An Empirical Study on the Determinants of FDI in Malaysia and its Link to Trade

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INTRODUCTION

Foreign Direct Investment or FDI has been hailed as the most important contributing factor to Malaysia's phenomenal economic performance since the 1970s and is seen as the engine for growth, especially in the export-manufacturing sector. Malaysia is one of the most favored locations of FDI. In 1995, for example, Malaysia was the second largest recipient of FDI among the Asian economies at US$5.8 billion (UNCTAD, 1996). FDI has played a very important role in shaping Malaysia's economy over its history. With the whole world becoming a global village, capital will move from one area to another depending on the country, which offers the highest rate of return. Generally, returns are not the only criteria used for the selection of FDI. Other determinants are countries that meet investor needs including good financial practices and the ease of moving capital.

The future growth of the Malaysian economy will have to depend on the efficacy of the various policies and measures enacted by the government in order for Malaysia to realize Vision 2020. More efforts are now needed to attract FDI due to intense competition from emerging economies such as Thailand, Myanmar, Indonesia and China. The answer to these challenges would be to attract and develop technologically intensive industries, which embody high technology and high value added skills. Only this would ensure that Malaysia would be able to compete and succeed in the new globalize economy.

This paper aims to enhance and improve our understanding on the location decisions by multinational corporations from which the bulk of FDI into Malaysia originate from and whether trade influences inward FDI or vice versa. Specifically the objectives of this study are i) to determine the association between inward FDI and trade levels from the years 1978-2002, ii) to evaluate the significance of this link by using both the time series and cross sectional approaches.

LITERATURE REVIEW

Empirical Studies on the determinants of FDI and Trade Pattern using the Gravity Model

Brainard (1997) was one of the first studies which focus on the extent to which production-location decisions by MNE's involve a tradeoff between the advantages of being close to customers via foreign production and the advantages of concentrating production so as to achieve economies of scale at the plant level relative to corporate level (exports). In maximizing profits, MNE's decide on exports and foreign sales simultaneously. Her results indicate that overseas production relative to exports increases with trade barriers, transport costs, corporate-level scale economies, language similarity, political risk and adjacency with home country. Grosse and Trevino (1996) also used the gravity model to examine the influences on FDI to the United States over the period of 1980-1991. Their results indicate that larger home countries and those with export to the United States were more likely to have FDI there.

Empirical Studies on FDI using the Heckscher-Ohlin Model

Eaton and Tamura (1994) finds that factor endowments are significant in explaining Japanese and U.S. trade and FDI patterns and they capture factor endowment differences using income per capita to proxy for capital labour ratios as well as using population density and human capital. They find that a country's low population density increases Japan's propensity to import from that country but reduces the U.S.'s propensity. Low population density also increased Japan's propensity to invest there. The level of host-country education increases U.S. FDI and trade but had not significant impact on Japan's. Mean while Mody and Srinivasan (1998) compare the determinants of U.S. and Japanese outward investment flows to several countries over many years. They take into account measures of country size, cost of labour, cost of capital, trade propensity, infrastructure and education and regional and country dummies. They find that labour cost differences between countries are not an important driver of U.S. outward FDI flows and, but changes over time reduce these outward flows.

Empirical Studies on FDI using the New Trade Theory/ New Growth Theory

The new trade theories and the related new growth theories emphasize on the effects of the innovation capacity of a home country in determining outward FDI and also influencing such FDI to seek knowledge-intensive locations abroad. Barrell and Pain (1999) tested the determinants of U.S. direct investment in the manufacturing sector in six E.U. countries from 1981 to 1994. Their findings indicate that the two most important factors that are common in all countries are the growth of the E.U. market on one hand and the increased U.S. stock of R&D which spurred U.S. outward FDI on the other. Brainard (1997) used parent company advertising as well as R&D expenditures to proxy for proprietary advantages. The results for outward affiliate sales indicate that brand advantages associated with high advertising intensity requires a local presence, whereas those associated with R&D are compatible with either foreign production or exports. For further detail see [Mody and Srinivasan (1998) and Stein and Duade (2001)]

