

Determinants of Resource-seeking Foreign Direct Investment: Co-integration and Causality Analysis for Saudi Arabia

By

1. Mohammad Hanif Akhtar, Chair, Department of Finance and Accounting, Prince Sultan University, Riyadh, Saudi Arabia, Email: hanifakhtar@yahoo.com
2. Mohammad Bashir Khan, Assistant Professor, Department of Government & Public Policy, National Defence University, Islamabad, Pakistan.
Email: bkhan.muhammad@gmail.com
3. Shahzad Hussain, Assistant Professor, Department of Government & Public Policy, National Defence University, Islamabad, Pakistan. Email: shahzadecon@yahoo.com

Abstract:

Although, a vast amount of literature has emerged on determinants of FDI across the globe, yet research in a Saudi Arabian context remains limited. This study is an attempt to fill this gap where determinants of resource-seeking FDI in KSA are analyzed over a period of 30 years ~~from 1981 to 2010~~. The study uses Johansen tests of cointegration to find out the effect of hypothesized variables as determinants of FDI. In order to determine the causal link among the tested variables, a Granger causality test is also conducted. ~~The cointegration analysis proved useful in identifying the determinants of resource-seeking FDI in Saudi Arabia.~~ On overall basis, it can be concluded that the resource-seeking FDI in the country is mainly driven by greater trade openness, resilient fiscal performance and the existence of greater oil reserves. ~~It can be inferred from the analysis that the economy remains fragile and exposed to external shocks mainly due to its dependence on the hydro-carbon sector alone. Thus, the country needs to offer extended opportunities for foreign investment by attracting manufacturing vis-à-vis service sector FDI in addition to the existing resource-seeking one.~~

Keywords: Foreign direct investment, determinants, Cointegration analysis, Granger Causality tests, Saudi Arabia.

1. Introduction

The determinants of FDI are diverse globally as they differ across the type of FDI that can be classified as a resource-seeking, efficiency-seeking, market-seeking or strategic-assets seeking. The literature provides a striking difference across motivations of multinational enterprises (MNEs) for each type of FDI. Although, a vast amount of literature has emerged on determinants of FDI across the globe, yet research in a Saudi Arabian context remains limited. The only study that could be traced was by Abdel-Rahman (2002). Hence, this study is an attempt to add up to the scarce literature on FDI determinants on Saudi Arabia where determinants of resource-seeking FDI are analyzed over a period of 30 years from 1981 to 2010. This paper contributes to the extant literature on FDI determinants in the following ways; Firstly, it is an addition to the limited literature available on determinants of resource-seeking FDI in the Kingdom. The limited number of existing studies on FDI determinants, (mentioned in literature review) both on Kingdom of Saudi Arabia (KSA) and the Middle east and North Africa (MENA) region, appear to be focusing both on determinants of market-seeking as well as resource-seeking FDI simultaneously. In such a situation the real determinants of resource-seeking FDI might be subdued. This study takes care of such

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issues. Secondly, it is different in terms of techniques applied as most of the time-series studies use the traditional regression analysis approach. In case, the data is non-stationary, it leads to spurious regression results. The present study takes care of this pitfall and uses the cointegration analysis instead.

~~Historically, Saudi economy remains heavily dependent upon hydrocarbon sector. Economy's performance is impressive when the hydrocarbon sector performs well but is affected adversely when the hydrocarbon sector fails to grow. In a similar context,~~ FDI trends in Saudi Arabia have largely been dominated by the resource-seeking FDI mainly towards the petrochemical sector¹. In order to attract FDI, countries compete with each other by shaping up their investment climates, liberalizing FDI regimes and strengthening their locational factors. Government policies are designed in a way that affect the physical infrastructure in the country and set rules to carry out business activity, e.g. the policy framework for competition among foreign firms and so on. Since the past few years, the Kingdom has embarked upon a proactive investment strategy where different liberalization measures have been taken to improve investment climate of the country. With the establishment of the Saudi Arabian General Investment Authority (SAGIA), Saudi government announced a new Foreign Investment Law in the year 2000 introducing major regulatory and financial incentives as follows:

