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Does Saudi Arabia's economy benefit from foreign investments?

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Abstract

Purpose – The current study contributes to filling the gap in studies that discuss the impact of foreign direct investment (FDI) on economic growth and employment in Saudi Arabia. Although the study found that FDI inflows contribute to the government effort to reduce or at least control the high unemployment rate, the study found no relationship between FDI inflows and economic growth in Saudi Arabia. However, we must be careful in interpreting the result of the positive influence of FDIs on employment since almost half of the Saudi workforce is employed by the public sector. The paper aims to discuss these issues.

Design/methodology/approach – Data regarding FDI inflow to Saudi Arabia were collected from the World Bank database and the Saudi Arabian General Investment Authority (SAGIA), while GDP per capita (economic growth) used data from the World Bank database only. Unemployment rate data were collected from the SAMA annual book. This study covered the period from 1999 through 2012. The study used the time series analysis methodology to study the impact of FDI inflow on economic growth and employment in Saudi Arabia.

Findings – Although the current study found that FDI inflows contribute to the government's effort by reducing or at least controlling the country's high unemployment rate, it also found no relationship between FDI inflows and economic growth in Saudi Arabia. However, we must be careful in interpreting the result of the positive influence of FDI on employment since almost half of the Saudi workforce is employed by the public sector.

Originality/value – In recent years, the government of Saudi Arabia has issued a number of initiatives to achieve diversification of income sources, create jobs for Saudi workers, and transfer advanced administrative techniques and technology to the Saudi economy; one of these initiatives involves attracting foreign investors to the Saudi market. This study contributes to fill the gap in studies that discuss the impact of FDI inflows on economic growth and employment in Saudi Arabia.

Keywords Economic development, Unemployment, Economic growth, Foreign direct investment, Saudi Arabia's economy

Paper type Research paper

Saudi Arabia is the largest producer of oil, and the Saudi economy is among the top 20 economies in the world (Saudi Arabia is part of the G-20 summit, which includes the 20 largest economies in the world). In the Middle East and North Africa (MENA) region, Saudi Arabia is the largest economy. Thus, Saudi Arabia plays an important role, economically and politically, in shaping the world economy. That being said, income from natural resources, such as oil, is the main source of national income, which makes the Saudi economy hostage to changes in the price of oil.

Oil revenues accounted for 89.70-91.78 percent of total revenues for Saudi Arabia from 2006 to 2012. Additionally, the private sector contribution to gross domestic product (GDP) is low compared to other countries that are part of the G-20 summit. According to the SAMA, in 2012, at current prices, the private sector accounted for 34.6 percent of the Saudi GDP. Additionally, the unemployment rate among

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Saudis reached 12.1 percent in 2012 (Minister of Labor, 2013). Accordingly, the Saudi government adopted strategic plans and initiatives and created agencies to create jobs for Saudis so as to achieve sustainable development that is not totally dependent on oil revenues, thereby diversifying income sources. One of the main initiatives is to encourage and help the private sector play a bigger role in shaping the Saudi economy.

Consequently, the Saudi government has passed regulations and created agencies to attract foreign investors so as to enhance the private sector contribution to GDP. Also, providing jobs to Saudis (the Saudi workforce), transferring advanced technology to the economy, and enhancing Saudi Arabia's role as an important player in the global market, among others, are the reasons that drive the Saudi government to attract foreign investors to the Saudi market (Hvidt, 2011; Roberts and Almahmood, 2009). In contrast, foreign investors have been attracted to the Saudi market because of the availability of natural resources. According to Nunnenkamp (2001), "[r]esource-seeking FDI is motivated by the availability of natural resources in host countries. This type of FDI was historically fairly important and remains a relevant source of FDI for various developing countries" (p. 11).

Does the Saudi Arabian economy benefit from foreign investments? And do the regulations passed and the agencies created by the Saudi government, which supports foreign investments in the Saudi economy, achieve what the government intended to achieve, such as creating jobs for Saudis and diversifying national income sources? The current paper addresses and discusses these concerns theoretically and practically.

After discussing the methodology used, the paper discusses the relationship among FDI, economic growth, and employment in host countries. Then it explores the structure of the Saudi economy, as well as other studies that have discussed foreign investments in Saudi Arabia. Finally, it presents a discussion of the results of the analysis, along with recommendations for the Saudi government on how to maximize the benefit of FDIs.

