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MALAYSIA'S OUTWARD FDI: THE EFFECTS OF HOST MARKET SIZE AND HOME GOVERNMENT POLICY

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AUGUST 2010

ABSTRACT

MALAYSIA'S OUTWARD FDI: THE EFFECTS OF HOST MARKET SIZE AND HOME GOVERNMENT POLICY

This paper extends the empirical literature of Malaysia's outward FDI (OFDI) by considering the impact of foreign market size and home international reserves using multivariate cointegration and error-correction modeling techniques. The empirical results reveal that there is a positive long-run relationship between Malaysia's OFDI and its key determinants, viz. foreign market size, real effective exchange rate, international reserves and trade openness. The main findings suggest that apart from the market-seeking incentive and the adoption of outward-oriented policies, the Malaysian government could also encourage OFDI by implementing liberal policy on capital outflows. The present study provides policy implications for the country's economic development and the internationalization of Malaysian firms in the era of globalization.

JEL CLASSIFICATION CODES: F210

KEYWORDS: Outward FDI, Malaysia

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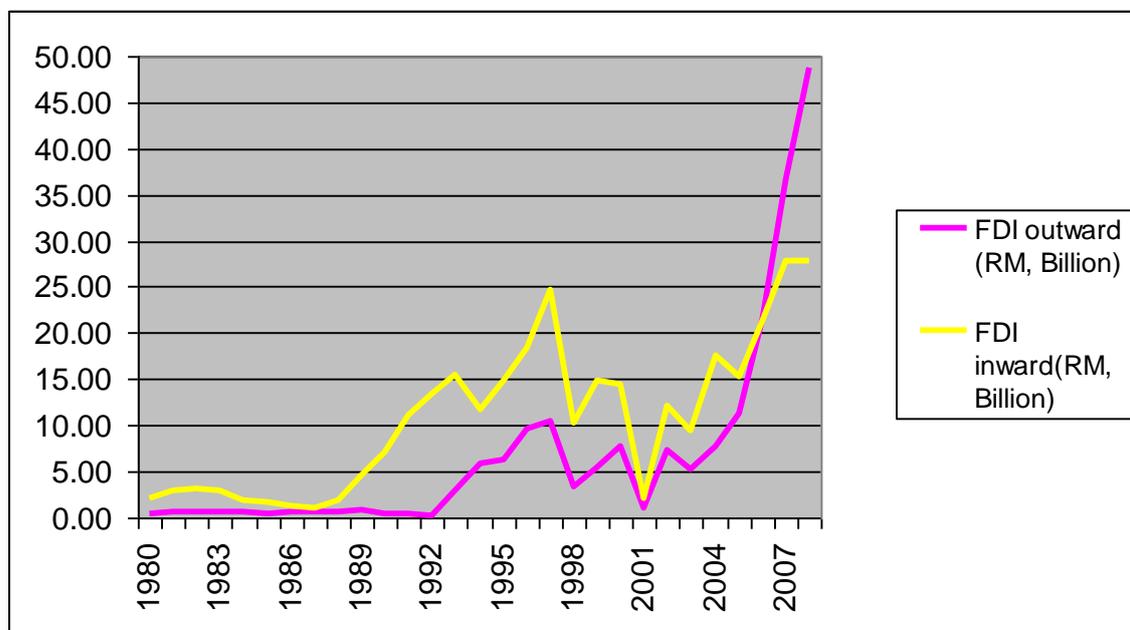Universiti Sains Malaysia
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1. INTRODUCTION

Prior to the 1970s, outward foreign direct investment (OFDI) from Malaysia was insignificant. Even in the 1970s, foreign investment by Malaysian companies was only in a negligible sum, which was largely concentrated in the finance and banking sectors of developed countries such as in the US and Australia (Ramasamy, 1998). The big leap in OFDI only began in the late 1990s. For instance, Malaysia's OFDI rose from a low of RM0.45billion in 1980 to RM10.41 billion in 1997, and a further rise to RM36.7 billion in 2007. As shown in Figure 1, for the first time in 2007, Malaysian outflows surpassed the inflow of FDI and this trend continued in 2008 and 2009, suggesting the economy is at stage three of the investment development path seeing that the nation has embarked on a higher level of economic development when the domestic firms had built up ownership advantages and expanded their operations abroad (Dunning and Narula, 1996). The drastic change from net recipients to net sources of FDI also reflects that Malaysia is no longer an attractive destination for multinational corporations (MNCs) because countries like the People's Republic of China (PRC), India and Vietnam, to name a few, pose a threat to the country's competitiveness as a host economy due mainly to their relative lower labor cost and larger market size. With competitive pressure from globalization as well as increasing trade openness in the country, Malaysian firms have to respond to these challenges by either relocating their production activities in the host countries so as to gain competitive/cost advantage and expand markets, or else they ought to move upstream to achieve higher value added and total factor productivity in the home country.

