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The New Regionalism in Southeast Asian Trade Policy and Issues in Market Access and Industrial Development: An Analysis of the ASEAN-China Free Trade Agreement

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Abstract

This paper argues that the recent bilateral free trade initiatives of ASEAN members and, in particular, the ASEAN-China free trade agreement (ACFTA), are driven by ASEAN's desire to maintain its export growth based on the regional production networks promoted by multinational corporations. The paper undertakes an empirical analysis of ASEAN-China bilateral trade and the tariff preferences under the ACFTA to understand the actual prospects for Southeast Asian countries to expand their market access. It is concluded that without effective strategies for industrial upgradation and restructuring at the national levels, ASEAN's attempts to obtain increased investment and export market access based on FTAs will fail to be effective.

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Key Words

ASEAN-China FTA, bilateral free trade agreements, Southeast Asian regional trade, market access, FDI, regional production networks, margin of preference, South-South RTAs

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The New Regionalism in Southeast Asian Trade Policy and Issues in Market Access and Industrial Development: An Analysis of the ASEAN-China Free Trade Agreement¹

Smitha Francis and Murali Kallummal

For almost 3 decades from the late 1960s, regional integration in the East Asian region was associated almost exclusively with the initiatives of the Association of Southeast Asian Nations (ASEAN). But, since the 1997 crisis, East Asia is itself moving towards region-wide economic integration to varying degrees. ASEAN and China, through their various bilateral free trade agreements (FTAs), are playing pivotal roles in the evolving dynamics of East Asian regionalism.

This paper argues that these new regional initiatives of ASEAN members are driven by market access considerations like the earlier ones, and are underlined by their FDI-led export-driven growth strategy. Given China's central role in driving many of the new bilateral initiatives, the paper undertakes an empirical analysis of the ASEAN-China FTA to understand the actual prospects for Southeast Asian countries to expand their market access.

The paper is structured as follows. The first section gives an overview of the different phases of regionalism in Southeast Asia, which differentiates between its earlier and the new phases. The second section gives an outline of the ASEAN-China FTA and the perceived motivations in market access driving it from the point of view of both the partners. In order to understand the dynamics of bilateral trade, the third section analyses ASEAN's and China's overall trade flows as well as the sectoral structure of their bilateral trade. The fourth section explores changes in the market access position of ASEAN countries. This involves: market share analyses for ASEAN countries in China at the sectoral level; the scope for preferential tariff treatment in the ASEAN-China FTA; and the comparative performance of both China and ASEAN in the major developed country markets. The fifth section puts forward some implications of the observed changes in the market access scenario of ASEAN for their industrial development process. The concluding section summarises the major arguments made in the paper.

I. Phases of Regionalism in Southeast Asia

The Early Phase (1967-1998)

The early phase of Southeast Asian regionalism can be observed to have gone through two distinct stages.²

Regionalisation in Southeast Asia (1967-1992)

ASEAN originated way back in 1967 out of political and security concerns during the Vietnam War.³ Economic and social cooperation was initially not a priority. Between 1967 and the early 1970s, the share of intra-ASEAN trade in the total trade of member countries was between 12 and 15 per cent.⁴ Even though cooperation for trade expansion was included, economic cooperation really started only from the 1976 Bali Summit, which was held after the first oil price shock-induced recession and the breakdown of the Bretton Woods system. Given that most of the members' trading partners during the 1970s were the industrial nations outside the region where trade protectionism was brewing, the economic focus of the 1976 Summit was to consolidate intra-ASEAN trade. Thus, the ASEAN Preferential Trading Agreement (APTA) providing tariff preferences for trade among ASEAN nations was initiated in 1978, following a flurry of industrial projects such as ASEAN industrial complementation schemes and ASEAN joint industrial ventures.⁵ However, these initiatives were hardly behind the increase in intra-regional trade in the 1980s, which was driven primarily by the increasing de facto integration of the region led by foreign direct investment (FDI).

Across Southeast Asia, as the focus of national policies shifted to export-oriented economic growth from the mid-1980s, these countries typically came to follow an FDI-driven export dependent growth strategy. The underlying assumption that liberalisation is the single most important key to achieving growth undercut the earlier Keynesian/interventionist consensus on development policies. Thus, with liberalised FDI policy and deregulated labour regimes and aided by abundant natural resources and labour supply, the ASEAN region emerged as one of the most attractive investment locations in the developing world by the 1980s.

The region has received three types of FDI since the 1950s. The first type was in natural resources and the second type enabled foreign investors to access the regional market by setting up industries to produce cheap consumer goods for the local markets. Following the liberalisation of trade and investment policies

after 1985, investments to produce manufactures for export became increasingly important in the late 1980s. The region attracted a disproportionately large amount of FDI headed to Asia, especially during the 1970s and during the 1987-91 period (see Table 1).

Table 1: Distribution of FDI Inflows, 1970-2006 (Selected Regions & ASEAN Countries)

Period averages	1970s	1980s*	1987-91	1992-97	1998-2001	2002-04	2005-06
World (Billion \$)	24.4	93.9	171.0	312.2	1013.0	642.7	1125.8
Asia (% share in total)	7.7	15.4	11.2	23.3	11.9	19.7	21.0
Share in Total FDI inflows into Asia							
West Asia	32.4	26.4	1.6	4.7	3.5	9.6	21.5
East Asia	19.6	38.9	50.0	59.0	71.7	64.9	52.1
China (% share in East Asia)	..	38.7	38.1	74.9	53.9	69.5	58.8
South Asia	2.9	2.0	2.3	3.2	3.9	5.4	6.7
South-East Asia	45.0	32.7	46.1	33.1	20.8	20.1	19.8
Share in Total FDI Inflows into ASEAN							
Brunei (1)	1.3	0.0	0.0	1.1	2.5	6.8	0.8
Cambodia (2)	0.0	0.0	0.0	0.5	0.8	0.5	0.9
Indonesia	35.8	8.3	9.0	14.3	-10.3	1.2	15.5
Lao PDR (3)	3.6	14.0	18.0	23.5	28.5	32.0	34.5
Malaysia (4)	25.5	25.3	18.3	26.7	11.1	13.7	10.7
Myanmar (5)	0.0	0.1	0.8	1.3	1.5	1.0	0.4
Philippines (6)	5.8	7.2	7.9	5.9	5.7	4.2	4.5
Singapore (7)	24.3	47.6	46.5	33.4	59.0	47.9	41.8
Thailand	7.2	11.3	16.5	10.1	23.4	18.8	20.4
ASEAN-6	99.9	99.8	98.2	91.4	91.3	92.7	93.7
ASEAN-New 4	0.1	0.2	1.8	8.5	8.6	7.3	6.3
Vietnam	0.1	0.1	0.9	6.4	6.1	5.7	4.7
ASEAN-10 (\$ billion)	1.2	4.2	9.1	23.8	23.8	25.9	46.3

Notes: .. Stands for missing value. * 1980s represent 1981-1990 in order to avoid the exceptionally high net outflows from West Asia, which distorts the average.

Source: Calculated by the authors based on FDI online statistics available at www.unctad.org

Clearly, FDI inflows into the major Southeast Asian countries were substantial prior to the introduction of the ASEAN Free Trade Area (AFTA). The United States and the European Community (EC) were the two leading investors in ASEAN until the mid-1980s. But, during that period, Japanese companies began to look for lower-cost production sites as a strategy to thwart the loss of competitiveness triggered by yen appreciation following the realignment of major currencies in the G-5 Plaza Agreement of 1985. Setting up plants in Asian countries for exporting to the US, EU and other countries became an effective way for Japan to deal with her trade conflicts. In addition, a number of East Asian newly industrialising economies, such as Hong Kong China, South Korea, Taiwan Province of China and Singapore, which themselves began facing current account surpluses, appreciating currencies, rising production costs at home and

protectionist forces in their export markets (like Japan in the early 1980s), also emerged as outward investors in Southeast Asia. Most of these FDI inflows involved import-dependent production for exports to the home countries of the MNCs or to third country markets. Thus, by the mid- to late-1980s, FDI inflows into the major Southeast Asian countries had come to be driven by the regional production networks developed by multinational companies (MNCs) especially in the electrical and non-electrical machinery industries,⁶ and to a lesser extent, in transport machinery (automobiles), textiles, etc.

Market-driven integration therefore led to economic regionalisation in Southeast Asia and the larger East Asian region by the late 1980s. The average intra-regional export share was about 20% during the 1980s.⁷

By the early 1990s, gross FDI across the four large ASEAN countries (Indonesia, Malaysia, Singapore and Thailand) had come to be concentrated in specific manufacturing sectors such as electrical & electronics products, transport equipment, chemicals, petrochemical products, etc., apart from food processing, footwear and paper & paper products. Since there was substantial intra-industry trade within these broad product categories because of the leading MNCs' production distribution or division of labour strategies in the region, these were also the industry categories which dominated ASEAN members' exports and imports in 1993, before the effect of AFTA could have materialised. Thus, the 20% share of intra-regional trade flows in ASEAN in 1990, which was already higher than the typical intra-bloc trade share for South-South RTAs, can be clearly attributed to the intra-industry trade within these broad product categories created through the leading MNCs' production distribution or division of labour strategies in the region.⁸

Thus, international production fragmentation through the splitting of production processes into discrete activities that are carried out in different countries and the resultant cross-border exchange of parts and components ('fragmentation trade')⁹ has been an important feature of growing structural interdependence in the region since the mid-1980s.

