïve model	pooled OLS	country dummies only	country&year dummies	Random effects	Naïve model	pooled OLS	country dummies only	country&year dummies	Random effects
log_GDP		1.017 (10.59)***	2.107 (2.60)***	.980 (1.03)	1.516 (7.12)***		.912 (15.27)***	1.681 (5.07)***	1.572 (4.09)***	1.265 (10.29)***
log_GDPg		.339 (3.25)***	.121 (1.34)	.102 (1.08)	.177 (2.01)**		.0555 (.90)	-.0591 (-1.72)*	-.0257 (-.71)	-.0442 (-1.26)
log_openess		1.319 (5.27)***	2.495 (4.88)***	1.239 (1.63)	2.063 (5.32)***		.7374 (4.66)***	1.432 (7.29)***	1.861 (6.26)***	1.312 (7.36)***
log_productivity		.3319 (2.11)**	-.746 (-.70)	.0546 (.05)	-.062 (-.21)		-.0011 (-.01)	-.399 (-.91)	-.3445 (-.80)	.1005 (.61)
OIL		-.609 (-5.72)***	-.416 (-1.21)	-.029 (-.07)	-.841 (-3.5)***		-.492 (-7.29)***	.0226 (.16)	.0573 (.35)	-.859 (-5.67)***
log_GLOB		.2337 (.92)	.342 (1.7)*	omitted	.286 (1.44)		-.156 (-.98)	-.1068 (-1.30)	omitted	-.122 (-1.47)
VA	-.0158 (-2.32)**	-.0212 (-3.71)***	-.0162 (-1.51)*	-.0218 (-1.9)*	-.024 (-2.96)***	-.0178 (-3.59)***	-.0223 (-6.23)***	-.0119 (-2.73)***	-.0094 (-2.03)**	-.0153 (-3.97)***
PS	-.0127 (-2.91)***	-.0091 (-2.5)**	.0017 (.28)	.0013 (.21)	-.001 (-.20)	-.0130 (-4.12)***	-.0077 (-3.37)***	.0038 (1.61)	.0044 (1.87)*	.0019 (.86)
GE	.0362 (3.35)***	.0161 (1.88)*	-.0072 (-.64)	.0005 (.04)	-.0083 (-.82)	.0534 (6.94)***	.0336 (6.36)***	.0047 (1.03)	.0019 (.40)	.0064 (1.44)
RQ	.0078 (1.10)	.001 (.14)*	.0229 (2.3)**	.0294 (2.96)***	.0155 (1.81)*	.0096 (1.90)*	.0102 (2.52)**	.0038 (.95)	.0016 (.41)	.0059 (1.58)
RL	.0115 (2.12)**	.0097 (2.10)**	.0054 (.71)	.0030 (.40)	.0067 (1.03)	.0099 (2.51)**	.0045 (1.56)	-.0082 (-2.66)***	-.0064 (-2.12)**	-.0057 (-1.93)*
CC	-.0276 (-3.01)***	-.0152 (-1.92)*	.0052 (.61)	.0065 (.73)	.0015 (.19)	-.0368 (-5.7)***	-.0215 (-4.43)***	.0018 (.56)	.0053 (1.56)	.0020 (.63)
constant	2.756 (16.5)***	-2.53 (-5.4)***	-4.349 (-4.26)***	-2.79 (-1.43)	-3.45 (-4.9)***	3.339 (27.8)***	-.265 (-.90)	-2.40 (-5.86)***	-2.14 (-2.73)***	-1.85 (-5.16)***

	Model (5) log FDI flow as Dependent Variable					Model (6) log FDI stock as Dependent Variable				
			Fixed effects					Fixed effects		
	Naïve model	pooled OLS	country dummies only	country&year dummies	Random effects	Naïve model	pooled OLS	country dummies only	country&year dummies	Random effects
# of observations	225	205	205	205	205	235	215	215	215	215
F statistics (prob. F)	6.86 (.000)	21.80 (.000)	20.75 (.000)	16.98 (.000)		22.68 (.000)	49.63 (.000)	107.74 (.000)	88.35 (.000)	
R-square	0.159	.577	.610	.653	.513	.357	.747	.846	.866	.627
mean VIF	6.2	4.84	2.56	2.88	2.05	6.10	4.73	6.49	7.46	2.68
FE vs. pooled OLS (F-test)			F= 8.59 prob>F= .000					F= 35.85 prob>F= .000		
RE vs. pooled OLS (Breusch Pagen LM test)					chi2= 56.3 prob.>chi2= .000					chi2 = 274.5 prob.>chi2 = .000
Hausman test			chi2 = 20.46 prob>chi2 = .0394					chi2 = 1.97 prob.>chi2 = .998		
Test for time-fixed effects				F= 2.11 prob>F= .0219						

Note ***, **, and * indicate statistical significance of the independent variables at 1, 5, and 10 percent significance level respectively.