Data source and methodology

Data regarding FDI inflow to Saudi Arabia were collected from the World Bank database and the Saudi Arabian General Investment Authority (SAGIA), while GDP per capita (economic growth) used data from the World Bank database only. Unemployment rate data were collected from the SAMA annual book. This study covered the period from 1999 through 2012. The study used the time series analysis methodology to study the impact of FDI inflow on economic growth and employment in Saudi Arabia.

Foreign investments, economic growth, and employment in host countries

Foreign direct/indirect investment refers to investments by individuals and businesses in a country other than the home country. According to Slaughter and May (2012), foreign investment can generally be understood as "the transfer of capital to a country, commonly referred to as the host country, by a non-resident entity. FDI is one form of foreign investment characterised by a certain degree of influence and control over assets in the host country" (p. 3). Direct investment comes in different forms, including buying companies and expanding company operations to operate in another country, while indirect investment includes buying stocks and bonds of companies that operate overseas (Organization for Economic Co-portion and Development, OECD, 2013;

United Nations Conference on Trade and Development, UNCTAD, 2007). The FDI field of operations covers various kinds of business sectors, including the energy industry, food industry, and national and international security.

Most countries around the world try hard to attract foreign investors by facilitating and adopting regulations; however, after the global economic crisis of 2008, this government's eagerness became even clearer (Agrawal and Khan, 2011; Anyanwu, 2012; Newfarmer, 2001). This attitude toward FDI was based on the argument that FDI "provides a package of new technologies, management techniques, finance and market access for the production of goods and services; and thus contributes significantly to raising total factor productivity in host countries in attaining their overall economic growth" (Abdel-Rahman, 2002, p. 4). Therefore, many governments adopted less restrictive regulations involving "financial openness" to attract foreign investors and, thus, enhance their economic growth. According to the World Investment Report of 2013, "Most governments are keen to attract and facilitate foreign investment as a means for productive capacity-building and sustainable development" (UNCTAD, 2013, p. x). As a result, international merchandise trade exceeded 50 percent of the world GDP, and international trade in service exceeded 11 percent of the world GDP in 2013 (World Bank, 2014a, b).

Although the global economy shows signs of recovery, global FDI flows have been affected strongly and negatively by the economic crisis of 2008; for example, in 2009, FDI flows dropped 20 percent from their pre-crisis levels. Additionally, in 2012, global FDI flows reached $1.35 trillion, which represents a drop of 18 percent compared to 2011. In contrast, developing economies raised their share of global FDI flows to reach 52 percent of the global FDI inflows and almost a third of global FDI outflows (UNCTAD, 2013).

Conversely, economic growth concerns all nations trying to increase their GDP per capita in order to increase their citizens' well-being (Kaufmann and Kraay, 2002; Mankiw, 2009). Although scholars debate whether it is a consequence of human development or a precondition for human development, economic growth has been associated with human development (Adams and Mengistu, 2008; Colen *et al.*, 2008; Smith, 2007; Stankeviciute and Savaneviciene, 2013). Alkire (2010) argued that human development (examples include high-quality education and health systems) supports the productivity of an economy by providing healthy and highly trained individuals. Stankeviciute and Savaneviciene (2013) shared the same thoughts and deemed that sustainable human resource management highly contributes to long economic sustainability of countries and organizations. According to Paunescu (2013), "[H]uman resource management is a factor that increases the firm's competitiveness and the overall national economy, an important factor of economic and social progress" (p. 112). Thus, governments need to adopt a balanced development of the governance process, economic and human development to enhance the well-being of citizens and increase the effectiveness of the government's work so as to achieve sustainable development.

Saudi Arabian economy

For decades, the Saudi Arabian economy was based on income from the oil sector as the main national income source; thus, economic booms in Saudi Arabia historically have been the result of high oil prices (Albassam, 2011; Belayachi and Haidar, 2008; Ramady and Saee, 2007). Therefore, one can argue that oil prices direct growth in the Saudi economy. However, since the first five-year plan in 1970, the Saudi government has issued five-year plans regularly, and part of the plans involves creating ways to become

less dependent on oil as the main source of income; the goal is to achieve sustainable development that is unaffected by changes in the price of oil (Ministry of Economic and Planning, 2010). In recent years, the Saudi government has issued many initiatives to achieve diversification of income sources, control and reduce the unemployment rate for Saudi workers, and transfer advanced technologies to the Saudi economy; one of these initiatives involves attracting foreign investors to the Saudi market.

