



Empirical Determinants of Malaysia's Trade Relation with Nigeria;

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ABSTRACT

It has been observed that extant literature has been devoted to the study of China's trade relationship with various developing countries, especially Africa and Nigeria in particular. However, the economy of Malaysia is fast growing among other Asian countries as it spreads her trade tentacles with very many countries, even Nigeria inclusive has been a member of OIC countries. Notwithstanding this trend, there exists little or no empirical study that has examined empirical determinants of Malaysia's trade with Nigeria despite evidence of her long-standing relationship with Nigeria. It is these developments that motivated this study. Data were collected on the total export of Malaysia to Nigeria alongside with other variables that are theoretically believed to facilitate trade flows from various sources (UNCTAD, WDI, and CEPII) for the period of 1985-2016. The Gravity model was specified first with the traditional variables and was augmented with other macroeconomic and trade variables that predict bilateral trade flows among different economies. The results showed that economic size and distance between Malaysia and Nigeria were not significant in determining Malaysia's trade flows to Nigeria. However, in the augmented model, nominal GDP of Nigeria, the distance between the two countries, the real and official exchange rate of Nigeria, and FDI inflows to Malaysia were the positive determinants of Malaysia's trade with Nigeria. On the other hand, GDP growth rate of Malaysia, per capita GDP of Nigeria, and the real exchange rate of Malaysia negatively determined her trade flow with Nigeria.

1.0 Introduction

The current wave of globalization has made no single country of the world to be self-dependent without having anything to do with other countries. In this regard, nation-states establish relationships with one another mainly on the political, economic, socio-cultural and technological ground. In south-south trade relationships, much emphasis has been laid on China's extension of trade and technological tentacles to most developing countries including Africa as one of the powerful Asian-tigers. That is China-Nigeria trade relations dominate the discussion of Afro-Asian trade ties (Bello et al., 2017). Indeed, the need to secure resources to meet the development aspiration of China made her to increasingly forged formidable trade links with almost all African countries especially Nigeria in the area of manufacturing products (Owuru and Farayibi, 2016).

Aside from China, however, Malaysia is one of the rapidly growing Asian economies in the recent times. Within the last decade, output growth rate of this economy hovered at 4.4% in 2016. Total merchandise export trade (millions of US\$) for 2005, 2010, 2015, and 2016 were 141626, 198612, 199158, and 189414 respectively, while merchandise trade balance for the same periods were 27301, 33990, 23147, and 21022 respectively. Bello et al., (2017) specifically reported that the economy of Malaysia is the fourth largest economy in South East Asia and 35th in the world. The country is reported as the third richest country in the region after Singapore and Brunei; it ranked 14th in the world in terms of ease of doing business index in 2015 with a GDP of \$815.6 billion and a GDP growth rate of 5.0% in 2015. Also, as at February 2017 the total country export stood at 71.8 Billion Malaysian Ringgits (MYR) and import bill of 63.1 billion MYR, at January 2017 the unemployment rate stood at 3.5%, Life expectancy at birth stood at 72 years and 77 years for male and female respectively (CIA World Fact Book, 2017).

The point of concern, however, is that despite evidence of trade improvement, economic and political attachment of Malaysia with Nigeria there is little or no study that examined extent and determinants of Malaysia's trade relation with Nigeria unlike China-Nigeria trade pacts (Agubamah, 2014; Udeala, 2010; Djerrwake, 2009). On a historical ground, it was traced that in 1965, the late Prime minister of Nigeria Abubakar Tafawa Balewa initiated friendly relations with Malaysia's former Prime Minister, Tunku Abdurrahman. Consequently, Malaysia's first mission in Sub-Sahara Africa was established in Lagos Nigeria in 1965, it was later relocated to Abuja in 2006, while Nigeria, on the other hand, established a mission in Kuala Lumpur in 1991 (see for example Jin, 2016 and Bello, et al., 2017).

Trade relation of Malaysia with Nigeria even heightened during the early days of the oil boom in Nigeria in the 1970's where many Chinese and Malays invested in the economy of Nigeria. Malaysian High Commissioner to Nigeria, Datuk Lim Juay Jin, remarked that Malaysia's trade with Nigeria in 2015 stood at 766.8 million



dollars, indicating an increase of 14.6% from the value in 2014. Jin further emphasized that Malaysia's main export to Nigeria include petroleum products, palm oil and palm-based products, machinery and also processed food, while the main import of Malaysia from Nigeria include Liquefied Natural Gas, iron ore, metal scrap and agricultural goods among others. In terms of trade in services, especially human capital building through education, about 15,000 Nigerian students studied at both undergraduate and postgraduate level; there are other exchange programs between the two countries in various universities (Jin, 2016).

