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ASEAN-CHINA TRADE FLOWS: MOVING FORWARD WITH ACFTA

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ASEAN-China Trade Flows: Moving Forward with ACFTA

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1. INTRODUCTION

China has emerged as an important trading partner for the Association of Southeast Asian Nations (ASEAN) since the mid-1990s. ASEAN-China trade is said to have expanded more than five-fold between 1997 and 2005 (Yeoh, 2007) and by 2007, the trade volume between ASEAN and China had surpassed the USD200 billion target. Based on the 2006 data, China ranked as the fifth export market destination and third import market origin for ASEAN (ASEAN Secretariat, 2007). Though, the export intensities of ASEAN to China are increasing, they said to differ considerably amongst member countries (Lau and Hooi, 2007).

China's deeper integration in merchandise trade came with her accession to the World Trade Organization (WTO) in 2001 whilst at the regional level, the cornerstone of her ascendance is the establishment of the ASEAN-China Free Trade Area (ACFTA) by 2010 for the original ASEAN members (see Tambunan, 2005; Saw *et al.*, 2005). The inception of the ACFTA is supposed to lead to major restructuring of the region's trade patterns (Gill and Kharas, 2007; Gaulier *et al.*, 2007) through intra-industry specialization (Amiti and Freund, 2008) in manufactures. This is already evident based on past trends. Sourcing most of its components from the region (Gangnes and Van Assche, 2008), China has become the nucleus of trade in the region. This is the result of China repositioning itself from the first periphery into the core of production networks (Srholec, 2006) between 1995 and 2004 thereby emerging as the endpoint of the Asian assembly line (Chaturvedi *et al.*, 2006; Haltmeier *et al.*, 2007).

The above developments resulted in burgeoning literature on the implications of China's ascendance on the region. While some view China as indirect threat particularly in third markets, others contend with a co-movement of export expansion between China and Asia due to the vertical integration of many products (see Wong, 2003; Greenaway *et al.*, 2006; Harrigan and Deng, 2007; Athukorala, 2008a, 2008b). There are also claims that China's influence on ASEAN is direct in that she has encouraged more exports to flow into her huge market and changed trade flows amongst member countries. As demand and supply become more China-centered, Tambunan (2005) questions the relevancy of ASEAN given that individual countries trade more with China than among themselves.

With the advent of the ACFTA, it is therefore timely to examine dynamic shifts in trade between the five original ASEAN (Malaysia, Singapore, Thailand, Indonesia and the Philippines, hereafter referred to as ASEAN-5) member countries to identify if China has indeed reorganized trade flows away from intra-ASEAN interactions to that of individual ASEAN countries with China.

The paper is structured in the following manner. Section 2 describes the trade structure between ASEAN and China. Section 3 elaborates on the gravity model employed for the study, details the data used and presents the empirical estimations for the bilateral trade flows of ASEAN. Section 4 briefly elucidates the importance and relevancy of China to ASEAN in the context of the ACFTA. The final section, Section 5, concludes.

2. CHINA-ASEAN TRADE RELATIONS

2.1 Trade Interactions with ASEAN-5

Prior to uncovering the dynamic shifts in trade patterns between ASEAN and for China-ASEAN, it is important to examine the shares of intra-ASEAN trade and the importance of China as an export destination and import source for the ASEAN market (see Table 1).

Table 1: Market Shares of ASEAN-5 (in percent)

Country	Share of Intra-ASEAN* Trade						Share of China, 2006		
	Exports		Imports		Total Trade		Exports	Imports	Total Trade
	1995	2006	1995	2006	1995	2006			
Malaysia	26.3	26.1	23.4	25.2	25.0	25.7	5.3	11.4	8.0
Singapore	45.3	30.9	45.8	26.1	45.5	28.6	8.6	10.6	9.5
Thailand	15.1	22.2	16.5	18.5	15.7	20.3	6.4	10.3	8.4
Indonesia	9.2	18.3	7.9	31.7	8.6	23.4	2.3	8.1	4.5
Philippines	3.4	17.3	4.6	19.7	3.9	18.6	9.0	6.6	7.8
TOTAL	99.2	94.3	98.1	90.3	98.8	92.5	6.1	9.4	7.6

Note: 1. * refers to the total trade of the ten ASEAN countries. For 1995, only the eight ASEAN countries is considered as the data is not available for Lao PDR and Vietnam.
2. Latest data available is 2006.

Source: ASEAN Secretariat.