In 2000, the government established the SAGIA to supervise, organize, and develop investments in the Saudi Arabian market. SAGIA is a "one-stop shop" for foreign investors; it "was set up to provide for the requirements that would permit an expanding flow of FDI into the Kingdom" (Abdel-Rahman, 2002, p. 7). To endow SAGIA with economic power, the agency is linked to the highest economic council in the country, the Supreme Economic Council. At the same time, the foreign investment law (FIL) passed in 2000, which "was enacted to provide the legal setting deemed requisite for attracting more FDI flows and a specialized investment institution" (Abdel-Rahman, 2002, p. 7). Tax cuts for companies employing and training large numbers of the Saudi workforce, tax cuts for new companies, and loans with lower interest are all part of the FIL.

Many indexes that measure the difficulties of doing business and competitiveness among countries, based on their productivity and prosperity, have been applied to the Saudi case. The Doing Business Index (DBI) measures the ease of doing business in each country, based on factors such as how long it takes for a company to get permits to start a business and the tax-paying process. Although Saudi Arabia's scores reached their peak in 2009 by ranking seventh among countries in the DBI, the country fell to 26th in 2014. One reason for this decline is that many of the laws and regulations adopted by the government have not been fully implemented. According to Hvidt (2011), "in Saudi Arabia, quite a number of specific laws have been passed but never implemented throughout the administrative apparatus" (p. 94).

The Global Competitiveness Report, a product of World Economic Forum, which is issued annually and reports measures of productivity and prosperity in each economy, highlights improvements in Saudi Arabian competitiveness. The Saudi Arabian economy was ranked 20th among all countries in the competitiveness ranking index in 2013. According to the report, Saudi Arabia ranks low in the health pillar (53rd) and the primary and higher education and training pillar (48th) (World Economic Forum, 2014). The report mentioned many challenges for the Saudi economy, including the high rate of unemployment, especially among young people, and the need to improve the education and health systems.

Ramady and Saee (2007) commented on the economic reforms by the Saudi government, as follows, "[M]ost neutral observers praise the recent economic reforms of the Kingdom of Saudi Arabia, including the adoption of the new Foreign Investment Law allowing foreigners to own land and the introduction of a comprehensive and inspiring privatization strategy. But most observers also agree that the pace of reform has to be much more urgent and that reforms be transparent, realistically budgeted, and, above all, professionally implemented" (p. 54). In the following section, FDI, economic growth, and employment in Saudi Arabia are discussed and explained in tables and figures to facilitate a better understanding of the Saudi economy.

FDI in Saudi Arabia

According to SAIGA, the number of local and foreign companies established in Saudi Arabia since adoption of the Foreign Investment Law jumped from 820 in

2000 to 6,478 in 2010. These investments cover many sectors, including the oil sector and finance sectors; however, the chemical and petrochemical industries and construction sector account for more than 30 percent of FDI inflow; see Table I.

FDI flow to the Saudi Arabian market reached a record high of 8.5 percent as a percentage of GDP per capita in 2009; however, this percentage radically declined to 1.7 percent in 2012. In contrast and because of accumulated wealth from high oil prices, FDI outflow by the state investment authorities. such as SAMA, and the Saudi companies has gone from negative to positive in recent years; see Table II.

Conversely, past experience of foreign investors from the same source country (countries' firms that have past investments in Saudi Arabia) and economic openness (economic liberalization) are the most notable characteristics of the source countries' economy that determine FDI flows to Saudi Arabia (Roberts and Almahmood, 2009; Tomohara and Takii, 2011). Accordingly, the US (which has a historical presence in the Saudi market) held the highest share of FDI flow to Saudi Arabia among foreign countries in 2010 with 13.7 percent (SAGIA, 2011).