In view of such intimate relationships between the two countries, it is research-wise to find out the possible determinants of such trade links. This study is therefore deemed topical and timely as extant literature on Malaysia's trade relation with Nigeria remains few. The study hopes to add to knowledge by filling the empirical gap in knowledge on trade nexus of Malaysia with Nigeria. Thus, the study will objectively apply gravity model of trade to examine arrays of economic, geographical, and socio-political factors that predict Malaysia's total export trade with Nigeria from 1985 to 2016. The remaining parts of the paper are structured as followed: following the foregoing introduction in section one, the second section reviews empirical literature on the topic under discussion. Section three deals with the theoretical framework of the gravity model and the model specification for this study, section four reports and interprets the empirical results of the estimated model while section five summarises the main findings and conclude the study with relevant policy suggestions to enhance formidable trade link between the two countries.

2.0 Empirical Review of the Literature

Application of gravity model in the study of bilateral trade relationship has long being a work-horse tool in international trade. Various aspects of international trade or economics can be investigated with gravity model. For instance, the model can be used to investigate determinants of successful regional integration. Ghani (2007) examined trade effects of being a member of Organization of Islamic Countries (OIC) and found that OIC member countries are susceptible to conflict and that they exhibit a low institutional quality that could deter an increase in trade volume, unlike the non-OIC countries. On the contrary, membership of OIC determined intra-OIC trade (Raimi and Mobolaji, 2008).

With the use of gravity model, Bendjilali (1997) examined predictors of intra-OIC trade and found that there is positive relationship economic size and trade among OIC members, but the trade was found correlating transportation cost negatively as a proxy for distance. Importantly, Khalifah (1993) investigated intra-Muslim countries' trade and found that high-income Muslim economies trade more than lower and upper-middle-income countries.

With particular reference to Malaysia, a study on bilateral trade relation between Malaysia and the Gulf Cooperation Council (GCC) was carried out by Abu-Hussin (2009) using trade intensity index and found that Malaysia's trade with GCC as a region and its various member states were very low during 1990–2007 fiscal years. Also, evidence from an application of gravity model to Malaysia's trade with GCC by Evelyn, et al., (2011) revealed that culture and religion were insignificant determinants of bilateral trade between GCC economies and Malaysia. On a similar empirical font, Ismail (2008) tested Heckscher-Ohlin model for Malaysia's trade relation with eight OIC trading partners and found that Malaysia trade more with OIC countries that have similar characteristics regarding economic size but different factor endowment.

Abidina, et al., (2013) also examined impact of economic factors on bilateral exports between Malaysia and the OIC member countries between 1997 and 2009 with a panel estimation of gravity model and found that economic size, level of openness of the economy, inflation rates, exchange rates, distance, and quality of institution significantly predict Malaysia's exports to OIC countries. Lan, et al., (2014) also examined China trade with five ASEAN countries including Malaysia using gravity model with the bound test approach and found insignificant positive sign of trade relationship between China and Malaysia which may implied, as suggested by Oguledo and Macphee (1994) that political ties are more important than the economic size of China-Malaysia relations.

In terms of Malaysia's trade links with Nigeria, the study by Bello et al., (2017) seems to be the prevailing one in the literature. These authors adopted a narrative or descriptive approach in their examination of the nature of Malaysia-Nigeria trade relations. They found that trade relations between the two countries have been tied over the years, and that trade volume (export) have surged as well, but Malaysia benefits more as it exports more to Nigeria and imports less. This trade imbalance was believed by these authors to be caused by industrializing nature of Malaysian economy especially in agriculture, capital goods, refined crude oil, machines, and electrical



appliance which it exports to Nigeria. Overall, the literature reveals that the body of knowledge regarding Malaysia-Nigeria bilateral trade is yet uncluttered. Therefore, this study will fill this perceived gap.

3.0 Theoretical Framework and the Model Specification

3.1 Theoretical Framework

Gravity model (GM) is an integral model in spatial econometrics as well as regional studies. It was initiated by Isaac Newton in physics. The use of GM in international trade analysis was championed by Tinbergen (1962) and Linneman (1966). The model works well empirically, yielding reasonable parameter estimates and explaining a large part of the variation in bilateral trade (Rose, 2005). Carrere (2006) noted that the model had acquired a second youth partly due to its recent extensive use to study trade patterns. Regarding the derivation of the theoretical foundation for the gravity equation, Anderson (1979) used the pure expenditure system model to build the gravity equation.