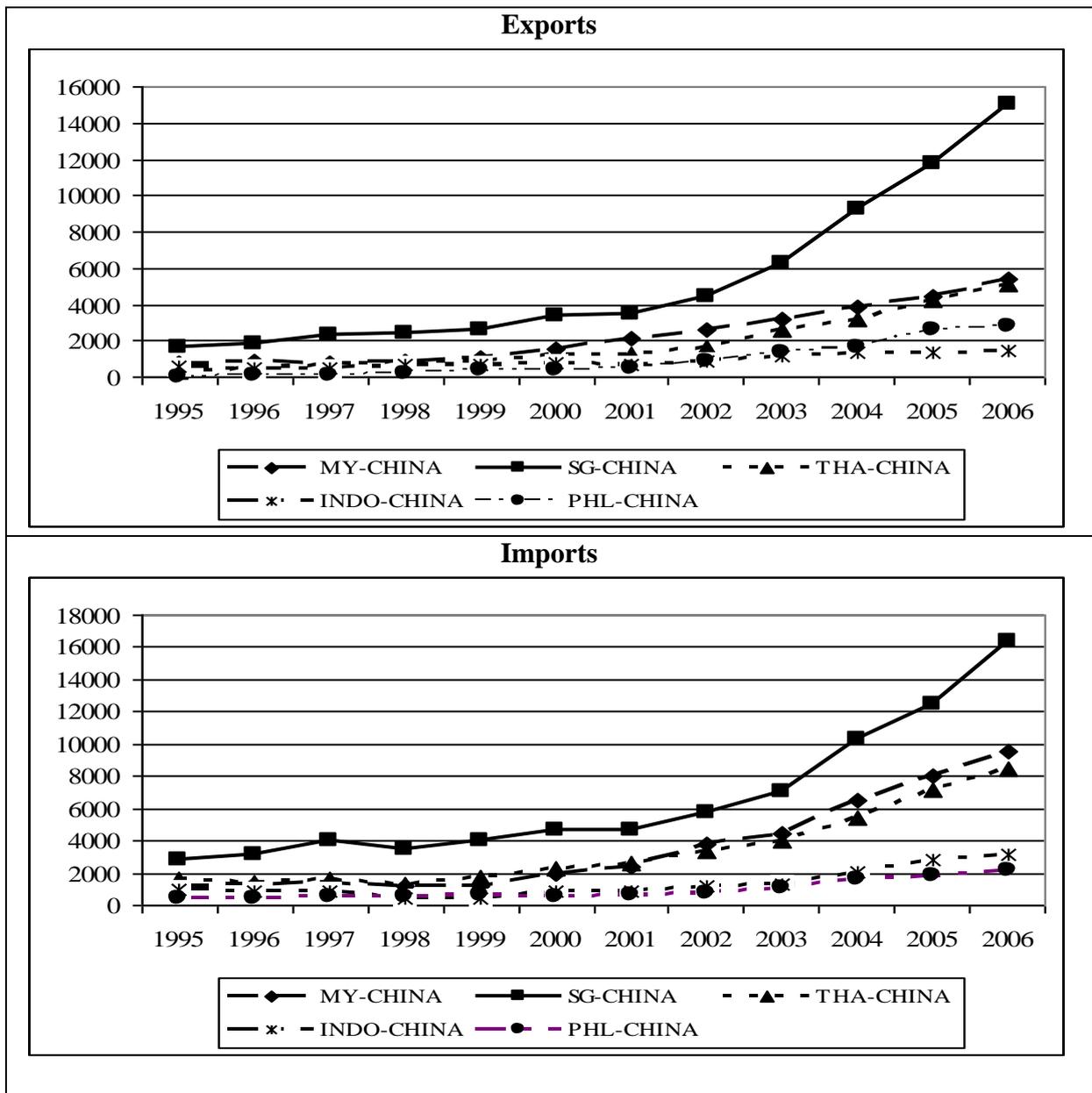
The combined market share of the five original ASEAN member countries are representative of intra-ASEAN trade flows as they command more than 90 per cent of intra-ASEAN trade (Francis and Kallummal, 2005). In 1995, intra-ASEAN trade was mainly produced by Singapore, followed by Malaysia. However, in the case of Singapore, her interactions with the other ASEAN countries had declined considerably. Conversely, intra-ASEAN trade had become more significant for the other three countries, Thailand, Indonesia and the Philippines. Based on the share of each individual ASEAN country in total intra-ASEAN trade in 2006, it can be inferred that the ASEAN-5 now assigns almost equal importance to intra-regional trade flows.

Increases in the market shares of intra-ASEAN trade amongst the ASEAN-5 between 1995¹ and 2006 signify an increase in interdependence. In fact, during the establishment stage, the share of intra-ASEAN trade in total trade of member countries was estimated to be only 12-15 per cent (Xiaohong, 2005; Francis and Kallummal, 2008). The figure now stands at 25 per cent.

By contrast to the share of intra-ASEAN trade, the trade shares of China in each of the individual markets of the ASEAN-5 are relatively small. China appears to command a higher share in imports relative to exports for all countries, with the exception for the Philippines. Indonesia however appears to be the least integrated with China in terms of exports though the latter represents 8 per cent of Indonesian imports.

Despite the small market shares of China in ASEAN trade, the ASEAN-China interactions have grown over time. Figure 1 depicts the ASEAN-China trade flows for the period 1995 to 2006.

Figure 1: China-ASEAN Trade, 1995-2006 (in US\$ million)



Note: The trade flows are in real terms, deflated by the consumer price index (1990=100).

Source: UN COMTRADE database.

There are interesting observations that emerge from the ASEAN-CHINA trade interactions in Figure 1. First, both export and import flows in ASEAN-China trade depict a sharp upward trend since China's accession to the WTO in 2001. Second, trade interactions between the individual ASEAN-5 member economies with China exemplify three levels of integration. Singapore-China (SG-CHINA) trade relations take a distinct lead in terms of exports and imports (see also Xiaohong, 2005; Dean *et al.*, 2008), whilst the other four remaining countries are behind moving in a pair-wise sync. The second layer comprises trade flows of Malaysia-China (MY-CHINA) which parallel Thailand-China (THA-CHINA) whilst the third layer is Indonesia-China (INDO-CHINA) trade flows that follow closely that of Philippines-China (PHL-CHINA). Third, most countries at large, record consistent trade

deficits with China over the period of review. Despite this, the long-term gains with further trade liberalization under the ACFTA should not be underestimated. Fourth, trade balances of Indonesia and the Philippines with China have undergone some changes. Indonesia appears to be importing more from China in the recent past relative to its corresponding export. As for the Philippines, since 2002, she has recorded surpluses in trade balance with China.

