

The Macroeconomic Determinants of Outward Foreign Direct Investment: The Case of Kuwait

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This paper examines the home country macroeconomic determinants of Kuwait's outward foreign direct investment (OFDI) using country level time series data for Kuwait over the period (1976-2011). Also, a comparison is conducted between the trends of the factors determining OFDI in Kuwait, Saudi Arabia, and Norway as counterparts of developing and developed oil producing countries. The estimated models are examined using Johansen cointegration test, as well as error correction technique and Granger causality test. The study finds that the main macroeconomic determinants of Kuwait's OFDI are interest rate, inward foreign direct investment (IFDI), and public expenditure. The comparison shows that the trend of Kuwait's determinants of OFDI is partially consistent with the trend in Norway. Also, Granger causality tests show that OFDI in the three countries follows the hypothesis of IFDI-led OFDI.

Keywords: Outward FDI; Oil Producing Countries; Johansen Cointegration; Error Correction Model; Granger Causality

JEL Classification: E22, F21, O53

Introduction

The substantial increase in the amounts of foreign direct investment (FDI) among economies worldwide is an important aspect characterizing countries' economic positions and features. FDI is historically defined as the flow of country's investment through capital transfers, investment takeovers, or investment exploitation in foreign

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countries (Hymer, 1977). Moreover, according to the IMF's Fifth Edition Balance of Payment Manual (1993), direct investor is defined as an investor who owns at least 10% or more of ordinary shares within a foreign enterprise. The IMF declares enterprises with 10% or more of foreign ownership as FDI enterprises which include subsidiaries, associates, and branches. FDI is conducted by all types of investors such as public and private enterprises, group of individuals or enterprises, and governments or government agencies.

Some oil producing countries like Kuwait have a long-lasting history with FDI outflows. Kuwait's first attempt to transfer its capital to foreign countries was in the year 1953 through investing oil revenues abroad. Meanwhile, OFDI is dominating a large share of Kuwait's total investment (KIA, 2012). Kuwait's OFDI consist of long-term portfolio investment managed by Kuwait Investment Authority (KIA), investment by other government entities, and investment by Kuwait's private sector (Embassy of the United States-Kuwait, 2013). Large amount of assets is invested and managed by the Kuwaiti government abroad through KIA which is the world's oldest sovereign wealth fund. The KIA is a continuous shareholder and owner of numerous assets worldwide such as shares in real estate, foreign securities, and bonds (KIA, 2012). In this study, Kuwait forms the main pillar benchmarked with the other selected countries due to Kuwait's long lasting history with FDI outflows.

The motivation for conducting this study is the aspect drawn from the World Investment Report (2012) regarding the phenomenon of large exports of FDI from oil producing countries. Therefore, identifying the determinants of OFDI from oil producing countries is crucial to be investigated. Also, up to the researchers' knowledge, this study forms the first country level study conducted in the field of OFDI in Kuwait, which is the oldest foreign investor in a worldwide basis. The objective of this paper is to empirically study the macroeconomic determinants of OFDI in Kuwait and its counterparts of developing and developed oil producing countries such as Saudi Arabia and Norway, respectively. The study compares between the determinants of OFDI from Kuwait with Saudi Arabia and Norway due to their similar economic characteristics of heavy dependence on natural resources production and large exports of FDI.

The methodology used in the research is estimating country level models for the macroeconomic determinants of OFDI in Kuwait, Saudi Arabia, and Norway. The estimated models consisting of Johansen cointegration, error correction models (ECM), and Granger causality tests are used for time series data based on data availability in each country. Data used for Kuwait covers the period (1976-2011), Norway (1976-2011), and Saudi Arabia (1984-2012).

The empirical results show that the factors that have a significant impact on Kuwait's OFDI are interest rate, IFDI, and public expenditure which are partially consistent with the empirical results of Norway. In addition, the causality test estimates that Kuwait's OFDI follows the hypothesis of IFDI-led OFDI, and its domestic investment depends on its investments abroad.

This paper is organized as follows. Section two shows an overview on the previous studies. In section three, the environment of OFDI in Kuwait is explained. In section four, the methodology and model specification used in the study are explained. Data are provided in section five. The empirical results are explained in sections six. The conclusion and policy implications are provided in section seven.

Literature Review

The main determinants of FDI are classified into three major theories: international capital market theory, theory of the firm, and international trade theory which are mainly derived from Dunning's ownership, location, and internalization FDI framework. (Faeth, 2009; Vasyechoko 2012).