- a. Permission to own 100% ownership, 100% profit repatriation possibilities and availability of subsidized loans to foreign investors.
- b. No restrictions on repatriation of capital and of minimum capital requirement.
- c. The Kingdom has agreed to adopt its foreign investment laws to that of the WTO agreement on Trade Related Investment Measures (TRIMs).
- d. Foreign investors are entitled to have access to generous regional and international financial programs, including the Arab Fund for Economic and Social Development, Arab Monetary Fund, Arab Trade Financing Program, Inter-Arab Investment Guarantee Corporation and Islamic Development Bank.
- e. Financial incentives mainly include the Human Resources Development Fund, preferential allocations of natural gas and competitive industrial utility rates for water, power and land. Tax incentives in various regions include 50% deduction from the expenses of annual training for Saudi employees with 50% deduction from the annual

¹ FDI stocks to this sector stood at 44% while inflows were around 41% in the year 2008 (SAGIA, 2010).

salaries paid to the same. Further deductions are also applicable if certain other conditions are fulfilled.

~~In addition to the petro-chemical sector, FDI flows appear to be tilting towards other sectors e.g. infrastructure, financial services, telecommunications and information technology, health, life sciences, and education (SAGIA). In terms of sources of FDI, it is revealed that the largest FDI inflows during 2009 were from USA amounting to US\$ 5.8 Billion, followed by Kuwait with US\$ 4.3 billion, UAE with US\$ 3.8 billion, France US\$ 2.6 billion, and Japan US\$ 2.0 billion.~~ Such measures have resulted in transforming the Kingdom into an attractive destination for FDI. Saudi Arabia was ranked 13th out of 183 countries for the overall 'Ease of Doing Business', according to the International Finance Corporation's 'Doing Business' Report in 2011.

The paper proceeds as follows. The part that trails, deals with the review of literature on determinants of FDI. Section 3 focuses on development of theoretical framework in context of the FDI theories while section 4 concentrates on methodology employed for the research. This also takes up definitions and explanation of variables used in the study. Section 5 puts forward major findings from empirical analysis while the final part offers major policy implications and conclusions.

2. Review of literature

There exists a great deal of literature that deals with the factors that determine flow of FDI from home to the host countries. Determinants on the distribution of FDI to developed, developing or emerging countries have been examined by a number of studies.

Abdel-Rahman (2002) investigated the determinants of FDI to the Kingdom of Saudi Arabia (KSA). His findings revealed that the role of market size, trade openness, wage rates, and country risk as important in attracting FDI to KSA. ~~Along with the conventional methods of regression analysis, causality tests were also used in his analysis. Empirical methods used to gauge the issues included causality tests along with conventional regression models.~~ The results showed that GDP levels affected FDI in a positive and significant way. Exports had significantly negative impact on inflows of FDI to KSA, while the socio-political risk variables were mostly significant with a negative impact on FDI inflows to the country.

~~Carlos and Rowland (2004) tried to identify the determinants of FDI using both cross-sectional and panel data techniques with data for 46 developing countries. The size of the~~

economy and the level of government debt to revenues were seen to be significant explanatory variables. Further, low external interest rates, open recipient economies, and strong fiscal balance fostered FDI flows to developing economies. The two significant fiscal variables for FDI (the ratio of government debt to revenues, or the ratio of government interest payments to government revenue) stressed the fact that investors preferred countries with a sound fiscal policy. Thus, countries with prudent fiscal policies were more attractive to FDI flows compared to those with unbalanced fiscal accounts.

In a panel data analysis on the location determinants of FDI in the GCC countries, Mina (2007) estimated that oil potential (measured by oil reserves), and oil utilization (measured through oil production), had a negative effect on FDI flows. This was contrary to expectations about positive association between GCC oil resources and FDI flows. The relative degree of oil utilization (measured by oil production relative to oil reserves), had a positive influence on FDI flows. Similar to oil potential and oil utilization, oil prices surfaced with a negative effect. Estimates also exposed that factors like institutional quality, trade openness and infrastructure development, encourage FDI flows, while human capital was seen as significantly discouraging these flows.