In fact, until the 1997-98 financial crisis, Southeast Asia's growth pattern had been described as following the Catching-up Product Cycle (CPC) theory (also known as the 'flying geese' model), close on the heels of the first-tier East Asian newly industrialised countries (NICs) of South Korea, Taiwan Province of China, Hong Kong China, as well as Singapore. The Japanese economist Kaname Akamatsu (1943 and 1961) and the later Japanese studies, which substantiated the CPC theory, clearly recorded the continuity

of Japanese import substitution policies while pursuing export expansion. Equally significantly, these studies had stressed the very low level of dependence of Japan (and later on Taiwan Province of China and South Korea) on external capital (especially FDI) during its period of rapid growth. However, during the 1980s and 1990s, the CPC model was propagated to support the case for trade and investment (FDI) liberalisation for successful export-led industrialisation by the late-industrialising countries of Southeast Asia. These later versions of the flying geese model, which puts forth FDI-led industrial catching-up as the ideal strategy for latecomer developing countries, were a clear departure from the particular characteristics of indigenously-driven industrialisation strategies that were adopted by the Japanese and the first-tier East Asian “developmental states” during their periods of high growth.¹⁰ Singapore had the shortest ISI period in Southeast Asia. While its switch to EOI was justified due to its small domestic market and lack of natural resources, for the other larger ASEAN members, the shift to EOI was more or less completely driven by the prevailing economic dogma of the time.

Regionalism in Southeast Asia (1993 onwards)

This dependence on FDI-driven export growth eventually pushed ASEAN towards regionalism, when China and Mexico emerged as major competitors in attracting export-oriented FDI in the early 1990s. Against serious competition for export-oriented FDI from other emerging economies, the ASEAN countries’ desire to continue the rapid export-led growth of the late 1980s led them to work towards a coordinated liberalisation of intra-regional trade through a formal free trade agreement (FTA). In 1992, ASEAN thus agreed on an ASEAN Free Trade Area (AFTA) in order to capture the synergies arising from the international production networks created in the region by foreign investors, by a scheduled stage-wise increase in market access in each other’s economies. By promoting themselves as a large combined market, this was expected to enable them to consolidate their existing trade-investment links and compete with the diversion of investments to other countries/regions.¹¹

Arnold (2004) also attributes ASEAN’s regional integration efforts to its FDI-led growth strategy. He notes that greater FDI flows to one nation or region do not necessarily imply less to other countries or regions. But as competition became more intense, it became imperative for the Southeast Asian countries pursuing export-oriented industrialisation to take steps to attract investors. Thus, through the AFTA, ASEAN sought to increase its attractiveness as a regional group by offering higher risk-adjusted returns to investors.

The Agreement on the Common Effective Preferential Tariff (CEPT) Scheme has been the main mechanism towards the realisation of AFTA.¹² The CEPT sought to reduce intra-regional tariffs on all manufactured items of ASEAN countries to 5% or less and to remove quantitative restrictions (QRs) and non-tariff barriers (NTBs) over a 15-year period commencing 1 January 1993. While the original deadline for the implementation of the tariff reduction schedule was thus 2008, it was brought forward to 2003 in the post-crisis situation in 1998. The CEPT Scheme was further modified in a 2003 Amendment to eliminate intra-regional tariffs for at least 60% of the products in the Inclusion List by 1 January 2003. Tariffs on the remaining 40% products in the Inclusion List are to be eliminated not later than 1 January 2010.¹³ While this is applicable to the six older ASEAN members (Indonesia, Malaysia, Philippines, Singapore, Thailand and Brunei Darussalam), the new members Vietnam, Cambodia, Lao PDR and Myanmar are to eliminate import duties on products in the Inclusion Lists by 1 January 2015. But for products deemed to be sensitive, there is flexibility to defer the elimination of duties up to 1 January 2017.

Clearly, AFTA's tariff reduction schedule has been very ambitious, particularly in terms of the targets set for the original ASEAN members. However, it was estimated that only around 1 per cent of total ASEAN trade, or less than 5 per cent of intra-ASEAN trade, fell under the Common Effective preferential Tariff of AFTA.¹⁴ This rather limited ratio is attributable to the high costs of compliance with rules of origin and the fact that most members of ASEAN have reduced most favoured nation (MFN) tariff rates along with the AFTA rates.

Meanwhile, ASEAN members had adopted the Bogor Declaration in the Asia-Pacific Economic Cooperation (APEC) summit in 1994 along with the other East Asian countries. With its principle of "open regionalism" embodied in the principles of the APEC process, ASEAN economies had thus been pursuing, from the mid-1990s, a unilateral and non-preferential route to trade liberalization when it came to non-members. Unilateral liberalization mainly on an MFN basis was being encouraged by regional peer pressure and WTO commitments, among other factors.¹⁵

Thus, with much of the products traded in the region having CEPT rates that are equal to the MFN rates, separating the effects of AFTA from the broader process of global trade liberalisation has proved to be difficult. On the other hand, the higher FDI flows and transfers of production by multinational companies, which have contributed to a greater role for intra-industry division of labour in the region (and beyond), have played a larger role in the increasing trade and investment integration in the region.¹⁶

Apart from these tariff reduction targets to be met, ASEAN also initiated projects towards retaining the region's attraction for foreign investors. The ASEAN Industrial Cooperation Scheme (AICO) has been a significant move in this direction. AICO Scheme aims to promote resource-sharing and production integration across the region in order to increase the competitive position of ASEAN's manufacturing industries. This is facilitated by applying the preferential CEPT rate of tariffs (0 to 5%) on approved AICO products, which promotes joint manufacturing activities between ASEAN-based companies.

In post-crisis 1998, further special incentives and privileges were also agreed upon to attract FDI into the region. The ASEAN investment climate was improved by extending special privileges to qualified and non-ASEAN investors in manufacturing, including 100% foreign equity ownership, three-years' tax holiday and waiver of the 30% national equity criterion for AICO products. The Framework Agreement on the ASEAN Investment Area (AIA) that came into force in 1998 meanwhile called for opening up all industries in the region to ASEAN investors and granting national treatment to them (except in sectors on temporary exemption lists).

The objective of the AIA was to encourage investors to think increasingly in regional terms and adopt a regional investment strategy and network of operations. The scheme was aimed at promoting a more efficient division of labour and industrial activities across the region by consolidating and building on the existing trade-investment linkages and creating opportunities for greater industrial productivity and cost competitiveness.

In fact, the intra-regional export share of ASEAN increased from 20% in 1990 to almost 26% in 1996. A part of this increase in intra-bloc export share in the mid-1990s clearly came from the expansion in the membership of AFTA, as Viet Nam joined ASEAN in 1995.

The New Phase (1998 onwards)

However, subsequently, ASEAN's intra-regional export share declined to less than 24% by 2002, despite the expansion in ASEAN with Laos, Myanmar and Cambodia joining the group during the 1997-99 period. In fact, ASEAN-10's share in total world merchandise exports, which had risen from 4.2% in 1990 to 6.2% in 1995, also increased only marginally after the mid-1990s (from 6.2% in 1995 to 6.4% in

2002).¹⁷ This is because the growth rate in total ASEAN exports dropped from an average of 17% during 1990-95 to just 3% during 1995-2002.

At the same time, China, which grew at an average real rate of growth of 10 per cent a year during 1990-2000, saw its exports tripling from some US\$62 billion to US\$250 billion over this period. Investment flows to China also increased dramatically. Since 1993, China has accounted for about half of total FDI flows to Asia. Meanwhile, ASEAN-5's share of Asia-bound FDI declined from a (post-1980) peak of 57% in 1990 to only 16% in 2001 (See Table 1).

Against this background of a slowdown in their exports and investment inflows, the further opening up of China to international trade and investment flows—in the run-up to and following WTO membership—came to be perceived as a huge threat for ASEAN. Together with the frustration due to the slow pace of economic integration within ASEAN,¹⁸ and especially against the backdrop of an urgency to raise exports in the immediate post-crisis period, this contributed to a drastic reshaping of intra-regional relationships in the region. Almost all countries in ASEAN have entered into or have begun considering preferential trading arrangements with non-members at the bilateral level since 1998.¹⁹

The tendency of ASEAN member countries to forge bilateral free trade agreements (FTAs) with other countries and regions has been attributed to the combined trade institution failures of AFTA, APEC and the WTO to push ahead their respective trade liberalization agendas after the 1997-98 East Asian financial crisis.²⁰ The initiation of the negotiations for China's entry into the WTO was also one factor which drove ASEAN members towards bilateral FTAs; many of these members feared competition with China in third country markets on MFN basis and thus wanted to seek preferential access to their major markets.

From ASEAN's perspective, it also became evident that with an export-dependent growth paradigm, the rationale behind old regionalism that convergence among neighbours could (theoretically at least) lead to a more "introverted collective self-reliance",²¹ would not be on the agenda. The new "regionalism" in East Asia encompassing bilateral preferential/free trading arrangements is thus quite distinct from both APEC's "open regionalism" and ASEAN's objective of collective self-reliance.