The FDI literature is rich in studies examining the determinants of FDI according to host countries' ownership and location advantages such as the studies of Buckley et al. (2007); Mohamed and Sidiropoulos (2010); Mughel and Akram (2011); Wadhwa and Reddy (2011); Al-Shammari and Al-Sarhan (2012); Akhtar, Khan, and Hussain (2013). Also, a number of studies investigate the determinants of FDI from firm level perspective like the studies of Setti et al. (2003); Ali and Guo (2005); Yu, Change, and Fan (2007).

Scholars study the macroeconomic determinants of OFDI from home country level perspective due to the limited empirical research conducted in this field, yet its significance in studying countries' motivation to invest abroad.

Wei and Alon (2010) study the home country macroeconomic determinants of China's OFDI using time series data for the period (1987-2006). The study applies PLS regression method to estimate the model. The study finds that China's imports and foreign reserves are associated positively with OFDI, whereas interest rate and exchange rate are associated negatively with OFDI. Also, Liu, Buck, and Shu (2005) study China's OFDI according to investment development path hypothesis over the period (1979-2002) using GMM methodology to take account of variables' endogeneity. The authors conclude that China's GDP per capita, investment in human capital, exports, and IFDI are all significant and have a positive impact on OFDI. Chowdhury (2011) investigates the determinants of OFDI in India using time series data for the period (1970-2009). The study applies unit root tests, cointegration, VECM, and Granger causality to test the model. The author concludes that human capital, exchange rate, domestic savings, and IFDI have a positive impact on India's OFDI. The study also shows that technology and interest rate have a negative impact on India's OFDI. Kyrkilis and Pantelidis (2003) investigate the home country macroeconomic determinants of OFDI from EU and non-EU members using time series data for the period (1977-1997). The authors find that countries' GNP, human capital, openness to trade, and technology is associated positively with OFDI. Saad, Noor and Nor (2011) study the home country macroeconomic determinants of OFDI in Malaysia applying time series data from 1980 to 2009. The authors find that Malaysia's export level, FDI inflows, and labor productivity are push factors of OFDI. The authors also find that Malaysia's GDP and oil consumption decrease the level of OFDI due to Malaysia's small market size and higher costs associated with low natural resource availability in the country. Studies find two way relationships between country's exchange rate and OFDI. Chen, Rau, and Lin (2006) show that exchange rate uncertainty has a negative relationship with country's OFDI. As mentioned earlier, Chowdhury (2011) finds a positive relationship between India's exchange rate and OFDI in India due to higher competitiveness measured in depreciation of exchange rate. On the other

hand, Wei and Alon (2010) find a negative relationship between China's exchange rate and OFDI. Similarly, Apergis, Asteriou, and Papathoma (2012) find a negative relationship between exchange rate and OFDI for Greece at sixteen EU and non-EU countries.

According to Saad, Noor, and Nor (2011) the low level of natural resources is associated with higher cost of production and higher OFDI. On the other hand, Nachum, Dunning, and Jones (2002) examine the effect of natural resource abundance and OFDI through studying OFDI and comparative advantage in the United Kingdom.

The study states that due to the ownership advantage obtained from natural resource availability, a comparative advantage is gained to the extent of the resource availability in the country which could affect OFDI negatively. However, the study finds that more mature MNE exploit other resources available in other countries which they are comparatively disadvantageous to maintain their international competitiveness. Thus, natural resource availability can have positive or negative relationship with OFDI depending on the MNE's level of maturity.

Since this paper examines OFDI from countries with large shares of government controlled MNE, public expenditure is used to indicate government control on the economy. If the country increases its government spending, the budget surplus decreases causing less capital transfers abroad, and vice versa. According to Saif (2009), Kuwait, which is the pillar of the study, experienced an expansionary fiscal policy throughout the period (1970s-1990s). Therefore, the expected relationship between Kuwait's public expenditures and OFDI is negative because the increase in the country's government expenditure lowers the amounts of capital transfers abroad.

The Environment of FDI in Kuwait

Compared to the other countries in the region, Kuwait appears to be one of the least attractive destinations for FDI inflows. Even though the GCC is mainly perceived as a region with low FDI inflows in comparison to other regions around the world in general and among the developing regions in specific, Kuwait constitutes only 0.8% from total

FDI inflows towards the GCC region during the period (2005-2011). The indigent rate of FDI inflows in Kuwait appears to be due to the “Kuwaitization” strategy adopted by Kuwait which supports the national ownership of firms and encourages the presence of national employment in all economic activities. Although Kuwait established the entity Kuwait Foreign Investment Bureau and an accompanying law in the year 2001 to encourage FDI inflows, they neither accelerated the procedures of business establishment in Kuwait nor assisted foreign firms in gaining approval to invest in Kuwait (Embassy of the United States-Kuwait, 2013). The GCC largest destinations for FDI inflows are Saudi Arabia and United Arab Emirates with 58.2% and 24%, respectively for the period (2005-2011) (World Investment Report, 2012).