Al Abbadi (2009) reviewed the experiences of Egypt, Jordan, and Yemen on the determinants of foreign direct investment. The study concluded that economic factors, political, legislative, and administrative environment were important to influence the process of attracting foreign direct investment in the countries in addition to the infrastructure variable.

Mohamed and Sidiropoulos (2010) analyzed the determinants of foreign direct investment across MENA region and other developing countries. By employing a panel data methodology, the study investigated about the determinants of FDI in 36 countries. Their findings revealed that the key determinants of FDI inflows in MENA countries were size of the host economy, natural resources, magnitude of the government, along with some of the institutional variables.

Bose and Jha (2011) studied the impact of recent global financial crisis and fiscal deficits across FDI on 15 European countries and Indian economy. Using a panel regression analysis, he found the fiscal health to be a very significant determinant of FDI inflows vis-à-vis certain other growth and developmental policy indicators, underlining the significance of trimming government deficits for sustainable FDI. They discovered the gravity variables e.g. market size and past FDI inflows to be the additional key determinants of inward FDI.

3. Theoretical framework

According to received theory of international business, the flows of FDI depend upon the existence of ownership (O), location (L) and internalization (I) factors. The O-advantages represent firm's ownership of intangible assets, e.g. technology, patents, and skilled management etc. The location advantages stem from the factors like abundant natural resources, large market size, cheap factors of production, and friendly business environment etc. The internalization advantages originate from the firm's engagement in production abroad through FDI rather than relying on other modes of entry like franchising, licensing or subcontracting since these involve high transaction costs. Since, both ownership and internalization advantages are specific to firms while location factors are specific to host countries. In order to exploit the ownership advantages owned by the firms through internalization, there must be an existence of locational advantages in the host country. From a theoretical perspective, the location effects have been analyzed in eclectic paradigm, the OLI framework by Dunning (1981). Hence, the theoretical framework for this paper builds on the location advantages in KSA in context of the OLI framework.

4. Methodology

4.1. **Data and Model Specification**

Taking into account the extant literature on FDI determinants, economic development process in the Kingdom, and the theoretical framework of international business, this section is devoted to model specification based on the variables that are professed to be the key determinants of resource-seeking FDI in the Kingdom. Data for the period of analysis i.e. 1981-2010 was taken from different sources. The dependent variable defined as the stock of foreign direct investment (*fdi*), was extracted from the World Investment Reports by the UNCTAD. The data on FDI stocks was is in millions of US dollars and was deflated by the US GDP price deflator² for the year 2000. While data on variables like oil reserves (*ores*) fiscal balance (*fb*), and openness (*open*) was obtained through annual report of Saudi Arabian Monetary Agency (SAMA)³. Oil reserves being in nominal values, are expressed in billion of barrels per year while fiscal balance and openness variables are expressed as ratios. Further details about construction of these variables are provided in section that follows.

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² The data on GDP deflator was obtained from <http://www.oecd.org>.

³ It is important to mention here that the data provided by SAMA was provisional for the year 2010.

For statistical reasons, the variables were converted into natural log form. This also facilitates the results to be interpreted as elasticities. Data sources for the variables used in the study are listed in table-A at appendix while a discussion on explanatory variables is provided as underbelow.