Further to the above differences in aggregate trade flows, it is important to identify at a disaggregate level the product concentration of trade. Table 2 presents the structure of ASEAN-China trade from the export and import perspectives.

Table 2: Product Composition in ASEAN-China Exports

Year	SITC 5	SITC 6	SITC 7	SITC 8	SITC 5	SITC 6	SITC 7	SITC 8
	EXPORTS				IMPORTS			
Malaysia-China								
1995	7.17	60.49	29.50	2.84	10.32	44.16	34.54	10.98
2000	13.70	17.50	64.64	4.16	7.97	16.60	64.69	10.74
2005	17.07	9.68	66.37	6.87	4.79	11.28	76.83	7.10
Singapore-China								
1995	18.69	18.85	57.28	5.19	4.94	31.49	49.33	14.23
2000	17.68	5.49	69.43	7.40	3.34	13.11	69.95	13.60
2005	16.84	2.88	73.63	6.65	2.79	9.77	76.29	11.15
Thailand-China								
1995	31.88	26.56	31.57	9.99	14.80	50.81	28.03	6.37
2000	20.16	16.57	59.70	3.56	10.31	25.23	53.60	10.86
2005	22.29	12.40	61.94	3.36	8.98	27.29	56.02	7.70
Indonesia-China								
1995	15.68	79.30	4.45	0.58	25.55	40.45	28.87	5.12
2000	32.22	58.49	7.50	1.78	25.69	34.48	31.95	7.88
2005	38.56	41.27	17.27	2.89	18.96	34.83	36.53	9.68
Philippines-China								
1995	15.64	59.52	21.84	3.01	20.29	53.56	20.26	5.90
2000	4.21	19.70	74.30	1.79	15.16	37.62	32.31	14.91
2005	0.83	4.87	93.83	0.47	10.58	23.60	59.42	6.40

Note: SITC 5 – chemicals and related products; SITC 6 – manufactured goods classified chiefly by material; SITC 7 – machinery and transport equipment and SITC 8 – miscellaneous manufactured articles.

Source: Calculated from the UN COMTRADE database.

Several observations are noted from the product structure in the above table. First, with the exception for Singapore-China trade, the structure of trade has shifted for the other ASEAN trading relationships with China between 1995 and 2005. Second, the distribution of products traded for all bilateral trade flows are considerably skewed. Products traded are heavily concentrated in the SITC 7 category for all bilateral flows with the exception for Indonesia-China trade. Interestingly in the case of exports from Philippines to China, the share in SITC 7 is extremely high, reflecting a high concentration in electronics (semiconductors and electronics data processing) (see also Francis and Kallummal, 2008). In the case of the Indonesia-China trade, exports to China are basically from categories SITC 5 and 6 whilst the imports from China comprise products of both categories SITC 6 and 7. The overlap of product concentration in SITC 7 from both the export and imports perspectives for most bilateral trade flows reflect the integration of those countries (particularly Malaysia,

Singapore and Thailand) with China in the region's production networks (Saw *et al.*, 2005; Shen, 2005; Chirathivat, 2005; Yeoh, 2007; Dean *et al.*, 2008; Francis and Kallummal, 2008; Zweig, 2008).

The above discussion reveals that the ASEAN-5 command almost equal market shares of intra-ASEAN trade flows but portray distinct differences in their trade interactions (aggregate trade flows and product structure) with China. These differences reflect sufficient variations necessary for testing empirically the influence of China on intra-ASEAN trade flows in Section 3.