The first moves towards bilateral free trade agreements (FTAs) involving ASEAN member countries were made by Singapore, which launched FTA negotiations with New Zealand and Japan. This provoked other ASEAN members like Thailand, Malaysia and the Philippines to seek bilateral FTAs with non-ASEAN

countries.²¹ For example, while Malaysia and the US agreed to a framework for a bilateral agreement in May 2004, it has already signed FTAs with Japan and Pakistan. It is currently negotiating bilateral FTAs with Australia and New Zealand and exploring a trade and investment cooperation framework with the European Free Trade Area (EFTA). While Indonesia hopes to complete its FTA negotiations with Australia in 2009, it is considering comprehensive economic cooperation agreements with India and Turkey. Indonesia has also been negotiating a bilateral foreign investment protection agreement or promotion agreement (FIPA) with Canada since last year. The Philippines is negotiating trade deals with China and Japan. Thailand has signed FTAs with Australia, Japan and New Zealand and a limited FTA with China. While its FTA negotiations with India have been completed and those with Peru are nearing completion, the negotiations with the US have stalled. Apart from New Zealand and Australia, Singapore has so far signed FTAs with US, European Free Trade Association (EFTA), Jordan and Japan. Vietnam has signed a Trade and Investment Framework Agreement (TIFA) with the US, while its FTA talks with Japan and Chile are going on.

Even as individual ASEAN member countries pursue various bilateral FTA initiatives, ASEAN itself is progressing with FTA proposals with other countries concurrently. Among the major initiatives by ASEAN are: (a) the 'Enterprise for ASEAN Initiative' announced by the US in October 2002, to create a network of bilateral FTAs linking ASEAN with the US; (b) ASEAN-China Framework Agreement on Comprehensive Economic Cooperation signed on 4 November 2002, which will conclude an FTA by 2010 between the older ASEAN states and China and by 2015 for the newer ASEAN states; (c) ASEAN-South Korea FTA, which came into effect in July 2006 (except for Thailand, which signed the agreement in 2008); (d) the ASEAN-Japan framework for comprehensive economic partnership (CEP) signed on 8 October 2003, expected to enter into force by December 2008; (e) ASEAN-India agreement signed on 8 October 2003 (expected to come into force by January 2009); and (f) Trans-regional EU-ASEAN trade initiative in which ASEAN and EU trade ministers agreed on 4 April 2003 to enhance ASEAN-EU economic partnership. But, while ASEAN has been forging FTAs with Japan, India, the EU and the US to counterbalance the influences of China, it is also part of the proposed East Asian FTA along with Japan, China and South Korea ("10+3").²²

While only a few have reached the negotiation stage or been finalised, these bilateral, regional and multilateral arrangements, which influence and interact with each other, have formed a pattern of multilayered cooperation frameworks in the region. China plays a central role or has been a trigger behind many of these efforts.

II. The ASEAN-China Free Trade Agreement (ACFTA)

China began developing an FTA with ASEAN soon after its accession to the WTO. While the Framework Agreement on Comprehensive Economic Cooperation between ASEAN and China was signed at the ASEAN-China Summit in November 2002 in Cambodia, the ASEAN-China Free Trade Area (ACFTA) came into being in 2004.

It has been argued that China considered it strategically important to make concessions through the ACFTA to pre-empt an undesirable scenario, wherein ASEAN's perception of a "China threat" upon WTO entry would not be overplayed by international players for strategic purposes. It has thus been pointed out that China wanted to give out a message to its Southeast Asian neighbours through the FTA that ASEAN would be the first to gain from China's greater opening up through the WTO accession on 31 December 2001.²³ In the absence of an FTA, China cannot make tariff concessions (or give any other preferential treatment) to ASEAN members alone, when it has already become a WTO member. On the other hand, as the bilateral trade with ASEAN is only about 8 per cent of China's total trade, making such concessions will not have drastic economic and social impacts on China. At the same time, it could benefit from ASEAN's reciprocity.

Details of the FTA

The Framework Agreement on Comprehensive Economic Co-operation calls for establishing an ASEAN-China Free Trade Area ("ASEAN-China FTA") covering trade in goods by 2010 for Brunei, China, Indonesia, Malaysia, the Philippines, Singapore and Thailand (ASEAN-6), and by 2015 for the newer ASEAN Member States. The Agreement provides for special and differential treatment and flexibility for the newer ASEAN member states of Cambodia, Lao PDR, Myanmar and Vietnam.

The tariff reduction or elimination programme required tariffs on listed products to be gradually reduced, and where applicable, eliminated. The base rates for tariff reduction commitments were the respective applied MFN rates as of 1 July 2003. In the case of ASEAN member states that were not members of WTO as of 1 July 2003, the base rates were those applied to China as of 1 July 2003.

The Agreement specified two tracks for tariff reduction. The “Normal Track” consisted of products voluntarily listed by members, whose applied tariffs are to be either reduced or eliminated. For ASEAN 6 and China, this was to be done between 1 January 2005 and 1 January 2010, while for the newer members, the closing date was extended to 1 January 2015. However, the actual implementation of tariff reduction started on 21 July 2005. The newer members were also given concessions in terms of higher starting tariffs and different phasing out periods. The second or “Sensitive Track” allowed for applied tariffs to be reduced or eliminated by mutual agreement between concerned members on the sensitive list and the highly sensitive list.

To accelerate implementation, the Parties implemented an Early Harvest Programme with an early and fast tariff reduction schedule. This covered agricultural products, except those excluded by a Party. Agricultural products include Live Animals, Meat and Edible Meat Offal, Fish, Dairy Produce, Other Animal Products, Live Trees, Edible Vegetables, Edible Fruits and Nuts.

The Early Harvest Programme was to be implemented by China and ASEAN-6 latest by 1 January 2004:

Table 2: Tariff Reduction Schedule under the ACFTA Early Harvest Programme

Original applied MFN rates as of July 2003		Not later than 1 Jan. 2004	Not later than 1 Jan. 2005	Not later than 1 Jan. 2006
1	Higher than 15%	10%	5%	0%
2	5% -15%	5%	0%	0%
3	Less than 5%	0%	0%	0%

Note: Special and differential treatment is applicable to Vietnam (0% in 2008), Laos and Myanmar (0% in 2009) and Cambodia (0% in 2010).

The Agreement also agreed to progressively liberalise trade in services with substantial sectoral coverage. It specifically called for expansion in the depth and scope of liberalization of trade in services beyond those undertaken by ASEAN member states and China under the WTO’s General Agreement on Trade in Services (GATS). In addition, with the objective of promoting investments, the parties also agreed to enter into negotiations in order to progressively liberalise the investment regime.

The Perceived Logic in Market Access and Investment

It can be perceived that while ASEAN's perception of China as a rising competitor in the export markets has been strong, equally important has been the perceived need by ASEAN economies for stronger cooperation with China as a growing import market and investment destination. Thus, by involving China within this FTA for the creation of a larger market with greater opportunities and larger economies of scale for the businesses of the combined region, ASEAN apparently aimed at minimizing investment diversion away from it. This in turn would help in expanding its existing trade-investment linkages and ensure a maintenance of its market access in third country markets, if not increase it.

Given these expected mutual benefits, this paper examines the impact the ASEAN-China FTA has had on the actual market access of Southeast Asian countries in China and in its major developed country markets. Further, given the importance of the FDI-led and export-driven industrialisation strategy adopted by ASEAN, how will the new regionalism involving bilateral FTAs enable them to retain and upgrade their industrial structure and capabilities?

In order to establish the actual market access position of ASEAN countries, the following section undertakes an empirical analysis of the bilateral trade between the ASEAN member countries and China.

III. Analysis of the Bilateral Trade Between ASEAN and China

ASEAN's Overall Trade Patterns

As evident from the Chart, the five original members of ASEAN namely, Singapore, Malaysia, Thailand, Indonesia and the Philippines (ASEAN-5) have dominated ASEAN trade. Together they accounted for nearly 93% of ASEAN trade during 2005-06. Among the new members, only Vietnam has significantly increased its trade share, to 5.5% in 2006.²⁴ Among the older members, Brunei's share was still less than one per cent in 2006. Even so, given that the ASEAN Secretariat's trade database gives the country-wise and sector-wise data for ASEAN-6 as a grouping inclusive of Brunei, we will be considering ASEAN-6 for our subsequent data analysis. ASEAN-6 as the grouping of the older six members of ASEAN is also the reference point for the ASEAN-China FTA.²⁵

Table 3: Total ASEAN Trade by Country, 2005-06

(In percent)

Country	2005-06 (Average share)		
	Exports	Imports	Total Trade
Brunei Darussalam	1.0	0.2	0.6
Cambodia	0.5	0.5	0.5
Indonesia	13.3	9.6	11.6
Lao, PDR	0.0	0.1	0.1
Malaysia	21.3	19.7	20.5
Myanmar	0.5	0.3	0.4
The Philippines	6.3	8.1	7.1
Singapore	35.8	35.6	35.7
Thailand	16.5	19.9	18.1
Viet Nam	4.7	5.9	5.3
ASEAN-10 (US\$ million)	699427	615420	1314848

Source: Based on data from ASEAN External Trade Statistics available at www.aseansec.org

An analysis of the distribution of ASEAN-6's total exports by destination shows that with a share of 21%, the intra-regional market²⁶ was the largest market for ASEAN in 1993 (See Table 3). This share increased until the crisis and peaked at 25% in 1997. But, with its average share maintained around 20%, the US was the single largest (country) market for ASEAN during 1993-97. The EU and Japan followed, accounting for average shares of 15% and 14% respectively of ASEAN's total exports in this period.

