IMPACT OF HOME COUNTRY OUTWARD FOREIGN DIRECT INVESTMENT ON ITS ECONOMIC GROWTH:  
A Case of Kuwait

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ABSTRACT

The research paper investigates the impact of outward foreign direct investment on home country economic growth by using Kuwait as a case. The paper uses simple ordinary least square (OLS) method for estimating the impact of Kuwait’s OFDI on its economic growth during the period (1985-2011). The aim is to provide a clear understanding for the contribution of Kuwait’s investments abroad on its domestic investments and level of growth. The research paper finds that Kuwait’s OFDI is a substitute for Kuwait’s domestic investments. Also, Kuwait’s OFDI seems to follow the hypothesis of growth-led OFDI.

INTRODUCTION

Foreign Direct Investment (FDI) has been a controversial issue concerning economies worldwide due to the critical procedures it requires and the variety of effects it has on its participants. FDI refers to the country’s tendency to transfer its investments toward other countries instead of investing domestically whether by shifting its resources abroad or exploiting existing resources abroad. Since foreign direct investment occurs between two countries or more, the effects of FDI on the countries are observed from two perspectives which are the inward FDI that the host country is importing and the outward FDI that the home country is exporting.

Literatures in the FDI field concentrated mainly on the determinants and effects of FDI flows from developed to developing countries, especially from advanced economies such as the United States and Japan to less advanced economies like GCC countries. Researchers found that developed countries conduct investments in developing countries with the aim of reducing the costs of investment or exploiting investment opportunities within these countries. Other researches also investigated the potential impacts of FDI on host countries economic performance such as increasing their growth rates through transferring investments inputs into the host country or crowding out domestic investments through replacing local investments with foreign ones.

The interesting fact is that in the recent time some small developing countries such as Kuwait are shifting their investments toward developed countries. Kuwait’s economy is characterized by the dominance of outflows of foreign direct investments (OFDI) over its total investments. As a consequence, a gigantic amount of resources are being invested in foreign countries instead of being invested and utilized in Kuwait, and that have an impact on Kuwait’s economic performance. OFDI emerged in Kuwait’s economy since the year 1953 through investing oil revenues abroad. Currently, OFDI is dominating a large share of Kuwait’s total investments (KIA, 2012). This issue concerns Kuwait’s economy because it has an impact on its main long term macroeconomic indicators such as its economic growth as a result of the transfer of investments to other countries. Literatures suggest that the impact of OFDI on the home country economy depends on the nature of outward investment method that the country adopted.
The objective of this research paper is to measure the impact of Kuwait’s outward foreign direct investment on its domestic economic growth. It aims at clarifying the category of outward investments that Kuwait is conducting, in order to tailor policies necessary to regulate OFDI in Kuwait and to get the maximum benefit from it. The methodology used to conduct the study is applying a simple ordinary least square (OLS) regression method to measure the impact of OFDI on Kuwait’s economic growth for the period (1985-2011).

The questions that this research paper answers are what is the impact of Kuwait’s OFDI on its domestic economic growth? Is Kuwait’s OFDI a complement or a substitute for its domestic investments?

This paper is organized as follows. Section 2 introduces a literature review of the main theories of FDI and the previous studies on the impact of home country OFDI on its economic growth. Section 3 provides an overview of the trend of outward foreign direct investment in Kuwait. The study’s methodology and model specification are illustrated in section 4. Section 5 contains description of data used to conduct the study. Section 6 shows the results of the empirical test. The final conclusions and policy implementations are discussed in section 7.

LITERATURE REVIEW

Foreign direct investment is defined by Hymer (1976) as the international capital outflow in a form of investments from one region to another with the investor’s direct control over the enterprise. He argued that the cost of capital cannot be the only factor determining foreign direct investment because it doesn’t justify the investor’s control over the enterprise. Hymer (1976) identified two types of reasons explaining the investor’s tendency to gain control over the enterprise conducted in the foreign region which are the prudent use of assets and international operations. The prudent use of assets ensures the safety of the investment. If the investor has no funds of his own, in case of exploiting existing opportunities in another region, his incentive to go into bankruptcy in less as there will be less conflicts between the two regions on how much reserves should be kept in the enterprise with the foreign currency. International operations illustrate that the control of foreign enterprises is desired in order to remove the competition between this foreign enterprise and the other enterprises in the foreign country. That may ease the procedure of forming collusion between the firms then forming a larger control on the market. Hymer was the first researcher to introduce the idea of multinational enterprises (MNE) in the foreign direct investment theory (Dunning and Rugman, 1985). According to Faeth (2008), Hymer defined multinational enterprises as “large companies with control or market power”, and MNE replaces international trade with international production.