Figure 1: Malaysia's FDI inflows and outflows, 1980-2008.

Source: Bank Negara Malaysia, Monthly Statistics Bulletin

Moreover, government encouragement and liberal policy towards OFDI were also instrumental in inducing domestic firms to establish their production bases abroad (Buckley *et al.* 2007). For instance, the Malaysian government had been supportive of OFDI when Dr Mahathir was the Prime Minister, who urged Malaysian manufacturers to "relocate overseas, go large scale and shift into high technology" (Chan, 2005). Sim (2005) found in his interviews of twelve companies that government encouragement could play an influential role in the internationalization of these companies. Meanwhile, the Malaysian government was also encouraging both government-linked companies (GLCs) and private companies to venture abroad to foster the creation of successful Malaysian multinational corporations (MNCs) in the longer term so that they can become part of the global production network (see the Third Industrial Master Plan (IMP3) and the Ninth Malaysia Plan (9MP)). In fact, there were incentives[1] made available to Malaysian firms to invest abroad, especially those from industries that were no longer competitive (Ragayah, 1999; Sim, 2005; Tham, 2007; Ariff and Lopez, 2008). Another notable liberal policy implemented after the Asian currency crisis[2] was the liberalization of the capital account (e.g., easing restrictions on capital outflows) undertaken by Bank Negara Malaysia (BNM) (i.e. the Central Bank of Malaysia) with the aim of facilitating cross-border direct investment by domestic firms on one hand, and mitigating the appreciating pressures of the ringgit exchange rates arising from huge capital inflows during the post Asian currency crisis on the other (Hannoun, 2007; Khor, 2009). This process was guided by both the Financial Sector Master plan and the Capital Market Master plan, which were launched in 2001.

It is well recognized that pursuing OFDI could facilitate Malaysian firms to operate internationally and to improve their international competitiveness. By the same token, in response to diminished domestic investment opportunities owing to small domestic markets and constraints from domestic factors of production, the Malaysian firms can use it as a channel to expand their market base abroad and take advantage of an increasingly globalized economy. For instance, based on interviews with seven Malaysian companies, Ragayah (1999) found that finding new markets for business growth was cited as the main reason for Malaysian companies investing abroad. In addition, Hiratsuka (2006), who examined OFDI from Malaysia as part of the ASEAN[3] region, reported that cross-border direct investment in a developing country with a large market could be driven by both market- and efficiency-seeking[4] FDI. PRC is a good example where she has large markets with relatively abundant factors (e.g., land and labor). These findings support Dunning's (1977; 1993) Eclectic Paradigm, which asserts that one of the primary motives in which domestic firms invest abroad is to have better access to the markets of host countries and nearby countries. Therefore, market size is generally recognized as a significant determinant of FDI flows. As markets increase in size, so do the prospect for the efficient utilization of resources and the advantages of economies of scale. Previous studies, e.g. Dunning (1980), Kravis and Lipsey (1982),

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[1] The various tax incentives offered to Malaysian firms venturing abroad include tax exemption on income earned   overseas and remitted back in Malaysia; tax deduction for pre-operating business expenditure in pursuit of business ventures abroad.

[2] During the Asian currency crisis, BNM imposed capital controls and hence, OFDI was prohibited unless an approval was granted.

[3] ASEAN is an acronym for the Association of Southeast Asian Nations.

[4] Efficiency-seeking refers to Malaysian firms exploiting the opportunities (e.g. low input prices) in the region arising from regional investment agreements and bilateral free trade agreements.

Samsuddin (1994) and Billington (1999), have shown that FDI flows and market size are associated positively. The larger markets in PRC, India, and the Middle Eastern countries are currently the favorite investment destinations for Malaysian companies.

