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The Influence of Human Development, Institutional Quality and ISIS Emergence on Foreign Direct Investment in Iraq

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Abstract. This study investigates the influence of human development and institutional quality on the foreign direct investment net inflows on the gross domestic product in Iraq for the period (2004-2016) by using OLS regression. The empirical results show that governance sub-indicators do not actually matter much in attracting Foreign Direct Investment (FDI) inflows in Iraq. This variable shows fixed results with a different sign; the Political Stability (PS), Government Effectiveness (GE) and Rule of Law (RL) are the sub-indicators of the governance with a positive sign which is insignificant, while the Voice and Accountability (VA), Regulatory Quality (RQ) and Control of Corruption (CC) are the sub-indicators of the governance index with a negative sign and an insignificant impact on FDI inflows. The value of Worldwide Governance Indicators (WGI) coefficient is negative and significant at 10% level. Hence it has been concluded that the explanatory variables are negatively associated with the dependent variable FDI. In contrast, the Human Development Index (HDI) has a positive and significant impact on FDI inflows. This study found that Islamic State of Iraq and Syria (ISIS) emergence after (2013) had a significant coefficient, meaning that ISIS has affected the level of FDI inflows.

Keywords. Foreign Direct Investment, Human Development, Institutional Quality, Governance Sub-Indicators

1. Introduction

Foreign direct investment (FDI) has the potential to affect host countries' economic and political conditions (Pinto & Zhu, 2013). FDI net inflows have the largest, and one of the least volatile of all external financial movement to developing economies (UNCTAD, 2017).

FDI inflows are considered one of the main channels for the economic globalization of the world economy side by side with international trade (Berden, Bergstrand & Etten, 2012). Previous studies well documented the fact that foreign direct investment (FDI) plays a positive role in the economic growth process (Khan & Khan, 2011). The trends of the region are expected to be similar to those of the last two decades and do not attract FDI compared to some other regions (UNCTAD, 2017). Therefore, it might attract less FDI inflows in the next few years due to the current violence and unstable political situation after the so called the Arab spring.

FDI flows to the world rose by (9.75%), from (\$1591146) millions in (2011) to (\$1746423) millions in (2016). Although FDI inflows to the developing countries declined by (6%) in (2011) to (2016), furthermore net inflows of FDI in West Asia have declined by (47%) from

(2011) to (2016), due mainly, to the political instability and the regional conflict in some countries such as Iraq and Syria which weighed heavily on net inflows of FDI have interrupted traditional business links, dragging down FDI inflows in all West Asian economies. (UNCTAD, 2017).

According to Dacloush's study (2013) foreign investors were exposed to risks in Iraq. Such risks are related to high governmental corruption rates; lack of moral principles of the Iraqi leadership, unacceptable laws and regulations and lack of qualified local human resources. All of these pushed the leaders of MNCs prohibit the payment of bribes to foreign officials to assist in obtaining or retaining business when dealing with the locals (Dacloush, 2013). In general, the poor governance including (high rate of corruption, lack of a transparency, no reform of laws, lack of security, etc.) influence FDI inflows negatively.

Empirical studies on the relationship between governance and FDI is limited (Subasat & Bellos, 2013). In the light of the expected benefits of WGI, many studies have been carried out to examine the impacts of WGI on FDI inflow. Furthermore, theories and empirics appear to have provided mixed evidence regarding the influence of WGI on FDI in the developing countries (Sedik, 2012; Saidi, Ochi & Ghadri, 2013; Zeshan & Talat, 2014; Chaib & Siham, 2014; Shah & Afridi, 2015 and Das, 2017; Buchanan, Le & Rishi, 2012; Younis & Ahmed, 2013; Curtis, Rhoades & Griffin, 2013; Saidi, Ochi & Ghadri, 2013; Segura & Galiani, 2014; Wernick, Haar & Sharma, 2014; Shah, Afridi, 2015; Zidi & Ali, 2016).

Findings of recent studies show that the quality of the host country's governing institutions is a major determinant factor of FDI flows to developing nations (Subasat & Bellos, 2013; Wernick, Haar & Sharma, 2014).

This paper is an attempt to examine the impact of WGI, HDI on FDI, and thus, contributes to the literature on FDI in two ways. Firstly, review the policy measures the government of Iraq has implemented to attract the FDI. Secondly, it examines the influence of WGI, HDI on FDI by using the time series in OLS regression technique during the period (2004-2016). The rest of the study has been organized as follows: Section 2 discusses the theoretical and empirical literature. The methodology, and model specification have been described in Section 3. Empirical findings have been interpreted in Section 4, while in the final part (section 5 and 6) has included some concluding remarks, limitations and further studies.

2. Literature Review

There have been several studies that concentrated on the classical determinants of foreign direct investment in developed and developing countries such as, macroeconomic factors GDP, unemployment, interest rate, exchange rate, money supply and trade (Shah & Afridi, 2015; Asaad, 2017), while the relationship between the current study variables which was ignored by previous studies (Claessens & Yurtoglu, 2013), and the empirical results were an inconsistent or ambiguous between the institutional quality and foreign direct investment (Sedik, 2012; Berden, et al., 2012; Saidi, Ochi & Ghadri, 2013; Zeshan & Talat, 2014; Chaib & Siham, 2014; Shah & Afridi, 2015; Das, 2017). Nowadays, there are many empirical studies as shown in the table (1).