The contemporary studies of foreign direct investment emphasized the significance of the determinants of foreign direct investment and its influence on the home and host countries. According to (Vasyechoko, 2012), the determinants of foreign direct investment are classified into three theories which are international capital market theory, theory of the firm, and international trade theory. Nevertheless, these three theories contain sub-theories within them because FDI theories, when viewing each one separately, are characterized to be incomplete and fragile. Joining these sub theories forms the general theory of foreign direct investment because the sub theories complement and support the arguments of each other (Vasyechoko, 2012).

Faeth (2008) illustrated nine different theories and determinants of FDI. In this research paper, only the most important and relevant theories to the study are examined which are aggregate variables, OLI framework, and horizontal and vertical FDI.

Aggregate variables:

The aggregate variables affecting FDI are the market size, market growth, geographical distance between the home and the host countries, and trade barriers influencing the firm’s external investments. These variables were hypothesized without necessarily relying on a
theoretical model because historical beliefs of the determinants of FDI state that each of these variables is an important incentive for multinational enterprises to conduct investments in a foreign region (Faeth 2008; Vasyechoko 2012). The initial study of the effect of aggregate variables on the multinational companies’ incentives to invest in a foreign market was conducted by Scaperlanda and Mauer in 1969. Their findings show that the size of the GNP has an impact on FDI in Europe (Vasyechoko 2012).

**The OLI framework:**

The OLI framework or the eclectic theory of FDI was developed by Dunning through combining internalization theory and traditional trade economics. OLI refers to ownership, location, and internalization determinants of FDI (Faeth, 2008). The theory states that in order for a firm to produce in a foreign country and to compete with the host country’s local firms, it should maintain strong, specific advantages that qualify the firm to enter the foreign market and compete with the foreign market’s firms (Dunning, 1976). According to Dunning (1976), the OLI model is based on three types of advantages which are ownership, location, and internalization advantages. The ownership advantage or monopolistic advantage refers to the firm’s ownership of intangible assets such as monopoly advantage, economies of large size, technological knowledge, and managerial skills that provide the firm with differentiated products/services and competitive advantage in comparison with other firms in the industry abroad. The location advantages are the factors that determine the firm’s choice of operating in a certain location. These factors are composed of economic, political, and social factors which determine the firm’s investment decision. The internalization advantage addresses the reasons that determine the firm to be a MNE through transferring its specific ownership advantages abroad instead of selling licenses to other firms or getting involved in franchising. The reasons for the firm’s internalization of ownership advantages are a result of transactional market failure conditions which arise from risk and uncertainty, the firm’s ability to exploit economies of scale only in imperfect market, and external costs and benefits generated through transactions but not agreed on by the two parties. The occurrence of these market failures induces firms’ willingness to conduct FDI instead to establishing licensing and production agreements (Dunning, 1976).

**Vertical and horizontal FDI:**

By combining ownership and location advantages from the OLI framework with technology and country characteristics, the theory of horizontal and vertical FDI was developed (Faeth, 2008). Horizontal FDI refers to the transfer of investments including all its production materials into another location. While the vertical FDI is performed through dividing the production process into different parts, and locating each part in a different region based on the region’s factor intensities, price levels, and reduced transaction costs. The vertical and horizontal FDI methods are important procedures in performing any investment abroad, according to the contemporary theories of FDI. In the horizontal FDI, if MNEs are indifferent between conducting FDI and exporting, the firm will conduct only one method of investment which is producing locally and exporting or transferring the investment abroad (Glass, 2008). On contrary, MNEs following vertical FDI look for lower factor prices abroad and lower transaction costs which allow them to distribute their production into stages among different locations and get the maximum utility from each region (Glass, 2008).

**Foreign direct investment and country economic growth:**

The effect of foreign direct investment on countries’ economic growth varies according to whether the country is importing or exporting these investments. Several studies were conducted to illustrate the impact of foreign direct investment on the country economic growth whether FDI is perceived as inward FDI influencing the host country economic growth or perceived as outward FDI influencing home country economic growth. For example, the study of Borensztein, Gregorio, and Lee (1998) empirically examines the role of foreign direct investment as a source of technology transfer from developed to developing countries. This study uses pooled data for FDI flows from industrial countries to 69 developing countries for the years 1970 to 1989. The study finds that FDI is an important
factor in transferring technology from developed to less developed countries, and that contributes to the economic growth of the less developed countries. Also, the study finds that the contribution of FDI to economic growth is enhanced by the level of interaction with the level of human capital in the host country. Moreover, Faras and Ghali (2009) investigated the impact of FDI on countries’ economic growth by taking the GCC countries as a case. The methodology examined in the study is using country-specific analysis of the issue then using cointegration technique to test the relationship between inward FDI to GCC countries and their economic growth. The paper finds that inward FDI have different effects on the economic growth of the GCC countries based on the importance and contribution of inward FDI into each country.