Table 4: Top 10 Export Markets of ASEAN-6, 1993-2006

(Percentage share in total exports)

Country of Destination	1993-97	1998-2001	2006
ASEAN	23.7	22.2	25.2
US	19.5	18.9	12.9
EU-15	14.5	18.2	12.6
Japan	13.8	11.9	10.8
China	2.3	3.3	8.7
Hong Kong	4.6	5.2	-
South Korea	2.9	3.3	3.4
Taiwan Province of China	3.2	2.4	-
Australia	1.8	2.3	3.1
India	1.0	1.6	2.5
Cumulative share of Above 10	87.3	89.2	
Unspecified EU-15 *	-	2.8	
Others	14.0	12.0	
Total# (US\$ million)	283226	357985	750708

Notes: Under 2006, dash represents lack of data availability from the ASEAN Secretariat at the time of the study. For 2006, EU covers all the 25 members. *Un-specified EU represents exports of Thailand to EU of which the detailed data are not available by country for 2001-04. #ASEAN 6 covers Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore and Thailand.

Source: ASEAN Trade Statistics Database.

However, by 2006, the shares for all these top 3 markets had declined. The most significant drop was for the US, whose share dropped from 20% during 1993-97 to 13% in 2006. Japan's share dropped from 14% to 11%. In the case of the EU, the decline was not as sharp. Meanwhile, from 2002 onwards, the share of intra-ASEAN exports in total ASEAN exports showed an increasing trend, after declining during 1998-2001. In fact, it again touched 25% in 2006, the same peak reached in 1997.²⁷

Among ASEAN's top-10 export markets, all the others are within Asia, and most of them show a rise in percentage share in ASEAN's total exports. Hong Kong China, South Korea, Australia and India gained quite significantly. However, China gained the most in share between the two periods. The share of ASEAN's exports going to China increased, consistently and slowly, from an average 2.3% during 1993-97 to 3.3% during 1998-2001. But, the dramatic change occurred post-2002, with China's share registering a huge jump to reach nearly 9% of total ASEAN exports in 2006.

Similarly, the share of ASEAN's total imports sourced from within ASEAN showed a very large increase, from close to 18% on average during 1993-97 to 20.5% during 1998-2001 and further to 25% in 2006 (Table 5). Japan, which was the single largest import supplier for ASEAN until the early 1990s, declined in share consistently and had a share of only about 12% in total ASEAN imports in 2006. The US share also dropped markedly in 2006. The fourth largest import supplier, the EU also showed a drop in share. Meanwhile, South Korea, Hong Kong China and India showed a rise in their shares. Once again, it is China which registered a dramatic increase in its position as an import supplier to ASEAN. From an average of 3% during 1993-97, the Chinese share rose steadily and posted dramatic jumps in 2002 and 2004 to reach nearly 12% in 2006. Significantly, China has thus overtaken the US and the EU as an external source of imports for ASEAN, and is next only to Japan.

So there has been a clear diversion of ASEAN's exports away from the US, EU and Japanese markets towards China and the other East Asian markets, in this case, Hong Kong China, South Korea and Taiwan Province of China. At the same time, ASEAN is also showing increasing dependence on the regional market as well as the larger East Asian market comprising of China, South Korea, Taiwan Province of China and Hong Kong China and to a lesser extent India, for sourcing its imports.

Table 5: Top 10 Import Suppliers of ASEAN-6, 1993-2006

(Percentage share in total imports)

Country of Origin	1993-97	1998-2001	2006
ASEAN	17.6	20.5	25.0
Japan	23.1	18.1	12.3
USA	15.4	16.2	9.8
EU-15	14.8	12.3	10.1
China	2.6	4.8	11.5
South Korea	3.6	4.1	4.1
Taiwan Province of China	3.7	2.4	-
Australia	2.4	2.5	2.0
Hong Kong	2.0	2.4	-
India	0.8	0.9	1.5
Cumulative share of Above 10	85.9	84.2	-
Unspecified EU-15	-	2.1	-
Others	14.2	14.8	-
Total* (US\$ million)	303137	298491	654098

Notes: Same as in Table 4.

Source: ASEAN Trade Statistics Database.

Given these trends in the structure of ASEAN's trade, it is important to understand how significant ASEAN is among China's major trading partners.

China's Overall Trade Patterns

China's total exports which grew at a CAGR of 10.2% during 1999-2001, grew by more than 31% during 2002-06. During this phase of phenomenal growth, the US, which was the second largest export market for China before 2002, became China's largest market. The US share in China's total exports increased from 17% in 1995 to 21% in 2006. Hong Kong China, which was the largest market in the first period, dropped to the second position with its share falling significantly from 24% in 1995 to 16% in 2006. Meanwhile, Japan, which was the third largest, remained so; however, there is a dramatic drop in its share from 19% in 1995 to less than 10% in 2006. There was a minor increase in the EU's share in Chinese exports. In the case of the ASEAN-5 as well, the rise was small from 6% in 1995 to 6.4% during 2006.²⁸

Within ASEAN, the largest share of China's exports went to Singapore, whose share in total Chinese exports hovered around 2.4%. But, the share of exports going to Malaysia increased significantly after 2001, leading to that slight increase in the share of China's exports going to

ASEAN. Thailand and Indonesia's shares in Chinese exports were around 1%, while Philippines' share in China's total exports was still less than 1%.

Table 6: Top 20 Export Destinations of China, 1995-2006

(Percentage share)

Rank	Destination	1995	2000	2006
1	United States	16.6	20.9	21.0
2	Hong Kong	24.2	17.9	16.0
3	Japan	19.1	16.7	9.5
4	Korea, South	4.5	4.5	4.6
5	Germany	3.8	3.7	4.2
6	Netherlands	2.2	2.7	3.2
7	United Kingdom	1.9	2.5	2.5
8	Singapore	2.4	2.3	2.4
9	Taiwan Province of China	2.1	2.0	2.1
10	Italy	1.4	1.5	1.6
11	Russia	1.1	0.9	1.6
12	Canada	1.0	1.3	1.6
13	India	0.5	0.6	1.5
14	France	1.2	1.5	1.4
15	Australia	1.1	1.4	1.4
16	Malaysia	0.9	1.0	1.4
17	Spain	0.7	0.9	1.2
18	United Arab Emirates	0.7	0.8	1.2
19	Belgium	0.7	0.9	1.0
20	Thailand	1.2	0.9	1.0
	ASEAN-5	6.1	6.1	6.4
	World (US\$ million)	148,780	249,240	969,324

Source: World Trade Atlas Online available at <http://www.gtis.com>, accessed in August 2007.

On the other hand, at an average growth rate of 28% during 2002-06, China's imports, which had grown at about 11% during 1995-2001, grew at a slightly lower rate than its exports (31%). While Japan continued to be China's most important import supplier, the share of Japan in China's imports fell from 20% during 1995-2001 to less than 15% in 2006. Meanwhile, the US share in China's imports also dropped from 11% in the first period to about 8% in 2006. The changes in import composition mainly occurred from 1999-2000, that is, in the run-up to China's WTO accession.

Taiwan Province of China was the second largest import supplier for China, maintaining an average share of about 11% during the entire period. However, imports from South Korea became equally important for China, as its share increased from 8% in 1995 to 11.3%, overtaking Taiwan Province of China during 2005-06. Germany, the only EU country among the top-10 import suppliers, lost in share in the Chinese

market, while Russia and Australia more or less maintained less than 3% each. On the other hand, ASEAN-5 showed a definite gain in China's import market share – from 7% in 1995 to 11% during 2002-06.

Table 7: Top 20 Import Suppliers of China, 1995-2006

(Percentage share)

Sl. No:	Country	1995	2000	2006
1	Japan	22.0	18.4	14.6
2	Taiwan Province of China	11.2	11.3	11.0
3	Korea, South	7.8	10.3	11.3
4	United States	12.2	9.9	7.5
5	China*	1.7	3.2	9.3
6	Germany	6.1	4.6	4.8
7	Malaysia	1.6	2.4	3.0
8	Singapore	2.6	2.2	2.2
9	Russia	2.9	2.6	2.2
10	Australia	2.0	2.2	2.4
11	Thailand	1.2	1.9	2.3
12	Hong Kong	6.5	4.2	1.4
13	Philippines	0.2	0.7	2.2
14	Saudi Arabia	0.4	0.9	1.9
15	Brazil	0.9	0.7	1.6
16	France	2.0	1.8	1.4
17	Indonesia	1.6	2.0	1.2
18	India	0.3	0.6	1.3
19	Italy	2.4	1.4	1.1
20	Canada	2.0	1.7	1.0
	ASEAN-5	7.1	9.3	10.9
21	World (US\$ million)	132083	225095	791793.9

Source: Same as in Table 6.

Singapore and Malaysia are among the top-10 import suppliers to China. However, while Singapore did not show any significant change in its share, the Malaysian share nearly doubled from 1.6% (1995) to 3% in 2006. Thailand, followed by the Philippines, also gained in shares in China's import market. Indonesia did not show much change in its share.

Among others in the top-20 major export competitors of ASEAN in China's import market, Saudi Arabia, Brazil and India gained in share, while the developed EU and North American exporters France, Italy and Canada lost in share. It should be noted, though, that imports from Macao China itself increased from 1.7% in 1995 to more than 9% in 2006.

It is evident that with its share in ASEAN's total exports and imports increasing rapidly since 2002 to about 9% and 12% respectively, China has become a very important trade partner for ASEAN. Although the

proportion of China's total exports going to ASEAN has increased only marginally, imports from China seem to have displaced ASEAN's imports from the US and Japan. ASEAN's exports to China have also increased significantly.

The Sectoral Structure of ASEAN-China Trade

In this section, we analyse the composition of bilateral trade between ASEAN and China since 1990. Our attempt is to understand the changes, if any, in the sectoral composition of bilateral trade after 2002, in the recent years for which data are available.

The Sectoral Structure of ASEAN-China Trade

In this section, we analyse the composition of bilateral trade between ASEAN and China since 1990. Our attempt is to understand the changes, if any, in the sectoral composition of bilateral trade post-2002, in the recent years for which data is available.