Workforce in the Saudi Arabian economy

According to Saudi Arabia's Central Department of Statistics and Information (CDSI), the total workforce in Saudi Arabia in 2013 was around 11.36 million; 5.34 million (47 percent) were Saudis and 6.02 million (53 percent) were non-Saudis. Also, 84.5 percent of the whole workforce (Saudis and non-Saudis) was male, with 15.5 percent female

	Foreign direct investment, net inflows (balance of payments (BoP), current US$)	Foreign direct investment, net (balance of payments (BoP), current US$)
2012	12,182,373,333	−7,780,825,000
2011	16,308,280,000	−12,878,361,333
2010	29,232,706,667	−25,325,858,000
2009	36,457,666,667	−34,280,396,667
2008	39,455,863,929	−35,958,243,929
2007	24,333,811,514	−24,468,633,460
2006	18,317,596,796	−18,356,208,278
2005	12,106,749,694	−12,456,888,691

Table I.
FDI inflow and outflow 2005-2012 (billions of US$)

Source: Data Bank; Annual Statistics, Saudi Arabian Monetary Agency (2013); National Competitive Center, Saudi Arabian General Investment Authority (2011)

	GDP per capita (current US$)	Foreign direct investment, net inflows (% of GDP)	Foreign direct investment, net outflows (% of GDP)
2012	25,136.215	1.71	0.62
2011	24,116.174	2.44	0.51
2010	19,326.583	5.55	0.74
2009	16,013.280	8.50	0.51
2008	19,714.582	7.59	0.67
2007	16,048.582	5.85	−0.03
2006	14,855.001	4.86	−0.01
2005	13,303.310	3.69	−0.11

Table II.
GDP per capita and FDI 2005-2012

Source: Data Bank; Saudi Arabian Monetary Agency

(Central Department of Statistics and Information, CDSI, 2014). Table III shows the employment rate in the public and private sectors in Saudi Arabia 2005-2012.

The main challenge for the Saudi economy is the Saudi workforce's high unemployment rate. In 1999, the unemployment rate was 8.1 percent; it has climbed since then. In 2012, unemployment among Saudis reached 12.1 percent. Also, 0.8 percent (481,600) of the non-Saudi workers, who usually perform the types of work Saudis will not do, are unemployed. One promise in creating the SAGIA and attracting FDIs was to employ Saudis. Table IV shows the unemployment rate in Saudi Arabia from 2005 to 2012.

Literature review: foreign investment in Saudi Arabia

Although FDI has been connected to economic growth and human capital development in host countries. at least theoretically (Colen *et al.*, 2008; Tomohara and Takii, 2011; Mucuk and Demirsel, 2013), empirical studies do not support or confirm the theoretical findings. Nunnenkamp (2001) stated that "[t]he nexus between FDI and overall investment as well as economic growth in host countries is neither self-evident nor straightforward, but remains insufficiently explored territory" (p. 2).

Alkhathlan (2011) studied the relationships among Saudi Arabia's FDI, GDP, and exports growth from 1980 through 2007. The author used time series analysis and the Johansen approach to cointegration to examine the relationships. The paper's discussion was based on the assumption that "FDI promotes exports by facilitating the host countries' access to new and larger markets" (Alkhathlan, 2011, p. 138). The paper

	Employment rate in public sector		Employment rate in private sector	
	Saudis	Non-Saudis	Saudis	Non-Saudis
2012	93	7	13.4	86.6
2011	92.1	7.9	10.9	89.1
2010	92.2	7.8	10.4	89.6
2009	92	8	9.9	90.1
2008	92	8	13.3	86.7
2007	91.7	8.3	13.1	86.9
2006	91.3	8.7	12.8	87.2
2005	91	9	11.6	88.4

Source: Annual Statistics Book, Saudi Arabian Monetary Agency (2013)

Table III. Employment rate in public and private sectors in Saudi Arabia 2005-2012

	Unemployment rate		
	Saudis	Non-Saudis	Total
2012	12.1	0.80	12.90
2011	12.4	0.39	12.79
2010	11.2	–	–
2009	10.5	0.30	10.80
2008	10.0	0.40	10.40
2007	11.2	0.40	11.60
2006	12	0.80	12.80
2005	11.5	0.80	12.30

Source: Data Bank; Annual Statistics Book, Saudi Arabian Monetary Agency (2013)

Table IV. Unemployment rate in Saudi Arabia 2005-2012

reported a positive, stable, and long-term relationship between exports, on the one hand, and between FDI, GDP, and the price of exports. In contrast, Alkhathlan (2011) argued that FDI will not help to solve the unemployment issue among Saudis unless there is improvement in the Saudi education system to develop skilled workers who can be hired by foreign investors. According to Alkhathlan (2011), "by training the local work force and upgrading the technical and managerial skills, it [FDI] helps in raising the efficiency and productivity of the factors and hence competitive strength in the international market" (p. 137).