On the other hand, Kuwait is one of the leading countries in OFDI and capital transfers to foreign countries. Kuwait’s first attempt of OFDI was in the year 1953 though investing oil revenues abroad. According to World Investment Report (2012), Kuwait is a significant player in FDI outflows among developing countries. Kuwait’s OFDI is continuously increasing among the years since 2005, except a decrease during 2009 and 2010, due to the world financial crisis. Kuwait constitutes approximately 2.7% of total FDI outflows from total OFDI from developing countries during the period (2005-2011), which is considered large compared to the number of developing countries and the size of the Kuwaiti economy relative to the other economies. It also constitutes large shares of FDI outflows from the MENA region with 28.5% and from the GCC with 35.6% of total FDI outflows during the period (2005-2011). It is no surprise that Kuwait is one of the largest exporters of foreign investment on a worldwide basis. As mentioned earlier, Kuwait owns the world’s oldest sovereign wealth fund, and it transfers capital across borders though investing oil revenues in foreign countries (KIA, 2012). KIA is established by Kuwait government in 1953 as an authorized body responsible for managing Kuwait’s investment in foreign countries. KIA manages Kuwait's funds abroad which are composed of: General Reserve Fund (GRF) and Future Generations Fund (FGF). The GRF includes Kuwait’s oil revenues and income earned from investing these revenues abroad. The FGF was established in 1976 to preserve the shares of Kuwait’s future generations from Kuwait’s oil revenues. Ten percent of Kuwait’s revenues are placed in

FGF, as well as, 25% of the net income generated from GRF. KIA allocates investment in foreign countries based on countries' macroeconomic factors such as market size, growth, and income (KIA, 2012).

Methodology and Model Specification

The methodology used to conduct the study is estimating country level models for home country macroeconomic determinants of OFDI in Kuwait, Saudi Arabia, and Norway. The econometric models are estimated using time series data based on data availability in each country. The study uses a number of econometric techniques which are unit root tests, cointegration tests, error correction models, and Granger causality tests. The study's models are based on the theoretical framework adopted from the literatures of the macroeconomic determinants of OFDI. The original variables used to construct the model for studying the home country macroeconomic determinants of OFDI in Kuwait from country level perspective are adopted from several studies such as Wei & Alon (2010); Buckley et al. (2007); Chowdhury (2011) models for studying OFDI determinants in China and India.

The study's empirical model in its natural logarithm linear form is:

$$\text{Log}(OFDI)_t = \beta_1(r)_t + \beta_2(EX)_t + \beta_3(FE)_t + \beta_4(OPENNESS)_t + \beta_5(IFDI)_t + \beta_6 \text{Log}(PR)_t + \beta_7 \text{Log}(PE)_t + \varepsilon_t$$

Where "OFDI" is the value of OFDI flows; "r" is lending interest rate; "EX" is the exchange rate against US dollar; "FE" is the factor endowment measures by the ratio of oil exports to total exports; "OPENNESS" is openness to trade calculated by the sum of total exports and imports to GDP; "IFDI" is the value of IFDI flows; "PR" is public revenue; "PE" is public expenditure; "ε" is the error term; and "t" is time.

The independent variables public revenue (proxy of income), interest rate, exchange rate, and IFDI are obtained from Chowdhury (2011) for studying the macroeconomic determinants of OFDI in India. The variable openness to trade is adopted from Wei and Alon (2010) for

studying the macroeconomic determinants of Chinese OFDI. The measure of the variable natural resource endowment is adopted from Buckley et al. (2007) for studying the determinants of China's OFDI. The variable public expenditure is included in the model to envisage the role of government policies on FDI outflows.

Data Description

With regards to Kuwait's data, data for OFDI flows, exchange rate, public revenue, public expenditure, and IFDI flows are obtained from the quarterly statistical bulletin (special edition) published by the Central Bank of Kuwait. Data for Kuwait's interest rate are obtained from World Bank database. Data for Kuwait factor endowment and openness to trade are collected from the Annual Statistical Abstract (various years) published by Kuwait's Ministry of Planning. All the variables are expressed in Kuwaiti dinar. The variables included in Kuwait's model are also applied to Saudi Arabia and Norway. Data for public revenue, public expenditure, exchange rate, and interest rate for Saudi Arabia are collected from the Saudi Arabian Monetary Agency (SAMA) statistical publications. Data for OFDI, IFDI, and trade openness are collected from (UNCTAD) database published by the United Nations. Data for Saudi Arabia's oil exports used for calculating factor endowment is obtained from OPEC annual statistical bulletin. All variables in Saudi Arabia's model are expressed in US dollar. With regards to Norway model, Data for OFDI and IFDI are collected from (UNCTAD) database. Data for trade openness, interest rate, exchange rate, public expenditure, and public revenue are obtained from (OECD) statistical database. However, oil production is used in the model which is obtained from OPEC Annual Statistical Bulletin due to the unavailability of data for Norway's oil exports needed to calculate factor endowment. All variables in Norway's model are expressed in US dollars.