**Outward foreign direct investment and home country economic growth:**

According to Wong (2010), literatures classified the effect of outward foreign direct investment on the home country economic growth into two effects based on the nature of the country's outward investment whether it is a substitute or a complement for the domestic investment. If the home country uses OFDI as a substitute for its local investments due to the diminished opportunities of its domestic investments, the increase in its OFDI may reduce the economic growth of the home country. However, if the home country's OFDI complements its local investments such as using home inputs to produce output abroad then having a bilateral interaction between the regions were the investment is conducted may contribute in increasing the home country's economic growth. Moreover, the author introduced two hypotheses for determining the relationship between OFDI and domestic growth which is growth led OFDI and OFDI led growth. The home country's initial economic growth that causes OFDI refers to the growth led OFDI hypothesis. On the other hand, OFDI led growth hypothesis refers to the country's foreign investments abroad that lead to domestic economic growth.

The initial study of OFDI and its effect on the home country's economic growth was performed by Stevens and Lipsey in 1988. Their study aims at examining the multinational enterprises’ investments abroad on the domestic fixed investments. The study uses micro level data for seven large U.S multinational enterprises. The study finds that there is evidence in the used sample to support the idea that investments abroad does seem to compete with domestic investments. However, Kim (2002) performed the same study but found opposite results. Kim (2002) statistically analyzed the impact of Korea’s OFDI on its domestic investments by analyzing the trend of outward and domestic investment over the years 1978 to 1995. The author finds that Korea’s domestic investments trend doesn’t look influenced by Korea’s outward investments. The reasons for this phenomenon as the author discussed are that the sources of funding Korea’s outward investments are foreign sources, and the size of Korea’s outward investments is small relative to its domestic investments. Therefore, the study concluded that OFDI does not necessary have a negative relationship between the country's domestic investments and economic growth.

More recently, Wong (2010) studied the causality relationship between Malaysia’s OFDI and its home country economic growth. The study is based on Granger causality empirical method between the Malaysian MNEs and OFDI. The study finds that Malaysia’s OFDI doesn’t Granger cause its domestic economic growth which suggests the idea that Malaysia’s domestic economic growth is not driven by the country’s level of investments abroad. On the other hand, the study finds Granger causality between Malaysia’s economic growth and its level of outward investments noting that the initial domestic economic growth is the cause of the increase in Malaysia’s outward investments.

**FOREIGN DIRECT INVESTMENT IN KUWAIT**

**Inward foreign direct investments:**

Historically, IFDI in Kuwait used to be at its minimal levels, and it was not encouraged by the Kuwaiti government due to “Kuwaitization” of the economy strategy. According to figure (1), after the year 1995 inward FDI towards Kuwait started to accelerate. However, the
The official law of FDI in Kuwait was established after the year 2001 by establishing Kuwait Foreign Investment Bureau (KFIB) which is the entity responsible for regulating, managing, and encouraging inward FDI in Kuwait. KFIB contributed in easing the procedures of foreign investments in Kuwait. The main modification that KFIB applied on Kuwait’s IFDI regulations is allowing for up to 100% foreign ownership of business ventures in Kuwait. Also, it reduced corporate taxes from 55% to 25% to attract foreign investors (KFIB, 2011). Also, KFIB regulated the sectors that foreign investors can invest at. These sectors include the majority of Kuwait economic sectors except the oil sector. These sectors are construction, banking and financial services, insurance, information technology, healthcare, transportation, tourism, media, and housing (KFIB, 2011). Since the establishment of KFIB, inward FDI towards Kuwait experienced a slight improvement.

**Figure 1:** Kuwait inward FDI in years 1985 to 2011/ million US dollar

![Graph showing Kuwait inward FDI](image)

Figure 1 shows the trend of inward foreign direct investments to Kuwait throughout the years 1985 to 2011. Source: Author’s work based on data from UNCTAD (2012) data base.

**Outward foreign direct investments:**

As mentioned earlier, Kuwait is one of the first countries worldwide to conduct investments in foreign countries. Kuwait’s first attempt of outward foreign direct investment was in the year 1953 though investing oil revenues surplus abroad. According to figure (2), Kuwait’s OFDI took a fluctuating trend throughout the period (1985-2004), but it increased dramatically in 2005 until the time being with a drop in 2009 due to the world financial crisis. The institution responsible for conducting Kuwaiti investments abroad is Kuwait Investment Authority (KIA) which was established in 1953. KIA is responsible for managing and administrating Kuwait’s funds which are composed of General Reserve Fund (GRF) and Future Generations Fund (FGF). The GRF includes all of Kuwait’s oil revenues and income earned from investing them abroad. The FGF was established in 1976, and it includes 10% of all Kuwait’s revenues, as well as, 10% of net income of the GRF. KIA allocates foreign investments based on several macroeconomic factors such as market size and growth, different asset classes, and fixed income asset. KIA has a significant role in Kuwait’s local economy, as it manages and enlarges Kuwait’s investments worldwide. Also, it seeks to develop a solid economic and financial position for Kuwait internationally (KIA, 2012).