Ramady and Saee (2007) examined the relationship between FDI and economic development in Saudi Arabia. The study collected data though surveys sent to Saudi managers/enterprises in Saudi Arabia to obtain their perception of the government's act to attract foreign investments. Also, the survey intended "to assess Saudi management opinion about perceived benefits and likely impact of FDI on their [Saudi managers/enterprises] particular business sector and the Kingdom's economy at large" (Ramady and Saee, 2007, p. 50). According to the study, even though 85 percent had a positive attitude toward attracting foreign investors, 65 percent of the participants thought FDI would not help ("strongly disagree") to solve the unemployment problem of the Saudi economy. Based on the study's results, developing the education system must be a priority for the Saudi government so as to produce skilled workers, which will help to reduce and control the country's high unemployment rate (Ramady and Saee, 2007). Additionally, Ramady and Saee (2007) argued that "the Saudi Arabian government can further stimulate FDI by promoting stable, predictable, non-discriminatory, and transparent systems of investment and regulation" (p. 55). For the Saudi economy to become less dependent on oil as the main source of the country's income, the authors suggested that the Saudi government truly needs to make economic reforms work. However, the authors stated that the problem isn't the willingness of government to make the economic reforms work; "[r]ather, there is no matching *consensus* on the ground as to how much action is needed, and how quickly and when it should act" (Ramady and Saee, 2007, p. 42).

Historically, the oil industry, including oil exploration and refining, and the banking industry have been the main fields of foreign investments in Saudi Arabia (Abdel-Rahman, 2002). Abdel-Rahman (2002) used pair-wise Granger techniques to examine causality flows among FDI, output growth, exports, wages (labor costs), and domestic investments in Saudi Arabia. The study found a positive and insignificant relationship between FDI, on the one hand, and economic growth, exports, and labor costs, on the other. According to Abdel-Rahman (2002), "while the KSA [Kingdom of Saudi Arabia] was successful in attracting FDI because of its overall economic performance, the FDI inflows may not as yet have impacted the KSA's economy in an appreciable way" (p. 20).

According to a study by the Organization for Economic Cooperation and Development (OECD, 2002), to maximize benefits of FDI and MNCs, host countries need to adopt high-quality policies that support transparency, control corruption, and regulate business. Host countries should also invest in education systems to prepare local employees to compete for jobs offered by foreign investors. Finally, in its annual report, the International Monetary Fund (IMF, 2013) argued that "[i]ncreased employment of Saudis in the private sector will require a combination of reduced reliance on jobs in the public sector and measures to improve the competitiveness of Saudi workers in the private sector. The labor market reforms will lead to structural change, and careful coordination with other policies will be needed to avoid unintended side effects" (IMF, 2013, p. 2).

Results of the analysis

The current study covered the period from 1999 through 2012. This study used the time series analysis methodology to study the impact of FDI inflows on GDP per capita and the unemployment rate in Saudi Arabia. Figure 1 shows the time series plot of GDP in Saudi Arabia (SA).

The figure clearly exhibits a pattern resembling a non-stationary process. To test for stationarity, the augmented Dukey Fueller (ADF) test was used. The Ng-Perron sequential test was applied to determine the optimal number of lagged values of ΔGDP (ΔGDP = GDPt − GDPt − 1) to be included in the ADF model. The Ng-Perron test provides a lagged order of "zero" to be included in the ADF model.

The ADF model with ΔGDP as the dependent variable, with trend and lagged GDP as independent variables, was fitted, and the results clearly indicate that we failed to reject the null hypothesis that the GDP time series has a unit root (β for GDPt − 1 = −0.5904, t = −2.114, critical value of ADF test statistic τt = −3.600). Therefore, we inferred that GDP is a differenced stationary process. To test for the same, the first-order differenced series (ΔGDP = GDPt − GDPt − 1) was tested for stationarity. Results of the test indicated that the differenced series ΔAC is stationary (Z (t) = −4.572).