2.2. Trade Interactions with Newer ASEAN Members

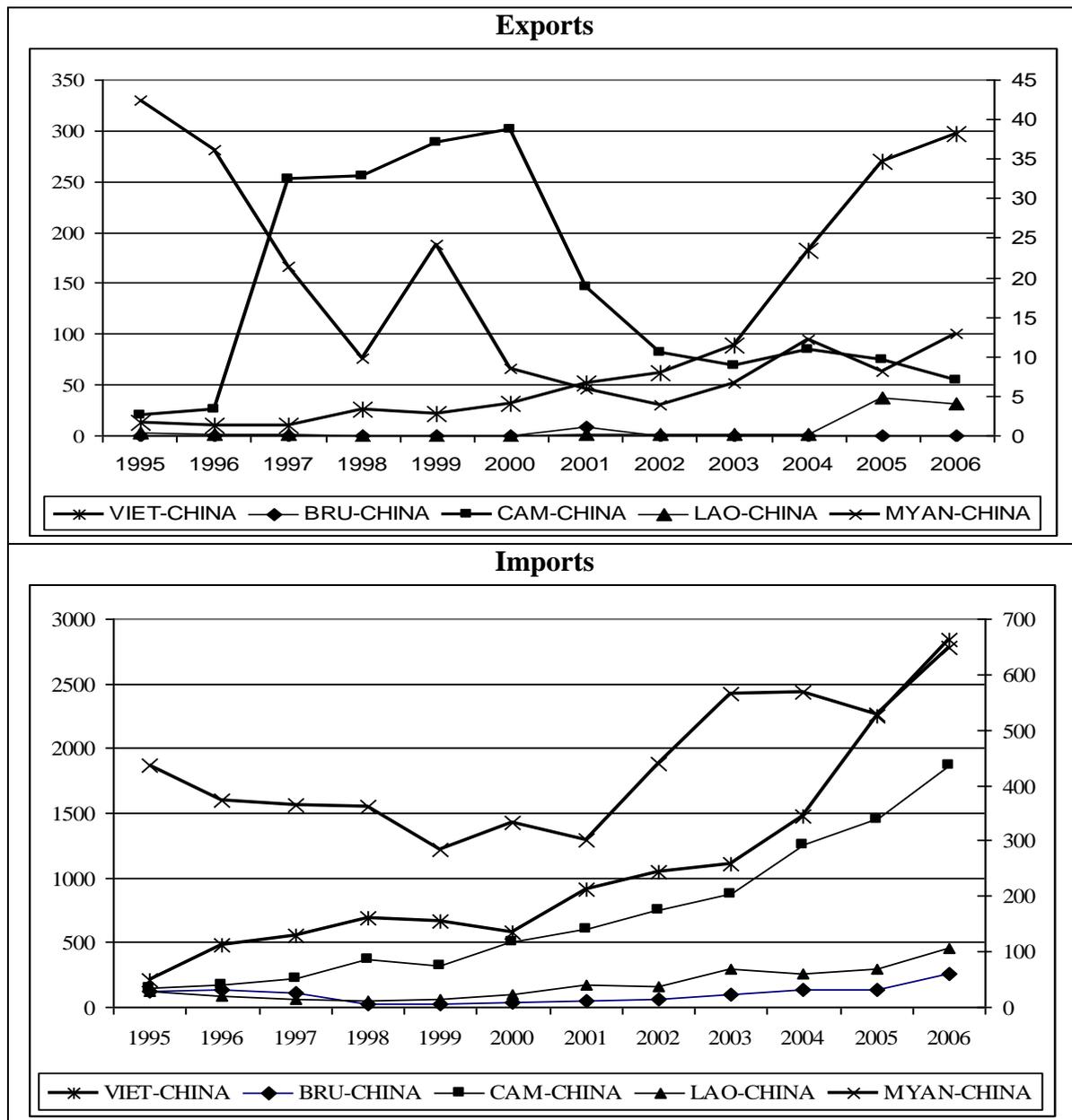
Figure 2 portrays the bilateral trade flows between China and Brunei and China with the four other new ASEAN member countries (Cambodia, Lao, Myanmar and Vietnam, hereafter referred to as CLMV).

Amongst the five ASEAN countries in Figure 2, the volume of trade in manufactures is highest for Vietnam-China (VIET-CHINA), but remains much lower than that of the ASEAN-5 with China. Bilateral trade between Vietnam and China grew from USD222 million in 1995 to USD3140 million in 2006. Vietnam basically exports marine products, oil and gas to China and imports from China machinery, fertilizers and consumer durables (Shambaugh, 2005; Xiahong, 2005). China has also gained importance in the Myanmar market as the fourth largest investor and accounting for 24 per cent of total trade volume of the latter owing to prosperous border trade.

Unlike the Vietnam-China trade trends, the other four remaining countries do not depict a clear upward trend in exports to China. Sharp declines are noted in both exports from Myanmar to China (MYAN-CHINA) and Cambodia to China (CAM-CHINA). Exports of manufactures from Brunei to China (BRU-CHINA) and Lao to China (LAO-CHINA) are almost negligible. The Lao-China border trade is not buoyant as that of Myanmar-China. As such, huge deficits in trade in manufactures are common between the newer ASEAN member countries with China as they are basically resource-rich economies (with the exception of Cambodia).

These deficits in trade in manufactures are indeed a cause of concern for the CLMV with the advent of the ACFTA. Given their weak industrial structures, the CLMV countries are apprehensive that the ACFTA will render their domestic markets swamped by cheaper and better quality Chinese goods (Ba, 2003).

Figure 2: China-Brunei and China-CLMV Trade, 1992-2006 (in US\$ million)



Note: 1. The trade flows are in real terms, deflated by the consumer price index (1990=100).
 2. Refer to the left axis for VIET-CHINA trade flows and the right axis for the remaining trade flows.
 3. The above data should be interpreted with caution given that the data are based on the corresponding trading partner (China) records as there were many gaps in data from the perspective of the CMLV.

Source: UN COMTRADE database.

3. INTRA-ASEAN TRADE FLOWS: CHINA'S INFLUENCE

3.1 Modified Gravity Model

The gravity equation is employed for analyzing intra-ASEAN bilateral trade flows. The basic equation is augmented (see Mulapruck and Coxhead, 2005; Athukorala, 2008a, 2008b) and the following are estimated in log-linear form:

$$\ln X_{i,j} = \alpha + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln PGDP_i + \beta_4 \ln PGDP_j + \beta_5 \ln DST_{i,j} + \beta_6 \ln ADJ_{i,j} + \beta_7 \ln RER_{i,j} + \beta_8 \ln X_{i,CHINA} + \beta_9 \ln X_{CHINA,j} + \varepsilon_{ij} \quad (1)$$

$$\ln X_{i,j} = \alpha + \beta_1 \ln GDP_i + \beta_2 \ln GDP_j + \beta_3 \ln N_i + \beta_4 \ln N_j + \beta_5 \ln DST_{i,j} + \beta_6 \ln ADJ_{i,j} + \beta_7 \ln RER_{i,j} + \beta_8 \ln X_{i,CHINA} + \beta_9 \ln X_{CHINA,j} + \varepsilon_{ij} \quad (2)$$

where subscripts i and j refer to the exporting and the partner (importing) country respectively. The other variables are defined below:

X = bilateral exports² between i and j

GDP = real gross domestic product (GDP)