Empirical Studies on FDI using the Institutional Studies method

Brainard (1997) found that overseas production relative to exports increases with the degree of political risk in the host country. Grosse and Trevino (1996) found political risk in the home country weakly positively related to their FDI in the United States. Moody and Srinivasan (1998) found that both U.S. and Japanese outward investments were deterred by country risk. Recent evidence indicates that the share of FDI in total capital inflows is higher in riskier countries with risk measured as a country's credit rating or other indicators of country risk (Albuquerque: 2001) and (Hausmann and Fernandex-Arias: 2000). For further review see [Wheeler and Moody (1992), Wei (2000) Stein and Duade (2001), Habib and Zurawicki (2002)]

MODEL SPECIFICATION AND METHODOLOGY

We will be comparing the various variables in both gravity models between Malaysia and its seven largest investors and trading partners namely the United Kingdom, Hong Kong, Singapore, the United States, Japan, Germany and South Korea. Henceforth these countries will be denoted as country **j** in the equation. These comparisons will be made using the time series data from the years 1978 until 2002.

The Conventional Gravity Model for Import

$$Ln(Im_{mjt}) = \alpha_{Im} + \alpha_{Im1}lnY_j + \alpha_{Im2}lnN_j + \alpha_{Im3}\,lnDistance + \alpha_{Im4}Adj + \alpha_{Im5}NAFTA + \alpha_{Im6}ASEAN + \alpha_{Im7}EU + \delta_{Im}IFDI_{mjt-1} + e_{Imjt} \quad \text{.....(3.1)}$$

Im_{mjt} : bilateral trade imports between Malaysia **m** and country **j** in year **t.**
Y_j : GDP per capita for country **j**
N_j : Population of country **j**

Distance : Physical distance between the capital of Malaysia **m** and country **j**
Adj : Existence of physical borders or adjacency between Malaysia **m** and country **j**
NAFTA
ASEAN : Membership of a free trade area (Dummy variable, 1 if trading **EU** partner is a member and 0 if not).
IFDI $_{mjt-1}$: Lagged inward FDI into Malaysia **m** in from country **j** in year **t**

GDP per capita will be used as the proxy for income (Y_j) between countries since greater increases in income will result in greater demand for imported products from abroad in addition to capital machinery. Therefore a rise in income will generally lead to an increase in imports. Thus, the income variables are expected to be positive. The sign of the coefficients of the population variable (N_j) is somewhat indeterminate since population size can be trade inhibiting or trade enhancing. According to Oguledo and Macphee (1994), a large population, on one hand may indicate large resource endowment, self-sufficiency and less reliance on international trade. On the other hand, it is possible that a large domestic market (or population) promotes division of labour, and thus creates opportunity for trade in a wide variety of goods. According to the latter argument, the expected sign of the population coefficient is positive. **Distance** is a proxy variable for natural trade resistance which is a composite for transportation costs and transport time. Long distance between trading countries, *ceteris paribus*, leads to higher costs and lower profit margin to the importer. Consequently, distance is hypothesized to have a negative effect on imports. With regard to the dummy variables in this model, **NAFTA, ASEAN, EU** pertains to the effect of regional trade agreements among the various trading partners of Malaysia. A positive coefficient indicates that that the entry of Malaysia's respective trading partner into one of these regional trade agreements would have a positive effect on Malaysia's trade with that country. **Adj** examines the effects of adjacency between countries since neighborliness generally stimulates trade due to similarity of tastes and the awareness of common interests. Therefore the coefficient is expected to be positive.