Table (1) Empirical Studies on the Institutional Quality, Human Development and FDI Inflows

Authors	Methodology	Results
Sedik, 2012	Aimed to investigate whether the New Institutional Economics (NIE) do matter in FDI decisions for twenty MENA countries during the period (1999-2010) by using multiple linear regressions and panel data analysis.	(+ve) insignificant for economic risk, financial risk, monetary freedom, rule of law, (+ve) significant for investment freedom, monetary freedom, regulatory quality, (-ve) significant for political risk, business freedom, and voice & accountability with FDI.
Zeshan & Talat, 2015	Focused on the relationship between the governance sub-indicators with FDI in Pakistan for the period (1996-2010) by applying ARMA and Ordinary Least Squares (OLS) regression techniques.	(+ve) significant for Voice and accountability, political stability, government effectiveness, regulatory quality, control of corruption and governance index with FDI.
Kurul & Yalta, 2017	Studied the relationship between institutional factors and the inflows of foreign direct investment for the period (2002-2012) in developing countries using a dynamic panel of (113) developing countries.	(+ve) significant for voice and accountability, government effectiveness and control of corruption, (+ve) significant for political stability, regulatory quality and governance index, (-ve) significant for the financial crisis in (2008 and 2009) on FDI inflows.
Das, 2017	Identified the effect of eight factors including human development index on FDI inflow for India and Brazil for the period (2005-2014) using multiple regression.	(-ve) insignificant for HDI in India and (+ve) insignificant in Brazil on FDI inflows, all other variables are insignificant with a different sign.
Shah, Afridi, 2015	Found out the connection between good governance with FDI inflows in the sample comprised of (5) of the total (8) in SAARC countries (Bangladesh, India, Nepal, Pakistan and Sri Lanka) for the period (2006-2014) using random effects panel technique.	(+ve) significant for political stability and regulatory quality, (-ve) significant for corruption, the main key result is that good governance has a significant influence on FDI net inflows in the selected SAARC countries.
Segura & Galiani, 2014	Investigated the impact of FDI inflows (% of GDP) and worldwide governance indicators on human development index (HDI) on (158) countries over the period (1996-2010) employing the panel least squares method with fixed effects.	(+ve) significant for FDI and worldwide governance indicators on HDI and interaction of FDI-HDI.
Curtis, Rhoades & Griffin, 2013	Analyzed three samples - an overall sample of (129) countries consisting of (34) OECD members and (95) non-OECD member countries between global competitiveness, human development and corruption perception and inward foreign direct investment (FDI) using stepwise regression.	The result showed that (GCI) and (CPI) of the host country are important determinants for FDI inflows, while (HDI) appears to be an additional FDI determinant for the non-OECD member.
Saidi, Ochi & Ghadri, 2013	Examined the influence of macroeconomic variables and governance indicators on the FDI in (20) developed and developing countries for the period (1998–2011) using fixed effects panel regressions.	(+ve) insignificant political stability and regulatory quality on FDI for the overall sample, (+ve) significant for (PS, RQ, CC, GE) on FDI in developed countries
Wernick, Haar. & Sharma, 2014	Checked whether countries with strong institutions attract more foreign direct investment (FDI) than those with weaker institutions for (53) African countries for the period (1996-2006) using multiple regression techniques	(+ve) significant for institutional quality in nations without oil or natural gas, while (+ve) insignificant in rich nations with oil or natural gas, and (-ve) significant for some countries on FDI.

Buchanan, Le, & Rishi, 2012	Focused on the effect of institutional quality on foreign direct investment (FDI) levels and volatility for the period (1996-2006) using the panel data of (164) countries.	Found that good institutional quality matters to FDI. (+ve) significant for institutional quality on FDI, (-ve) significant for institutional quality on FDI volatility.
Zidi & Ali, 2016	Researched the relationship between (FDI) and governance as practised in (11) countries in MENA region for the period (1996-2014) using the econometrics of panel data.	(+ve) significant for (4) governance indicators (voice and accountability, governance effectiveness, regulatory quality and the rule of law) on FDI, while (-ve) significant for political stability and the control of corruption.
Younis & Ahmed, 2013	Focused on the relationship between the corruption on the economic growth and governance variance and FDI in Iraq using cross-sectional data for three years (2002, 2004, 2006) using ordinary least squares (OLS) regression techniques.	Showed that the influence of corruption became bigger in the countries that had poor governance and vice versa.
Subasat & Bellos, 2013	Examined the link between governance and FDI in selected Latin American countries using a panel gravity model for the period (1985-2008).	Confirmed that the FDI enhancement role of poor governance existed in Latin America as in the transition countries.
Amal, Thiago & Raboch, 2010	Examined the impact of macroeconomic and institutional factors on FDI in Latin America by using a panel data model for the period (1996-2008).	(+ve) significant for political stability on FDI, while (-ve) significant for government effectiveness on FDI, the other four institutional variables (VA, RQ, RL, CC) had insignificant coefficients.
Pinto & Zhu, 2013	Discussed the influence of FDI inflows on the corruption depending on the underlying conditions in each country for a five-year span between (2000 and 2004).	Indicated that FDI is associated with low levels of corruption in developed countries while FDI is associated with high level of corruption in less developed countries and in political systems ruled by a single individual.
Hoa & Lin, 2016	Examined the role of economic, instructional and political factors in attracting FDI inflows in Cambodia, Laos, and Vietnam economies by using panel unit-root test and random effects on panel data for the period (1996 to 2012).	(+ve) significant for market size, government effectiveness, rule of law and political stability, (+ve) insignificant for voice and accountability, (-ve) insignificant for regulatory quality on FDI