Table 8: Ten Major Import Commodities of ASEAN-6 from China by 2 Digit HS Code, 2001-04

2001			2002		2003		2004	
HS code	Commodities	% Share	HS code	% Share	HS code	% Share	HS code	% Share
85	Electrical machinery, equip, & parts	28.7	84	27.7	85	28.7	85	33.2
84	Non-electrical machinery	21.8	85	27.1	84	25.7	84	24.7
27	Min fuels, min oils & prod. of distillation	5.6	27	4.8	27	5.9	27	4.4
28	Inorg. chemicals; org/inorganic compounds.	2.4	90	2.0	90	2.2	72	4.2
90	Optical, photo/cinematographic, measuring & med. Instr.	1.9	28	2.0	10	1.8	90	2.3
29	Organic chemicals	1.8	10	1.9	39	1.8	71	1.7
73	Articles of iron or steel	1.8	39	1.8	73	1.6	39	1.6
39	Plastics and articles thereof	1.7	73	1.7	52	1.6	73	1.6
76	Aluminium	1.7	52	1.6	28	1.6	28	1.5
52	Cotton, incl.yarn and woven fabric thereof	1.5	29	1.4	29	1.5	29	1.5
	Cumulative share of Top-10	68.9		72.1		72.6		76.7
	Others	31.1		27.9		27.4		23.3
	Total	100.0		100.0		100.0		100.0

Notes: HS code 10 (in 2002) stands for Cereal; HS code 71 (in 2004) stands for Natural or cultured pearls, precious/semiprecious stones/metals/imitation jewellery; HS code 72 stands for Iron & Steel and HS 73 stands for Articles of Iron & Steel.

Source: ASEAN Trade Statistics Database.

Electrical and non-electrical machinery industries dominate ASEAN's imports from China—by more than half of the total. This is similar to the trend observed for total ASEAN imports. By 2004, electrical machinery alone came to constitute one-third of ASEAN's imports from China. In fact, apart from electrical and non-electrical machinery industries, all the other (2-digit) sectors had less than 5% shares in total imports from China in that year.

However, there was a marked change in the constitution of these other imports. While petroleum and petro products remained the third most important import sector at around 5% share, iron and steel took the fourth rank in ASEAN's imports from China in 2004. Plastic & plastic products, articles of iron & steel and organic and inorganic chemicals were consistently among the other top-10 imports of ASEAN from China. Meanwhile, three sectors that moved out of the top-10 imports between 2001 and 2004 were aluminium, cereals and cotton & cotton fabric, while jewellery moved up the list into the top-10.

China is important as a source in each of the top 10 import categories of ASEAN, except for vehicles and parts & accessories. On the other hand, inorganic chemicals are one of the top 10 ASEAN imports from China, while it is not present in the list of top 10 total ASEAN imports.

ASEAN's export structure tells us the other side of the story of the regional trade dynamics. Electrical & non-electrical machineries have together constituted about half of ASEAN's total exports since at least 1993. In fact, in 2004, electrical machinery alone constituted more than 30% of ASEAN's total exports and imports. Clearly, this reflects a significant degree of intra-industry trade in this sector. Similarly, the non-electrical machinery sector, followed by petroleum & petro products, organic chemicals, plastic & plastic products, as well as vehicles and parts & accessories have also shown a high level of intra-industry trade for ASEAN countries.

A similar pattern in intra-industry trade is witnessed in the case of trade between ASEAN and China (See Table 8). The overall bilateral trade pattern clearly reveals that the electrical and non-electrical machinery sectors, followed by petroleum & petro products, organic chemicals, plastic & plastic products, as well as optical, photo/cinematic, measuring & medical instruments show a high level of intra-industry trade involving ASEAN countries and China.

Apart from the industries in which there was a high level of intra-industry trade, the other sectors of export importance to ASEAN in the Chinese market were mostly resource-based.

Table 9: Ten Major Export Commodities of ASEAN-6 to China by 2 Digit HS Code, 2001-04

2001			2002		2003		2004	
HS code	Commodities	% Share	HS code	% Share	HS code	% Share	HS code	% Share
84	Non-electrical machinery	21.4	85	23.6	85	22.8	85	28.3
85	El. machinery, equipment & parts;	20.5	84	18.5	84	17.9	84	18.8
27	Min fuels, min oils & prd of distillation	12.3	27	12.5	27	13.1	27	11.7
39	Plastics and articles thereof	6.9	39	6.7	29	6.5	29	6.2
29	Organic chemicals	5.1	29	6.4	39	6.1	39	6.0
44	Wood and articles of wood	4.3	15	5.1	15	5.6	15	5.2
15	Anml/veg fats & oils; prepd. edible fats	3.5	44	3.6	40	4.6	40	4.4
40	Rubber and articles thereof	3.3	40	3.0	44	3.2	44	2.2
90	Optcl, photo/cinematographic, measuring, instruments	2.0	90	2.5	90	2.3	90	1.9
47	Wood pulp & waste of paper/paperboard	2.0	47	1.9	72	1.7	74	1.4
	Cumulative share of Top-10	81.2		83.7		83.6		86.0
	Others	18.8		16.3		16.4		14.0
	Total	100.0		100.0		100.0		100.0

Notes: HS code 72 (in 2003) stands for Iron & Steel and HS 74 (in 2004) stands for Copper & products. Source: ASEAN Trade Statistics Database.

Petroleum & petro products remained the third largest exports of ASEAN to China. Among ASEAN's other top exports to China, plastics & plastic products, wood & wood articles and wood pulp & waste of paper, etc., declined in share slightly, while organic chemicals, animal & vegetable fats & oils as well as rubber & rubber products gained in shares. While the share of non-electrical machinery declined slightly after 2002, export shares of the resource-based sectors increased, along with vehicles and parts & accessories.

It should be noted that petroleum & petro products, followed by wood & wood products and animal and vegetable fats & oils were the three most important ASEAN exports to China in the early 1990s.²⁹ Thus, the fact that electrical and non-electrical machinery sectors have come to dominate ASEAN's exports to and imports from China clearly reflects the rapid integration of China into the regional production networks for these industries.

The Consolidation of East Asian Production Networks

There have been many studies which have identified production networks at the heart of the recent growth in trade among East Asian countries. Production sharing, by definition, incorporates the back-and-forth nature of trade: the importation of inputs for assembly or additional processing, as well as the export of

intermediate goods for assembly or additional processing by third countries.³⁰ This phenomenon has been reflected in the trade in parts and components (fragmentation trade) growing at a rate exceeding that of the trade in final goods, because a good crosses multiple borders while it is involved in processing.

Developed countries account for the bulk of such fragmentation trade in components, but the share of developing countries has increased sharply over the years. In particular, the share of East Asia in the total exports of components rose steadily from 31 per cent in 1992 to 43 per cent in 2003, despite a decline in the share of Japan. Contrary to the popular perception of crowding out by China, the increase in the share of the exports of components by China and Hong Kong China has occurred within an overall increase in exports from relatively newcomers in trade in the region, including Vietnam.³¹ In fact, using UN Comtrade database at the 5-digit level, Athukorala and Yashimoto (2005) had established that the high level of intra-industry trade observed in the East Asian region reflects the growing cross-border trade in components within the region.³² Thus, many East Asian economies have experienced an expansion in intra-industry trade with the rest of the world, as well as within the region.³³

Using data at the 5 digit-level extracted from the UN trade database based on Revision 3 of the Standard International Trade Classification (SITC, Rev 3), Athukorala and Yamashita (2006) also showed that of the total increment in manufactured exports from East Asia between 1992 and 2003, over a third came from components exports. The same study also noted that both component exports and imports of East Asia are heavily concentrated in electronics and electrical industries. Indeed in 2000-04, machinery products accounted for half of the total imports of East Asian economies. During the same period, the share of machinery in the total exports of these economies, excluding China, reached 51 per cent, from 38 per cent in 1990-94, superseding the share of any other commodity groups. But, the most remarkable performance was that of China, where the share of machinery in total exports leaped to 41 per cent in 2000-04, from 18 per cent in 1990-94. Semiconductors and other electronics components, components of telecommunication equipment (HS 85) and office and automated data processing machines (HS 84) together accounted for almost 90 per cent of total exports of components within the region (The balance consists largely of other electrical machinery and auto parts).³⁴ Further, it has also been pointed out that trade in segments like chemicals, and many other sectors such as plastics are also increasingly being driven by internationally dispersed production patterns.

Within East Asia, countries belonging to AFTA, in particular Malaysia, Philippines, Singapore and Thailand, stand out for their heavy dependence on production fragmentation for export dynamism. In 2003, parts

and components accounted for over 40% of total manufacturing exports in AFTA, up from 24% in 1992. But, significantly, between these two years, the share of components in total manufacturing exports more than tripled in China (from 5.5% to 15.2%).³⁵ This reflects China's integration into the regional production networks by the time of its entry into the WTO.

As Haddad (2007) opines, the relatively more favourable policy setting for international production (unilateral trade liberalization, policies favourable to exports such as duty drawback, the opening up of FDI for the purposes of exportation, etc.), the agglomeration benefits arising from the early entry into this new form of specialization and the considerable inter-country wage differentials in the region have all contributed to the consolidation of these networks. The fact that East Asia is at a level in the technology ladder where products exhibit increasing returns to scale (such as machinery, parts and components) has also exacerbated the degree of specialization within production networks. If average production costs decline as the scale of production rises at the firm, industry, or regional level, then there are advantages to concentrating production in a particular location. This also means that small reductions in trade costs may have large impacts on trade since these reductions tend to increase trade along supply chains that link multiple countries. Reductions in tariffs (at the WTO level) and improvements in transportation infrastructure in East Asia have also certainly played a key role in the expansion of production networks in the region.