$PGDP$ = real GDP per capita

N = population

DST = distance between economic centres of i and j

ADJ = common border between i and j

RER = real exchange rate

$X_{i,CHINA}$ = exports of country i to China

$X_{CHINA,j}$ = exports of China to country j

ε = error term that picks up other influences on bilateral trade

α = constant term

The GDP , $PGDP$ / N , DST and ADJ are standard arguments of the gravity model. The GDP variable is a proxy for country size (market size and production capacity). The postulated signs for β_1 and β_2 are positive since a large country is more likely to achieve economies of scale, increase exports and simultaneously possess the capacity to absorb imports. Equations (3a) and (3b) use $PGDP$ and N interchangeably. $PGDP$ in equation (3a) serves to measure the income level and/ or purchasing power of a country and is expected to relate positively with bilateral trade volumes. Broadly speaking, $PGDP$ also captures better trade-related infrastructure and trade facilitation measures. Conversely, the coefficient on N in equation (3b) is expected to bear a negative sign as a large country is considered to be less open to trade. Further explanations for this is that a country with a large population implies a large domestic market and a more diversified range of output that would result in less dependence on international specialization.

Though $DIST$ is no longer an issue with technological advancement, geographical distance remains important for considerations of transport costs and timeliness in delivery (Athukorala, 2008) and is included in the estimations. Similarly ADJ captures additional advantages of proximity. Thus the expectations are for $\beta_5 < 0$ and $\beta_6 < 0$.

To reflect further the phenomena of production sharing in intra-ASEAN trade flows, the above equations 3(a) and 3(b) are augmented with RER . RER is a measure of international competitiveness of country i against country j (Athukorala, 2008), which is an important consideration for production sharing.

The most important explanatory variables for the purpose of the study is $X_{i,CHINA}$ and $X_{CHINA,j}$ to obtain some indications on the influence of China on intra-ASEAN trade flows,

following similar reasoning of that of Mulaprak and Coxhead (2005). However the study provides a different interpretation from that of Mulaprak and Coxhead (2005) since the partner country j is not third markets outside ASEAN but are ASEAN member countries. The inclusion of these variables in the study therefore capture the role of China in influencing intra-ASEAN trade *via* two confounding effects of an (a) expansion in export supply to China by the exporting country i ; and (b) expansion in import sourcing from China by the importing country j . If an increase in exports from i to China crowds out exports from i to j , then $\beta_8 < 0$. However, if an increase in exports from i to China promotes exports from i to j , then $\beta_8 > 0$. The variable $X_{CHINA,j}$ in turn indirectly measures the comparative advantage between China and i through the exports of the former to j . If China has a comparative advantage over i , then exports from China to j will bear a negative impact on exports from i to j and $\beta_9 < 0$. Conversely, $\beta_9 = 0$ when country i possesses a comparative advantage over China.

The above estimations are conducted for ten bilateral trade flows in manufactures between the ASEAN-5 countries for the period 1995 - 2006³. For a detailed description of the construction of variables and the various data sources, see Appendix 1.

3.2 Empirical Findings

Table 3 reports the regression estimates. All the standard arguments of the gravity model bear the expected sign, with the exception for GDP_j in equation 3(a), albeit insignificant. Interestingly, the results in equation 3(b) concur with the perception that highly populated economies engage less in trade. Contiguity and competitiveness are found to be not important for explaining export expansion at the very least within the key ASEAN countries.

More importantly is the coefficient estimates of China's influence on intra-ASEAN trade flows along the dimensions of an export destination and an import source. The variables of concern ($X_{i,CHINA}$ and $X_{CHINA,j}$) in both sets of estimates of Table 3 are consistent in terms of signs and significance. The coefficients of exports from i to China are positive and significant, suggesting that an increase in exports from a member country of ASEAN (i) to China does not crowd out exports between ASEAN countries (i to j). Instead, the results imply that China's integration in the region increases the size of the key ASEAN member economies export market (scale of production). By contrast, the coefficients for $X_{CHINA,j}$ are negative, albeit insignificant. There is therefore no sufficient evidence to make claims that import sourcing from China by ASEAN countries reduces export expansion within the latter. The results accord with the fact that China in the recent past has become more of an important export destination (particularly for parts and components from the region for final assembly to third markets) instead of an import source.

From the above, it can be said that despite claims that regional flows are becoming more China-centered, the evidence shows no diversion away from intra-ASEAN trade to ASEAN-China trade. In fact, ASEAN-China export expansion is a boon to intra-ASEAN trade flows for the key member economies. This concurs with other studies that find benefits derived from trade creation outweigh trade diversion (see Yunhua and Hang, 2004; Chirathivat, 2005), which has important implications for the ACFTA since further export expansion will be realized with the abolishment of trade barriers. Further, the relevancy of ASEAN in this context is still justified.

Table 3: Bilateral Trade Flows of ASEAN: Gravity Equation Estimates

Variable	Equation 3(a)		Equation 3(b)	
	Coefficient	Std. Err.	Coefficient	Std. Err.
$\ln\text{GDP}_i$	0.076	0.185	0.356*	0.181
$\ln\text{GDP}_j$	-0.127	0.196	0.201	0.224
$\ln\text{PGDP}_i$	0.258*	0.118	-	-
$\ln\text{PGDP}_j$	0.328**	0.126	-	-
$\ln\text{N}_i$	-	-	-0.288**	0.121
$\ln\text{N}_j$	-	-	-0.350**	0.129
$\ln\text{DST}_{i,j}$	-1.135**	0.292	-1.066**	0.298
$\ln\text{ADJ}_{i,j}$	-0.374	0.329	-0.300	0.333
$\ln\text{RER}_{i,j}$	0.110	0.150	0.110	0.150
$\ln\text{X}_{i,\text{CHINA}}$	0.272**	0.080	0.274**	0.080
$\ln\text{X}_{\text{CHINA},i}$	-0.034	0.128	-0.021	0.128
constant	20.634**	5.065	20.120**	5.021
N	240		240	
Groups	20		20	
R ² overall	0.751		0.752	

Note: 1. The above estimations are based on the random effects model, corrected for AR1 disturbances.
2. Statistical significance is denoted as **1% and *5%.