Empirical Results

Table 1 shows the results of Augmented Dickey-Fuller (ADF) unit root test for the models of Kuwait, Saudi Arabia, and Norway. According to the test's results (with drift only) and (with drift and trend), all the variables in the models appear to be stationary at their differences but

with different levels of statistical significance. Also, Table 2 shows the results of Phillips-Perron unit root test for the models, and similar to the results of ADF test, variables are all stationary at their differences and with different levels of statistical significance. Therefore, the three models appear to be statistically free from unit root that causes disturbances in the models estimation and spurious models (Dickey and Fuller, 1979; Phillips and Perron, 1988).

Table 1: ADF Unit Root Test- Drift Only/ Drift and Trend (Kuwait, Saudi Arabia, and Norway)

(ADF)- With Drift Only				(ADF)-With Drift & Trend					
Country	Variables	ADF-Stat. (Level)	Lags	ADF-Stat. (Diff.)	Lags	ADF-Stat. (Level)	Lags	ADF-Stat. (Diff.)	Lags
Kuwait	EX	-2.041**	[1]	-3.548***	[2]	-1.859	[1]	-3.882**	[2]
	(r)	-3.702***	[1]	-4.015***	[2]	-4.274**	[1]	-4.350***	[2]
	OFDI	-1.244	[1]	-3.278***	[2]	-1.891	[1]	-3.289*	[2]
	Log PE	-1.149	[1]	-3.420***	[2]	-2.156	[1]	-3.359*	[2]
	IFDI	-2.295**	[1]	-5.339***	[2]	-3.152	[1]	-5.882***	[2]
	Log PR	-1.140	[1]	-4.616***	[2]	-2.102	[1]	-4.940***	[2]
	OPENNESS	-2.904***	[1]	-3.293***	[2]	-3.236*	[1]	-3.238*	[2]
	FE	-4.194***	[1]	-5.047***	[2]	-4.890***	[1]	-4.961***	[2]
Saudi Arabia	EX	-10.917***	[0]	-***	[0]	-9.455***	[0]	-***	[2]
	(r)	-1.911**	[1]	-3.811***	[2]	-4.592*	[1]	-3.625**	[2]
	OFDI	-0.102	[1]	-4.964***	[2]	-1.067	[1]	-4.873***	[2]
	Log PE	-0.794	[1]	-4.749***	[2]	-2.372	[1]	-4.645***	[2]
	IFDI	-2.013**	[1]	-3.219***	[2]	-2.565	[1]	-3.260*	[2]
	Log PR	-0.289	[1]	-4.412***	[2]	-2.771	[1]	-4.307**	[2]
	OPENNESS	-1.567*	[1]	-4.953***	[2]	-2.118	[1]	-4.939***	[2]
	FE	-2.588***	[1]	-3.851***	[2]	-2.603	[1]	-3.582*	[2]
Norway	EX	-2.847***	[3]	-3.405***	[4]	-2.348	[3]	-3.321*	[4]
	(r)	-0.032	[3]	-5.565***	[4]	-2.658	[3]	-5.448***	[4]
	OFDI	0.391	[3]	-3.433***	[4]	-0.937	[3]	-3.329*	[4]
	Log PE	-1.384*	[3]	-3.984***	[4]	-1.636	[3]	-3.942**	[4]
	IFDI	-0.474	[3]	-3.314***	[4]	-2.269	[3]	-3.566*	[4]
	Log PR	-2.345**	[3]	-4.517***	[4]	-2.505	[3]	-4.420***	[4]
	OPENNESS	-2.811***	[3]	-3.361***	[4]	-2.546	[3]	-3.282*	[4]
	FE	-2.141**	[3]	-3.127***	[4]	0.026	[3]	-3.140*	[4]

***1% significance ** 5% significance *10% significance. ADF (in difference) are expressed as first difference of the variable for Kuwait, and second difference of the variables for Saudi Arabia and Norway. Number of lags is chosen based on Akaike Information Criterion. For Saudi Arabia's Model, ADF with difference for the variable EX is excluded corresponding to the variable's data.