T-statistics of the coefficients are reported in parentheses.

Finally, table (13) summarizes the results of all regression models used in this research.

Table 13. *Summary of Regression Results*

Independent Variables	FDI flow	FDI stock
ICRG composite		(- ve) / insignificant
Economic Freedom composite		
Governance composite		(+ve) / insignificant
ICRG economic	(+ ve) / insignificant	
ICRG financial	(+ ve) / insignificant	
ICRG political	**(- ve) / significant**	(- ve) / insignificant
Business freedom	**(- ve) / significant**	**(- ve) / significant**
Trade freedom		
Fiscal freedom		
Governance Spending		
Monetary freedom	(+ ve) / insignificant	**(+ ve) / significant**
Investment freedom	**(+ ve) / significant**	(+ ve) / insignificant
Financial freedom		
Property right		**(- ve) / significant**
Corruption freedom		
Voice and accountability	**(- ve) / significant**	**(- ve) / significant**
Political stability		
Governance effectiveness		(+ ve) / insignificant
Regulatory quality	**(+ ve) / significant**	(+ ve) / insignificant
Rule of law	(+ ve) / insignificant	
Control of corruption		
NIE_factor1		
NIE_factor2		(-ve) / insignificant
NIE_factor3		(+ ve) / insignificant
GDP	**(+ ve) / significant**	**(+ ve) / significant**
GDP growth	(+ ve) / insignificant	
Trade openness	**(+ ve) / significant**	**(+ ve) / significant**
Labor productivity		
OIL	**(- ve) / significant**	
GLOB	(+ ve) / insignificant	(- ve) / insignificant

5. Conclusion and Policy Recommendations

5.1 Conclusion

There are several economic challenges facing MENA countries represented in volatile economic growth, high unemployment rates compared to other regions, inefficient public sector. MENA countries consider FDI as one of the solutions that can overcome these problems and accordingly started in the last two decades to establish economic reforms programs aiming to move from state monopoly and massive public sector to efficient private sector, and improve the quality of business environment. However, the current performance of the MENA region to attract FDI is not impressive, the region's market share for the global FDI is minimal and the region faces a serve competition from developing countries especially the Latin America and Asian economies. In addition, the current revolutions and radical political changes that take place in MENA region may affect FDI flows to the region in the coming years which increase the importance of this study and trigger the need to investigate and analyze the factors that affect FDI in general and country risk in specific. Moreover, New Institutional Economics aim to emphasize the role of political, social, and the quality of institutional environment, NIE provides explanations about the failures of past economic reforms due to poor institutions, inefficient governance practices, and high level of corruption. Accordingly, it is beneficial to study the impact of quality of business environment and the role of governance institutions as main two dimensions of the New Institutional Economics approach on FDI to the MENA region.

This study adds to the existing literature in various way; First, it aggregates different conceptual works in order to get a comprehensive framework that address FDI determinants from different point of views. Second, the study introduces the concept of New Institutional Economics as a new and non-traditional determinant for FDI in the MENA region and set an operational definition for the New Institutional Economics to cover two main dimensions; the quality of business environment represented in nine economic freedom indicators as well as the quality of institutions represented in six governance indicators. Finally, the study considers unobserved heterogeneity and cross-country differences by applying a panel data analysis with fixed and random effects in addition to pooled ordinary least square regression method.

The findings of the study indicate the importance of investigating the relation between the explanatory variables and FDI based on the sub-indicators of each index rather than the

composite index. In addition, the results show positive impact of low economic and financial country risks on FDI flow although they are insignificant. However, high political risk is associated with high level of FDI that appears in the negative and significant coefficient of ICRG's political risk score where high scores reflect more stable environment. The results also indicate New Institutional Economics do matter in explaining the flow of FDI in the MENA region. From the quality of business environment dimension, investment freedom and monetary freedom have a positive and significant impact on FDI flow and FDI stock respectively. However, business freedom has a negative and significant impact on FDI. On the other hand, the quality of institutions and governance dimensions has also an impact on FDI. Voice and accountability has a negative and significant impact on FDI, regulatory quality has significant and positive impact. Moreover, government effectiveness and rule of law has also positive but insignificant impact on FDI. The MENA countries' moderate scores in economic freedom and governance indicators in general and those indicators that have positive and significant impact on FDI in specific (investment freedom, monetary freedom, regulatory quality, government effectiveness, and rule of law) may explain the unimpressive FDI performance of the region; however, these moderate scores reflect a room for opportunity to attract more FDI and increase MENA region's FDI market share in case of more improvement in both business environment and institutional environment.