In retrospect, the upward exponential trend of cross-border direct investment by Malaysian MNCs poses an interesting empirical research question on what drives Malaysia's OFDI in both the short and long run because such empirical evidence for Malaysia is limited. By and large, existing studies on OFDI from Malaysia are mostly exploratory in nature based on case study or survey approach due to a lack of secondary data (e.g. Ragayah, 1999; Sim, 2005; Tham, 2007; Kitchen and Ahmad, 2007, Ariff and Lopez, 2008).[5] To our knowledge, only Kueh *et al.* (2008) and Kueh *et al.* (2009) ascertained the linkages between OFDI from Malaysia and selected macroeconomic determinants using time-series econometric method from 1991Q1 till 2004Q4. The former study found that Malaysia's OFDI was positively related to the income of Malaysia, her real effective exchange rate and trade openness in both the short and long run, while the latter study showed that Malaysian interest rate had a positive linkage with her OFDI in the long run only. However, data on OFDI used in both studies were interpolated due to unavailability of quarterly data in earlier period.[6] Quarterly outward FDI data were made available since 1999 when Bank Negara Malaysia compiled its Balance of Payments according to the methodology set forth in the fifth edition of the Balance of Payments Manual (BPM5) of the IMF.[7]

For the above reasons, our paper aims to model the effects of foreign market size and government policy on liberalizing capital outflow which have not been considered in the literature on Malaysia's OFDI, given that they can be readily proxied and are potential factors that could influence a firm's decision on investment abroad. We used quarterly data released by Bank Negara Malaysia from 1999Q1 till 2008Q4. Hence, the contribution of the present study is to fill this research gap by examining empirically the extent to which they can explain Malaysia's OFDI behavior using published data base. The findings not only can help us to understand the underlying economic relationship but also to draw economic policy implications for Malaysia's OFDI especially in the era of globalization**.**

The rest of the paper is organized as follows. Section 2 specifies the theoretical model of Malaysia's OFDI. It also deals with the data issues pertaining to the variables specified in the model. Section 3 discusses the empirical results, and Section 4 provides the main conclusions with some policy implications.

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[5] The respondents of the case study findings were small e.g., seven in both Ragayah (1999) and Tham (2007), twelve in Sim (2005) and five in Kitchen and Ahmad (2007).

[6] From an email correspondence with one of the coauthors of Kueh et al.(2008) and Kueh et.al (2009), the quarterly time-series OFDI data used by them were obtained based on an interpolation technique suggested by Gandolfo (1981).

[7] To our knowledge, international organizations such as UNCTAD do not compile quarterly outward FDI data for Malaysia prior to1999.

2. MODEL SPECIFICATION AND DATA

There are several key factors which could influence a firm's decision to invest abroad.[8] Market size of the host country (FMS) has, by far, been the most widely accepted determinant of FDI flows. According to the market-size hypothesis, a large market tends to have higher profit opportunities than a small market (Buckley *et al.*, 2007). Furthermore, from a firm's point of view, a large market size is crucial for efficient utilization of resources and exploitation of economies of scale (Scaperlanda and Mauer, 1969). Generally, market size tends to have a positive effect on FDI flows. The measure of market size is straight forward. It can be computed either based on the host country's total income or GDP growth. The foreign market size variable in this study is constructed using the trade-weighted real GDP of Malaysia's top six destinations of FDI (i.e., the U.S., Singapore, Indonesia, the United Kingdom, Hong Kong and China).[9] The choice of using trade (i.e. sum of Malaysia's exports and imports) as a weighting scheme is judged in relation to the importance of trade between Malaysia and her trading partners.

The government policies, to some extent, could influence the decisions of foreign investment by Malaysian firms as well as the magnitude of OFDI. For instance, OFDI requires approval from BNM, predominantly through the foreign exchange control. We postulate that given a high level of international reserves, BNM tends to approve an OFDI project than when the level of international reserves is low. In addition, one avenue for BNM to reduce the exchange rate pressure arising from capital inflows and trade surplus is to encourage both state-owned and private enterprises to invest abroad via OFDI (Hannoun, 2007; Khor, 2009). For instance, the aftermath of the Asian Currency Crisis saw the built-up of international reserves in Malaysia following the strong merchandise trade surpluses and a resumption of capital inflows, policies on outward investment were more liberal after the Asian Currency Crisis than before. Domestic companies were allowed to invest abroad using foreign currency funds maintained in Malaysia or offshore (BNM, 2006). Liberal policy on capital outflows is postulated to generate a positive effect on OFDI. To examine the effect of liberal policy on capital outflows, following Cheung and Qian (2009), the international reserves (RES) held by BNM is proposed as its proxy variable.