Figure 2 shows the time series plot of FDI in Saudi Arabia (SA). The ADF test was used to test for stationarity. The Ng-Perron test gives a lagged order of "one" to be

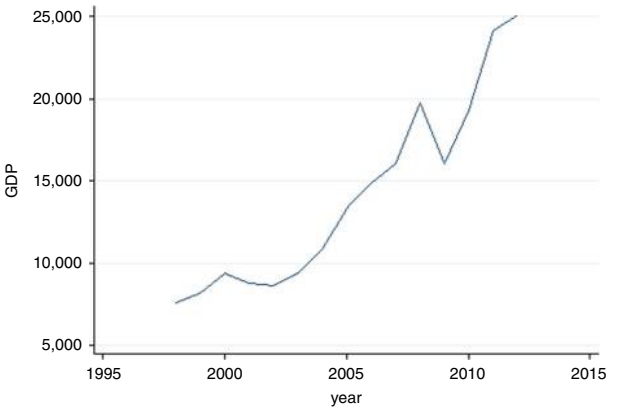

Figure 1.
Time series plot of GDP for Saudi Arabia

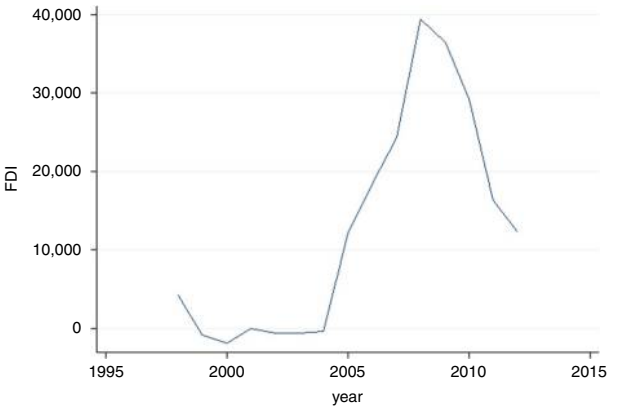

Figure 2.
Time series plot of FDI for Saudi Arabia

included in the ADF model. The ADF model with ΔFDI as the dependent variable, and drift component, lagged FDI, and lagged ΔFDI (one lag) as independent variables, was fitted. These test results clearly indicate that we failed to reject the null hypothesis that FDI has a unit root. The time series becomes stationary at an order of integration of two.

The order of integration of each variable is evaluated, once it is established to determine whether the variables under consideration are cointegrated. According to Engle and Granger (1987), a linear combination of two or more non-stationary series (with the same order of integration) may be stationary. If such a stationary linear combination exists, the series is considered to be cointegrated, and long-term equilibrium relationships exist. Cointegration implies that causality exists between the two variables, but it does not indicate the direction of the causal relationship. The presence of cointegration among the variables rules out the possibility of "spurious" regression. There are various approaches to test for cointegration, including the Engle and Granger approach, Johansen approach, autoregressive distributed lag (ARDL) bounds testing approach (Pesaran *et al.*, 2001), and Gregory and Hansen approach. According to Belloumi, the bivariate approach of Engle and Granger is very restrictive because it can be applied only if there is one cointegrating relationship. The most commonly used method is the Johansen cointegration test based on the autoregressive representation discussed by Johansen (1988) and Johansen and Juselius (1990). This test determines the number of cointegrating equations for any normalization used. It provides two different likelihood ratio tests; one is based on the trace statistic and the other on the maximum eigenvalue. Once the cointegration test was performed, we tested for the direction of causality using the Engle Granger test for causality. There are various methods for testing the same. When the variables are cointegrated, the most appropriate method for testing causality is the vector error correction model (VECM). As an alternative to vector auto regression (VAR), VECM can avoid the shortcomings of VAR-based models in distinguishing between a long- and a short-term relationship among the variables. The VECM is estimated by using the following VAR model:

$$\Delta \mathrm{GDP}t = \alpha + \pi 1\ \mathrm{ECT}1,\ t-1 + \Sigma \beta i \Delta \mathrm{GDP}t-i + \Sigma \gamma \mathrm{j} \Delta \mathrm{FDI}t-j + \varepsilon 1t$$

$$\Delta \mathrm{FDI}t = \varphi + \pi 2\ \mathrm{ECT}2,\ t-1 + \Sigma \theta i \Delta \mathrm{FDI}t-i + \Sigma \delta j \Delta \mathrm{GDP}t-j + \varepsilon 2t$$

where $I = 1, 2, 3, \ldots p$ and $j = 1, 2, 3, \ldots q$, and where the error correction term (ECT$t-i$) is derived from the long-term cointegration relationship and measures the magnitude of the past disequilibrium. The coefficients π of the ECT$t-i$ represent the deviation of the dependent variables from the long-term equilibrium.