The Augmented Gravity Equation for Inward FDI

$$\ln(IFDI_{mjt}) = \alpha_F + \alpha_{F1}\ln Distance + \alpha_{F2}NAFTA + \alpha_{F3}ASEAN + \alpha_{F4}EU + \alpha_{F5}EXCH_{mj} + \alpha_{F6}RGDPCAP_{mj} + \alpha_{F7}LIQUID_{mj} + \alpha_{F8}IND_{mj} + \alpha_{F9}OPEN_{mj} + \alpha_{F10}EDU_{mj} + \alpha_{F11}INFO_{mj} + \alpha_{F12}POLIT_{mj} + \delta_F Im_{mjt-1} + e_{IFDIjt} \quad \text{.....(3.2)}$$

$IFDI_{mjt}$: Malaysia's inward FDI stock from country **j** in year **t**
$\delta_F Im_{mjt-1}$: Lagged bilateral imports between Malaysia **m** and country **j** in year **t**

Variables Testing the Hecksher-Ohlin Theory
$EXCH_{mj}$: Exchange rate of country **j** relative to Malaysia **m**
$RGDPCAP_{mj}$: Real GDP per capita of country **j** relative to Malaysia **m**
$LIQUID_{mj}$:Measure of financial depth (liquid liabilities to GDP) of country **j** relative to Malaysia **m**.

Variables Testing the New Trade Theory / New Growth Theory
IND_{mj} : Percentage of GDP originating from the industrial sector of country j relative to Malaysia **m**.
$OPEN_{mj}$: Openness to trade (exports plus imports relative to GDP) of country **j** relative to Malaysia **m**.
EDU_{mj} : Total percentage of expenditure on education relative to GDP of country **j** relative to Malaysia **m**.
$INFO_{mj}$: Total number of television per 1000 people of country **j** relative to Malaysia **m.**

Variables Testing the Quality of Institutions
$POLIT_{mj}$: Level of political competition of country **j** relative to Malaysia **m**.

Methodology

The model specification of this study will be estimated using the method of Seemingly Unrelated Regression or (SUR). The use of the SUR method can be seen as a method of pooling cross sectional and time series data. The distinguishing feature of the seemingly unrelated regressions is the contemporaneous correlation in the disturbance and the assumption has a different coefficient vector. This method will then be estimated using Eviews version 3.1 based using pooled data.

General Model Specification

In the case where matrix Γ, in the structural form of a system of equations, is diagonal, i.e. it has the form

$$\Gamma = \begin{matrix} \gamma_{11} \\ 0 \\ \vdots \\ 0 \end{matrix} \begin{bmatrix} 0 & \cdots & 0 \\ \gamma_{22} & \cdots & 0 \\ \vdots & \vdots & \vdots \\ 0 & \cdots & \gamma_{GG} \end{bmatrix} \qquad \textbf{(3.3)}$$

The system of the structural equations is not a system of simultaneous equations but instead it is a set of equations. In this case each equation contains one and only one endogenous variable, e.g. its dependent variables. This set of equations may be written analytically as

$$\begin{aligned} Y_{1t} &= \beta_{11}X_{11,t} + \beta_{12}X_{12,t} + \ldots + \beta_{1k_1}X_{1k_1t} + \in_{1t} \\ Y_{2t} &= \beta_{21}X_{21,t} + \beta_{22}X_{22,t} + \ldots + \beta_{2k_2}X_{2k_2t} + \in_{2t} \ldots \\ Y_{Gt} &= \beta_{G1}X_{G1,t} + \beta_{G2}X_{G2,t} + \ldots + \beta_{Gk_G}X_{GK_{Gt}} + \in_{Gt} \end{aligned} \qquad \textbf{(3.4)}$$

for $t = 1, 2, \ldots, n$, or in matrix form as

$$Y_i = X_i\beta_i + \in_i \text{ for } i = 1, 2, \ldots, G \qquad \textbf{(3.5)}$$