From previous studies on Malaysia's OFDI (e.g., Kueh *et al.* (2008) and Kueh *et al.* (2009)), it was found that an increase in trade openness of the host economy (O) was instrumental in encouraging OFDI. For instance, a higher degree of trade openness provides exporting firms more exposure in terms of learning about the foreign market and relevant regulations and standards, overcoming linguistic, cultural and legal differences, locating foreign buyers, organizing foreign operations and marketing their products internationally (see Kogut, 1983; Kim, 1997; Bernard and Wagner, 2001), which is seen to play an important role in encouraging OFDI, especially when it has become a more viable strategy than exporting. Trade openness is expected to be

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[8] According to Dunning (1977, 1993), the three motives of FDI are foreign market seeking, efficiency seeking and resource seeking. Due to data constraint, the present study only tests the first motive.

[9] One can infer the direction of investment which is available in the Monthly Statistics Bulletin, Bank Negara Malaysia.

positively associated with OFDI. The degree of trade openness can be measured by the home country's trade (i.e. the sum of exports and imports) as a proportion of its GDP.

Another potential determinant of OFDI is the ringgit exchange rates. It can be rationalized that firms from countries with strong currencies tend to have financial advantage than firms from countries with weak currencies as far as financing or acquiring foreign operations is concerned (Kohlhagen, 1997). Besides, as pointed out by Kyrkillis and Pantelidis (2003), home currency appreciation tends to reduce the nominal competitiveness of exports and increase the desire for domestic firms to invest abroad in order to serve overseas markets. Therefore, an appreciation of exchange rate is postulated to have a positive effect on OFDI. In this study, the real effective exchange rate (REER) index of the home country is proposed as a proxy for the ringgit exchange rates.

Based on the theoretical discussions and previous studies, we suggest the following model can be written as:

$$OFDI_t = \alpha_t + \beta_1 FMS_t + \beta_2 RES_t + \beta_3 O_t + \beta_4 REER_t + \varepsilon_t \quad (1)$$

where $OFDI_t$ is Malaysia's outward FDI, FMS_t is foreign market size, RES_t is the level of international reserves held by BNM, O_t is Malaysia's trade openness, $REER_t$ is real effective exchange rate, and ε_t is the error term. The expected sign for all the coefficients β_1, β_2, β_3, and β_4 is positive.

In general, OFDI data can be analyzed in terms of either as a stock or flow variable. Even though the former has been widely used in empirical analyses, the present study considers the latter because it can capture the net changes in assets or new investment. BNM has since 1999 only released and published the quarterly FDI outflows in its *Monthly Statistical Bulletin* when it compiled its balance of payments according to the methodology set forth in the BPM5 (i.e., the fifth edition of the *Balance of Payments Manual*) of the IMF.[10] Hence, the sample period for this study is from 1999Q1 to 2008Q4.

The data on Malaysia's OFDI, trade and international reserves were collected from BNM's *Monthly Statistical Bulletin, w*hile the time-series data for real GDP and real effective exchange rate index were retrieved from International Monetary Fund's (IMF's) *International Financial Statistics*. All the variables meant for the estimation regressions were expressed in natural logarithmic terms.

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[10] Note that data on FDI captures approved investment rather than actual investment. The Economic Report 1995/96 (by Ministry of Finance, Malaysia) further cautioned that it only captures the outflows of more than RM50,000 (Ragayah, 1999).

3. METHODOLOGY AND EMPIRICAL RESULTS

The time series properties (i.e. the degree of integration, $I(d)$) of all the variables in Equation (1) will be examined by the two commonly used methods i.e. Augmented Dickey-Fuller (ADF) and the Phillips and Perron (PP) tests. If the variables are stationary in levels, i.e. $I(0)$, ordinary least square (OLS) method can be used to estimate the parameters of Equation (1). If all the variables are $I(1)$, then the cointegration approach is appropriate to examine the long-run relationship between OFDI and the stated determinants. It can be done by means of the cointegration tests such as the Johansen multivariate cointegration tests (Johansen, 1988, 1991; Johansen and Juselius, 1990, 1992, and 1994), which consist of two likelihood ratio test statistics – the trace test and the maximum eigenvalue test. They can be used to test the presence of potential cointegrating vectors among the non-stationary series in a model.