Table (1) reflects the different methodologies used and the lack of consensus on findings in the past studies; the results of those studies clearly show the inconsistency and ambiguity. In general, the poor governance negatively affects FDI inflows and vice versa, (Younis & Ahmed, 2013; Zidi & Ali, 2016). Furthermore, very few empirical studies have investigated the relationship between the institutional quality, human development and foreign direct investment in the developing countries such as the Gulf Countries Council (GCC), Economic and Social Commission for Western Asia (ESCWA) in general and Iraq in particular (Sedik, 2012). Therefore, this study examines this variables in Iraq as a newly established open economic which joined the global system recently but still economically instable (Marane & Asaad, 2014) with political turbulence characterizing the Iraqi economy since the international coalition invasion of the country in April 2003 (Asaad, 2014). Iraq is here similar to many other third world countries in having obscured economic and political problems (Lowenheim, 2008). In addition, the absence of Iraq and the Palestinian Territories in that both were not included in the findings of the entire MENA region and both are considered as relatively special cases.

3. Methodology

3.1. Data

The main source of the dependent variable in the current study (FDI net inflows of GDP) is gathered from digital database of the United Nations Conference on Trade and Development (UNCTAD, WIR annual report, 2004-2017) especially from different issues of World Investment Report and data bank of the World Bank (UNCTAD, WIR, 2016; World Development Indicators, the World Bank, 2017; International Monetary Fund, International Financial Statistics and Balance of Payments databases, World Bank), while the governance index included the sub-indicators such (VA, PS, GE, RQ, RL, CC) data collected from the World Bank Worldwide Governance Indicators developed by Kaufmann, Kraay, and Mastruzzi (2010) and finally, the Human Development Index gathered from the annual report of the United Nations Development Programme for the period (2004-2016).

This study used the Islamic State of Iraq and Syria (ISIS announcement) as a dummy variable where the value of the period (2004 -2012) as equal to zero; a period without the existence of (ISIS), while the period (2013-2016) is equal to one, which refers to the period after (ISIS) emergence in which the dependent variable is affected by (ISIS) from (2013) until (2016). The guideline is that if the dummy variable (ISIS existence) becomes significant and the coefficient is positive, then (ISIS) would affect the dependent variable (FDI_GDP) and vice versa.

3.2. Operational Definitions

The current study includes two types of variables namely a dependent variable and an independent variable as follows.

3.2.1. Dependent Variable

FDI refers to the controlling ownership of a business enterprise of one country based on entity of another country (UNCTAD, 2007; Asaad, 2005; Asaad, 2014 and Das, 2017). The dependent variable in the present study is the Foreign Direct Investment net inflows of Gross Domestic Product which has been widely used in earlier studies (Segura & Galiani, 2014; Zidi & Ali, 2016; Das, 2017). It treats FDI as a percentage of GDP (Wernick, et al., 2014; Kurul & Yalta, 2017) (World Development Indicators).

3.2.2. Independent Variable

1. Composite Governance Indicators construct an aggregate index of six dimensions of governance: Voice and Accountability, Political Stability, Government Effectiveness, Regulatory Quality, Rule of Law and Control of Corruption (Kaufmann, et al., 2007; Kaufmann et al., 2010; Sedik, 2012; Chaib & Siham, 2014; Zeshan & Talat, 2014; Segura & Galiani, 2014; Zidi & Ali, 2016; Kurul & Yalta, 2017).
2. Voice and Accountability (VA): it refers to the peoples political and civil rights such as freedom of expression, association and media.
3. Political Stability (PS): capturing the likelihood of government change or violence threats.
4. Government Effectiveness (GE): capturing the quality of public service, civil service and independence from political pressure.
5. Regulatory Quality (RQ): capturing the ability to implement policies and regulations by the government to promote the private sector development.
6. Rule of Law (RL) – capturing the quality of contract enforcement, property rights, the police, the courts as well as the likelihood of crime and violence.
7. Control of Corruption (CC) – capturing exercise of public power for private gain, including both petty and grand corruption and state capture.