It has already been established that there is a triangular trade in these commodities, whereby East Asia exports a high share of the parts for electrical appliances, and office and telecommunications equipment to China, and China exports the finished products to the European Union and the United States. In addition, another sort of production network involving the transshipment of components is also appearing in the region. In this more sophisticated and complex network, Japan and the NIEs provide high-quality materials, including design, to their FDI affiliates in developing East Asia, which uses them to produce components.³⁶ The components are then sent back to the originators for further processing. The originators perform quality control, organize the components, and send them back to developing East Asia as kits for final assembly. In this category too, office, data, and telecommunications equipment (which falls under the broad HS category non-electrical machinery), and electrical machinery are observed to be at the core of the production sharing networks.

It has also been established that foreign affiliates are responsible for a major and growing share of China's trade, especially with Asian countries. The share of the exports of multinational corporations in China's

exports increased from 29 per cent in 1994 to 55 per cent in 2003, while the corresponding share for imports increased from 46 to 56 per cent.³⁷

By removing barriers to trade and investment among the members of the integrating area further, the rationale for the ASEAN-China FTA is to expand and consolidate the scope for such production specialization and increase the inflow of efficiency-seeking FDI into the region. The analysis of the bilateral trade in the previous section and the findings from the secondary literature quoted in this section do confirm that multinational companies have indeed made use of the greater economies of scale implied by a larger regional market combined with easier trade within the region, to expand export-oriented production within the region. However, has China's integration through the ASEAN-China FTA and the deepening production fragmentation in East Asia translated into greater export market access for the ASEAN economies? This is the focus of enquiry in the following section.

IV. Market Access Scenario for ASEAN's Major Exports

Market Share Analysis in China

In electrical machinery, it can be observed that Japan, which was the single largest supplier to China with a 35% share in 1995, consistently dropped in significance to 16% in 2006. The same is true of Hong Kong China and the US, who were the second and fourth largest suppliers. Their shares dropped from 10% each to 1.7% and 5.3% respectively in 2006. Meanwhile, Taiwan Province of China, which was the second largest supplier in this sector, increased its share to more than 16% in 2006. South Korea also increased its share significantly, which stood at 15% in 2006. Remarkably, ASEAN-5's total share also increased steadily from 4% in 1995 to 11% in 2000 and further from 14% to 18% between 2002 and 2006. Meanwhile, Macao, China became the single largest import supplier with its share rising to 18% in 2006 from just 2% in 1995.

While all of ASEAN-5 countries (except Indonesia) increased their shares until 2004, a further jump in share is observed for the Philippines between 2004 and 2006. This reflects the rapid integration of this country into the regional electronics production networks encompassing ASEAN and China.

Table 10: Shares and Growth of Top 20 Suppliers in China's Electrical Machinery Imports

(In per cent)

Sl no	Country	1995	2000	2001	2002	2004	2006	CAGR (1995-2001)	CAGR (2002-06)
1	Japan	35.0	25.0	23.3	22.2	19.9	16.1	11.4	21.3
2	Taiwan Province of China	10.3	12.6	13.0	15.9	16.8	16.3	24.0	32.3
3	China	2.2	6.1	6.2	9.1	13.3	18.1	42.2	55.9
4	Korea, South	5.7	10.0	9.7	12.2	13.1	14.6	30.3	37.6
5	Malaysia	1.0	4.1	4.9	6.2	7.0	6.6	54.5	33.5
6	United States	9.8	9.3	10.7	7.7	5.4	5.3	20.9	19.9
7	Philippines	0.1	1.7	2.0	3.0	4.4	5.9	118.9	55.5
8	Singapore	2.6	2.9	2.6	2.8	3.5	3.2	19.5	36.8
9	Hong Kong	10.1	6.3	6.0	6.2	3.1	1.7	9.3	-5.2
10	Germany	5.0	4.4	4.8	3.7	3.1	2.7	18.4	22.2
11	Thailand	0.3	1.6	1.6	1.7	2.1	2.0	60.7	37.1
12	France	2.3	2.1	2.3	1.6	1.3	0.9	19.2	11.5
13	Finland	0.7	3.2	2.7	0.8	0.8	0.7	48.2	26.9
14	Sweden	3.1	3.5	2.1	0.7	0.7	0.3	11.7	7.4
15	Costa Rica	0.0	0.0	0.0	0.2	0.4	0.8	143.3	77.6
16	United Kingdom	1.8	2.2	2.0	0.8	0.6	0.5	20.9	15.8
17	Italy	1.5	0.9	0.9	0.6	0.6	0.5	10.9	29.9
18	Mexico	0.0	0.3	0.3	0.5	0.5	0.4	93.8	29.0
19	Canada	1.9	0.7	1.1	0.6	0.4	0.4	9.2	15.2
20	Indonesia	0.0	0.5	0.5	0.4	0.4	0.4	90.3	31.0
	ASEAN-5	4.0	10.8	11.7	14.1	17.5	18.1	42.8	40.1
	Total (US\$ million)	19416	50749	55903	73311	142102	219085	19.3	31.5

Source: World Trade Atlas Online available at <http://www.gtis.com>, accessed in August 2007.

In the case of non-electrical machinery, Japan, Germany, the US and Taiwan Province of China were the four largest import suppliers to China, have all dropped in share. The drops in the US and Taiwan Province of China's shares were the most, while that of Germany was the least (Most other EU countries have also lost in share). On the other hand, China's share increased manifold and stood at 12.2% (as much as that of Germany) in 2006. Apart from South Korea, Thailand followed by Philippines, Malaysia and Indonesia have all increased their shares significantly. However, Singapore has lost in share. Overall, ASEAN-5's share increased from about 3% in 1995 to 13% in 2006.

Overall, the analysis of ASEAN's market shares in China's imports shows the following salient trends:

- In electrical machinery, ASEAN's share steadily increased from 4% in 1995 to 18% in 2002-06.
- In non-electrical machinery too, ASEAN's share increased from about 3% in 1995 to 13% in 2006. But, the EU countries seem to be close competitors for ASEAN in this sector. Further, Macao, China's shares increased manifold in both electrical and non-electrical machineries.

Table 11: Shares and Growth of Top 20 Suppliers in China's Non-Electrical Machinery Imports

(In per cent)

Sl no	Country	1995	1998	2002	2003	2004	2006	Cum.	CAGR (1995-2001)	CAGR (2002-06)
1	Japan	28.7	25.4	22.3	23.5	23.7	22.0	22.8	2.1	20.0
2	Germany	14.5	11.9	12.1	12.9	13.4	11.8	35.3	3.0	19.6
3	China	0.2	0.7	7.3	9.2	10.3	13.2	45.7	82.4	39.6
4	United States	11.7	14.7	10.6	8.4	8.6	8.8	54.7	9.0	15.1
5	Taiwan Province of China	10.9	9.4	12.2	9.5	7.9	6.9	63.6	7.0	4.4
6	Korea, South	4.1	4.2	5.9	6.9	7.5	7.8	70.7	11.3	28.8
7	Thailand	0.3	3.1	2.1	3.0	3.1	4.6	74.1	48.4	45.8
8	Italy	6.8	5.0	4.0	3.5	3.2	3.2	77.5	-1.0	13.3
9	Singapore	1.7	5.8	3.1	3.2	3.1	2.9	80.7	17.2	17.9
10	Philippines	0.0	0.4	1.0	1.9	1.8	2.5	82.6	80.6	50.1
11	Malaysia	0.4	1.0	2.1	2.4	2.0	1.8	84.7	43.9	15.3
12	France	2.6	2.7	1.9	1.7	1.7	1.6	86.4	3.0	15.7
13	United Kingdom	2.6	2.2	1.8	1.4	1.4	1.5	87.9	4.2	14.6
14	Switzerland	1.6	0.9	1.4	1.4	1.4	1.2	89.2	6.8	14.9
15	Hong Kong	4.8	2.6	1.7	1.3	1.2	0.8	90.4	-10.0	0.8
16	Indonesia	0.1	0.2	0.9	0.9	0.9	1.1	91.4	47.8	26.9
17	Sweden	0.9	0.9	1.0	1.0	1.0	0.9	92.3	8.3	18.6
18	Finland	1.1	2.1	0.8	0.9	1.2	0.6	93.2	5.9	11.8
19	Austria	1.1	0.5	0.8	0.7	0.7	0.7	93.9	-2.0	14.9
20	Belgium	0.9	0.8	0.8	0.7	0.6	0.6	94.5	3.1	10.5
	ASEAN-5	2.6	10.5	9.3	11.4	10.9	12.9		32.3	30.5
0	—World—	27580	24738	52195	71561	91480	109466		6.6	20.3

Source: Same as in Table 10.

- In petroleum & petro products, ASEAN's share (dominated by Singapore and Indonesia) dropped massively, and China's dependence on Saudi Arabia, Angola, Iran and Russia became significant.
- In organic chemicals, ASEAN-5's share increased from 5% in 1995 to 11% in 2006. Saudi Arabia, Russia, India, Canada and some of the EU countries are close competitors for ASEAN in this product segment.
- In vegetable & animal fats and oils, ASEAN-5's share increased from 41% in 1995 to 70% by 2006. Malaysia remains the single largest import supplier and it alone contributed 42% share in China's total imports in this sector in 2006. The main competition is between Malaysia, Indonesia and Argentina. However, Saudi Arabia, Canada, Germany and Russia and other EU countries are also emerging competitors for ASEAN.
- In the case of rubber and rubber products, on the other hand, ASEAN (dominated by Thailand and Malaysia), has been the most important supplier to China. Its share picked up post-2002 and stood at 45% in 2006. South Korea, US, and the EU appear to be close competitors.