According to KIA’s Capital Markets Outlook report (2013), Kuwait’s foreign investments are in a form of equities, real estate, private equities, hedge funds, and cash deposits. Kuwait conducts approximately 55% of its investments in Canada and Latin America, 25% in Europe, 15% in Asia, and 5% in emerging markets. The ten main destinations for Kuwait’s foreign investments are in United States, United Kingdom, Japan, Germany, Canada, France, China, Australia, Euro Zone, and Switzerland.
Figure 2 illustrates the trend of Kuwait’s outward foreign direct investment throughout the years 1985 to 2011. Source: Author’s work based on data from UNCTAD (2012) data base.

Comparing OFDI from Kuwait to OFDI from GCC Countries

Table 1: Foreign Direct Investment Outflows from GCC Countries (2005-2011)/Million US Dollars

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Bahrain</td>
<td>1,135</td>
<td>980</td>
<td>1,669</td>
<td>1,620</td>
<td>1,791</td>
<td>334</td>
<td>894</td>
<td>1,203</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>350</td>
<td>39</td>
<td>135</td>
<td>3,498</td>
<td>2,177</td>
<td>3,907</td>
<td>3,442</td>
<td>1,935</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>3,750</td>
<td>10,892</td>
<td>14,568</td>
<td>15,820</td>
<td>2,723</td>
<td>2,015</td>
<td>2,178</td>
<td>7,421</td>
</tr>
<tr>
<td>Qatar</td>
<td>352</td>
<td>127</td>
<td>5,160</td>
<td>3,658</td>
<td>3,215</td>
<td>1,863</td>
<td>6,027</td>
<td>2,915</td>
</tr>
<tr>
<td>Oman</td>
<td>234</td>
<td>276</td>
<td>36</td>
<td>585</td>
<td>109</td>
<td>1,012</td>
<td>572</td>
<td>403</td>
</tr>
<tr>
<td>Kuwait</td>
<td>5,142</td>
<td>8,211</td>
<td>9,784</td>
<td>9,091</td>
<td>8,582</td>
<td>5,065</td>
<td>8,711</td>
<td>7,798</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10,963</td>
<td>20,525</td>
<td>31,352</td>
<td>34,272</td>
<td>18,597</td>
<td>14,196</td>
<td>21,824</td>
<td>21,676</td>
</tr>
<tr>
<td><strong>World</strong></td>
<td>882,132</td>
<td>1,415,094</td>
<td>2,198,025</td>
<td>1,969,336</td>
<td>1,175,108</td>
<td>1,451,365</td>
<td>1,694,396</td>
<td>1,540,779</td>
</tr>
<tr>
<td><strong>%World</strong></td>
<td>1.24%</td>
<td>1.45%</td>
<td>1.43%</td>
<td>1.74%</td>
<td>1.58%</td>
<td>0.98%</td>
<td>1.29%</td>
<td>1.41%</td>
</tr>
</tbody>
</table>

Table 1 illustrates the amounts of outward foreign direct investment flows in millions of U.S Dollars from the GCC countries during the period (2005-2011). Source: World Investment Report 2012
The table above shows the amount of outward investments conducted by GCC countries. Kuwait’s average OFDI for the time period (2005-2011) is 7,798 million US dollar. Kuwait’s OFDI is in a continuous increase among the years since the year 2005 except the decrease phase during the years 2009 to 2010 due to the world’s financial crisis. In comparison to Kuwait's inward investments, inward investments are relatively low as it averaged 328 million US dollar among the years 2005 to 2011, according to World Investment Report (2012).

Kuwait has the highest share of outward foreign direct investment in comparison to OFDI from the GCC countries throughout the period. Kuwait is followed by the UAE with an average of $7,421 billion then Qatar comes after with an average of $2,915 billion in FDI outflows. Also, Kuwait contributes in approximately 36% of the GCC’s total FDI outflows during the period. Hence, Kuwait is a significant player in providing foreign investments abroad among the GCC economies. Moreover, Kuwait OFDI forms 56.3%, 44.8%, 27.8% of its gross fixed capital formation among the years 2009, 2010, and 2011. Also, Kuwait's OFDI forms 27.8%, 23.7%, and 12.5% of GDP among the years 2009, 2010, and 2011 (World Investment Report, 2012). Therefore, it can be observed that the contribution of Kuwait's investments abroad to its domestic gross capital formation and GDP is deteriorating.