3.2 Model Specification

The estimable model for this study follows the initial Newtonian GM in Physics, and as later developed by Tinbergen (1962) and Linermann (1966) in international trade. In the spirit of Isaac Newton, the force of gravity (f) is directly related to the mass of the two objects and indirectly to the square of the distance between the objects. This is shown as:

$$G = A \frac{M_1 M_2}{D^2} \quad (3.1)$$

Where G is the force of attraction or gravity, A is the constant, $M_1 M_2$ are the multiplicative effects of the mass of the two objects, while D^2 is the square of the distance between the two objects.

Equation (3.1) can be represented in a trade gravity model following Tinbergen (1962) and Linermann (1966)

$$\text{as: } Export_{ij} = A \frac{GDP_i^{a_1} GDP_j^{a_2}}{D_{ij}^{a_3}} \quad (3.2)$$

Where $Export_{ij}$ is the value of bilateral trade between countries i and j . GDP_i and GDP_j are the proxy variables for economic size of the two countries. A is the constant term while D^2 is the square of the distance between the two countries. Equation (3.2) can be linearized to represent the traditional variables of GM in a panel framework as:

$$X_{ijt} = a + b_1 GDP_{it} + b_2 GDP_{jt} + b_3 D_{ij} + \varepsilon_{ijt} \quad (3.3)$$

Where X is the export, t is the time series characteristic of the model a is the constant or intercept of the model, while $b_1 - b_3$ represent coefficients of the explanatory variables. The error term (ε) captures shocks that may affect bilateral trade between the two countries. It is expected that economic size will positively determine trade flows while distance, a proxy for trade cost will negatively reduce trade intensity.

Aside from Equation (3.3) and augmented GM model that included other controlled variables, following Awoyemi et al., (2014) and Akpoilih and Farayibi (2015) but with modification to include foreign direct investment (FDI)¹ as:

$$X_i = a + b_1 GDP_{i,t} + b_2 GDP_{j,t} + b_3 DIST_{i,j,t} + b_4 POP_{i,t} + b_5 POP_{j,t} + b_6 EXR_{i,t} + b_7 EXR_{j,t} + b_8 OPEN_{i,t} + b_9 OPEN_{j,t} + b_{10} FDI_{i,t} + b_{11} FDI_{j,t} + b_{12} \varepsilon_{i,j,t}$$

(3.4)

¹ It can be argued that bilateral FDI inflows can propel trade among countries.



In addition to variables defined in equation (3.3), POP, EXR, OPEN, and FDI are other controlled variable, and they represent the population, exchange rate, openness measured as total trade divided by gross domestic product (GDP). It is expected that all the variables in equation (3.4) will increase bilateral trade flows positively aside distance and exchange rate. For exchange rate, apriori expectation is indeterminate (Bacchetta and van Wincoop 2000; Lanea and Milesi-Ferretti 2002). However, it is expected that higher exchange rate will worsen the purchasing power of the local currency; hence the negative sign of impact may result from the coefficient of the exchange rate.

3.4 Estimation Technique and the data sources

The model in equation (3.5) is estimated by pooled Least Square for the panel data using Stata 13. The data on the variables in the model were obtained from various sources: Bilateral Export of Malaysia to Nigeria, FDI of the two countries, and exchange rate were sourced from UNCTADSTAT (2017). GDP, population, and openness for the two countries were sourced from WDI (2017), while (3) Bilateral distances were culled from CEPII database.

4.0 Empirical Results and Discussion of the Findings

Model 1: The basic Gravity Model for Malaysia's Trade with Nigeria

The result for the basic GM in its Newtonian form expressed in equation (3.3) is presented in Table 4.1. It can be seen from the results that none of the explanatory variables in the basic GM model was significant even though the model has goodness of fit judging from the results of F-statistics and its corresponding probability value. It can be inferred therefore that Malaysia's trade with Nigeria was not statistically determined by economic size (proxy by various measures of GDP) and the distance between the two countries, instead, other factors may be responsible for trade flows of Malaysia to Nigeria (as observed from results in Table 4.2).