4.1.1. Trade Openness

Trade openness reflects integration of one country with the rest of the world. Literature reveals that open economies attract more FDI compared to those protected heavily. A liberal trade regime in the host market provides opportunities to trade for multinational firms (MNFs). As mentioned earlier, the FDI in KSA is largely dominated by flows to the hydrocarbon sector; such FDI contains some elements of trade generation. It leads to exports of oil from KSA to the rest of the world and imports from host to the home country of resources that are lacking in the latter. Kravis and Lipsey (1982) found openness as important determinant for the location choices of US multinationals. Wheeler and Mody (1992) also discovered a positive association between openness and FDI. ~~Hufbauer et al. (1994) modeled the determinants of FDI in terms of stocks and flows of FDI, from the viewpoints of three home economies (Japan, USA and Germany) for the periods 1980, 1985 and 1990. In their stock model of FDI, they discovered openness as a dominant determinant of FDI. Jun and Singh (1996) found that export orientation was very important in attracting FDI, leading to complementarity of trade and FDI flows. While studying the manufacturing investment in Central and Eastern Europe, Resmini (2000), found that vertical FDI flows benefit from increasing openness.~~ Abdel-Rahman (2002) discovered that exports had a significant negative impact on the KSA's FDI. Campos and Kinoshita (2003), Walsh & Jiangyan Yu (2010), and Sufian & Moise (2010) also extracted a positively significant association between openness and FDI. Trade openness (~~open~~) is gauged by the ratio of exports plus imports to GDP while the expected sign is positive. Data on exports, imports and GDP variables was in millions of Saudi Riyals.

4.1.2. Fiscal discipline

Fiscal discipline is essentially desirable to attract larger flows of FDI to the host country. Fiscal health of an economy is perceived to be important as it would determine the level of economic risk that might prevail in the country. It might also reflect commitment and credibility of the government policies in

the future. Fiscal deficits can lead towards a “*crowding out*” phenomenon through higher costs of borrowing for the foreign firms. ~~With an increase in government deficits, country’s perceived risk goes up (Bevan *et al*, 2000).~~ The study by Garibaldi *et al* (2001) finds evidence that FDI increases with sound macroeconomic performance as proxied by higher fiscal balance. ~~According to Amaya and Rowland (2000), countries with sound fiscal policies are more attractive to FDI flows. In contrast~~ Likewise, Sufian and Moise (2010) also discovered the government size as an important determinant of FDI in the MENA countries. Simultaneously, countries with widening fiscal deficits are exposed to significant diminution of FDI (Bose and Jha, 2011). Hence, it is perceived that an improvement in fiscal balance ~~(fb)~~ would decrease the economic risk; leading to higher FDI; while deterioration in it would work the other way around. Fiscal balance is measured as the difference between government income and expenditure as a percent of GDP.

4.1.3. Oil reserves

Resource-oriented FDI is beneficial to economies since it contains some elements of trade generation and also leads to vertical specialization between the producers of manufacturing and primary products (Akhtar, 1999). In a theoretical context, internalization theory upholds the importance of equity-based control in the exploitation of scarce natural resources (Buckley and Casson, 1976). Existence of natural resources has emerged as a gravitating force for various multinationals (Morisset, 2000, Jenkins and Thomas, 2002 and Campos and Kinoshita, 2003). Resource-based FDI is intended to acquire resources not available in the home country or acquire at a lower cost than home country. Such a strategy helps MNEs in being more competitive and profitable towards existing and potential markets. Producers of primary and manufactured goods engage in FDI to have an access to the physical resources like oil, minerals, raw materials, agricultural goods and complements that they are well equipped to produce.

Saudi Arabia has emerged as one of the leading suppliers of oil in the world market. This is

evident from its possession of huge oil reserves⁴ across the Gulf and also from the facts that the hydro-carbon sector has contributed on average 35% towards the GDP while the share of oil exports remains around 90% over the period of analysis. The existence of larger oil reserves is attractive since the foreign firms are privileged towards faster recovery of development costs. The hydrocarbon sector in the Kingdom has been a major recipient of FDI although recently other sectors have also joined the race. Consequently, given the resource endowments in Saudi Arabia and theoretical explanations on resource-seeking FDI by ~~Lim (1983)~~, Buckley and Casson, (1976), ~~Buckley et al (2007)~~ and Sufian and Moise (2010) the existence of greater oil reserves is perceived to be an important determinant for a resource-seeking FDI. A positive relationship is hypothesized between FDI stocks and oil reserves (~~ores~~) in the Kingdom.