METHODOLOGY AND MODEL SPECIFICATION

The methodology used to conduct the empirical analysis of the impact of Kuwait’s outward foreign direct investment on its economic growth is using simple ordinary least square (OLS) regression method to estimate the relationship between the variables. The time period used to conduct the study is from the year 1985 to 2011. This time period is used for the conducting the study because data is available for all the years, and it reflects a decent duration to interpret the relationship between Kuwait’s OFDI and its economic growth.

The model used to test the impact of OFDI on Kuwait’s economic growth was adopted from Hunya, Holzner, and Worf's paper in 2006. Their paper is about how to assess the impact of FDI on an economy’s different macroeconomic indicators. The fundamental variables used by the authors in the economic growth model are the country’s real GDP growth as the dependent, investment share of real GDP, gross secondary school enrolment as a proxy of the level of human capital in the country, and the country’s outward foreign direct investment as independent or explanatory variables.

It is common in literatures to use the country’s real GDP growth to measure its overall economic growth (Faras and Ghali, 2009). The explanatory variable investment share of real GDP was obtained from the share of Kuwait's gross fixed capital formation from its real GDP as a proxy of domestic investments (Faras and Ghali, 2009). This variable is expected to have a positive impact of Kuwait's economic growth because the more the domestic investments the more the country's GDP. The second explanatory variable which is the level of human capital in Kuwait is measured by the amount of high skilled labor in Kuwait (workers with degrees above secondary education) as an alternative factor for gross secondary school enrolment (Hunya, Holzner, and Worf, 2006). The variable also is expected to have a positive impact on the country’s GDP because the higher the workers’ skills the higher the country’s economic growth. The third variable outward foreign direct investments measure the amount of direct investment abroad conducted by the country. The relationship between the country’s OFDI and its economic growth is critical and depends on the type of OFDI that the country conducts, as mentioned earlier. Therefore, the relationship between these three variables is the base for determining the effect of the country’s investments in foreign regions instead of investing domestically.

The econometric model used to estimate the relationship between the variables is simple OLS regression methodology by using Minitab statistical software.

Econometric model:

\[ \log(Y_t) = \alpha + \beta_1 \text{ DI Abroad} + \beta_2 \text{ Investment/GDP} + \beta_3 \log \text{ Human Capital} + \epsilon_t \]
Log $Y_t$ = Natural log of Kuwait’s real GDP  
$\alpha$ = Constant representing Kuwait’s economic growth without the effect of its domestic investments, human capital, and outward FDI.

DI Abroad: Amount of Kuwait’s outward foreign direct investment abroad  
Investment/GDP: Kuwait’s domestic investments measured by the ratio of gross fixed capital formation as a percentage of real GDP.  
Log Human Capital: natural log of the amount of high skilled labor in Kuwait

Data Description

Data included in this study covers the period (1985-2011). The annual data for Kuwait’s real GDP and gross fixed capital formation were collected from the annual statistical abstract published by Kuwait’s Central Statistical Office. Data for workers in Kuwait and their level of education were obtained from the annual statistical abstracts for Kuwait’s population and work force published by Kuwait’s Public Authority of Civil Information. Data for Kuwait’s outward foreign direct investments were obtained from Kuwait’s balance of payment published by Central Bank of Kuwait.

Empirical Results

After applying the methodology on data used to estimate the relationship between the variables, the following regression result is obtained.

The regression equation:

$$\log \text{Kuwait GDP} = 0.24 - 0.040 \text{Ratio of Investment to GDP} + 0.000062 \text{DI Abroad} + 0.716 \log \text{High Skilled Labor} + 0.288 \text{Lagresi1} + 0.232 \text{Lagresi2}$$

Table 2: Regression Outcome

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coef</th>
<th>SE Coef</th>
<th>T</th>
<th>P</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.243</td>
<td>1.531</td>
<td>0.16</td>
<td>0.875</td>
<td></td>
</tr>
<tr>
<td>Ratio of Investment to GDP</td>
<td>-0.0399</td>
<td>0.1086</td>
<td>-0.37</td>
<td>0.717</td>
<td>1.024</td>
</tr>
<tr>
<td>DI Abroad</td>
<td>0.00006161</td>
<td>0.00003251</td>
<td>1.90</td>
<td>0.073**</td>
<td>1.167</td>
</tr>
<tr>
<td>Log High Skilled Labor</td>
<td>0.7156</td>
<td>0.2919</td>
<td>2.45</td>
<td>0.024*</td>
<td>1.509</td>
</tr>
<tr>
<td>Lagresi1</td>
<td>0.2876</td>
<td>0.5065</td>
<td>0.57</td>
<td>0.577</td>
<td>5.936</td>
</tr>
<tr>
<td>Lagresi2</td>
<td>0.2319</td>
<td>0.5630</td>
<td>0.41</td>
<td>0.685</td>
<td>6.099</td>
</tr>
</tbody>
</table>