8. Human Development Index (HDI) which consists of three dimensions human development: healthy life and the ability to acquire knowledge and to achieve a decent standard of living (UNDP, Human Development Report 2016).
9. ISIS announcement: the value of the period (2004-2012) is equal to zero, which means that this period is without the existence of ISIS, while the period (2013-2016) is equal to one; i.e. the period after the emergence of ISIS. The guideline is that if the dummy variable (ISIS exists) becomes significant and the coefficient is positive, it means that (ISIS) existence has affected the dependent variable (FDI_GDP) and vice versa.

3.3. Hypothesis Development

- H1: There is a positive relationship between the dimensions (Voice and Accountability, Political Stability and Absence of Violence / Terror, Government Effectiveness, Regulatory Quality, Role of Law, Control of Corruption) of the Worldwide Governance Index and the Foreign Direct Investment inflow of Gross Domestic Product (FDI_GDP) in Iraq.
- H2: There is a positive relationship between the Worldwide Governance Index (WGI) and Human Development Index (HDI) and Foreign Direct Investment net inflows of Gross Domestic Product (FDI_GDP) in Iraq.
- H3: There is a negative effect of ISIS emergence on the foreign direct investment inflows of Gross Domestic Product (FDI_GDP) in Iraq.

3.4. Model Specification

In order to verify the reliability of the results of the OLS model as a parametric statistical test based on a number of assumptions, the current study employed two of the most common problems in ordinary least squares to test the normality and multicollinearity of the independent variables in the model.

Estimation Command 1: LS FDI_GDP WGI HDI DUMMY C

Estimation Equation 1

$$FDI_GDP = C(1)*WGI + C(2)*HDI + C(3)*DUMMY + C(4)$$

Estimation Command 2: LS FDI_GDP VA PS GE RQ RL CC C

Estimation Equation 2

$$FDI_GDP = C(1)*VA + C(2)*PS + C(3)*GE + C(4)*RQ + C(5)*RL + C(6)*CC + C(7)$$

4. Empirical Result Analysis

4.1. Normality and Multicollinearity Test

For the purpose of testing normality, Jarque-Bera test has been used in this study. The results, presented in table (2) show that all variables in the model (FDI_GDP, VA, PS, GE, RQ, RL CC, WGI, HDI) are normally distributed because of the non-significance at the 5% level. This study has used also Variance Inflation Factor (VIF) as shown in the table (2) in that there is no multicollinearity among the independent variables incorporated in the estimated parsimonious error correction model as evaluated by the centred.

The VIF is less than (10) for all the variables which is considered harmless for regression analysis (Gujarati & Sangeetha 2009). The Jarque-Bera and VIF values are not a source of concern in this study.

Table (2) Jarque-Bera Test for Normality and VIF Test for Multi-collinearity

	FDI_GDP	VA	PS	GE	RQ	RL	CC	WGI	HDI
Jarque-Bera	0.166980	2.165805	0.957273	1.366199	0.411587	1.829802	1.338630	1.754728	0.897871
Probability	0.919900	0.338611	0.619628	0.505049	0.814001	0.400556	0.512059	0.415878	0.638307
Centered VIF	-	4.694151	1.986189	4.341275	4.422941	4.601787	3.362655	2.609811	4.694151

4.2. Descriptive Statistics

The nature of the data has been analyzed as a preliminary examination, hence, figure (1) shows a graphical presentation of the study variables time series. The data collected for the study, which has been plotted, is from (2004) to (2016) for a total of (13) observations as can be seen from the graphs; the movements of the indices are volatile.