where for the ith equation, Y_i is a n x 1 vector of the values of the dependent variable, X_i is a n x K_i matrix of the values of the explanatory variables, $\in_i$ is a n x 1 vector of the values of the error variables, and β_i is a K_i x 1 vector of the corresponding regression coefficients. The equations in (3) may be also written together as

$$\begin{matrix} \begin{bmatrix} Y_1 \\ Y_2 \\ \vdots \\ Y_G \end{bmatrix} \\ G_n \text{ x } 1 \end{matrix} = \begin{matrix} \begin{bmatrix} X_1 & 0 & \cdots & 0 \\ 0 & X_2 & \cdots & 0 \\ \vdots & \vdots & \vdots & \vdots \\ 0 & 0 & \cdots & X_G \end{bmatrix} \\ G_n \text{ x } K \end{matrix} \begin{matrix} \begin{bmatrix} \beta_1 \\ \beta_2 \\ \vdots \\ \beta_G \end{bmatrix} \\ K \text{x } 1 \end{matrix} + \begin{matrix} \begin{bmatrix} \in_1 \\ \in_2 \\ \vdots \\ \in_G \end{bmatrix} \\ G_n \text{ x } 1 \end{matrix} \qquad \textbf{(3.6)}$$

where $K = K_1 + K_2 + \ldots + K_G$, or finally as

$$Y = X\beta + \in$$

With respect to error terms we employ the following assumptions:

- The error terms have zero mean:

$$E(\in_{it}) = 0,\ t = 1, 2, \ldots, n,\ i = 1, 2, \ldots, G \quad (3.7)$$

- For each equation i (= 1, 2, …,G), the error terms have constant variance over time:
$$\text{var}(\in_{it}) = E(\in_{it}^2) = \sigma_i^2 = \sigma_{ii},\ t = 1, 2, \ldots, n \quad (3.8)$$
- For each equation i (= 1, 2, …,G) and for two different time periods $t \neq s$ (=1, 2, …,n), the error terms are not autocorrelated:
$$\text{cov}(\in_{it}, \in_{is}) = E(\in_{it} \in_{is}) = 0, t \neq s \quad (3.9)$$
- For the same time period t (= 1, 2, …, n), the error terms of two different equations $i \neq j$ (= 1, 2, …,G) may be correlated (contemporaneous correlation):
$$\text{cov}(\in_{it}, \in_{is}) = E(\in_{it} \in_{jt}) = \sigma_{ij}, i \neq j \quad (3.10)$$
- For two different equations $i \neq j$ (= 1, 2, …,G) and for two different time periods $t \neq s$ (=1, 2, …,n), the error terms are not correlated:
$$\text{cov}(\in_{it}, \in_{is}) = E(\in_{it} \in_{js}) = 0, t \neq s, t \neq j \quad (3.11)$$

Ordinary Least Squares (OLS)

If we assume that from the five assumptions (3.6) to (3.10), only the assumptions (3.6) and (3.7) hold, then each equation in the set of equations in (3.2) could be estimated individually by the classical ordinary least squares (OLS) method. The least squares estimator in this case is the best linear unbiased estimator, and is given by

$$b_{i,OLS} = (X_i' X_i)^{-1} X_i' Y_i \quad (3.12)$$

with $$\text{var}-\text{cov}(b_{i,OLS}) = s_i^2 (X_i' X_i)^{-1} \quad (3.13)$$

where

$$s_i^2 = \frac{1}{n - K_i} \sum_{j=1}^{n} e_j^2 = \frac{1}{n - K_i} e_i' e_i \quad (3.14)$$

EMPIRICAL RESULTS

Results for the Conventional Gravity Variables

From Tables 1, 2 and 3, the value of $\mathbf{R^2}$ value for the conventional gravity model or trade equation is far higher compared to the augmented gravity model or FDI equation, 0.91 for the trade equation against 0.71 for the FDI equation. With regard to the variable of GDP per capita (**GDPCAP**), it is clear that while the income of Malaysians are increasing; it will cause a greater demand for imports from abroad as well as inflows of FDI. This means that higher GDP per capita is significant only in attracting higher levels of imports while remaining insignificant for inward FDI. Based on the results of the GDPCAP coefficient in the trade equation, a 10% increase in GDP per capita would attract a 7.7% increase in imports.