S = 0.167628  R-Sq = 63.5%  R-Sq(adj) = 53.8%

Analysis of Variance

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>5</td>
<td>0.92732</td>
<td>0.18546</td>
<td>6.60</td>
<td>0.001**</td>
</tr>
<tr>
<td>Residual Error</td>
<td>19</td>
<td>0.53389</td>
<td>0.02810</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>1.46121</td>
<td></td>
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</tbody>
</table>

Durbin-Watson statistic = 2.00079

Table 1 shows the regression result for the model corrected for serial correlation and heteroskedasticity. ** significant at 5%  * significant at 10%

The model’s adjusted R-sq is 53.8% which shows a good fit between the data used for the study and the dependent variable. To test the variables’ individual significance in the model, the P-value of the (t) statistic for the variable human capital (0.024) indicates that
the variable is individually statistically significant at 5% probability for the model. Also, the P-value of the (t) statistic for the variable OFDI shows that the variable is individually statistically significant at 10% probability level in the model. However, the model’ constant and share of investments variable appear to be individually statistically insignificant for the model, so they don’t have an effect on the dependent variable. To test the adequacy of the model, the P-value of the (F) statistic shows that the whole model is statistically adequate at 5% probability level.

The residual analysis for the model indicates that the model is free from multicollinearity because the values of variance inflationary factor (VIF) for all the variables are less than 10 which indicate that the independent variables are not collinear with each other in the model. This model is corrected for positive serial correlation and heteroskedasticity problems. The final model shows that the value of Durbin-Watson statistic is 2.00079 which indicates that the data used for the estimation is not consistent with time. Also, the calculated White's Test for the model which is 10.728 (less than Chi squared distribution critical value 12.5916) indicates that the variables have equal variances, and thus the model is free from heteroskedasticity or unequal variances problem among its variables.

**Interpretation of the estimated equation:**

\[
\text{Log Kuwait GDP} = 0.24 - 0.040 \text{ Ratio of Investment to GDP} + 0.000062 \text{ DI Abroad} \\
+ 0.716 \text{ Log High Skilled Labor} + 0.288 \text{ Lagresi1} \\
+ 0.232 \text{ Lagresi2}
\]

A 1% increase in Kuwait’s OFDI is associated with 0.000062 increase in Kuwait’s economic growth. This result indicates that Kuwait's investments abroad almost have no effect on Kuwait's economic growth. From this result it can be indicated Kuwait's outward investments doesn't contribute in adding resources for domestic investments. Therefore, it is indicated that Kuwait’s OFDI is a substitute for Kuwait’s domestic investment. Moreover, the regression equation shows that a 1% increase in the amount of high skilled labor in Kuwait is associated with 0.716 increase in Kuwait’s economic growth. This result is consistent with the theoretical assumption as having more robust input within the economy will have a positive impact of the country production and hence more economic growth. The model’s constant appears to be statistically insignificant for the model assuming that economic growth is not generated if the independent variables in the model have a value of zero. Even though the variable share of investments in GDP appears to be individually statistically insignificant, its outcome opposes the rational theory. To illustrate, the economic theory shows that there is a positive relationship between the share of investments to GDP and the economic growth, as the more the investments the higher the economic growth. However, the estimated equation shows a negative relationship between investment share of GDP and economic growth. The reason for this phenomenon can be due to Kuwait’s concentration of investments for consumption purposes and investments in the services sector. To demonstrate, Kuwait’s investments are limited to oil production, which is for export purposes, and for consumption reasons such as desalination, food processing, and construction. These categories of investments don't generate fixed capital formation to be accumulated and used by the country for future durable investments. This variable has a negative impact on Kuwait’s economic growth because Kuwait is increasing its spending for the production of products that does not generate new added value factors to its capital, as the increase of investments in these categories affects the country’s economic growth negatively.

**CONCLUSION AND POLICY IMPLEMENTATION**

Since outward foreign direct investment has an impact on both home and host countries’ economic performance, this research paper investigated the impact of outward foreign direct investments on home country economic growth by using Kuwait as a case. The empirical results of the study indicate that Kuwait’s outward foreign direct investment does not contribute to Kuwait's domestic economic growth. Thus, it is concluded that Kuwait uses the horizontal method of FDI in investing abroad through shifting its entire resources to the foreign country or exploiting existing resources abroad. Also, it is concluded that
Kuwait’s OFDI substitutes its local investments. Therefore, Kuwait’s OFDI case seems to be supporting the hypothesis of growth led OFDI instead of OFDI led growth. Even though the relationship between Kuwait’s domestic investments and its economic growth appears to be insignificant and not robust in the model, the opposition of this result to the economic theory is critical. This phenomenon can be explained by Kuwait’s lack of investments in products with an added value on its current capital. Instead Kuwait’s main investments are in the form of consumption products that requires vast, continuous spending without forming additional capital to be used for future investments. Hence, the increase of spending on consumption products without balancing it with investments generating added value on the investment will reduce the economic growth. According to the model used in the study, the amount of high skilled human capital appears to be the base of straightening the country’s other economic indicators. Based on the study’s outcome, several policies were proposed for Kuwait to regulate its foreign investment abroad and to gain maximum benefit from it.