The results also indicate that market-seeking motives are considerable determinants for foreign investors in MENA region which appear in the positive and significant impact of GDP as a proxy for market size. The negative impact of using OIL dummy variable on FDI flow indicates that the natural resources is not positively associated with more FDI flow in the region. This is a sign for the transformation from resource-seeking to efficiency-seeking determinants of FDI where trade openness as a proxy for the extent to which MENA region is integrated with the global economy has a positive and significant impact on FDI.

5.2 Policy Recommendations

Based on the above findings, a set of recommendations can be formulated to help governments and decision makers in the MENA countries for attracting more FDI. These policy recommendations are extracted directly from the results and can be categorized into three directives which should be pursued simultaneously.

The first category of recommendations aims to deal with the political instability in the region. The following actions are recommended; promoting and encouraging regional trade

integration and intraregional FDI, as well as expanding investment protection instruments and political risk insurance mechanisms that guarantee business activities and cover reimbursement in case of clam.

The second category of recommendations is related to emphasize the role of new intuitional economics from both business environment dimension as well as the institutional environment dimension. The following recommendations regarding the role of New Institutional Economics are suggested for the MENA region; formulating policy frameworks to improve investment climate, reducing restriction on capital and profit transfer, emphasizing the rule of law and the independence of sector regulators, reducing transaction costs by fighting corruption, ensuring transparency, and setting appropriate dispute resolution bodies

Finally, the third category is concerning the macroeconomic policies in the MENA region where the following recommendations are suggested for MENA countries; diversifying economies activities instead of depending on the energy sectors only, promoting sector-specific awareness programs, and encouraging regional and international economic and trade integration through investment agreements.

References

Addison, T. & Heshmati, A. (2003). The New Global Determinants of FDI Flows to Developing Countries: The Importance of ICT and Democratization. *World Institute for Development Economic Research, Discussion Paper No.2003/45.*

Becchetti, L. & Hassan, I. (2004). "The Effects of Internal Integration of the MENA Region and its Integration with the EU: Impact on Real Effective Exchange-Rate Volatility, Institutional Quality and Growth for MENA Countries. *Economic Research Forum, Working Papers 0428.*

Beheshtitabar, E. & Irgaliyev, A. (2008). The Impact of Economic Freedom on FDI Inflow to Developing Countries: The Case of the Middle East. *Jonkoping University Publications.*

Brigham, E. F. & Ehrhardt, M. C. (2005). *Financial Management Theory and Practice (11th edition).* Thomson South-Western, ISBN 0-324-22499-0

Busse, M. (2003). Democracy and FDI. *HWWA discussion paper no. 216, HWWA, Hamburg.*

Busse, M., & Hefeker, C. (2007). Political risk, institutions and foreign direct investment. *European Journal of Political Economy*, 23, pp. 397–415.

Caetano, J., & Caleiro, A. (2009). Economic Freedom and Foreign Direct Investment: how different are the MENA countries from the EU. *iBusiness, 1*(2), 65-74. doi:10.4236/ib.2009.12010.

Calvo, M. B. & Robles, B. S. (2001). Foreign Direct Investment, Economic Freedom, and Growth: New Evidence from Latin-America. *Universidad de Cartabria, Economics Working Paper No. 4/03.*

Click, R.W. (2005). Financial and political risks in US direct foreign investment. *Journal of International Business Studies,* 36, pp. 559-575

Daniels, J. D., Radebaugh, L. H. & Sullivan, D. P. (2007). International Business Environments and Operation (11th edition). Pearson Prentice Hall, NJ 07458.

Dunning, J. H. (2006). Towards a new paradigm of development: implications for the determinants of international business activity, *Transnational Corporations, 15* (1), 173-228 .

Dunning, J. H. (2002). Determinants of foreign direct investment: globalization induced changes and the role of FDI policies. *Annual Bank Conference on Development Economics.*

Eid F. & F. Paua. 2002. Foreign Direct Investment in the Arab World: The Changing Investment Landscape. *Working Paper Series of School of Business of Beirut.*

Griffin, R. W. , Pustay, M. W. & Gary, A. (2009). *International Business (4th edition),* Pearson Prentice Hall, USA.

Grosse, R. & Trevino, L. J. (2005). New Institutional Economics and FDI Location in Central and Eastern Europe. *Management International Review, 45* (2), 123-145

Guerin, S. S. & Manzocchi, S. (2009). Political regime and FDI from advanced to emerging countries. *Rev World Econ, 145*, pp. 75-91. DOI 10.1007/s10290-009-0004-7

Hakro, A. N. & Omezzine, A. M. (2011). Governance Infrastructure and FDI Flows in MENA Region Countries. *Middle Eastern Finance and Economics, 12*, pp. 143-158.