What is surprising is the positive relationship between the variable of distance (**DIST**) and import. While the signs of the FDI variable are known to be negatively correlated to trade, the positive sign for import indicates that for MNC's whose home countries are of a greater distance than Malaysia prefer to service the market through imports rather than inward FDI due entry restrictions and better incentives elsewhere. The results are similar to the study done by Grosse and Trevino (1996), which found that distance, is negatively related to U.S. inward FDI.

The variable for population (**POP**) is insignificant and negatively signed for the trade equation while being positive and weakly significant for the FDI equation. This is in line with the trade literature, which indicates that the importance of market size is decreasing in line with the rising emphasis on the income level of the population, hence the insignificance of this variable compared to

indicators of income such as GDP per capita for the trade equation. For the FDI equation, a weak relationship still exists since a form of domestic market is still required to create opportunities of trade, which in turn would lead to larger inward FDI levels.

Table 1 Results of Augmented Gravity Model for Equation for Pooled OLS

Model	POOLED OLS		Model	POOLED OLS	
Gravity Model			**Heckscher Ohlin**		
GDP Per capita	0.1647	(0.8699)	Relative Exchange Rates	0.8056	(0.422)
Population	0.7609	(0.4483)	Real GDP Per Capita	-1.1347	(0.2588)
Distance	-0.9166	(0.3612)			
Adjacency	-0.4135	(0.6800)			
Free Trade Zone membership (FREE)	0.8306	(0.4078)			
New Trade Theory/Growth Theory			**Quality of Institutions**		
Percentage of GDP from industrial sector	-0.9604	(0.3388)	Level of political competition	5.0329	(0.0000) *
Openness to trade	-1.9408	(0.0546)***			
Diffusion of information	-1.7320	(0.0859)***			
Interaction Terms					
Imports	0.2434	(0.8081)			
R squared	0.7222				
Adjusted R squared	0.6942				

Notes: * significant at 1%. ** significant at 5%. *** significant at 10%. ****significant at 20%.

Table 2 Results of Augmented Gravity Model for Equation for SUR

Model	SUR		Model	SUR	
Gravity Model			**Heckscher Ohlin**		
GDP Per capita	0.1434	(0.8862)	Relative Exchange Rates	-0.3981	(0.6913)
Population	1.5443	(0.1252)****	Real GDP Per Capita	-1.5585	(0.1218)****
Distance	-0.7886	(0.4319)			
Adjacency	-0.0314	(0.9750)			
Free Trade Zone membership (FREE)	0.0184	(0.9853)			
New Trade Theory/Growth Theory			**Quality of Institutions**		
Percentage of GDP from industrial sector	-1.9179	(0.0575)***	Level of political competition	-5.4889	(0.0000)*
Openness to trade	-0.8269	(0.4100)			
Diffusion of information	-3.4252	(0.0008)*			
Interaction Terms					
Imports	0.8072	(0.4212)			
R squared	0.7126				
Adjusted R squared	0.6836				

Notes: * significant at 1%. ** significant at 5%. *** significant at 10%. ****significant at 20%.