- In plastic and plastic products, ASEAN-5's share has increased from 5% in 1995 to 13% in 2006. However, it is declining in share in ASEAN's total exports to China. Further, China (4%), Germany (4%), Saudi Arabia (3%) and India (1.3%) have also gained in shares and are competitors for ASEAN in this sector.
- In the case of wood & wood articles, a sector which is declining in share in ASEAN's exports to China, ASEAN's share declined heavily from 66% in 1995 to just 16% in 2006.
- In the optical and medical instruments sector, ASEAN's share (solely contributed by Singapore) stood at a mere 2% in 2006.
- In copper & copper products, ASEAN's share increased barely by 1% after 1995 and stood at 7% in 2006, which was not significant when compared to the dominant players in the Chinese import market for this sector.

To sum up, ASEAN's exports have made the most significant gains in share in the Chinese market for electrical and non-electrical machineries. The only two other non-resource-based sectors in which ASEAN has increased its market access in China are organic chemicals and plastic & plastic products. Two other sectors in which ASEAN has gained in market share are fats & oils as well as rubber & rubber products, both of which are resource-based sectors. Meanwhile, in two other important resource-based sectors, namely, petroleum & petro products and wood & wood products, ASEAN's market shares in China have been heavily eroded.

Let us now examine whether the tariff preferences under the ASEAN-China FTA have been significant in influencing the market access scenario.

Margin of Tariff Preference under the ACFTA

As mentioned earlier, the benchmark year for beginning the tariff reduction schedule under the ASEAN-China FTA was fixed as the 2003 MFN rate for both ASEAN and China. It can be seen from Table No. 11 that between 2003 and 2006, China's MFN rate came down from 11.3% to 9.7%. This implies that by 2006, ASEAN managed to get an average tariff preference of only 2.6% (The preferential rate for ASEAN under the ACFTA stood at 7.1% in 2006; see Table 11). Further, at the sectoral level, the most significant preferential treatment was obtained by ASEAN only in agricultural products, for which ASEAN members

have been granted zero tariffs. Only the Philippines faced higher tariffs, because of which the average preferential tariff for ASEAN-5 comes to 0.6% in 2006.

On the other hand, when it came to its top-10 manufactured export sectors to China, ASEAN did not have significant margins of preference in petroleum & petroleum products, organic chemicals, wood pulp & waste paper/paperboard and optical, photo/cinematographic and measuring instruments.

Table 12: Margin of Preference for ASEAN's Top Export Sectors in China

HS Code	China's MFN rate		Avg. pref.rate for ASEAN-5	Pref.rate for Thailand	Pref.rate for Vietnam	Margin of pref. for ASEAN over MFN
	2003	2006	2006	2006	2006	2006
Agricultural products	13.8	12.6	0.6	0.0	0	12.0
Vegetable & animal oils & fats	20.0	12.7	6.2	5.3	n.a.	6.5
Min fuels, min oils & prd of distillation	5.7	4.8	5.0	3.5	n.a.	-0.2
Organic chemicals	5.8	5.4	5.0	4.9	n.a.	0.4
Plastics	10.1	8.2	5.4	2.7	n.a.	2.8
Rubber & rubber products	11.8	10.6	7.2	4.2	n.a.	3.4
Wood & wood products	4.3	3.2	5.6	3.9	n.a.	-2.4
Wood pulp & waste paper/paperboard	0.0	0.0	0.0	0.0	n.a.	0.0
Non-electrical machinery	8.6	7.8	6.9	6.1	n.a.	0.9
Electrical machinery	9.9	8.7	10.1	6.7	n.a.	-1.4
Optl, photo/cinematographic, measuring instruments	8.3	7.7	8.0	8.0	n.a.	-0.3
Avg. Total	11.3	9.7	7.1	5.5	0.0	2.6

Source: Compiled by the authors based on WITS online database available at <http://wits.worldbank.org>, accessed in August 2007.

In the case of vegetable and animal oils & fats in which ASEAN gained in market share in China dramatically, the FTA does seem to have played a major role. This is the sector in which China has granted ASEAN a high margin of preference of 6.5%. Similarly, in plastics and rubber and products, the FTA seems to have helped, since ASEAN enjoyed margins of preference of 2.8% and 3.4% respectively by 2006.

On the other hand, in wood & products, ASEAN faced a negative margin of preference of 2.4% as a result of which, its share in the Chinese market was eroded. In wood pulp & waste paper/paperboard, all of China's trading partners faced zero tariffs (But, the share of this sector in ASEAN's top exports to China has been declining).

In non-electrical machinery, ASEAN obtained a nearly one per cent margin of preference. But, given that this is an industry driven by low profit margins and mass volume production, even a very small reduction in tariff rates in cross-border trade can be substantial and lead to a significant increase in the volume traded³⁸.

However, in electrical machinery, it faced a negative margin of preference of 1.4% by 2006. This suggests that China wanted to keep an upper hand in attracting FDI into the electrical machinery industry by way of keeping the tariffs on exports from ASEAN at a higher level as compared to its MFN rate. Nevertheless, in electrical machinery sector, ASEAN gained massively in China's market share. This necessitates a detailed study of the region-wide intra-industry trade in electrical machinery industry at the disaggregated product level, which is beyond the scope of the present paper.

Overall, in sectors of export prominence for ASEAN in China, the ACFTA seems to be important in explaining the trends in bilateral trade. This is true especially in the case of the rapid increase in ASEAN's share in Chinese imports of vegetable & animal oils & fats, plastic & plastic products and rubber & rubber products. In sectors dominated by MNC-led intra-industry trade, preferential tariffs under the ACFTA do not seem to explain ASEAN's increased market share in China, except for the plastics and non-electrical machinery industries. In the others, it seems that the bilateral trade pattern is intrinsically linked to the production strategies of the MNCs dominating the production networks and the relative technological capabilities of the different countries. This is explored further in the subsequent sections.

Table 13: Maximum Tariff Rates of China, 2003 and 2006

HS Code	MFN rate		Pref.rate for ASEAN-5*	Pref.rate for Thailand	Pref.rate for Vietnam
	2003	2006	2006	2006	2006
Agricultural products	33.0	30.0	20.0	0.0	0.0
Vegetable & animal oils & fats	41.6	30.0	20.0	20.0	n.a.
Min fuels, min oils & prd of distillation	11	11	10.0	10.0	n.a.
Organic chemicals	15	14	10.0	10.0	n.a.
Plastics	14	14	10.0	10.0	n.a.
Rubber & rubber products	28	25	20.0	15.0	n.a.
Wood & wood products	20	20	10.0	10.0	n.a.
Wood pulp & waste paper/paperboard	0.0	0.0	0.0	0.0	n.a.
Non-electrical machinery	35	35	20.0	20.0	n.a.
Electrical machinery	35	35	20.0	20.0	n.a.
Optl, photo/cinematographic, measuring instruments	25	25	20.0	20.0	n.a.

Source: Same as in Table 12

Comparative Market Access Positions of ASEAN and China in the Major Markets

We have seen in the earlier section that while ASEAN's exports to China increased in share, its exports to the US, Japan and EU declined. At the same time, China's exports to these developed markets increased as share of China's total exports. Thus, it seems that while ASEAN increased its market access in the Chinese and other East Asian markets in some of its important export sectors, China has gained in the other East Asian markets and the major developed country markets. Can we interpret this to imply that ASEAN and China are together gaining in market access from the increased integration through ASEAN-China FTA? In order to examine this issue, below we undertake a market share analysis of the major developed country markets to understand the relative competitiveness of ASEAN and China in these major final markets.

A sectoral import market share analysis of the US, EU and Japan for the top export sectors for ASEAN (to China) reveals the following points.

In organic chemicals, Singapore was the sole major contributor in ASEAN's exports and it gained in the major developed country markets of EU and Japan, while it lost market share in the US. Meanwhile, China also gained in these markets. However, currently both Singapore and China are not the major players in this sector in the developed country markets.

In plastics, China significantly gained at the expense of ASEAN, which was a major import supplier only in the case of Japan. But, even here, its share is much lower than that of China.

Thus, in the two sectors in which ASEAN gained in share significantly in the Chinese market (organic chemicals and plastics), China gained market share in the developed country markets at a much higher rate than ASEAN.

The resource-based sector of vegetable oils and fats was the only sector in which ASEAN's market share in the US, Japan and EU markets dominated and where China's shares were hardly more than 5%.

However, in the top-two export sectors of ASEAN, the electrical and non-electrical machinery sectors, ASEAN gained massively in the Chinese market, but its share in the US market declined significantly after peaking in 1997. Similarly, ASEAN's shares in electrical machinery sector declined in Japan and the EU also after peaking in 2002. In the case of non-electrical machinery, the decline was seen since 2000.