Table 4.1: Results for the traditional GM model for Malaysia-Nigeria Trade (1985-2016)

Dependent Variable (<i>Export_i</i>)	Coefficient.	Std. Error.	t	P> t	95% Conf. Interval	
<i>GDP_i</i>	0.0049276	0.0042212	1.17	0.255	-8897706	1.010000
<i>GDP_j</i>	0.0027419	0.0017037	1.61	0.121	-0.0007743	0.006258
<i>GDP_i - GR_i</i>	607402	4605414	0.13	0.896	-2.790001	1951495
<i>GDP_i - GR_j</i>	-1786475	2392451	-0.75	0.462	-6724251	3151302
<i>GDPPC_i</i>	-123142.7	117631.8	-1.05	0.306	-365922.9	119637.5
<i>GDPPC_j</i>	-448504.9	297917.5	-1.51	0.145	-1063376	166366.7
<i>DIST_{i,j}</i>	927.6908	28574.79	0.03	0.974	-58047.77	59903.16
<i>Const</i>	1.3600005	13.010031	0.45	0.654	-4.840000	7.570040

F(7, 24) = 19.19; Prob > F = 0.0000, R-squared = 0.8484, Adj R-squared = 0.8042

Note: Export was for Malaysia, variables with subscript (i) and (j) were for Malaysia and Nigeria respectively.

Model 2: Augmented GM results for Malaysia's Trade with Nigeria

Aside from the results above, other country-specific factors that can predict the trade flows of Malaysia to Nigeria were estimated, and the results are summarised in Table 4.2 (details are in appendix A and B). It can be observed from the table below that when the GM is augmented with other trade variables; various factors proved to be significant as determinants of Malaysia's trade with Nigeria.

**Table 4.2: Results for the Augmented GM model for Malaysia-Nigeria Trade (1985-2016)**

Dependent Variable	Coefficient.	Std. Error.	T	P> t	95% Conf. Interval	
<i>(Export_i)</i>						
<i>GDP_i</i>	-0.021138	0.012972	-1.63	0.125	-0.0489597	0.0066844
<i>GDP_j</i>	0.0124111	0.0031251	3.97	0.001***	0.0057084	0.0191139
<i>GDP_i - GR_i</i>	-1.300000	6964924	-1.86	0.083*	-2.790001	1951495
<i>GDP_i - GR_j</i>	-387871.8	1822263	-0.21	0.835	-4296238	3520494
<i>GDP_{PC}_i</i>	639355.3	400015	1.60	0.132	-218591.4	1497302
<i>GDP_{PC}_j</i>	-2020198	455203.8	-4.44	0.001***	-2996513	-1043883
<i>DIST_{i,j}</i>	442667.2	455203.8	3.38	0.005***	161649.	723685.2
<i>POP_i</i>	-195.4337	135.3845	-1.44	0.171	-485.8046	94.93717
<i>POP_j</i>	5.783984	20.17329	0.29	0.779	-37.48342	49.05139
<i>REER_i</i>	-1.590000	4997296	-3.18	0.007***	-2.660000	-5151256
<i>REER_j</i>	1119675	470936.2	2.38	0.032**	109617	2129732
<i>OEER_i</i>	-2.960000	2.020000	-0.15	0.886	-4.630000	4.040000
<i>OEER_j</i>	8003838	1887757	4.24	0.001***	3955002	1.210000
<i>OPEN_i</i>	-3323109	2189586	-1.52	0.151	-8019303	1373086
<i>OPEN_j</i>	2144838	1345388	1.59	0.133	-740732.1	5030408
<i>FDI_i</i>	0.0295367	0.0080658	3.66	0.003***	0.0122372	0.0468362
<i>FDI_j</i>	0.0355849	0.0207841	1.71	0.109	-0.0089926	0.0801623
Constant	1.3800001	1.9800001	0.07	0.946	-4.1200000	4.390000

Number of Obs.= 32, F(17, 14)= 20.91; Prob > F = 0.0000, R-squared= 0.9621, Adj R-squared= 0.9161

Note: *, **, and * imply that a particular variable is significant at 10, 5, and 1 percent level of statistical significance.**

The coefficient of the determination of the model shows via R-squared implies that about 96.2% of total variation in Malaysia's export to Nigeria is determined by the explanatory powers of the included regressors. The result of the adjusted R-squared (0.9161) also corroborates that of R-squared after accounting for lost in the degree of freedom. Thus, approximately 92% of the variation in the export volume of Malaysia to Nigeria is explained by the specified variables.