As expected the adjacency (**ADJ**) dummy is positive and statistically significant for the trade equation and is insignificant and negatively signed for the inward FDI equation. This is due to the

fact that the only country with significant trade and investment links that is adjacent to Malaysia is Singapore. Thus, this means that Singapore based MNC's are more inclined to service the Malaysian market through trade as end users rather than set up operations in Malaysia through inward FDI. This is due to lower transport costs due to the geographical nature of Singapore since setting up operations in Malaysia would be just as costly as exporting from Singapore. As expected the variable for membership in regional free trade groupings (**FREE**), i.e. ASEAN, EU and NAFTA is positive and insignificant for the FDI equation while being significant and negatively signed for the trade equation. The results of the FDI equation are consistent with the assumption that various regional groupings have more impact on trade rather than FDI. The result of the trade equation indicates that the Malaysia's imports are affected by its lack of membership in the two larger regional groupings, i.e. NAFTA and the EU and hence is subjected to trade diversion. This is also partly due to the various tariff and subsidy issues existing between Malaysia and these two trade groupings.

Table 3 Results of Conventional Gravity Model for SUR and Pooled OLS

Model	SUR		Model	POOLED OLS	
Gravity Model			**Gravity Model**		
GDP Per capita	10.1666	(0.8862)	GDP Per capita	9.0774	(0.0000)*
Population	1.5443	(0.0000)*	Population	-1.1882	(0.2368)
Distance	-0.1864	(0.8524)	Distance	3.2520	(0.0014)*
Adjacency	5.7510	(0.0000)*	Adjacency	4.3898	(0.0000)*
Free Trade Zone membership (FREE)	-5.1198	(0.0000)*	Free Trade Zone membership (FREE)	-4.1933	(0.0000)*
Interaction Terms			**Interaction Terms**		
Inward FDI	10.4686	(0.0000)*	Inward FDI	10.009	(0.0000)*
R squared	0.9074		R squared	0.91317	
Adjusted R squared	0.9033		Adjusted R squared	0.90934	

Notes: * significant at 1%. ** significant at 5%. *** significant at 10%. ****significant at 20%.

Results for Hecksher Ohlin Variables

The proxy used for measuring wage costs is Real GDP Per Capita (**RGDP**), which takes into account the effect of inflation on wages. As wages abroad rise relative to that in Malaysia, it is expected that inward FDI will increase. Based on our results, the variable of RGDPCAP is weakly significant at 20% and is negatively signed. However, the literature also mentions that as in a rapidly developing country such as Malaysia, should the human capital and skills increase together with the wage rate, the additional productivity of the labor force would offset the increasing wage rate. Therefore the result for RGDPCAP is in line with the findings of Hejazi and Safarian (2002). Our empirical results for EXCH indicate that there is a positive but insignificant relationship between the appreciation of the Malaysian Ringgit and inward FDI. This finding is consistent with the reported by Hejazi and Safarian (2002).

Results for the New Growth Theory/ New Trade Theory Variables

With regard to the variable on trade openness (**OPEN**), it is expected that should a country be more open to trade, it will then receive less inward FDI since the local markets is serviced more through trade. Thus our result is in line with the literature since the variable for trade openness is negatively signed and is insignificant. (See Hejazi and Safarian, 2002). The variable for R&D expenditure is proxied by the percentage of GDP originating from the industrial sector of country j relative to Malaysia (**IND**). This measure the percentage of total output of goods and services derived from value added by the industrial sector. This variable is negatively significant at 5% but differs from the results obtained in the literature. Based on our results, a 10% increase R&D levels proxied by relative industrialization, would result in a 19.7% decrease in inward FDI. This is in contrast to the findings of Barrel and Pain (1999) who found that U.S. R&D efforts are an important driver for U.S.

outward FDI, hence a positive signage. However, it should be noted that the inward FDI trend into Malaysia has changed from wage seeking to efficiency seeking FDI in line with the Malaysian government's efforts to enhance R&D level in Malaysia. Therefore MNC's no longer need to depend on home country R&D efforts to enhance their production technology but can cheaply conduct it in key host countries such as Malaysia. The variable of human capital is proxied by the relative number television per 1000 persons (**INFO**) of country **j** and Malaysia and measures the level of information access among the population and hence can be said as a form of media communication to supplement education. The result of this variable from our study indicates that when the level of human capital of country **j** increases relative to that of Malaysia, the level of inward FDI from that country will increase. This sign is similar that with those obtained in the literature with the exception that the variable for human capital in our study is significant at 1%, while the results obtained in the literature are insignificant. The explanation for this factor is that while Malaysia is a current destination of efficiency seeking FDI, some of the technologies brought over by the foreign MNC's are close to being obsolescent in developed countries but still they still require high levels of skills to operate and manipulate, skills that are lacking among workers in developing economies but are commonplace in developed countries.