If OFDI variable is found to be cointegrated with its determinants, an Error Correction Model (ECM) is applicable in order to capture both long-run relation via the speed of adjustment, and the short-run dynamics of the OFDI model (Engle and Granger, 1987). More precisely, the ECM consists of two components: the Error-Correction Term (ECT) to capture the speed of adjustment towards long-run deviation from the equilibrium linkage between OFDI and its determinants, and the second component consists of a set of dynamics variables (variables in first-differences) as shown in Equation (2):

$$\Delta LOFDI_t = \beta_t + \sum_{j=1}^{p} \beta_1 \Delta LOFDI_{t-j} + \sum_{j=0}^{p} \beta_2 \Delta LFMS_{t-j} + \sum_{j=0}^{p} \beta_3 \Delta LRES_{t-j}$$
$$+ \sum_{j=0}^{p} \beta_4 \Delta LO_{t-j} + \sum_{j=0}^{p} \beta_5 LREER_{t-j} + \alpha ECT_{t-1} + \varepsilon_t \qquad (2)$$

The significance of the estimated coefficient of the ECT term, α, reflects a long run causality from the independent variables to OFDI, and it also measures how quickly OFDI adjusts to disequilibrium in a single period. The speed of adjustment of OFDI to restore long-run equilibrium after some short-run changes in its regressors is equal to one divided by the estimated α.

Table 1 presents the ADF and PP unit root test results. Both tests cannot reject the null hypothesis of a unit root, suggesting all the candidate variables are non-stationary, or $I(1)$. Subsequently, the Johansen's multivariate cointegration tests are applied to investigate the long-run relationship among the non-stationary variables. Given a limited sample size and following the general rule of thumb, a maximum lag length of four is sufficient to be imposed on the VAR (i.e. vector autoregressive) model. The Akaike Information Criterion (AIC) suggests two-lags or VAR(2) model.

Table 1: The Unit Root Test Results

Series	ADF		PP	
	In levels	In first differences	In levels	In first differences
LOFDI	-2.12	-4.89***	-1.98	-9.62***
LFMS	-2.05	-6.24***	-0.78	-9.92***
LRES	-0.62	-3.68***	-0.69	-3.79***
LREER	-1.41	-4.74***	-1.54	-4.59***
LO	-1.16	-6.70***	-1.16	-6.73***

Note: *LOFDI* denotes natural log of outward FDI, *LFMS* denotes natural log of host countries market size, *LRES* denotes natural log of international reserves, *LREER* denotes natural log of real effective exchange rate index, *LO* denotes natural log of trade openness. *** denotes rejection of the unit root null at the 1% significance level based on MacKinnon's (1991) critical values.

Table 2 reports the results of Johansen's multivariate cointegration maximum likelihood tests. Both tests suggest at least one cointegrating relation between LOFDI and its determinants. The trace test statistics fail to reject the null hypothesis of the existence of two cointegrating equations, while the maximum eigenvalue test statistics indicate the null hypothesis of one cointegrating equation cannot be rejected. As noted by Johansen and Juselius (1990), the maximum eigenvalue test is superior to the trace test in terms of power and vigorous outcomes. Hence, it could be concluded that there exists a stable long-run relationship of Malaysia's OFDI with its major determinants of foreign market size, international reserves, real effective exchange rate and trade openness.

Table 2: Johansen and Juselius Cointegration Test Results

Hypothesized number of CE	λ_{trace} statistics	5% critical value	λ_{Max} statistics	5% critical value
None	65.89**	47.85	37.63**	27.58
At most 1	30.26**	29.79	17.96	21.13
At most 2	10.29	15.49	10.03	14.26
At most 3	0.27	3.84	0.27	3.84

Note: CE denotes cointegrating equation; ** denotes 5% significance level.

For comparison purposes, we also performed the Engle-Granger residual-based test to reaffirm the existence of cointegrating relation between LOFDI and its determinants. [11] Table 3 presents the Engle-Granger tau-statistic and normalized autocorrelation coefficient (z-statistic) for residuals obtained from each series in the group as the dependent variable in a cointegrating regression. Both test statistics reject the null hypothesis of no cointegration with the residual from *LOFDI* at the 10% level. On balance, these test results are found to be consistent with the trace test result that there is at most one cointegrating equation among the variables under study.