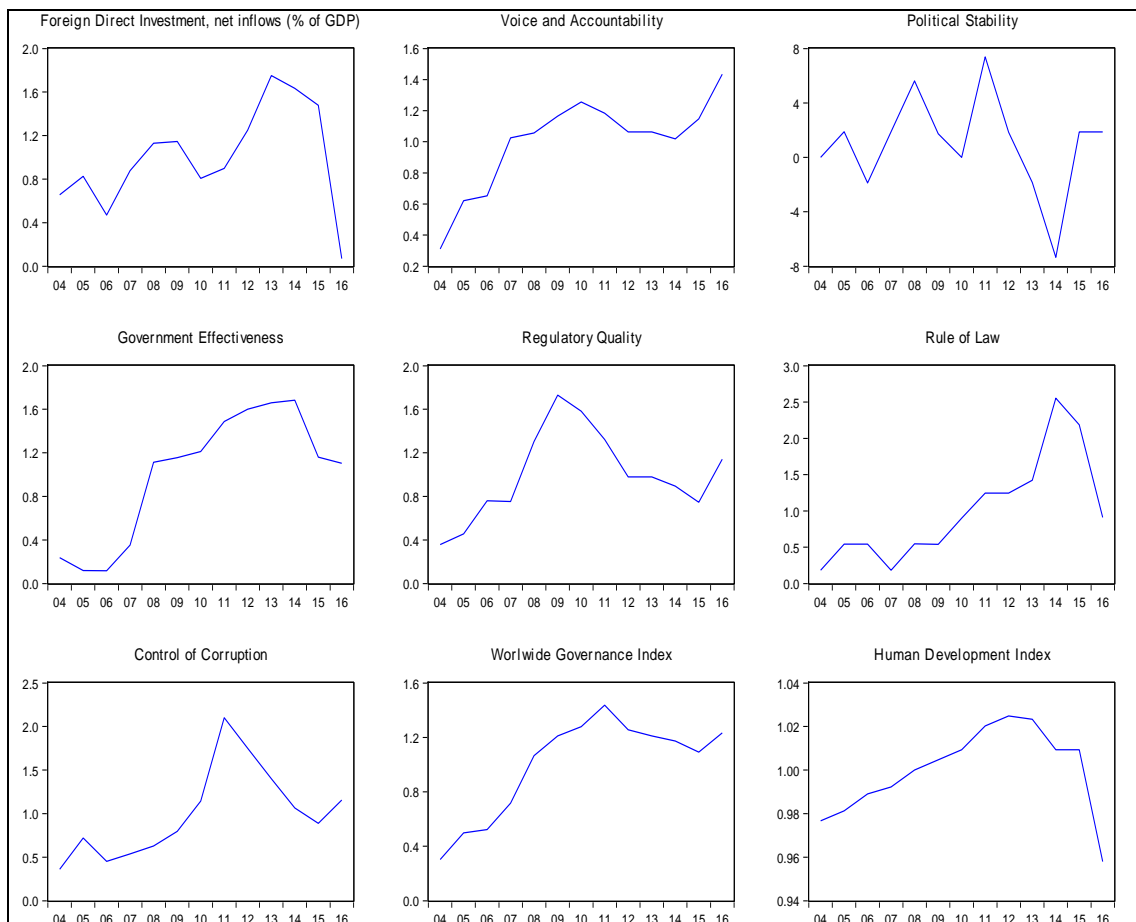


Figure (1) Movements of the all Variables for the Period (2004-2016)

Results of the descriptive statistics have been provided in table (3) which shows that the average FDI net inflows of GDP in Iraq is (1.24757), the standard deviation is (0.58706); diversity from the mean point is (0.661) (i.e. 1.24757-0.58706). These values indicate that the data set of inflows of FDI is not very far from the mean value and values of other variables and do not vary from one year to another year.

Table (3) Descriptive Statistics

	FDI_GDP	VA	PS	GE	RQ	RL	CC	WGI	HDI
Mean	1.247567	15.46233	2.267116	8.285261	9.680765	2.638001	5.412539	6.955884	0.642923
Median	1.120863	16.43192	2.369668	9.569378	9.478673	2.369668	4.807693	8.162542	0.646000

Maximum	2.186847	22.16749	4.739336	13.94231	16.74641	6.730769	11.37441	9.997478	0.659000
Minimum	0.085370	4.807693	0.000000	0.975610	3.448276	0.478469	1.951220	2.109350	0.616000
Std. Dev.	0.587064	4.653735	1.642463	4.887125	3.946376	1.912700	2.787205	2.511517	0.012711
Skewness	-0.166081	-0.986246	-0.042865	-0.477437	0.223741	0.917730	0.776671	-0.802820	-0.610809
Kurtosis	2.555096	3.328154	1.782795	1.730973	2.251928	2.904163	2.758247	2.186725	2.593483
Sum	16.21837	201.0103	29.47251	107.7084	125.8499	34.29401	70.36300	90.42649	8.358000
Sum Sq. Dev.	4.135730	259.8870	32.37223	286.6079	186.8866	43.90106	93.22214	75.69260	0.001939
Observations	13	13	13	13	13	13	13	13	13

4.3. Regression Results

Ordinary Least Square technique has been used for time series data to test the strength and influence of the independent variables on the dependent variable. Regression result in Table (4) and (5) show the effect of the dimensions of worldwide governance and Human Development Index and ISIS emergence on FDI net inflows of GDP in Iraq. The insignificant negative standardized coefficient for WGI (-0.094) indicates that every unit increase in WGI leads to decrease by nearly one percent of FDI inflows of GDP and vice-versa. It is also worthwhile mentioning that the significant positive standardized coefficient for HDI indicates one percent increase in HDI helps to increase (51.61) percent of FDI inflows of GDP and vice-versa. In addition to that the significance of ISIS emergence after (2013) affected positively the FDI inflows of GDP back to the p-value less than (5%).

Table (4) Regression Results of FDI_GDP with WGI, HDI and ISIS Exist

Dependent Variable: FDI_GDP				
Method: Least Squares				
Sample: 2004 2016				
Included observations: 13				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
WGI	-0.094967	0.052340	-1.814425	0.1030
HDI	51.61578	10.22924	5.045908	0.0007
DUMMY(ISIS exist)	0.571701	0.251163	2.276212	0.0489
C	-31.40876	6.364457	-4.935026	0.0008
R-squared	0.770976	Mean dependent var		1.247567
Adjusted R-squared	0.694635	S.D. dependent var		0.587064
S.E. of regression	0.324411	Akaike info criterion		0.834047
Sum squared resid	0.947181	Schwarz criterion		1.007877
Log-likelihood	-1.421305	Hannan-Quinn criteria.		0.798317
F-statistic	10.09907	Durbin-Watson stat		1.863426
Prob(F-statistic)	0.003070			