1) Kuwait should follow the vertical FDI strategy through dividing its foreign investments into different blocks and locating each block in the region according to its comparative advantage. This strategy increases Kuwait’s opportunity for absorbing the highest benefit from its investments abroad through price and efficiency. Even though this strategy may increase transaction costs, it will have a positive impact on Kuwait’s domestic investments which is the base of straightening the country’s other economic indicators.

2) Kuwait should implement its foreign investments abroad as complement not a substitute for its domestic investments through using its local resources for domestic operations and transferring the surplus abroad. This strategy will contribute in adding to the gross fixed capital formation in the country, and it will flourish the labor market through creating more jobs in the economy.

3) Kuwait should increase its spending on investments that creates an added value for its domestic investments and decrease its spending on investments for consumption purposes only. This strategy will induce the growth of the country’s GDP and gross fixed capital formation.

REFERENCES


**APPENDIX 1**

**Regression Analysis: log Kuwait g versus ratio of inv, DI abroad, ...**

The regression equation is

\[
\text{log Kuwait gdp} = -1.14 - 0.036 \text{ ratio of investment to gdp} + 0.000064 \text{ DI abroad} + 0.978 \text{ log high skilled labor}
\]

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coef</th>
<th>SE Coef</th>
<th>T</th>
<th>P</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.137</td>
<td>1.267</td>
<td>-0.90</td>
<td>0.379</td>
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<td>ratio of investment to gdp</td>
<td>-0.0360</td>
<td>0.1079</td>
<td>-0.33</td>
<td>0.741</td>
<td>1.016</td>
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<td>DI abroad</td>
<td>0.00006411</td>
<td>0.00032622</td>
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<td>0.062</td>
<td>1.177</td>
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<td>log high skilled labor</td>
<td>0.9784</td>
<td>0.2428</td>
<td>4.03</td>
<td>0.001</td>
<td>1.159</td>
</tr>
</tbody>
</table>
Analysis of Variance

Source          DF       SS       MS      F      P
Regression       3  0.86988  0.28996  10.19  0.000
Residual Error  23  0.65423  0.02844
Total           26  1.52411

Source                      DF   Seq SS
ratio of investment to gdp  1  0.01455
DI abroad                   1  0.39326
log high skilled labor      1  0.46207

Unusual Observations

ratio of investment to gdp
Obs to gdp fitted Residual St Residual
6 0.16 3.5046 3.9857 -0.4810 -2.93R
7 0.37 3.2361 3.6653 0.0796 -0.4292 -2.89R
20 0.12 4.1889 3.8705 0.0582 0.3184 2.01R

R denotes an observation with a large standardized residual.

Durbin-Watson statistic = 1.27965

APPENDIX 2

Regression Analysis: log Kuwait g versus ratio of inv, DI abroad, ...

The regression equation is
log Kuwait gdp = 0.23 - 0.045 ratio of investment to gdp + 0.000061 DI abroad
+ 0.719 log high skilled labor + 0.479 lagresi1

26 cases used, 1 cases contain missing values

Predictor Coef SE Coef T P VIF
Constant 0.230 1.394 0.17 0.870
ratio of investment to gdp -0.0453 0.1030 -0.44 0.665 1.019
DI abroad 0.00006078 0.00003108 1.96 0.064 1.171
log high skilled labor 0.7187 0.2663 2.70 0.013 1.447
lagresi1 0.4786 0.2286 2.09 0.049 1.321

S = 0.160496 R-Sq = 63.3% R-Sq(adj) = 56.3%
PRESS = 0.923916 R-Sq(pred) = 37.23%

Analysis of Variance

Source          DF       SS       MS       F      P
Regression       4  0.93105  0.23276  9.04  0.000
Residual Error  21  0.54094  0.02576
Total           25  1.47199

S = 0.168655 R-Sq = 57.1% R-Sq(adj) = 51.5%
PRESS = 0.921793 R-Sq(pred) = 39.52%
ratio of investment to gdp  1  0.01807
DI abroad                    1  0.36923
log high skilled labor       1  0.43091
lagresil                     1  0.11284

Unusual Observations
ratio of investment to gdp
log Kuwait
go  1  0.0216
Obs to gdp Fit  SE Fit Residual St Resid
6  0.16  3.5046  3.9919  0.0380 -0.4873 -3.13R
7  0.37  3.2361  3.5202  0.1062 -0.2841 -2.36R

R denotes an observation with a large standardized residual.