Hauser, F. (2005). Country risk and foreign direct investments in transition countries. Retrieved from the digital theses of the University of Munich. http://edoc.ub.uni-muenchen.de/4900/1/Hauser_Frank.pdf

Hsiao, C. (2003). *Analysis of Panel Data (2nd edition)*. United Kingdom, Cambridge University Press

Jay, V. W. & Anil L. K. (2010). FDI location drivers and risks in MENA. *Journal of International Business Research, 9* (2). Retrieved from http://www. freepatentsonline.com/article/Journal-International-Business-Research/ 241946062.html

Kapuria-Foreman, V. (2007). Economic freedom and foreign direct investment in developing countries. *Journal of Developing Areas, 41* (1), 143-154. DOI: 10.1353/jda.2008.0024

Kim, H. (2010). Does Corporate Governance or Transparency Affect Foreign Direct Investment?. *International Journal of Human and Social Sciences, 5* (13), 876-883

Kobeissi, N. (2005). Impact of governance, legal system and economic freedom on foreign investment in the MENA region. *Journal of Comparative International Management, 8* (1), 20-41

Laabas, B. and Abdmoulah, W. (2009). Determinants of Arab Intraregional Foreign Direct Investments. *Arab Planning Institute Working Paper Series, AIP/WPS 0905*.

Meldrum, D. H. (2000). Country Risk and Foreign Direct Investment. *National Association for Business Economics, 35*(1).

Nonnemberg, M. B. & Cardoso de Mendonça, M. (2004). The determinants of foreign direct investment in developing countries. ANPEC-Associação Nacional dos Centros de Pósgraduação em Economia. Anais do XXXII Encontro Nacional de Economia.

Nordal, K. B. (2001). Country risk, country risk indices, and valuation of FDI: A real options approach. *Emerging Markets Review, 2*(3), 197–217

OECD. (2008). Benchmark Definition of Foreign Direct Investment, 4th edition. Retrieved fromhttp://www.oecd.org/dataoecd/26/50/40193734.pdf

Okafor, C. E., Ujah, N. U., Elkassabgi, A. Y., & Ajalie W. U. (2011). Democracy and FDI Inflow: Evidence of Discordance in Sub-Saharan Africa. *International Research Journal of Finance and Economics, 63*, pp. 140-149.

Onyeiwn, S. (2003). Analysis of FDI Flows to Developing Countries: Is the MENA Region Different?. *The Tenth Annual Conference of the Economic Research Forum*, 165–182. Retrieved from http://www.erf.org.eg/CMS/uploads/pdf/ 1184754629_Steve_Onyeiwu.pdf

Onyeiwu, S. & Shrestha, H. (2004). Determinants of foreign direct investment in Africa. *Journal of Developing Societies 20*, pp. 89-106.

Rasekhi, S. and Seyedi, Z. (2011). An Examination of Economic Liberalization Impact on Foreign Direct Investment in Selected Developing Countries. *International Conference on Business and Economics Research, 1*, pp. 39-44.

Resnick, A. L. (2001). Investors, Turbulence, and Transition: Democratic Transition and Foreign Direct Investment in Nineteen Developing Countries. *International Interactions: Empirical and Theoretical Research in International Relations, 27*(4), 381-398

Samimi, A. J., Monfared, M., Moghaddasi, R., & Aziz, K. (2011). Political Stability and FDI in OIC Countries. *Journal of Social and Development Sciences, 1*(1), 18-23 .

Saravanamuttoo, N. (1999). Foreign Direct Investment and Poverty Reduction in Developing Countries. *Turn Course Solutions, Canadian International Development Agency.*

Soliman, M. (2003). Foreign direct investment and LDCs exports: Evidence from the MENA region. Retrieved from http://www.mafhoum.com/press6/173E14.pdf.

Sullivan, J. D. & Nadgrodkiewicz, A. (2008). Middle East and North Africa Reform: Rooted in Economic and Political Ground. *Center for International Private Enterprise (CIPE), Economicre form issue paper, No. 0804.*

Trevino, L. J., Daniels, J. D., & Arbelaez, H. (2002). Market reform and FDI in Latin America: an empirical investigation. *Transnational Corporations, 11*, pp. 29-48.

UNCTAD (2006), World Investment report 2006. Retrieved from http://www.unctad. org/en/docs/wir2006_en.pdf

UNCTAD (2010), World Investment report 2010. Retrieved from www.unctad. org/en/docs/wir2010_en.pdf

UNCTAD (2011), World Investment report 2011. Retrieved from http://www.unctad-docs.org/files/UNCTAD-WIR2011-Full-en.pdf

Wheeler, D. & Mody, A. (1992). International Investment Location Decisions: The Case of U.S. firms. *Journal of International Economics, 33*, pp. 57–76.

Yang, B. (2007). Autocracy, Democracy, and FDI Inflows to the Developing Countries. *International Economics Journal, 21*(3), 419-439.