In terms of the significance of the individual parameter, the corresponding probability values for t-statistics are employed. The results shows that at 1% level of statistical significance, a unit increase in nominal GDP of Nigeria would increase export worth of 0.012 million US dollar flow from Malaysia to her economy, whereas nominal GDP of Malaysia did not prove to be statistically significant in propelling her export flows to Nigeria within the period of the study. The previous studies that aligned with this study are: Frankel et al., 1995; Tinbergen, 1962; Thursby & Thursby, 1987 and Abidin et al., 2016).

Also, it can be inferred that while a unit increase in the growth rate of GDP of Malaysia could significantly, but negatively propel her trade with Nigeria at 10% level of significance of about 1.3 million US dollar worth of export, the level of real growth of Nigeria did not prove to be statistically significant. On the part of Malaysia, this result seems to show that as the rate of growth of the economy increase, the level of trade flows to Nigeria may decline. This is however contrary to the theoretical expectation that international trade is vital to economic growth. Again, the results for GDP per capita seem to support that of the growth rate of GDP. It is indicated from the results that at while at 1% level of significance, a unit increase in the welfare of citizens in Nigeria



(measured by per capita income-GDPPC) would likely decrease export demand worth of about 2 million US dollar from Malaysia, a unit increase in GDPPC of Malays was not significant as a determinants of Malaysia's export flow to Nigeria. This seems to vindicate that fact that as economy grows, import substitution strategy is usually imbibed. This study is similar with the study of (Kahouti and Maktouf, ,2014)

Additionally, at 1% level of statistical significance, the variable representing trade cost (distance between the two countries) proved to be significant, though it is at variance with the apriori expectation. Here, wide distance will traditionally reduce trade intensity; however, the current wave of globalisation is rendering geographical distances or borders between countries borderless even though large distances increase trade cost (transportation cost). No statistical evidence regarding the population of the two countries as significant determinants of Malaysia's trade flow to Nigeria.

Concerning exchange rate, the results show that both real exchange rate (REER) of Malaysia was statistically significant in reducing total export flows of Malaysia to Nigeria at 1% level of significance, but her official exchange rate (OEER) was not a significant predictor of her trade with Nigeria. On the contrary, however, both REER and OEER of Nigeria significantly increase exports worth of 1.1 million US dollar from Malaysia. This could mean that Nigeria experienced currency appreciation during these periods than Malaysia. The study is in line with the preceding studies of (Carrere; 2006; Bahmani-Oskooee, 1986; Wilson and Takacs, 1979 ; Chua and Sharma, 1998; Himarios, 1989; Warner and Kreinin, 1983; Kahouli & Maktouf 2013 ; Abidin, & Haseeb 2017 and Akanbi, Alagbe, Yusuf, & Oluwaseyi, 2017).

From the results as well, the extent of trade openness of both countries did not determine Malaysia's trade flow to Nigeria. However, inflows of FDI to Malaysia determined her trade with Nigeria at 1% level of significance. Here, a unit rise in total inflow of FDI to Malaysia would increase her trade with Nigeria up to 0.03 million US dollar worth of exports. FDI inflows to Nigeria on the reverse side did not show to be a significant correlate of export flows from Malaysia to her economy.

5.0 Summary of the main findings, Conclusion and Policy Suggestions

This paper empirically examined the determinants of Malaysia's trade with Nigeria between 1985 and 2016 using trade gravity model in a panel data econometric framework. Two variances of GM was estimated. The first was the basic or traditional variables in the Newtonian form of the gravity model. In this case, three categories or measures of economic size (GDP, GDP growth rate, and GDPPC) of both countries and the distance between them were tested, and the results showed that non-augmented GM variables alone were not significant in inducing trade flows from Malaysia to Nigeria.

The augmented version of the model showed that nominal GDP of Nigeria, the distance between the two countries, the real and official exchange rate of Nigeria, and FDI inflows to Malaysia were the positive determinants of Malaysia's trade with Nigeria. On the other hand, GDP growth rate of Malaysia, per capita GDP of Nigeria, and the real exchange rate of Malaysia negatively determined her trade flow with Nigeria.

It can be concluded on this note that economic strength of trade partner is usually vital as a determinant of trade flow between or among countries. The findings also seem to support the position of Jin (2016) that Malaysia gained more from her bilateral trade with Nigeria as the quantum of her exports surpassed her import from Nigeria.