Table (5) Regression Results of FDI_GDP with WGI Dimensions

Dependent Variable: FDI_GDP				
Method: Least Squares				
Sample: 2004 2016				
Included observations: 13				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
VA	-0.062608	0.065512	-0.955679	0.3761
PS	0.044525	0.388250	0.114682	0.9124
GE	0.124053	0.122633	1.011581	0.3508

RQ	-0.007261	0.083476	-0.086977	0.9335
RL	0.076009	0.161469	0.470736	0.6545
CC	-0.098229	0.127745	-0.768947	0.4711
C	1.488323	0.667684	2.229082	0.0674
R-squared	0.641989			
Adjusted R-squared	0.283977			

4.3.1 Testing the First Hypothesis

The regression model results show that the coefficient values of first hypothesis are not significant at 5% for all dimensions of governance. This means that the quality of the institutional environment show fixed results with different sign; the (PS, GE, RL) are the sub-indicators of governance index in Iraq, a factor which has positive impact on FDI_GDP but insignificant, in different ways in that each point increase in each index is associated with an increase of (4, 12, 7) percent in FDI_GDP respectively. These results are in harmony with several other studies (Amal, et al., 2010; Buchanan, et al., 2012; Sedik, 2012; Saidi, et al., 2013; Shaib & Siham, 2014; Wernick, et al., 2014; Zeshan & Talat, 2015; Shah, Afridi, 2015; Hoa & Lin, 2016; Kurul & Yalta, 2017) but in some other points they are not in line with other studies (Amal, et al., 2010; Wernick, et al., 2014; Zidi & Ali, 2016). However, (VA, RQ, CC) are the sub-indicators of governance index and have negative and insignificant impact on FDI flow of GDP which is similar in some ways to the study results of (Amal, et al., 2010; Sedik, 2012; Younis & Ahmed, 2013; Pinto & Zhu, 2013; Shah, Afridi, 2015; Hoa & Lin, 2016), and not similar to some other studies (Saidi, et al., 2013; Zidi & Ali, 2016). It means that one point increase in the modified score for each sub-indicators is associated with a decline by (6, 0.7, 9) percent in FDI net flows of GDP respectively. The findings of VA, RQ, CC are inconsistency with the theoretical viewpoint, yet it is not surprising for Iraq as a developing country due to the lack of democracy and a single party control over the country until 2003. In spite of changing the ruling system after that year, the foreign investors adapted their strategy in common with the like local investors as long as they obtain high ratio of profit (Zhu, 2007; Aw & Tang, 2009; Amal, et al., 2010).

4.3.2 Testing the Second Hypothesis

The results of the second hypothesis significantly disclosed that the value of coefficient of WGI is negative and significant at 10% level. Hence, it can be claimed that the explanatory variables are negatively associated with the dependent variable FDI net inflow of GDP, in which case worldwide governance index is an effective factor for decreasing FDI inflow of GDI for every one unit increase in the WGI. The FDI_GDP decreased by about 9%, which means that the government need to focus on stabilizing these variables to attract more FDI percentage of GDP in Iraq in order to support the economic growth in the country. While the HDI has a positive and significant impact on FDI net flows of GDP for every unit increase in the HDI, the FDI inflow increases by 52% and vice-versa. The result of the regression model regarding human development is in agreement with some previous studies (Curtis, et al., 2013; Segura & Galiani, 2014) but in disagreement with Das' study (2017). In general this finding might be expected and would satisfy the theoretical viewpoint.

4.3.3 Testing the Third Hypothesis

To test the third hypothesis of the present study which has been add ISIS emergence as dummy variable for the period (2013-2016), it is seen that the emergence of the global terrorist group (ISIS) in Iraq has a positive coefficient with significance. It means that ISIS has an effect on

the dependent variable on the level of FDI net flows of GDP. This result seems to be consistent with previous studies which were conducted by Dacloush, (2013) and Asaad, (2014); they demonstrate a decline in FDI net inflows of GDP during the years of violence in Iraq.

4.4. Evaluating Regression Equation

Table (4) shows the fitness of regression equation one, the R^2 is (77%) and adjusted R^2 is (69.4.91%) which indicates that it is good-fit of regression equation and the value denotes that about (77%) of the variations dependent variable are explained by the variations in the independent variables. The F-statistics also show that the model is significant at 1% level in overall.