4.2. Estimation method

Before proceeding to estimation on the determinants of FDI, the data was tested for stationarity ~~since the existence of a common trend between two data series does not imply that there is a meaningful economic relationship between the two~~. In case the series are non-stationary, (*i.e. their mean, variance and auto-covariance are not independent of time*), the regression analysis resulting from such a series can falsely lead towards ~~the existence of a relationship known as~~ *spurious* regression as suggested by Granger and Newbold (1974). ~~Such an analysis might ignore some important information underlying the statistical and economic processes that generate the data. While modeling the time series data, one needs to make sure that the long run relationship reflects co-movement of variables due to underlying equilibrium tendencies of economic forces, rather than common, but unrelated, time trends in the data (Harris, 1995).~~ Therefore, it is significant to test for stationarity *i.e. the presence of unit root* in the data series ~~and if it exists, the analysts are obligated to use an appropriate modeling technique~~. To test for the presence of a unit root, the Augmented Dickey-Fuller (ADF) test was performed based on a model with constant and trend in levels of variables but without trend in case of variables in first difference. The equation used ~~to test for the presence of a unit root across each of the variables~~ is as below:

$$\Delta y_t = \alpha + \beta T + \delta y_{t-1} + \varepsilon_t \quad -1$$

The ADF adopts the *null-hypothesis* that there exists a unit root in the data series such that $\delta=0$. If we fail to reject the *null hypothesis*, it means y_{t-1} contains a unit root. Test results of

⁴ In 2010, Saudi Arabia's proven recoverable oil reserves were around 265 billion barrels.

the variables *fdi*, *fb*, *open* and *ores* indicate that they have a *stochastic trend* while they are in levels but become stationary after first differencing indicating that these are integrated of order one i.e. *I*(1) (Table-B at appendix). Hence, first differencing was sufficient to induce stationarity among variables. The regression equation for the difference stationary process series is as below:

$$D\Delta y_t = \alpha + \partial Dy_{t-1} + \varepsilon_t \quad -2$$

4.3. Testing for Co-integration

Having found the order of integration as equal to 1, an attempt is made to examine the existence of a long-term relationship across FDI ~~flows~~ stocks and the proposed explanatory variables. The results of Johansen co-integration tests are reported in table-3 below.

Table- 2: Tests of Co-integration

Null hypothesis	Trace Statistic	5% Critical Value	Max-Eigen Statistic	5% Critical Value
$H_0: r = 0$	57.572*	47.856	38.092*	27.584
$H_0: r \leq 1$	19.480	29.797	13.904	21.132
$H_0: r \leq 2$	5.576	15.495	3.680	14.265
$H_0: r \leq 3$	1.896	3.8415	1.896	3.842

Note: 1-* indicates the level of significance at 5%. 2- r represents the number of co-integrating equations.

Both the Trace and Maximal Eigen value statistics identify the existence of a unique co-integrating trajectory among the four variables as the. ~~Both the Trace and Maximal Eigen value~~ statistics indicate that there is at least one co-integrating equation at 5% level and reject the *null hypothesis* of no co-integration. Hence, the results reveal that there exist a stable long-term relationship across FDI stocks and its perceived determinants.

According to the Granger Representation theorem, when variables are co-integrated, there must also be an error correction model (*ECM*) that describes the short-run dynamics or adjustments of the co-integrated variables towards their equilibrium values. Our model involves four non-stationary variables; hence, the *ECM* would be a simultaneous equation system of four equations, one for each of the variables describing its short-run adjustment towards the long-run equilibrium. The process of adjustment might take some time, thus each equation in the *ECM* will have lagged variables. A lag of one year is considered as appropriate for each of the variables included in the analyses⁵. Therefore, to proceed further, the following co-integration equation is estimated:

$$fdi_t = \beta_0 + \beta_1 open_t + \beta_2 fb_t + \beta_3 ores_t + \mu_t \quad -3$$

The lower case letters represents natural logarithms of the variables, while expected signs of the coefficients are as under:

$$\beta_1 > 0, \beta_2 > 0, \text{ and } \beta_3 > 0$$

5. Results of the Co-integrating Equation

⁵ The lag lengths chosen in the model are based on the Schwarz criterion.