Table 2: P.P Unit Root Test-With Trend (Kuwait, Saudi Arabia, and Norway)

Phillips-Perron (with Trend)					
Country	Variables	P.P t-stat. (level)	Lag	P.P t-stat. (diff.)	Lag
Kuwait	EX	-1.924	[3]	-5.585 ***	[3]
	(r)	-2.677	[3]	-4.450 ***	[3]
	OFDI	-2.638	[3]	-7.695 ***	[3]
	Log PE	-2.756	[3]	-7.388 ***	[3]
	IFDI	-5.332 ***	[3]	-14.846 ***	[3]
	Log PR	-2.249	[3]	-7.279 ***	[3]
	OPENNESS	-2.872	[3]	-5.346 ***	[3]
	FE	-4.435 ***	[3]	-7.595 ***	[3]
Saudi Arabia	EX	-10.917 ***	[0]	- ***	[0]
	(r)	-1.911 **	[1]	-3.811 ***	[2]
	OFDI	-0.102	[1]	-4.964 ***	[2]
	Log PE	-0.794	[1]	-4.749***	[2]
	IFDI	-2.013 **	[1]	-3.219 ***	[2]
	Log PR	-0.289	[1]	-4.412***	[2]
	OPENNESS	-1.567 *	[1]	-4.953***	[2]
	FE	-2.588***	[1]	-3.851***	[2]
Norway	EX	-1.691	[3]	-8.047***	[3]
	(r)	-2.445	[3]	-10.627 ***	[3]
	OFDI	-1.740	[3]	-11.870 ***	[3]
	Log PE	-2.034	[3]	-9.161***	[3]
	IFDI	-3.504 **	[3]	-4.581***	[3]
	Log PR	-2.602	[3]	-12.987 ***	[3]
	OPENNESS	-2.226	[3]	-9.613***	[3]
	FE	-0.689	[3]	-14.150 ***	[3]

*** 1% significance ** 5% significance * 10% significance. P.P (diff.) are expressed as first difference for Kuwait and as second difference for Saudi Arabia and Norway. Numbers of lags are chosen based on Newey-West selection criterion

Since ADF and P.P unit root tests show that all variables in the three models are stationary at their first or second differences, the cointegration test is performed in order to investigate the existence of a long-run relationship among the variables in the models (Johansen, 1988). Table 3 shows the results of Johansen cointegration tests for the models of Kuwait, Saudi Arabia, and Norway. Johansen cointegration test shows that all the variables in the models are cointegrated at 5% significance. Therefore, all the variables in the models show a statistically significant long-run relationship between each independent variable and FDI outflows. Hence, it is feasible to study the short-run relationship between the variables and FDI outflows, as well as, the models' equilibrium.

Table 3: Johansen Cointegration Tests (Kuwait, Saudi Arabia, Norway)

Country	Hypothesis	Eigenvalue	Statistic	0.05 Critical Value	Prob.
Kuwait	Trace Statistic Test				
	r>=1	0.7528	146.86	117.70	0.00
	r=2	0.6362	99.34	88.80	0.01
	r=3	0.559	64.94	63.87	0.04
	Maximum Eigenvalue Test				
	r>=1	0.7528	47.52	44.49	0.02
	r=2	0.6362	34.38	38.33	0.13
	r=3	0.559	27.68	32.12	0.15
	Saudi Arabia	Trace Statistic Test			
r>=1		0.7913	93.64	83.94	0.01
r=2		0.5411	51.33	60.06	0.22
r=3		0.4657	30.29	40.17	0.34
Maximum Eigenvalue Test					
r>=1		0.7913	42.32	36.63	0.01
r=2		0.5411	21.03	30.44	0.45
r=3		0.4657	16.93	24.16	0.35
Norway		Trace Statistic Test			
	r>=1	0.7838	161.34	117.71	0.00
	r=2	0.6981	109.26	88.80	0.001
	r=3	0.5686	68.54	63.88	0.019
	Maximum Eigenvalue Test				
	r>=1	0.7838	52.09	44.49	0.01
	r=2	0.6981	40.72	38.33	0.03
	r=3	0.5686	28.59	32.12	0.13

The error correction model is applied after estimating the existence of long-run relationship among the variables in the models. The ECM estimations detect the variables' short-run effects on the model and the speed of adjustments of the dependent variables toward equilibrium after a shock. Since the general form of the error correction model is based on a single equation, the ECM single equation model is applied on each independent variable in the model individually.

Table 4 illustrates the estimations of the error correction models for each variable in the models. For Kuwait's model, it shows that the variables (r), Log PE and IFDI are individually statistically significant at 5%, 10%, and 1%, respectively. The variables (r) and Log PE have negative effects on the changes in OFDI which are consistent with the economic theory and expected sign. The negative relationship between interest rate

and OFDI emphasizes the theory of interest rate to be associated with higher saving rate which has a negative impact on FDI outflows.