On this note, it can be recommended that international trade is theoretically said to be beneficially based on the endowment, comparative cost advantage, and availability among others, thus, Nigeria needs to develop its productive base for industrial growth for more efficient trade gain from her trading partner (Malaysia in this case). Malaysia, on the other hand, should increase her economic structure to allow entrance of more FDI as this has proved to be a major determinant of her trade with Nigeria. Overall, the structure of trade between Malaysia and Nigeria as Bello, et al., (2017) seemed to be lopsided in favour of Malaysia whereas, there are similar export commodities that both countries produce. Hence, each county needs to work on her areas of comparative cost advantages so that a strong economic base can be developed.



6.0 References

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APPENDIX A: The basic gravity model Results for Equation 3.3

Source	SS	Df	MS	Number of Observation	of 32
Model	9.68470000	7	1.38350000	F(7, 24)	19.19
Residual	1.73050000	24	7.21060000	Prob > F	0.0000
Total	1.14150000	31	3.68230000	R-squared	0.8484
				Adj R-squared	0.8042
				Root MSE	8.5000

Dependent Variable ($Export_i$)	Coef.	Std. Err.	t	P> t	95% Conf. Interval
GDP_i	0.0049276	0.0042212	1.17	0.255	-8897706 1.010000
GDP_j	0.0027419	0.0017037	1.61	0.121	-0.0007743 0.006258
$GDP_i - GR_i$	607402	4605414	0.13	0.896	-2.790001 1951495
$GDP_i - GR_j$	-1786475	2392451	-0.75	0.462	-6724251 3151302





$GDPPC_i$	-123142.7	117631.8	-1.05	0.306	-365922.9	119637.5
$GDPPC_j$	-448504.9	297917.5	-1.51	0.145	-1063376	166366.7
$DIST_{i,j}$	927.6908	28574.79	0.03	0.974	-58047.77	59903.16
$Const$	1.3600005	13.010031	0.45	0.654	-4.840000	7.570040
F(7, 24)	19.19					
Prob > F	0.0000					
R-squared	0.8484					
Adj R-squared	0.8042					

APPENDIX B: Results for the Augmented GM of equation 3.4

Source	SS	df	MS	Number of Observation	of 32
Model	1.09830000	17	6.46050000	F(17, 14)	20.91
Residual	4.32450000	14	3.08890000	Prob > F	0.0000
Total	1.14150000	31	3.68230000	R-squared	0.9621
				Adj R-squared	0.9161
				Root MSE	5.6000

Dependent Variable (Coef.	Std. Err.	t	P> t	95% Conf. Interval	
$Export_i$)						
GDP_i	-0.021138	0.012972	-1.63	0.125	-0.0489597	0.0066844
GDP_j	0.0124111	0.0031251	3.97	0.001***	0.0057084	0.0191139
$GDP_i - GR_i$	-1.300000	6964924	-1.86	0.083*	-2.790001	1951495
$GDP_i - GR_j$	-387871.8	1822263	-0.21	0.835	-4296238	3520494
$GDPPC_i$	639355.3	400015	1.60	0.132	-218591.4	1497302
$GDPPC_j$	-2020198	455203.8	-4.44	0.001***	-2996513	-1043883
$DIST_{i,j}$	442667.2	455203.8	3.38	0.005***	161649.	723685.2
POP_i	-195.4337	135.3845	-1.44	0.171	-485.8046	94.93717
POP_j	5.783984	20.17329	0.29	0.779	-37.48342	49.05139
$REER_i$	-1.590000	4997296	-3.18	0.007***	-2.660000	-5151256
$REER_j$	1119675	470936.2	2.38	0.032**	109617	2129732
$OEER_i$	-2.960000	2.020000	-0.15	0.886	-4.630000	4.040000
$OEER_j$	8003838	1887757	4.24	0.001***	3955002	1.210000
$OPEN_i$	-3323109	2189586	-1.52	0.151	-8019303	1373086
$OPEN_j$	2144838	1345388	1.59	0.133	-740732.1	5030408
FDI_i	0.0295367	0.0080658	3.66	0.003***	0.0122372	0.0468362
FDI_j	0.0355849	0.0207841	1.71	0.109	-0.0089926	0.0801623
Constant	1.3800001	1.9800001	0.07	0.946	-4.1200000	4.390000

Note: *, **, and *** imply that a particular variable is significant at 10, 5, and 1 percent level of statistical significance.