Results for the Variable Testing the Quality of Institutions

The final variable in the FDI equation is the level of political risk, which is proxied by the level of political competition in a country (**POLIT**) and measures the preferences for policy and leadership that can be pursued in the political arena. When the level of political risk in country j increases relative to that of Malaysia, it is expected that the inward FDI into Malaysia from the country would increase, hence a positive signage. However, the results indicated a negative result significant at 1%, which is similar to that obtained in the literature. One possible explanation for this is the level of business uncertainty caused by a higher level of political risk in the home country which in turn brings about much lessened levels of investment overseas or at least until the political risk level has lessened.

Interaction Terms

With regard to the FDI equation, the empirical results indicate that inward FDI does not have an impact on imports in Malaysia since the lagged import is insignificant but has the appropriate positive signage. However, the lagged FDI variable in the trade model is positively significant at 1% and indicates a strong complementary relationship. This means that imports creates inward FDI in the future while inward FDI does not have an impact on imports.

CONLUSION AND POLICY IMPLICATIONS

In explaining the trade and FDI relationship between Malaysia and its six biggest foreign investor countries and trading partners, both the FDI and trade literatures have been brought together. While most of the empirical trade literature has also made use of the gravity model to explain the effect of bilateral trade patterns, most studies in general ignore the effect of FDI as a determinant of trade and trade as a determinant of FDI. Likewise while a significant number of FDI literatures include bilateral trade patterns as a determinant of FDI, interactions between trade and FDI are ignored. Using a standard gravity model for trade and an augmented gravity model for FDI, we estimated the determinants of trade and FDI via singular equation using the Seemingly Unrelated Regression (SUR) method for pooled data. The augmented method takes into account the Hecksher Ohlin Theory, New Growth Theory and institutional quality. Our results confirm the overall value of the gravity approach while providing additional insights on the link between distance and adjacency to FDI. The result of the trade equation is particularly important since it indicates that contrary to most literature. MNC's first penetrates the domestic market via imports before establishing their presence in the form of inward FDI. This can be seen from the highly significant interaction term in

the trade equation in the form of lagged inward FDI. The main findings of the trade equation indicate that the trade variables in the form of GDP Per Capita, distance, adjacency and membership of a regional trade grouping are still important determinants of bilateral trade as well since imports can be seen as a precursor to inward FDI since MNC's prefer to preliminary exposure to potential host country markets before moving in with their production facilities in order to avoid transportation costs and import protection and at the same time allow them to compete more effectively with local firms. This finding is in line with the results obtained by Eaton and Tamura (1994) which states that U.S. FDI generally follows U.S. exports abroad. This is in line with the established fact that much of U.S. trade is intra-firm since U.S. exports will only be marketed by its subsidiaries in Malaysia. The other factor, which supports this, is the fact that FDI abroad markets home country products and home country inputs and that most MNC retailers are more likely to sell their home country products. However, the result of the FDI equation indicated that some of the traditional variables used in the previous FDI literatures are insignificant, examples of such a variable is the degree of trade openness which was found to be significant in studies conducted by Singh and June (1995), Chakrabarti (2001) and Asiedu (2002). However, it should also be noted that the non-traditional variables such as R&D levels, human capital and political risk tested significant in line with the results of more recent studies conducted by Addison and Heshmati (2003) with regard to political risk and Noorbaksh, Palonni and Youssef (2001) with regard to human capital.

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