Also, the negative relationship between public expenditure and OFDI shows that the higher the domestic spending, the lower the FDI outflows. Since Log PE is 10% significant in the model, Kuwait's public expenditure is expected to have a minor effect on OFDI. This can be explained as the majority of Kuwait's public expenditures are current expenditures (such as spending on subsidies and wages) rather than capital expenditure. With regards to the variable IFDI, it shows an opposite sign from economic theory because it shows that the short-run changes in IFDI affect the changes in OFDI negatively. The negative relationship between Kuwait's IFDI and OFDI occurs as a result of the low levels of IFDI in Kuwait and lack of attraction of foreign investment which generate low ownership advantage that increases OFDI. The error correction coefficients in all the estimated ECM models are in the expected hypothetical negative sign, within the interval $-1 < \beta_1 < 0$, and statistically significant indicating that the model is in equilibrium.

For Saudi Arabia, Table 4 shows the error correction estimation which indicates that the variable IFDI is the only individually statistically significant variable in the model at 5% significance, and its sign is consistent with the economic theory. This result emphasizes that the inflows of capital, human capital, and know-how to the country contributes in increasing the ownership advantage and efficiency of domestic investment and hence increasing OFDI. However, all the other variables in the model appear to be individually statistically insignificant. Even though the error correction coefficients are all significant and match the expected negative sign, the corrections overshoot the long run equilibrium because ECM values are not within the interval $-1 < \beta_1 < 0$. Therefore, Saudi Arabia's model is expected to have spurious relationship among its variables.

As for Norway, the error correction models estimated in Table 4 show that the variables (r), IFDI, Log PR, and Log PE are individually statistically significant at 5%, 1%, 5%, and 10%, respectively. All coefficients estimated at Norway's model match the expected sign and economic theory. The negative relationship between Norway's interest rate and OFDI represents the phenomenon of high interest rate

indicating higher profitability from saving and higher costs of capital which discourages investing. Also, the estimation shows a positive relationship between IFDI and OFDI which matches the theory of ownership advantage and inter-linked relationship between country's inwards and outward FDI flows. Similar to Kuwait's model, public expenditure in Norway has a negative relationship with OFDI indicating that higher government spending lowers the surplus available for outward investment and it doesn't have a highly robust statistical significance. For the variable Log PR, the ECM estimation shows a positive relationship between government revenues and FDI outflows which is consistent with the theory of higher income of revenues to be associated with higher OFDI opportunities. Table 4 also shows that the error correction coefficients are all significant and negative, but not within the interval $-1 < \beta_1 < 0$ indicating that the error corrections overshoot the long run equilibrium.

Table 4: Error Correction Models (Kuwait, Saudi Arabia, and Norway)

Country	Variables	Constant	Coefficient	t-statistic	Error Correction	Error Correction t-statistic
Kuwait	Δ EX	-53.95	11132.45	0.98	-0.565	-1.99 *
	Δ (r)	-79.45	-4836.75	-2.55 **	-0.558	-2.19 **
	Δ Log PE	12.40	-1973.41	-1.97 *	-0.484	-1.85 *
	Δ IFDI	-47.72	-1.24238	-2.88 ***	-0.481	-1.94 *
	Δ Log PR	-49.51	-539.0557	-1.04	-0.567	-2.00 *
	Δ OPENNESS	-62.41	33.35064	0.04	-0.491	-1.76 *
	Δ FE	-60.03	-4725.73	-0.61	-0.555	-1.88 *
Saudi Arabia	Δ EX	-91.45	-16750.97	-0.15	-1.826	-5.99 ***
	Δ (r)	-86.87	2053.971	1.05	-1.686	-5.19 ***
	Δ Log PE	-82.59	-580.0270	-0.33	-1.798	-5.73 ***
	Δ IFDI	-72.13	0.1154936	2.40 **	-1.603	-5.55 ***
	Δ Log PR	-86.86	1530.683	1.39	-1.714	-5.65 ***
	Δ OPENNESS	-93.25	3860.675	0.68	-1.779	-5.77 ***
	Δ FE	-89.83	1019.213	0.20	-1.827	-5.99 ***
Norway	Δ EX	-332.15	521.0606	0.02	-1.77	-5.63 ***
	Δ (r)	-373.31	-16943.83	2.38 **	-1.88	-6.50 ***
	Δ Log PE	-360.06	-64122.83	-1.86 *	-1.85	-6.22 ***
	Δ IFDI	-0.3536	0.9009604	4.44 ***	-2.11	-8.29 ***
	Δ Log PR	-363.16	127150.9	2.20 **	-1.92	-6.47 ***
	Δ OPENNESS	-339.65	4872.002	0.28	-1.79	-5.62 ***
	Δ Log OP	-338.57	10953.19	0.51	-1.76	-5.71 ***