4. ACFTA: DOES CHINA MATTER?

Before the 1990s, there was no official relationship between ASEAN and China. Thereafter, China began to establish her economic ties⁴ with the ASEAN (see Appendix 2). Particularly, the idea of an FTA between ASEAN and China began to take shape soon after the latter's accession to the WTO. In November 2002, the Framework Agreement on Comprehensive Economic Cooperation was signed by both parties, setting out the objective of establishing the ACFTA (see Appendix 3).

The ACFTA, a wider integration of the ASEAN Free Trade Area (AFTA), came into being in 2004. It is to be accomplished by 2010 for the ASEAN-6 (ASEAN-5 plus Brunei) and by 2015 for the CLMV. The ACFTA will balance the two major regional arrangements in the world, the European Union (EU) and the North American Free Trade Area (NAFTA). Within the region, China will help balance the traditional powers of influence over ASEAN,

the US and Japan. The ACFTA will also be prominent as it will be the biggest FTA in terms of population size (1.7 billion people), Gross Domestic Product (GDP, USD2 trillion) and trade (USD1.23 trillion).

Though elements of cooperation in the ACFTA go beyond trade, the latter is an essential component of the integration. Relevant to the study, the following discussion thus focuses on the importance of trade with China for ASEAN and the reasons of the former as the best choice for the ASEAN+1 FTA⁵.

The current ASEAN institution lacks direction and has its own limitations. Amongst those are: difficulties for industries to upgrade due to low technological content (with the exception for Singapore), small domestic market and few economic complementarities that limit intra-regional trade (Xiaohong, 2005). Thus intra-ASEAN trade has reached a plateau at 25 per cent of total trade of the member countries, which pales in comparison with the levels of intra-regional trade in the EU and NAFTA (Xiahong, 2005; Yeoh, 2007). In this context, the ASEAN+1 marks the era of a new noticeable arrangement with a direction that provides for an enormous market that can propel intra-regional trade to greater heights and link the ASEAN members with the global production chain. Improvements in intra-regional investment are also envisaged within the integrated market since market risks and uncertainties get reduced through preferential agreements (Shen, 2005).

To provide ASEAN that growth momentum, there is a critical need for a ‘core (nucleus) country.’ In the present situation, none of the ASEAN member countries are capable of playing that role. Even though Singapore is at a higher level of development relative to the rest of ASEAN, her size (besides her nature of trade) limits her influence. The other regional groups, such as the EU and NAFTA, also have their core groups, which are France-Germany and the US-Canada respectively. China is therefore the best available choice⁶ for ASEAN to initiate successful integration within the region.

From existing trade patterns, China has already positioned herself at the center of the regional production networks. ASEAN’s dependence on external demand from developed countries has been largely routed through China. There is evidence of the importance and persistence of an Asian supplier (exporter) network to China (Park, 2006; Dean *et al.*, 2008), shifting the focus away from Japan. An FTA therefore will further enlarge trade between ASEAN and China through further consolidation of regional production networks and plausibly even reduce direct export dependence on developed economies. Preferential market access under the ACFTA will help ASEAN exporters to compete more effectively with exporters from developed countries in industries where China has a comparative disadvantage. The ACFTA is expected to increase trade between both parties at the expense of their trade with the rest of the world. Saygili and Wong (2006) predict from their theoretical model of economies of scale and intra-industry trade that ASEAN’s exports to China will increase by 41 per cent while her corresponding imports from the latter will rise by 28 per cent with the advent of the ACFTA (see also Saw *et al.*, 2005 and Shen, 2005).

Despite the expected gains from the ACFTA, painful adjustments in certain industries are inevitable. Scale effects co-exist with competition. Similarities in industrial structures between ASEAN and China will heighten competition forcing structural adjustments in the former. However, complementarities established through trade in differentiated products (parts and components) will allow for finer specialization across ASEAN countries. As the ASEAN countries strengthen their comparative advantages, competition may eventually be rendered benign, but fears of the China threat will be realized particularly for the CLMV given their weak industrial structures. This would require concerted industrial policy interventions by the individual CLMV countries to identify their niche in the regional production chain by specializing in the low-end of the value chain.

The key message of the above discussion is that in terms of trade, the ASEAN is no longer a self-driven institution. China is crucial to ASEAN. The current global financial crisis attests to China's importance in supporting export growth of the region. China's sustained growth is expected and even anticipated to cushion or even offset partially the negative trade impacts on ASEAN due to the sluggish demand from the US and Europe. Bearing that in mind, the ACFTA is however just a means to an end since both the ASEAN and China still depend on external markets outside the region. Thus, the ACFTA, instead should rightfully be regarded a platform for greater East Asia regional integration. The immediate concern for ASEAN in the run-up to the formalization of the ACFTA is that for the FTA to be effective for ASEAN there needs to be sufficient industrial upgrading and strengthening of the industrial market base to ensure greater market access in China.

5. CONCLUDING REMARKS

Based on the trade interactions between the five founding ASEAN members and China and the interactions amongst the ASEAN member countries, significant variation exists amongst the ASEAN countries in terms of the importance assigned to China as an export destination and an import source. However, there is no crowding-out of bilateral intra-ASEAN exports with individual ASEAN countries exporting to China. In fact, China's trade association with the region increases intra-ASEAN exports. Likewise, there is also no indication that import sourcing from China by ASEAN countries reduces intra-ASEAN export flows.