Results of the co-integrating equation for fdi are presented below. Since the model is estimated in logs, the estimated coefficients denote elasticities:

$$fdi = -24.56 + 5.23open + 0.34fb + 0.91ores + \mu$$

(11.83) (3.47) (2.17)

Adjusted $R^2 = 0.79$; F-statistics = 21.26; Log likelihood = 48.29

Figures in brackets are the test-statistics where the level of significance stands at 1% for all of the normalized co-integrating coefficients. An assessment of the tests of significance and the co-integrating equation indicates that the results of the parameters in the equation are in line with conventional economic theory and are statistically significant. The coefficient of determination (R^2), adjusted for the degrees of freedom, designates predictive power of the equation. The magnitude of the adjusted R^2 indicates the fact that the equation has performed reasonably well.

The openness coefficient appears as significantly stronger for attracting FDI in the Kingdom. The result is consistent with the notion that FDI often complement trade flows. In the case of Saudi Arabia; trade-creation is more likely to take place through oil exports and would also strengthen further via increase in imports required for oil exploration and its refinement. This result reinforces the integration of Saudi Arabia with the world is in line with the findings by Kravis and Lipsey (1982), ~~Hufbauer et al. (1994), Singh and Jun (1996), Resmini (2000),~~ Campos and Kinoshita (2003), Walsh and Jiangyan Yu (2010), and Sufian & Moise (2010).

Result on the fiscal balance as a proxy for economic risk is consistent with the expectations. This reveals the fact that an improvement in fiscal health reduces economic risk for the investors and is likely to boost the levels of FDI in the Kingdom. ~~The findings are in line with those by Bevan et al (2000) who ascertained a positive and significant association across general government balance and FDI.~~ These results are also consistent with those by Garibaldi et al (2001), ~~Amaya and Rowland (2000),~~ Sufian and Moise (2010) and Bose and Jha, (2011).

Results on the existence of greater oil reserves in the country prove that the Kingdom is attractive towards FDI. This dictates that existence of resources like oil reserves is a big plus

for attracting FDI to the country. This also affirms the significance of equity-based control in exploitation of scarce natural resources as pronounced by the *internalization theory*. These results are in line with those by Buckley and Casson (1976), ~~Lim (1983)~~, Morisset, (2000), Jenkins and Thomas, (2002), Campos and Kinoshita (2003), ~~Buckley et al (2007)~~ and Sufian & Moise (2010).

5.1. Testing for Granger Causality

Since the series are found to be co-integrated, we use *ECM* model by Engle Granger (EG) to test for the existence of Granger causality. If two of the series, Y_1 and Y_2 are both I (1) and co-integrated, then the *ECM* model is represented by the following equations:

$$\Delta Y_{t1} = \delta_0 + \sum_{i=1}^m \delta_i \Delta Y_{t1-i} + \sum_{i=1}^m \gamma_i \Delta Y_{t2-i} + \rho EC_{t-i} + \varepsilon_t \quad - 4$$

$$\Delta Y_{t2} = \lambda_0 + \sum_{i=1}^n \lambda_i \Delta Y_{t2-i} + \sum_{i=1}^n \omega_i \Delta Y_{t1-i} + \pi EC_{t-i} + v_t \quad - 5$$

Where ε_t and v_t are the white noise error terms, EC_{t-i} is the error-correction term (lagged residual) derived from the long-run co-integrating relationship, while m and n are the optimal lag length orders of the variables which are determined by using the Akaike's criterion. Our null hypotheses take the following form: Y_2 will Granger cause Y_1 if $\gamma_i \neq 0 \forall i$ and $\omega_i = 0 \forall i$. Y_1 will Granger cause if $\omega_i \neq 0 \forall i$ and $\gamma_i = 0 \forall i$. The bidirectional causality exists if $\omega_i \neq 0 \forall i$ and $\gamma_i \neq 0 \forall i$. The causality test results are shown in table-4 below.