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[11] The latest version of EViews, which is EViews 7, allows one to conduct theEngle-Granger cointegration test in groups by treating each series as dependant variable. We are fully aware that there are disadvantages of using the Engle-Granger procedure to test for cointegration in a single equation framework as opposed to the multivariate cointegration methodology, which enables testing cointegration in a system of equations.

Table 3: Engle-Granger Residual-Based Test

Dependent	tau-statistic	Probability	z-statistic	Probability
LOFDI	-4.69	0.0734*	-28.02	0.0604*
LFMS	-2.61	0.7817	-23.11	0.1709
LRES	-3.06	0.5836	-15.83	0.5541
LREER	-2.43	0.8440	-10.51	0.8550
LO	-2.68	0.7549	-12.09	0.771

* MacKinnon (1996) *p*-value

The long-run parameters of Equation (1) are then estimated by the OLS, the fully modified OLS (FOLS) and the Dynamic OLS (DOLS), respectively. Their estimations are shown in Table 4.[12] Since all variables are estimated in natural logarithm, hence, the estimated coefficient of each parameter can be interpreted as a long-run elasticity. The estimated elasticity parameters show that the variables foreign market size, international reserves, exchange rate and trade openness are statistically significant at least at 5% level of significance. In fact, all the estimated elasticities have the expected sign based on the three different estimators, confirming they are the major determinants of Malaysia's OFDI. For instance, the long-run foreign market size, real effective exchange rate and trade openness elasticities have magnitudes greater than one, implying Malaysia's OFDI does respond strongly to the changes in these variables. Particularly, the long-run estimate of foreign market size elasticity of Malaysia's OFDI corroborates the case studies findings by Ragayah (1999), Tham (2007) and Hiratsuka (2006) that one of the main determinants of Malaysian corporations investing abroad is to seek new markets in order to expand the market base, to diversify risks and to seek higher returns on investment abroad. However, the estimated international reserve elasticity of Malaysia's OFDI varies from 0.91 (OLS) to 0.98 (FMOLS), which barely misses the unit elasticity threshold of 1, implying the liberal policy on capital outflows is still effective in encouraging OFDI of Malaysia.

Table 4: Long-run estimates

	OLS	FMOLS	DOLS
Constant	-48.92	-50.53	-92.78
	(-3.92)***	(-4.48)***	(-3.87)***
LFMS	1.56	1.28	3.40
	(1.92)*	(1.76)*	(2.26)**
LRES	0.91	0.98	0.95
	(4.33)***	(5.42)***	(3.05)***
LREER	4.65	5.61	7.68
	(2.57)**	(3.57)***	(2.99)***
LO	2.42	2.81	5.08
	(2.04)**	(2.71)**	(2.39)**
Adjusted R^2	0.72	0.71	0.78

Note: t-statistics in parentheses. * denotes significant at 10%, ** at 5% and *** at 1%.

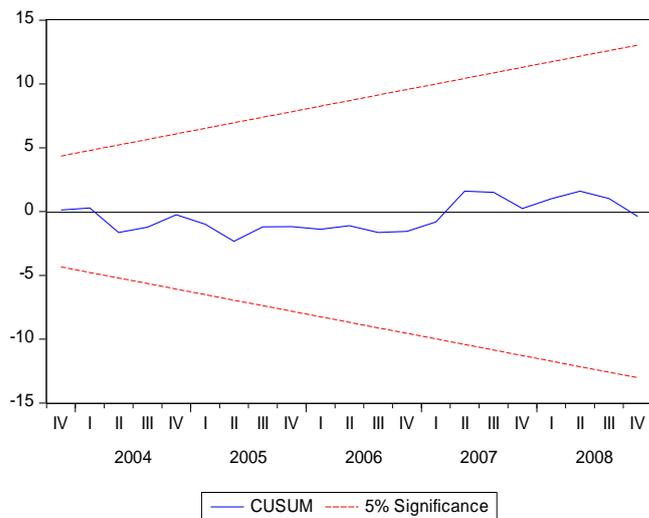[12] As suggested by Abeysinghe and Tan (1999), in a small sample size, OLS is still the best estimation technique for the ECM when one cointegrating equation is detected. Phillips and Hanson (1990), and Hargreaves (1994), nevertheless, are in favor of the Fully Modified (FM) estimator.