Though China has undeniably changed trade flows amongst ASEAN member countries, it is not entirely true to claim that China has significantly reorganized trade flows away from intra-ASEAN to that of ASEAN-China. The ASEAN-China trade interactions in fact can be considered an important driver for intra-ASEAN export expansion. The key message is, ASEAN will remain relevant despite China's ascendance while China will be the way forward for ASEAN.

Appendix 1: Variable Construction and Data Source

Variable	Variable Construction	Data Source
X	Value of bilateral exports in US\$ measured at constant (1990) price. Exports are deflated by the US consumer price index.	Exports (at fob price, US\$) compiled from UN COMTRADE database.
GDP	Real GDP (at 1990 price). GDP is deflated by the US consumer price index.	International Financial Statistics, IMF.
PGDP	Real GDP per capita (at 1990 price). Real GDP divided by population.	International Financial Statistics, IMF.
N	Population.	International Financial Statistics, IMF.
DST	Bilateral great-circle distance between major cities of each country.	CEPII database.
ADJ	A binary dummy variable which takes the value 1 for countries which share a common land border and 0 otherwise.	CEPII database.
RER	$RER_{ij} = NER * (P_j/P_i)$ where NER = nominal bilateral exchange rate index P_j = price level of country j proxied by the producer price index P_i = price level of country i proxied by the GDP deflator. RER is at 2000 price.	International Financial Statistics, IMF.
$X_{i,CHINA}$	Value of bilateral exports from individual ASEAN countries to China at constant (1990) price. Exports are deflated by the US consumer price index.	Exports (at fob price, US\$) compiled from UN COMTRADE database.
$X_{CHINA,j}$	Value of bilateral exports from China to individual ASEAN countries at constant (1990) price. Exports are deflated by the US consumer price index.	Exports (at fob price, US\$) compiled from UN COMTRADE database.

Appendix 2: Developments between ASEAN and China

Date	Event
July 1991	The Chinese Foreign Minister was invited as a guest of the host country to attend the Post Ministerial Meeting (PMC) for the first time.
July 1992	China became ASEAN's "consultative dialogue partner."
1993	Both parties decided to set up the ASEAN-China Joint Committee on Economic Trade and Trade Cooperation (ACJCETC) and the ASEAN-China Joint Committee on Science and Technology (ACJCST).
1994	ASEAN and China signed the ACJCETC and ACJCST agreements.
1995	Both parties began political consultation on the Senior Officials level, namely Vice Ministers level.
June 1996	The status of China as a consultative dialogue partner of ASEAN was elevated to that of a full dialogue partner.
1997	Leaders of both parties held their first summit and issued a joint statement, in which they announced their decision to establish a 21st century-oriented partnership of good neighbourliness and mutual trust.
Feb. 1997	Five working parallel mechanisms were set up: ACJCETC, ACJCST, ASEAN-China Joint Cooperation Committee (ACJCC) and ASEAN Committee in Beijing (ACB).
Dec. 1997	Both parties held their first Informal Summit in Kuala Lumpur, Malaysia.
1999-2000	China signed with all the ASEAN member nations the bilateral 21st century-oriented relationship documents.
2001	Both parties established a new cooperative mechanism, the ASEAN-China Trade Council.
Nov. 2001	At the 5th ASEAN-China 10+1 Summit in Brunei, China's Premier mooted to establish the ACFTA. Both parties identified agriculture, information technology, human resources development, two-way investment and the Mekong River Basin development as key fields of bilateral cooperation.
Sept. 2002	The 1st Consultation between ASEAN Economic Ministers and the Ministry of Foreign Trade and Economic Cooperation of China was held in Brunei.
Nov. 2002	ASEAN and China signed the Framework Agreement on Comprehensive Economic Cooperation at the 6th ASEAN-China 10+1 Summit held in Cambodia, aimed at establishing the ACFTA within 10 years. Both parties also issued the Joint Declaration of ASEAN and China on Cooperation in the field of non-traditional security issues and signed the declaration on the Conduct of Parties in the South China Sea. Further, at the 1st Greater Mekong Sub-region (GMS) Summit, China released a National Report on her cooperation in the GMS.
Oct. 2003	China acceded to the Treaty of Amity and Cooperation in Southeast Asia at the 7th ASEAN-China 10+1 Summit in Indonesia. Both sides also issued the Joint Declaration on Strategic Partnership for Peace and Prosperity.
Jan. 2004	The Early Harvest Programme (EHP) of the ACFTA was launched, involving preferential tariffs on more than 500 products.
Nov. 2004	Both parties endorsed the Plan of Action to implement the Joint Declaration on ASEAN-China Strategic Partnership for Peace and Prosperity at the 8th ASEAN-China 10+1 Summit in Laos. Both parties also signed the Agreement on Trade in Goods and the Agreement on Dispute Settlement Mechanism, concerning the ACFTA. The ASEAN-China Eminent Persons Group (ACEPG) was initiated to take stock of cooperation and recommend measures for strengthening future ASEAN-China dialogue relations.
July 2005	Both parties started on the complete tariffs reduction on 7000 tradable commodities.
Dec. 2005	At the 9 th ASEAN-China Summit in Kuala Lumpur, both parties endorsed 5 new priority areas of cooperation, namely energy, transport, culture, public health and tourism, in addition to the existing 5 priority areas.

Contd.