Durbin-Watson statistic = 1.91449

APPENDIX 3

White’s Test

Regression Analysis: resi2^2 versus log Kuwait g, ratio of inv, ...

The regression equation is
resi2^2 = 0.412 - 0.206 log Kuwait gdp - 0.0311 ratio of investment to gdp
+ 0.000013 DI abroad + 0.0834 log high skilled labor + 0.0634 lagresil

26 cases used, 1 cases contain missing values

Predictor     Coef      SE Coef     T     P     VIF
Constant       0.4124      0.3378   1.22  0.236
log Kuwait gdp -0.20561     0.05283 -3.89  0.001  2.721
ratio of investment to gdp -0.03111  0.02505 -1.24  0.229  1.028
DI abroad      0.00001339  0.00000818   1.64  0.117  1.384
log high skilled labor  0.08339     0.07483   1.11  0.278  1.949
lagresil       0.06336     0.06086   1.04  0.310  1.596

S = 0.0388576   R-Sq = 48.1%   R-Sq(adj) = 35.2%
PRESS = 0.0869849   R-Sq(pred) = 0.00%

Analysis of Variance

Source     DF     SS     MS     F     P
Regression  5  0.028036  0.005607  3.71  0.015
Residual Error  20  0.030198  0.001510
Total        25  0.058234

Source     DF     Seq SS
log Kuwait gdp  1  0.017983
ratio of investment to gdp  1  0.002339
DI abroad      1  0.003612
log high skilled labor  1  0.002465
lagresil       1  0.001637

Unusual Observations
log

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Kuwait

Obs

gdp
resi^2
^2  Fit
SE Fit
Residual
St Resid
6
3.50
0.2375
0.12465
0.02734
0.11285
4.09R

R denotes an observation with a large standardized residual.

Durbin-Watson statistic = 2.41689

APPENDIX 4

Regression Analysis: log Kuwait g versus ratio of inv, DI abroad, ...

The regression equation is
log Kuwait gdp = 0.24 - 0.040 ratio of investment to gdp + 0.00062 DI abroad
+ 0.716 log high skilled labor + 0.288 lagresi1
+ 0.232 lagresi2

25 cases used, 2 cases contain missing values

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<th>Predictor</th>
<th>Coef</th>
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<th>P</th>
<th>VIF</th>
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<td>log high skilled labor</td>
<td>0.7156</td>
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<td>lagresi1</td>
<td>0.2876</td>
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<td>lagresi2</td>
<td>0.2319</td>
<td>0.5630</td>
<td>0.41</td>
<td>0.685</td>
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S = 0.167628  R-Sq = 63.5%  R-Sq(adj) = 53.8%
PRESS = 1.05332  R-Sq(pred) = 27.91%

Analysis of Variance

<table>
<thead>
<tr>
<th>Source</th>
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<td>0.18546</td>
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<td>0.53389</td>
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<td>Total</td>
<td>24</td>
<td>1.46121</td>
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<td>DI abroad</td>
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<td>lagresi2</td>
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Unusual Observations

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<th>ratio of investment log Kuwait gdp</th>
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<tr>
<td>Obs</td>
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</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
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</table>

R denotes an observation with a large standardized residual.

Durbin-Watson statistic = 2.00079
APPENDIX 5

White's Test

Regression Analysis: resi4^2 versus log Kuwait g, ratio of inv, ...

The regression equation is

\[ \text{resi4}^2 = 0.482 - 0.198 \log \text{Kuwait gdp} - 0.0328 \text{ ratio of investment to gdp} + 0.000014 \text{ DI abroad} + 0.0645 \log \text{ high skilled labor} + 0.042 \text{ lagresi1} + 0.038 \text{ lagresi2} \]

25 cases used, 2 cases contain missing values

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coef</th>
<th>SE Coef</th>
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<th>VIF</th>
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<td>log high skilled labor</td>
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</table>

\[ S = 0.0423715 \quad R^2 = 44.7\% \quad R^2(\text{adj}) = 26.3\% \]

PRESS = 0.114048 \quad R^2(\text{pred}) = 0.00\%

Analysis of Variance

<table>
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<tr>
<th>Source</th>
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<td>0.004360</td>
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<td>Total</td>
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Unusual Observations

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<th>resi4^2</th>
<th>Fit</th>
<th>SE Fit</th>
<th>Residual</th>
<th>St Resid</th>
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R denotes an observation with a large standardized residual.

Durbin-Watson statistic = 2.51191