The resultant equation can be expressed mathematically as:

Equation1

$$FDI_GDP = -0.0949674755535*WGI + 51.6157813867*HDI + 0.571700984438 *DUMMY(ISIS\ exist) - 31.4087582063$$

Equation2

$$FDI_GDP = -0.0626079914269*VA + 0.0445252928849*PS + 0.124052877393*GE - 0.00726054988318*RQ + 0.0760091953934*RL - 0.0982293528481*CC + 1.48832334826$$

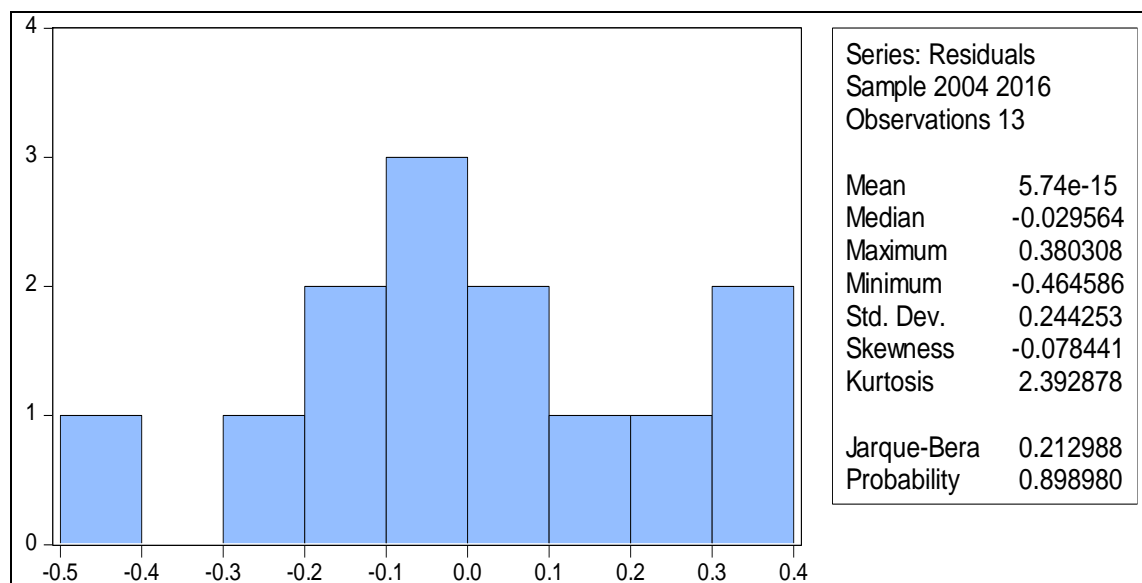


Figure (2) Normality Test Results

The null hypothesis of the normal distribution cannot reject as show in figure (2) because Jarque-Bera value is (0.212988) with a non-significant p-value of (0.898980). This means that the residuals follow the hypothesis of the normal distribution.

In the diagnostic tests, as shown in table (6), the results of Breusch-Godfrey serial correlation LM test cannot reject the null hypothesis in that there is no serial correlation in the residuals, which means that there is absence of serial correlation in the model, and so no serial correlation is accepted based on the Chi-Square being at 32% level of confidence as indicated by the F-probability value of (0.1643).

Table (6) Serial Correlation Results

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	1.346725	Prob. F(2,7)	0.3200
Obs*R-squared	3.612218	Prob. Chi-Square(2)	0.1643

The diagnostic tests shown in table (7) indicate that the results of Breusch-Pagan-Godfrey for White Heteroskedasticity test, which suggested that the errors are homoscedastic, mean that cannot reject the null hypothesis in the residuals, which means that this study cannot reject the null hypothesis of homoscedasticity of residual based on the non-significant F-statistic p-value of (0.6578), with a Chi-square of (0.5665). This has been confirmed by the ARCH test non-significant p-value of (0.7107) with a Chi-square of (0.6781).

Table (7) Heteroscedasticity Test Results

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	0.554689	Prob. F(3,9)	0.6578
Obs*R-squared	2.028575	Prob. Chi-Square(3)	0.5665
Scaled explained SS	0.677131	Prob. Chi-Square(3)	0.8786
Heteroskedasticity Test: ARCH			
F-statistic	0.145657	Prob. F(1,10)	0.7107
Obs*R-squared	0.172279	Prob. Chi-Square(1)	0.6781

The Ramsey RESET test is a general test for certain specification errors, such as omitted variables; X does not include all relevant variables, incorrect functional form. The results of this test are shown in table (8) with F-statistic value (0.5724) a non-significant likelihood ratio value of (0.46).

Table (8) Heteroscedasticity Test Results

Ramsey RESET Test			
F-statistic	0.343121	(1, 8)	0.5742
Likelihood ratio	0.545946	1	0.4600
According to Brown, Durbin, and Evans (1975), the CUSUM test is based on the cumulative sum of the recursive residuals. This option plots the cumulative sum together with the (5%) critical lines. The Ramsey test finds parameter stability because the cumulative sum is kept inside the area between the two critical lines as			