Date	Event
Oct. 2006	Commemoration of the 15th Anniversary of the ASEAN-China dialogue relations - "Year of Friendship and Cooperation between ASEAN and China".
Jan. 2007	The FTA agreement on trade in services was signed.
Nov. 2007	At the 11th ASEAN-China Summit in Singapore, both parties agreed to include "environment" as the 11th priority area of cooperation between ASEAN and China, in addition to the 10 priority areas of cooperation.
Oct. 2008	Both parties signed a series of contracts at the 5th China-ASEAN Expo.

Source: 1. Compiled from Xiaohong (2005) and Saw *et al.* (2005).
2. ASEAN Secretariat.

Appendix 3: Framework Agreement on Comprehensive Economic Cooperation between ASEAN and the People's Republic of China

PART 1, ARTICLE 3 - Trade in Goods

1. In addition to the Early Harvest Programme under Article 6 of this Agreement, and with a view to expediting the expansion of trade in goods, the Parties agree to enter into negotiations in which duties and other restrictive regulations of commerce (except, where necessary, those permitted under Article XXIV (8)(b) of the WTO General Agreement on Tariffs and Trade (GATT)) shall be eliminated on substantially all trade in goods between the Parties.
2. For the purposes of this Article, the following definitions shall apply unless the context otherwise requires:
 - a. "ASEAN 6" refers to Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand;
 - b. "applied MFN tariff rates" shall include in-quota rates, and shall:
 - i. in the case of ASEAN Member States (which are WTO members as of 1 July 2003) and China, refer to their respective applied rates as of 1 July 2003; and
 - ii. in the case of ASEAN Member States (which are non-WTO members as of 1 July 2003), refer to the rates as applied to China as of 1 July 2003;
 - c. "non-tariff measures" shall include non-tariff barriers.
3. The tariff reduction or elimination programme of the Parties shall require tariffs on listed products to be gradually reduced and where applicable, eliminated, in accordance with this Article.
4. The products which are subject to the tariff reduction or elimination programme under this Article shall include all products not covered by the Early Harvest Programme under Article 6 of this Agreement, and such products shall be categorised into 2 Tracks as follows:
 - a. Normal Track: Products listed in the Normal Track by a Party on its own accord shall:
 - i. have their respective applied MFN tariff rates gradually reduced or eliminated in accordance with specified schedules and rates (to be mutually agreed by the Parties) over a period from 1 January 2005 to 2010 for ASEAN 6 and China, and in the case of the newer ASEAN Member States, the period shall be from 1 January 2005 to 2015 with higher starting tariff rates and different staging; and
 - ii. in respect of those tariffs which have been reduced but have not been eliminated under paragraph 4(a)(i) above, they shall be progressively eliminated within timeframes to be mutually agreed between the Parties.
 - b. Sensitive Track: Products listed in the Sensitive Track by a Party on its own accord shall:
 - i. have their respective applied MFN tariff rates reduced in accordance with the mutually agreed end rates and end dates; and
 - ii. where applicable, have their respective applied MFN tariff rates progressively eliminated within timeframes to be mutually agreed between the parties
5. The number of products listed in the Sensitive Track shall be subject to a maximum ceiling to be mutually agreed among the Parties.
6. The commitments undertaken by the Parties under this Article and Article 6 of this Agreement shall fulfill the WTO requirements to eliminate tariffs on substantially all the trade between the Parties.
7. The specified tariff rates to be mutually agreed between the Parties pursuant to this Article shall set out only the limits of the applicable tariff rates or range for the specified year of implementation by the Parties and shall not prevent any Party from accelerating its tariff reduction or elimination if it so wishes to.
8. The negotiations between the Parties to establish the ASEAN-China FTA covering trade in goods shall also include, but not be limited to the following:
 - a. other detailed rules governing the tariff reduction or elimination programme for the Normal Track and the Sensitive Track as well as any other related matters, including principles governing reciprocal commitments, not provided for in the preceding paragraphs of this Article;
 - b. Rules of Origin;
 - c. treatment of out-of-quota rates;
 - d. modification of a Party's commitments under the agreement on trade in goods based on Article XXVIII of the GATT;
 - e. non-tariff measures imposed on any products covered under this Article or Article 6 of this Agreement, including, but not limited to quantitative restrictions or prohibition on the importation of any product or on the export or sale for export of any product, as well as scientifically unjustifiable sanitary and phytosanitary measures and technical barriers to trade;

- f. safeguards based on the GATT principles, including, but not limited to the following elements: transparency, coverage, objective criteria for action, including the concept of serious injury or threat thereof, and temporary nature;
- g. disciplines on subsidies and countervailing measures and anti-dumping measures based on the existing GATT disciplines; and
- h. facilitation and promotion of effective and adequate protection of trade-related aspects of intellectual property rights based on existing WTO, World Intellectual Property Organization (WIPO) and other relevant disciplines.

Source: ASEAN Secretariat.

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Notes

¹ It was in 1995 at the Fifth ASEAN Summit that the agenda for Greater Economic Integration was adopted.

¹ Since Singapore did not report data on its bilateral trade with Indonesia for the period 1995-2002, the data gaps were filled using the corresponding trading partner records.

¹ This is the latest data available from the UN COMTRADE database at the time of study.

¹ China's proposal of ACFTA is deemed to be strongly politically motivated.

¹ The problems inherent in the ACFTA framework and the likelihood of a successful integration are upon its formalization is beyond the scope of this paper.

¹ There are also counterarguments to this. Some say that China cannot and should not play the lead role given her current level of GDP (Sheng, 2003, cited from Yeoh, 2007).

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