Results of the test support that there exists a long-run causality from openness (*open*), fiscal balance (*fb*) and oil reserves (*ores*) to *fdi*. Hence, the null hypothesis that the coefficients of the independent variables (*open*, *fb* and *ores*) do not Granger cause *fdi* is rejected. This implies that these variables significantly affect FDI in the Kingdom. There appears to be a unidirectional causality from *open* to *fdi* and from *fb* to *fdi*. However, there exists a two-way causation across *fdi* and *ores*, *open* and *ores*, *fb* and *ores*. This lead and lag relationship among the variables appears to be acceptable for various reasons.

Given the fact that existence of larger oil reserves in KSA attracts FDI, yet an increase in the latter paves the way towards exploration and discovery of further reserves. Thus, the existence of a two-way relationship is corroborated between *fdi* and *ores*. Likewise, an increase in oil reserves leads to greater trade flows via oil exports. By the same token, an increase in oil exports would result into higher imports as some of the export earnings can be used to finance imports of technology and equipments. The imported technology and

equipments can be used to explore further reserves of oil in the Kingdom. Hence, the two-way relationship between *open* and *ores* is not surprising. Lastly, an improvement in fiscal area may augment the government spending which might be channeled into discovery of oil reserves, validating the lead and lag relationship between *fb* and *ores* in the Kingdom.

Table-3: Granger Causality tests

<i>Dependent variables</i>	<i>Independent variables; (Chi sqstatistics)</i>			
	Δfdi	$\Delta open$	Δfb	$\Delta ores$
Δfdi	--	6.088**	4.864**	9.586*
$\Delta open$	0.0736	--	0.130	0.000
Δfb	1.258	0.387	--	13.855*
$\Delta ores$	32.938*	5.593**	24.559*	--

Note: * and **show that the null hypothesis is rejected at 1% and 5% respectively, based on Wald tests.

6. Policy implications and Conclusions

The co-integration analysis proved useful in identifying the determinants of resource-seeking FDI in Saudi Arabia. On overall basis, it can be concluded that the resource-seeking FDI in Saudi Arabia is driven by greater trade openness, resilient fiscal performance and the existence of greater oil reserves. It also stems from the analysis that an open economy offers a more attractive environment for FDI, with trade-creation effects. By the same token, strong fiscal performance enables host countries to spend more on development projects, insures foreign investors against economic risks and attracts more FDI. Finally, the existence of large oil reserves in the Kingdom drives opportunities for foreign investors in terms of international trade and profitability thereon.

The paper presents useful policy implications for policy makers in the Kingdom. Results of the study reveal that foreign investors prefer countries that are more open to trade. The economy needs to sustain these inflows through strengthening of local industries and expansion of international trade. However, dependence of the economy mainly on the hydro-carbon sector leaves it as fragile and exposed to external shocks. The country needs to offer extended opportunities to foreign firms by attracting manufacturing vis-à-vis service sector FDI in addition to the existing resource-seeking one. This is expected to help the

economy to sustain and attract larger inflows of FDI from across the globe. Although, there exist some elements of market-seeking FDI in the country, however, these are not explored in this study but would be an area for future research.

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Appendix

Table-A: Data sources for the variables used in the study

Variables	Sources
<i>fdi</i>	United Nations, <i>World Investment Report</i> , 2010.
<i>open</i>	SAMA, <i>Forty Seventh Annual Report</i> , 2011.
<i>fb</i>	SAMA, <i>Forty Seventh Annual Report</i> , 2011.
<i>ores</i>	SAMA, <i>Forty Seventh Annual Report</i> , 2011.

Table- B: Augmented Dickey-Fuller unit root test results

Variables	Level	First difference
<i>fdi</i>	-2.44	-8.22*
<i>open</i>	-2.66	-4.01*
<i>fb</i>	-3.04	-6.19*
<i>ores</i>	-1.62	-5.09*

Note: 1- * indicates the level of significance at 1% rejecting the *null hypothesis* of the presence of unit root.

2- The lag lengths are based on Akaike Information Criteria (AIC).

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