***significant at 1% ** significant at 5% * significant at 10%

In addition to the ECM that estimates the short-run relationship between each independent variable in the model and OFDI, Granger causality test is estimated to examine the direction of causality among the dependent variable and the independent variables, if a relationship exist among them. Table 5 shows the Granger causality estimation for the models of Kuwait, Saudi Arabia, and Norway. For Kuwait's model, Table 5 shows a Granger causality relationship between IFDI and OFDI. However, the relationship between IFDI and OFDI in Kuwait is not consistent with the economic theory based on ECM estimations. The cause of this issue is the low level of FDI inflows in Kuwait throughout the years in comparison to the level of Kuwait's FDI outflows. Even though the relationship between IFDI and OFDI is negative, Kuwait's history shows the initial causality relationship between them because the initial stages of Kuwait's economic growth was created by foreign capital inflows in a form of labor and capital to invest in oil extraction and to operate in different sectors in Kuwait. Granger causality test also shows that OFDI Granger causes interest rate. This relationship illustrates that interest rate or cost of capital is affected by the degree of investment abroad. Therefore, the amount of Kuwait's investment abroad causes the amount of Kuwait's domestic investment because domestic investment is determined by the cost of capital in the country.

For Saudi Arabia, since the variable IFDI is the only statistically significant variable in the model based on the ECM estimations, the indication of the bilateral causality relationship between IFDI and OFDI is considered valid. The direction and the sign of the relationship between Saudi Arabia's OFDI and IFDI are consistent with the economic theory and with the ECM estimations. The bilateral causality relationship between IFDI and OFDI is accurate because the capital inflows among countries provide it with necessary ownership advantages which in turn strengthen its economic performance, and enables it to invest abroad and utilize the advantages of FDI instead of trade. Therefore, the Granger causality relationship indicates that Saudi Arabia's OFDI supports the hypothesis of IFDI-led OFDI, and its IFDI supports the hypothesis of OFDI- led IFDI.

With regards to Norway, Table 5 shows that there is Granger causality relationship between Norway's IFDI and OFDI. This result is also consistent with the hypothetical sign of the economic theory and the

ECM estimations. As stated earlier, the country's attraction of foreign capital inflows increases its capital outflows towards foreign countries. Thus, the Granger causality relationship between Norway's IFDI and OFDI also indicates that Norway's OFDI supports the hypothesis of IFDI-led OFDI.

Table 5: Granger Causality Tests (Kuwait, Saudi Arabia, and Norway)

Null Hypothesis	Kuwait		Saudi Arabia		Norway	
	Granger Causality Statistic	Result	Granger Causality Statistic	Result	Granger Causality Statistic	Result
OFDI does not Granger cause (r)	6.32	reject	0.95	Cannot reject	2.98	Cannot reject
OFDI does not Granger cause EX	0.77	Cannot reject	0.06	Cannot reject	1.54	Cannot reject
OFDI does not Granger cause FE	2.23	Cannot reject	1.40	Cannot reject	1.85	Cannot reject
OFDI does not Granger cause IFDI	2.63	Cannot reject	8.83	reject	1.96	Cannot reject
OFDI does not Granger cause OPENNESS	1.49	Cannot reject	2.89	Cannot reject	2.35	Cannot reject
OFDI does not Granger cause PE	1.58	Cannot reject	3.42	Cannot reject	0.79	Cannot reject
OFDI does not Granger cause PR	2.41	Cannot reject	3.37	Cannot reject	1.27	Cannot reject
(r) does not Granger cause OFDI	2.84	Cannot reject	7.15	reject	0.99	Cannot reject
EX does not Granger cause OFDI	1.06	Cannot reject	0.06	Cannot reject	1.78	Cannot reject
FE does not Granger cause OFDI	1.71	Cannot reject	0.26	Cannot reject	2.10	Cannot reject
IFDI does not Granger cause OFDI	8.19	reject	3.87	reject	9.47	reject
OPENNESS does not Granger cause OFDI	3.34	Cannot reject	2.75	Cannot reject	2.01	Cannot reject
PE does not Granger cause OFDI	1.29	Cannot reject	2.49	Cannot reject	0.17	Cannot reject
PR does not Granger cause OFDI	2.57	Cannot reject	2.69	Cannot reject	0.19	Cannot reject

Number of lags is chosen based on Akaike Information Criterion

Comparison between Trends of OFDI from Kuwait, Saudi Arabia, and Norway

After implementing the empirical analysis for the home country macroeconomic determinants of OFDI in Kuwait, Saudi Arabia, and Norway, a comparison between the significant variables in Kuwait's model are compared with the trends in their counterparts in Saudi Arabia and Norway. The trend of Kuwait's public expenditure with respect to OFDI matches the trends in Saudi Arabia and Norway. This result emphasizes the theory that the increase in the country's government expenditure minimizes the opportunity for investing abroad, particularly investment from state owned enterprises. However, the trend of Kuwait's interest rate with respect to OFDI matches the trend in Norway only. Kuwait and Norway shows the sign suggested by economic theory that the increase in domestic interest rate or savings is associated with a decrease in FDI outflows. On the other hand, the trend of the variable IFDI in Kuwait neither matches the economic theory nor the trend in Saudi Arabia and Norway.