To conduct the Johansen conintegration test, first we obtained the optimum number of lags to include using the minimum Akai's information criterion (AIC). As a result, the optimum lag length was determined to be 4. The same lag order was found using alternative criteria like the final prediction error (FPE); see Table V.

At the 0.05 level of significance, the trace statistic at rank $r = 0$ is not greater than the critical value of the trace statistic (Table V). Hence, we failed to reject the null hypothesis that the order of rank of cointegration r is zero (trace statistic = 11.163, critical value of trace statistic = 15.41). A similar result was found by using the alternative criterion of maximum eigenvalue. This means that GDP and FDI in Saudi Arabia are not related.

Testing the relationship between FDI and unemployment in Saudi Arabia

The test for stationarity of the unemployment rate (Saudis only) found a difference stationary process with the first differenced unemployment rate reporting a stationary process; see Figure 3.

For Johansen's cointegration test, the optimum number of lags to be included is determined using the minimum AIC. The optimum lag length was 4 (see Table VI).

At the 0.05 level of significance, the trace statistic at rank $r = 0$ was greater than the critical value of the trace statistic. Hence, the null hypothesis that the order of rank of cointegration r is zero was rejected; see Table V (trace statistic = 335.37, critical value of trace statistic = 15.41). VECM was fitted to the joint time series data. The finding revealed that two time series are cointegrated and, more precisely, FDI is causing significant changes in unemployment ($\beta = -0.00014$, $Z = -15.46$, $p \leqslant 0.001$). Results of the estimated coefficient for the FDI were negative. This means that FDI is inversely related to unemployment, with increased levels of FDI resulting in decreases in the unemployment rate for the Saudi workforce. Therefore, FDI in Saudi Arabia has a positive significant influence on the unemployment rate for the Saudi workforce. However, we must be careful in drawing such a relationship between FDI and

Rank	Log likelihood	Eigenvalue	Trace statistic	5% critical value
0	−247.831		11.163	15.41
1	−242.287	0.574	0.075	3.76
2	−242.249	0.0057		

Table V.
Results of Johansen test for cointegration for FDI and GDP in Saudi Arabia

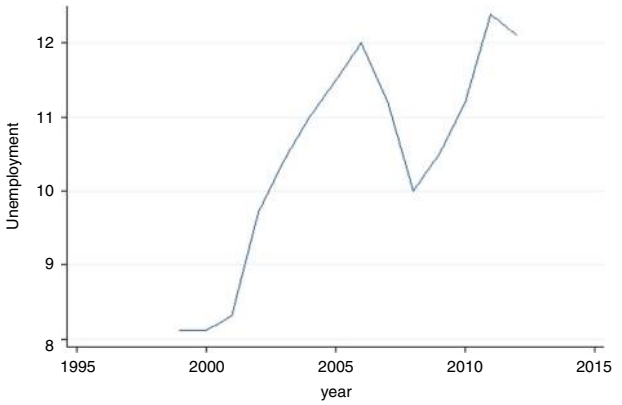

Figure 3.
Time series plot of unemployment rate for Saudi Arabia (Saudis only)

Rank	Log likelihood	Eigenvalue	Trace statistic	5% critical value
0	−97.415		335.373	15.41
1	67.234	1.000	6.075	3.76
2	70.271	0.455		

Table VI.
Results of Johansen test for cointegration for FDI and unemployment in Saudi Arabia (Saudis only)

employment, because internal and external factors are also at work, including macroeconomic policies as potential influencers of unemployment, such as the new jobs created by the public sector (47 percent of the Saudi workforce works in the public sector) (Saudi Arabian Monetary Agency, 2013).

Discussion

Many countries with a high percentage of their national income from a natural resource fall into what is known as the "resource curse," where the country relies heavily on that resource and does not make sufficient effort to diversify its income sources. However, to achieve sustainable economic development that does not shake with a change in the price of the resource, countries must develop a plan to diversify their income sources. Accordingly, since the early 2000s, the Saudi Arabian government has adopted economic reforms to facilitate doing business for local and foreign investors as a step toward enabling the private sector to play a bigger role in the economy. Consequently, FDI flows have poured into the Saudi market since adoption of the Foreign Investment Law in 2000.