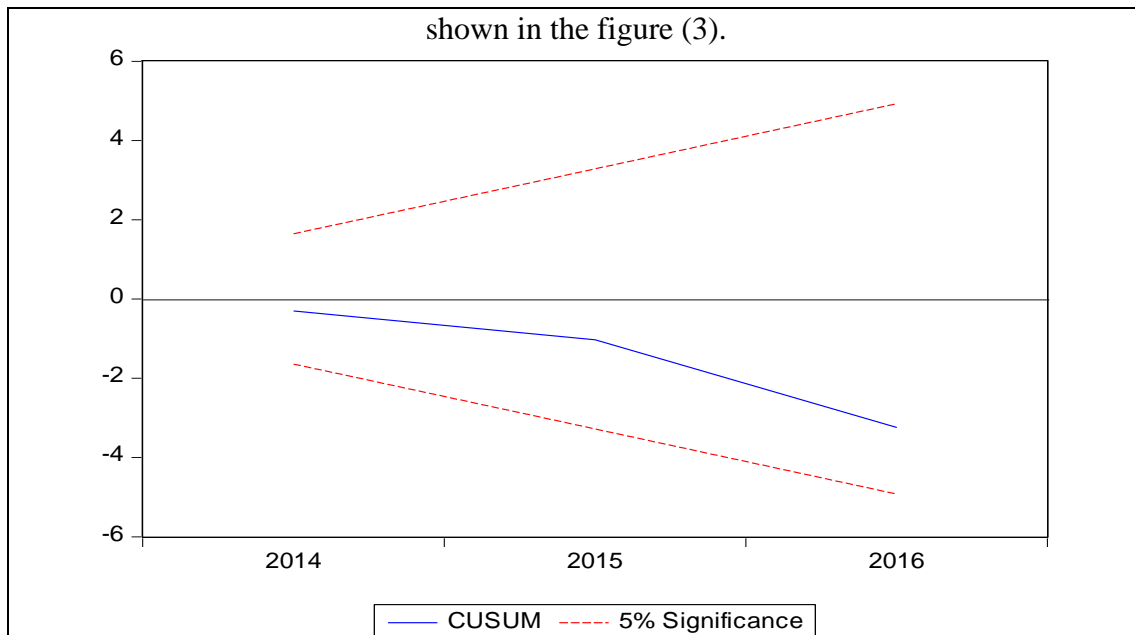


Figure (3) Stability Diagnostics

5. Conclusion

In general, the empirical results clearly show evidence that governance sub-indicators do not matter in attracting FDI net inflows of GDP in Iraq; that indicates that improvements in the political system would produce better quality of public service, civil service, and more independence from political pressure leading to an increase in ratio of FDI inflow to GDP but not in Iraq while the VA, RQ, CC are the sub-indicators of governance index which registered unexpected negative sign and insignificant impact on FDI flow of GDP indicating political rights and civil rights such as freedom of expression and media, ability to implement policies and regulations by the government to promote the private sector and exercise public power for private gain which does not encourage the investor to bring capital into Iraq. The value of the composite index of governance coefficient is negative and significant at 10% level, hence it can be concluded that the explanatory variables are negatively associated with the dependent variable FDI net inflow of GDP meaning that good governance not lead to being a factor to attract FDI to Iraq. This highlights how an undeveloped political scenario in such economies does not enhance its attractiveness for foreign investors. In contrast, the Index of Human Development (HDI) has a positive and significant impact on FDI net flows of GDP. These findings come in line with the study results of Reiter & Steensma, (2010), and Das (2017). Furthermore, this study has found that ISIS emergence after (2013) has a positive significant coefficient, which means that period after ISIS emergence affected the level of FDI net flows of GDP.

Furthermore, all governance sub-indicators in Iraq do not significantly affect FDI inflows in different way. Iraq as a developing country is not that efficient in applying fundamental rights and liberties and is unable to control the high rate of corruption, and even lack the desirable government effectiveness. Hence, all these factors could lead to attract less FDI compared to other developing countries. Therefore, Iraq is deficient in the practice of governance factors (VA, PS, GE, RQ, RL, and CC) which may lead to attract less FDI.

These results are in agreement with the perspective that foreign investors look for poor governance factors which may enhance investment opportunities (Amal, et al., 2010), and consequently they adapt to the local poor governance environment through practicing corrupted

behavior such as pay bribes to be in the market or gain new contracts (Zhu, 2007). This means that high level of corruption (corruption increases) would stimulate more FDI inflow (Aw & Tang, 2009).

Therefore, improving the institutional quality is considered a key factor for a preferable investment climate which strengthens the confidence of the foreign investors, and would be a significant guideline for policy in the developing countries; otherwise it may be possible to decrease the FDI. Besides, Iraq needs to frame adequate policies to have better and good governance to bring the capital which deemed less expensive compared to another way of funds. This is a way to reflect a room for opportunity to attract more FDI and increase MENA region's market share when more improvements in both business environment and institutional environment are carried out.

6. Limitations and Future Studies

The first limitation of the present study is the sample since the focus of the study has been on Iraq as an example of the developing countries instead of having some other developing countries as well; most of the previous studies did not include Iraq and the Palestinian Territories which is considered as a limitation in the MENA region sample. The second limitation is the short time series of data available for study after decades of Iraqi closed economic system and just recently started to receive the inflow of FDI after 2003 in spite of the governance index impact on FDI in the long term.

This study suggests that future researchers might test the model based on sectors' level or even on companies' level. It might also be suggested that future studies will be able to test the governance indicators with other global indicators such as terrorism factors or corruption variables on the FDI inflows or economic growth. Future research may consider conducting a comparative study between Iraq and some other developing country or countries in the region such as MENA, OPEC or ESCWA.

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