Moreover, the Granger causality results show that the three models indicate a common causality relationship between the country's IFDI and OFDI emphasising that the country's investment abroad are led by its attraction of foreign investment. However, the relationship between Kuwait's OFDI and IFDI opposes the theoretical sign during the period under study. Moreover, Granger causality results for Saudi Arabia indicate that the country's OFDI is led by its IFDI. In addition, Kuwait's domestic investment or savings depend on its investment abroad; according to the empirical results obtained for Saudi Arabia and Norway, this outcome is not a feature of both cases.

Conclusion and Policy Recommendations

This paper empirically examines the home country macroeconomic determinants of OFDI from Kuwait, Saudi Arabia, and Norway as counterparts of developing and developed oil exporting economies. As Kuwait is referenced to be the oldest practitioner of abroad investment through establishing the sovereign wealth fund in early 1950s and being the main player of OFDI in the region, Kuwait is the pillar of this study. The empirical results show that the factors that have a significant impact on Kuwait's OFDI are interest rate, IFDI, and public expenditure. The

negative relationship between OFDI with interest rate and public expenditure indicates that the higher the domestic saving rate and the higher the government expenditure deters the country's FDI outflows. Although the estimated relationship between Kuwait's IFDI and OFDI is negative, the roots of Kuwait's gain of capacity to invest abroad were obtained from resource seeking foreign countries investing in Kuwait which enables it to invest abroad. In addition, the causality test estimates that Kuwait's OFDI follows the hypothesis of IFDI-led OFDI, and its domestic investment depends on its investment abroad. This result forms a critical phenomenon affecting Kuwait's overall economic performance. If the country's FDI outflows are controlling saving rate and hence domestic investment, the objective of FDI which is facilitating the country's investment and contributing to its economic growth is not achieved.

The comparison among the trends of Kuwait's home country macroeconomic determinants of OFDI with Saudi Arabia and Norway shows that Kuwait seem to have a partial symmetry with OFDI trends in Norway in terms of interest rate and public expenditure. However, the trend of IFDI in Kuwait does not match the trends of both Saudi Arabia and Norway due to the indigent amount of FDI attracted by Kuwait during the past years. Nevertheless, IFDI forms the base of Kuwait's OFDI due to its role in strengthening Kuwait's ownership advantages at the initial stage of investments and economic growth.

Based on the results obtained from this study, further research can be conducted in the field of home country macroeconomic determinants of OFDI for natural resource abundant countries by including a larger sample of countries, longer period of time, or different econometric techniques. Also, another idea to be considered for further research is choices of FDI locations from government owned MNEs by including a larger sample of countries or using firm level data from MNEs owned by SOE.

Several policies are proposed to maximize the returns and efficiency of Kuwait's OFDI and to improve the role of IFDI in Kuwait.

- Since the study shows that Kuwait's fiscal policy have an effect on OFDI, increasing Kuwait's capital spending could positively

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affect OFDI and IFDI in the long-run. That can be because capital spending creates investment opportunities which increases the surplus and consequently OFDI, and it attracts foreign investment.

- Kuwait's OFDI should take part in a variety of economic activities in order to have a diversified investment basket. For instance, investing in activities like manufacturing and commodity producing provides Kuwait with a certain degree of ownership advantage that is not maintained locally. Also, investing in a variety of economic activities reduces investment risks.

Kuwait should efficiently manage its domestic and outward investment to have efficient economic growth policy and diversified income because the empirical findings suggest an impact of OFDI on cost of capital. This can be done through utilizing revenues to generate value added investment and attract more foreign investment in Kuwait.

- Since Kuwait's IFDI is not effectively supporting its OFDI, streamlining "doing business" procedures, and changing the rules and regulations that govern IFDI regarding foreign ownership, investment licenses, and investment lands is necessary in creating an attractive investment environment for strategic investors and leading to effective IFDI which could increase OFDI.
- Since the development plan implemented by Kuwait requires the usage of revenues and specialization of expenditures to execute mega projects in Kuwait, OFDI will be highly affected by these projects in the short and long runs. As a consequence of the reformation of Kuwait's economy in terms of infrastructure and execution of mega projects, FDI inflows can be attracted which can also increase the opportunity of OFDI.

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