Although the current study found that FDI inflows contribute to the Saudi government effort to reduce or at least control the high unemployment rate among the Saudi workforce, the study found no relationship between FDI inflows and economic growth in Saudi Arabia. However, we must be careful in interpreting the result of the positive influence of FDIs on employment, since almost half of the Saudi workforce is employed by the public sector.

In 2012, the unemployment rate among Saudis rose to reach 12.1 percent, which is considered high by global standards. In addition, 86.6 percent of the workforce in the private sector in Saudi Arabia was non-Saudis in 2012. Even the SAGIA, which was created in 2000 to formalize the process of economic liberalization and act as the main gate for FDIs flow to the Saudi market, has failed to meet its promise to put the Saudi economy as one of the top ten competitive investment destinations by 2010. This is demonstrated by the fact that the Saudi economy ranked 20th in 2013 in the Global Competitiveness Index (World Economic forum, 2014). Finally, oil is still the main engine of the Saudi economy; the petroleum sector accounted for roughly 92.5 percent of budget revenues, 55 percent of GDP, and 90 percent of export earnings in 2012 (Saudi Arabian Monetary Agency, 2013). Consequently, we could argue that while the government plans to take advantage of foreign investments to create job opportunities for Saudis, the creation of economic diversification has not achieved the desired end (Alkhathlan, 2008; Ramady and Saee, 2007; *The Economist*, 2014).

The Saudi government's actions to increase the presence of FDIs to the benefit of the Saudi market have been unsuccessful and are characterized by many factors. One of the barriers that reduce the benefit of foreign investments is that FDIs do not invest in business sectors in which the Saudi economy needs expertise, such as the technology sector (Alkhathlan, 2008; Ramady and Saee, 2007). The high cost of investment and the lack of support from the government and investors for scientific research and development (R&D) has led to a lack of desire by foreign investors to invest in the technology sector. Thus, most of the foreign investments were conducted in the types of businesses in which local investors had seen success, such as the food and services industries at the local level (small business).

Additionally, the Saudi market is new to this kind of high volume foreign investments, and most foreign investors do not have experience in the Saudi market, which has resulted in foreign investors hesitating to make long-term investments. Accordingly,

business sectors that have a comparative advantage for the Saudi economy, such as the agriculture and renewable energy sectors, have not been seriously targeted by foreign investors because of the absence of full government support for these sectors and also because of the long-term commitment these kinds of investments require (Alkhathlan, 2011; Roberts and Almahmood, 2009). The Investment Law also does not allow foreign investors to invest in the oil and gas sectors, even though the oil industry produced about 45 percent of Saudi Arabia's GDP in 2012.

Additionally, most financial regulations have not been developed to meet the new era of massive foreign investments entering the Saudi market; that applies to the public finance system and to private sector regulations, such as the corporate governance system and labor law. Even so, regulations that have been adopted by the Saudi government that organize and control the operations of FDIs have not been fully applied, such as the requirement that a certain percentage of Saudi workers should work in foreign companies that operate in Saudi Arabia (Albassam, 2011; Hvidt, 2011).

Conclusion

Attracting foreign investments to boost an economy is a priority for most countries, especially after the global economic crisis of 2008. However, having an open economy and attracting foreign investments are not guarantees for economic sustainability to the host economies. Thus, to maximize the benefits of foreign investments and to have economic growth and sustainability, governments need to have sound investment policies. Although the current study concentrates on the case of Saudi Arabia, countries with similar political, cultural, and economic structures, such as the Gulf Cooperation Council (GCC) countries (Bahrain, Kuwait, Oman, Qatar, UAE), can benefit from the results of the current study.

To achieve a healthy economy and sustainable economic development, the Saudi government needs a consistent plan to facilitate and maximize the benefit of FDI flows in supporting economic growth, creating jobs for Saudi workers, and transferring advanced administrative techniques and technology to the Saudi economy. Directing local/foreign investments to benefit sectors like the technology sector, implementing laws that require local/foreign firms to hire Saudis, developing financial and non-financial regulations that deal with foreign investment, and improving the education system, are the main challenges for the Saudi government to make better use of the presence of foreign investments.

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