Table 5 provides the estimation results of the error-correction regression for OFDI. The estimated model is robust based on a set of diagnostic tests. The estimated residuals have normal distribution and are serially uncorrelated. The recursive estimates of CUSUM and CUSUM of square tests indicate that the model is stable over the sample period as the cumulative sums fall within the two standard error bounds. The estimated coefficient of the ECT is statistically significant with a negative sign, which confirms that there exists a cointegrating relationship among FDI and its determinants (Kremers, *et al.*, 1992). The negative sign of the ECT indicates that OFDI may deviate from its long-run equilibrium temporarily, but, it will adjust towards equilibrium in the long run within 1.3 quarters. In particular, Malaysia's OFDI is more responsive to the changes in foreign market size, ringgit exchange rates and trade openness than international reserves in the short run based on the magnitude of their estimated coefficients.
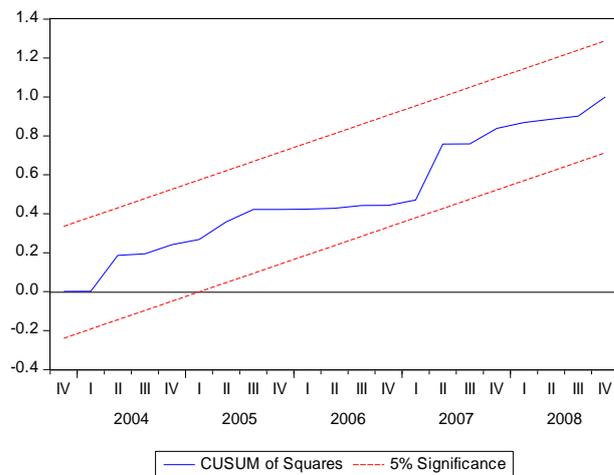
Table 5: Estimation of Error Correction Model for LOFDI

Regressor	
Constant	-0.064(-0.91)
ECT_{t-1}	-0.74 (-2.93)***
$\Delta LOFDI_{t-1}$	0.045(0.19)
$\Delta LOFDI_{t-2}$	0.273(1.58)
ΔLMS_t	2.25(2.28)**
ΔLMS_{t-1}	2.70(3.04)***
ΔLMS_{t-2}	2.40 (3.07)***
$\Delta LRES_t$	0.52 (1.75)*
$\Delta LRES_{t-1}$	1.05 (1.13)
$\Delta LRES_{t-2}$	-1.37 (-1.24)
$\Delta LREER_t$	5.54 (1.85)*
$\Delta LREER_{t-1}$	-1.58 (-0.45)
$\Delta LREER_{t-2}$	-0.46 (-0.12)
ΔLO_t	5.29 (2.86)***
ΔLO_{t-1}	3.21 (1.84)*
ΔLO_{t-2}	-3.86 (-2.65)**
R^2	0.80
Adjusted R^2	0.66
F-statistics (p-value)	5.71 (0.00)
Jarque-Bera (p-value)	0.64 (0.725)
Ramsey's RESET: *F*-statistics(p-value) (2 lags)	1.67 (0.21)

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Note: *** denotes 1 per cent level of significance, ** denotes 5 per cent level of significance and * denotes 10 per cent level of significance. Parentheses indicate t-statistics.

4. CONCLUSIONS AND POLICY IMPLICATIONS

Malaysia had experienced a drastic increase in OFDI in the 1990s, and this trend persisted in the late 2000s. However, most studies on this phenomenon were based on case study findings due to a lack of published data on OFDI from Malaysia. As highlighted by Sim (2005, p.49), "The empirical basis is obviously limited and has the limitations inherent in any case study approach[13]". Given the availability of the quarterly OFDI data published by BNM's *Monthly Statistical Bulletin* since 1999, this paper attempts to explain what determines Malaysia's OFDI in the short and long run. The present study also incorporates potential determinants such as foreign market size and international reserves into the theoretical model which have not been considered in the literature on Malaysia's OFDI. The cointegration results suggest that there is strong evidence of a positive long-run relationship between Malaysia's OFDI and its key determinants, viz. foreign market size, international reserves (which is a proxy for the extent of liberal policy on capital outflows), the real effective exchange rate (which is a proxy for the ringgit exchange rates), and the home country's trade openness. In addition, these findings are also supported by the error-correction results on the grounds that a long-run equilibrium is present among these variables in the error-correction regression with some short-run adjustments of Malaysia's OFDI to its key determinants.

In addition, the cointegrating regression provides insights into the long-run elasticity of Malaysia's OFDI for each parameter. Apparently, Malaysia's OFDI responds strongly to the changes in foreign market size, exchange rate and trade openness implying that in the long run, the major impetus to a country's OFDI is driven by the search for new or expanding markets of the major host countries, the strengthening of the ringgit exchange rates (as indicated by the increase in real effective exchange rate), and the liberalization of trade due to the adoption of outward-oriented policies. The long-run estimate of foreign market size elasticity of Malaysia's OFDI confirms the previous case study findings ascertained by Ragayah (1999), Sim (2005), Tham (2007), Kitchen and Ahmad (2007), Ariff and Lopez (2008) that exploiting new or growing markets by Malaysian firms is the main pull factor of the home country's OFDI. Moreover, the Malaysian firms that have set up their production bases in the host countries (e.g., PRC and Indonesia) could also reap the benefits of economies of scale and lower factor prices owing to their large population and factor endowments.

The evidence of high long-run real effective exchange rate elasticity of OFDI from Malaysia corroborates the earlier findings by Kueh *et al.* (2008) and Kueh *et al.* (2009), and is consistent with the theoretical argument (see Aliber, 1970) that firms from countries with strong currencies have a higher tendency to invest abroad attributable to lower start-up costs as a result of the home country's strong exchange rate effect. Likewise, the high estimated long-run elasticity of Malaysia's OFDI with respect to the home country's trade openness also corroborates the studies by Kueh *et al.* (2008), Kueh *et al.* (2009) as well as Buckley (2007), Banga (2007) and Kykilis *et al.* (2003) that the expansion of Malaysia's trade activities enables domestic firms to acquire knowledge on foreign markets, and hence, have the ability to establish operations abroad. It is

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[13] For example, small sample size, inability to do statistical tests, etc.

widely recognized that Malaysia has a relatively open trade sector since the 1970s. The liberalization of the trade account was implemented before the liberalization of the capital account (Yusof *et al.*, 1994). As a consequence, total trade to GDP increased from 89 per cent in the 1970s to 230 per cent in 2008. With reference to the long-run international reserve elasticity of Malaysia's OFDI, it is found to be inelastic with a value of 0.91estimated by the OLS. Nonetheless, its estimated magnitude is quite close to unit elasticity of 1.0 suggesting liberal policy on capital outflows is instrumental in encouraging Malaysians to invest abroad in the long run. As such, this evidence is in line with the conjecture that BNM is more likely to approve OFDI projects in the long run when the level of the home country's international reserves is high.

In order to capitalize on globalization, the findings show that apart from the market-seeking incentive and the adoption of outward-oriented policies, the Malaysian government could promote Malaysia's OFDI by implementing a liberal policy on capital outflows, which is imperative for Malaysian firms to internationalize their business activities abroad so that they can integrate themselves into the global supply chain. As such, this can also be seen as an additional channel to push potential Malaysian MNCs to seize opportunities abroad and to become regional and international players in the long run. However, encouraging FDI outflows could retard private domestic investment seeing that it has been an important source of economic growth over the last three decades. Since the aftermath of the Asian Currency Crisis, the sluggishness of private domestic investment has been a main concern of the Malaysian government. This may suggest that the domestic environment is less attractive to local firms as compared to overseas investment (Athukorala, 2009). Therefore, the Malaysian government should continue to promote private sector investment and improve the domestic investment climate (such as reducing the cost of doing business and anti-competitive practices) so as to boost up private sector activities. At the same time, the Malaysian MNCs should be encouraged to remit their profit and reinvest in the country to spur private domestic investment. This repatriation will also alleviate the service account deficit of the balance of payments of the country. On the whole, as a result of the increasing competitive pressure from globalization, it is essential to push local firms to move upstream and invest in higher value–added activities due to higher labor cost and small domestic market size in the home economy. In the era of globalization, there are still potential welfare gains to local firms if they were to set up affiliates abroad.

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