Table 14: Comparative Export Performance of China and ASEAN in the Major Developed Country Markets
(Market share in per cent)

Electrical Machinery											
Market	Exporter	1990	1995	1997	2000	2001	2002	2003	2004	2005	2006
US	China	3.3	6.9	8.6	10.5	12.8	16.1	18.3	21.7	25.6	28.3
	ASEAN-5	13.6	18.4	18.3	15.8	14.6	14.6	13.8	12.8	14.0	12.7
Japan	China		10.5	14.0	16.6	20.9	24.5	26.8	29.3	32.6	32.5
	ASEAN-5		20.5	21.8	25.7	26.2	25.4	24.5	24.6	22.2	20.0
EU	China			8.0	9.9	11.2	14.2	17.3	19.9	21.8	25.3
	ASEAN-5			12.5	11.8	10.7	14.8	13.3	12.3	11.0	9.8
Non-Electrical Machinery											
Market	Exporter	1990	1995	1997	2000	2001	2002	2003	2004	2005	2006
US	China	0.7	3.0	4.2	7.4	8.5	12.5	17.5	21.8	23.7	25.5
	ASEAN-5	8.5	14.7	15.8	13.9	13.3	14.2	13.3	11.9	11.2	11.3
Japan	China		3.5	6.7	9.3	12.4	20.6	28.1	32.1	36.7	37.9
	ASEAN-5		21.6	21.4	21.6	20.3	17.6	16.7	16.0	14.5	14.0
EU	China			3.6	6.3	7.8	9.8	13.6	17.3	18.6	20.2
	ASEAN-5			12.4	10.5	9.7	9.2	8.6	8.8	8.4	8.3
Organic Chemicals											
Market	Exporter	1990	1995	1997	2000	2001	2002	2003	2004	2005	2006
US	China	1.3	2.5	2.6	2.2	2.2	2.5	3.0	3.8	4.8	5.2
	ASEAN-5	4.1	4.0	4.4	2.8	3.4	5.3	6.8	5.2	2.5	3.3
Japan	China		4.2	4.7	4.7	5.2	5.7	6.2	7.3	9.3	10.2
	ASEAN-5		3.9	5.1	5.2	5.4	5.4	5.5	5.5	5.6	5.9
EU	China			5.4	4.7	5.1	5.3	6.3	6.0	6.7	7.4
	ASEAN-5			3.7	7.1	7.1	7.5	12.5	14.4	15.4	14.8
Vegetable & Animal Fats & Oils											
Market	Exporter	1990	1995	1997	2000	2001	2002	2003	2004	2005	2006
US	China	0.2	0.2	0.5	0.5	0.5	0.5	0.6	0.5	0.6	0.7
	ASEAN-5	32.7	37.2	35.3	30.9	24.7	25.0	23.1	23.6	26.3	26.8
Japan	China		1.4	2.1	1.7	1.4	1.0	1.0	1.6	4.1	5.6
	ASEAN-5		55.8	41.4	40.7	35.5	42.3	42.9	46.4	41.4	43.3
EU	China			0.9	0.8	0.9	0.6	1.0	0.6	0.8	1.8
	ASEAN-5			49.5	52.9	52.7	54.6	53.5	50.1	45.2	38.2
Plastic & Plastic Products											
Market	Exporter	1990	1995	1997	2000	2001	2002	2003	2004	2005	2006
US	China	5.5	13.0	13.9	15.3	16.9	18.5	18.7	19.6	20.9	21.7
	ASEAN-5	2.7	2.3	2.0	2.4	2.5	2.8	3.2	2.8	3.7	3.9
Japan	China		10.5	12.7	16.5	19.2	22.1	23.5	25.3	27.1	29.4
	ASEAN-5		9.4	10.3	16.0	16.2	16.2	16.5	17.6	19.0	18.2
EU	China			10.6	13.8	14.3	14.7	15.2	14.7	15.3	14.4
	ASEAN-5			3.5	3.7	3.5	3.3	3.1	3.6	5.0	4.5

Source: World Trade Atlas Online available at <http://www.gtis.com>, accessed in August 2007.

At the same time, Chinese shares in the US, Japan and EU markets increased rapidly and far overtook ASEAN's combined share. Thus, it is clear that ASEAN has in general lost out in the final export markets in the sectors dominated by MNC-led production networks.

V. Implications of the Increasing Network-driven Bilateral Trade

In an earlier section, we observed that there is increasing integration of China into the region's intra-industry trade in the electrical and non-electrical machinery industries, which is dominated by parts and components trade. Juxtaposing these findings together with the findings above on the relative market shares of ASEAN and China in the developed country markets, it is clear that ASEAN's dependence on developed country demand has been increasingly routed through China over the recent years. Thus, the region's growth dynamism based on vertical specialisation depends inexorably on the demand for the final goods in the developed country markets. That is, while international production fragmentation has increased economic interdependence within the region, this has not meant less dependence of ASEAN on the global economy. Indeed, the region's growth dynamism based on vertical specialization has led to an increase in this dependence over the years.³⁹

In this scenario, ASEAN's declining market shares in the developed country markets do have very significant implications. It is clear that if demand (for Chinese exports) from the US and the EU slows down, this will not only affect Chinese manufacturing production, but also Chinese demand for imports from these Asian developing countries.⁴⁰

Further, in the medium to long term, there is a huge difference in implication for ASEAN in exporting to developing country markets and to developed country markets, with the latter being "innovators" and the former being technological followers. Therefore, we argue that with China's entry into the WTO and the subsequent formalisation of the ACFTA that appears to have consolidated the presence of regional production networks encompassing China, the production upgradation that should have occurred in the older ASEAN members in order to move up the value chain has been strained, especially given the relatively lower industrial policy support in ASEAN.

An OECD study by Alfaro and Charlton (2007) on intra-industry FDI appears to support these observations. The FDI literature has established that multinational subsidiaries which supply their parents with intermediate

goods will be located in poorer countries for the purpose of taking advantage of low factor costs. The empirical implication is that most subsidiaries providing inputs to their parents will be located in poorer countries and hence intra-firm trade will be higher between rich and poor countries than between rich countries.

However, this is inconsistent with recent findings in the trade literature that low income countries report low shares of intra-firm exports to the US, while high income countries generally report above average intra-firm exports to the US. The implication of these results from intra-firm trade data is that there is a lot of vertical FDI between rich countries. The conclusion of the trade literature is that across industries, low shares of intra-firm imports are associated with raw materials, early stages of production or labour-intensive products (such as clothing and leather). Thus, firms engaged in inter-industry vertical FDI are more likely to be sourcing low value-added inputs from low skill countries. This is indeed what is observed by the OECD paper.

Using firm-level data on 6,50,000 multinational subsidiaries in 90 countries, Alfaro and Charlton (2007) established the following: While most FDI takes place between developed countries, most of the intra-industry vertical FDI (where subsidiaries supply their parents with inputs within the same industry) also takes place between developed countries. What is important to note is that this is not visible at the 2-digit level, but at the 4-digit level of product classification. Thus, it was seen from firm-level data that the majority of developed country subsidiaries are in fact supplying highly specialised (that is, high value added) inputs into their parents' production.

Thus, according to Alfaro and Charlton (2007), while multinational companies overwhelmingly source raw materials and inputs in early stages of production from outside the firm, they tend to own the stages of production proximate to their final production. This indeed gives rise to significant high-skill intra-industry vertical FDI involving developed countries.

This should imply that most intra-firm trade (in value terms) also happen between north-north, according to them. This is indeed observed in recent trade data. In fact, it is also observed that high shares of intra-firm imports are reported in capital and technology-intensive industries such as non-electrical machinery, electrical machinery and organic chemicals.

Given all the empirical support presented so far, it could then be argued that the high revealed comparative advantage in high-technology products (particularly in electrical and electronics products) exhibited by Southeast Asia and China, essentially involves labour-intensive production of high-technology products, especially for the lower-wage economies among these economies.

Thus, a seemingly high technological content in foreign trade may not reflect high technological content in domestic production.

There is, however, a strand of opinion that argues that the increase in FDI-led vertical intra-industry trade has created a sophisticated production network in emerging Asia, which is mutually beneficial for the countries involved as it facilitates the “catch-up” process of developing Asian countries through technology transfer.⁴¹ However, the moot point is that this technology transfer and the catching-up do not happen automatically as typically assumed in this literature. Taking part in labour-intensive production does not automatically lead to technological spillovers.

As several analysts including Wade (1990), Amsden (1989), Singh (1995), Jomo (2003) and Chang (2006) have established, what is required for sustainable late development is not just production capability as such but rather the building up of indigenous innovative capability, indeed an indigenous ‘national system of innovation’. In fact, those countries that have been most successful in developing industrial capacities and capabilities in East Asia, namely Japan, South Korea and Taiwan Province of China, have hardly depended on inward FDI, which has only played a relatively small role. While Japan developed a strong and indigenous base for innovation, the first-tier NIEs have remained dependent on imported technology. In Southeast Asia, however, FDI has generally been much more important for a variety of reasons, which have not been entirely economic.⁴² Thus, Southeast Asia is greatly dependent on foreign-controlled firms and exhibits high import content in its exports. It should also be noted that Northeast Asia (in this case referring to Japan, South Korea and Taiwan Province of China) has also generally had much more sophisticated and effective industrial policy compared to Southeast Asia. This accounts, in no small way, for the very important differences in industrial and technological capabilities between them. And this in turn explains why Southeast Asian industrialization is still primarily driven by foreign direct investment, whereas Northeast Asian industrialization is primarily an indigenous phenomenon.

To some extent, China also seems to have followed the first-tier industrial policy model. As Rodrik (2006) and Lo (2007) have shown, China sells products that are overall associated with a productivity level that is much higher than a country at China's income level.

But, the dependence of high technology trade on foreign affiliates is high in the case of China as well. Haddad (2007) has estimated that almost 80% of China's high-technology exports to and imports from Asia rely on foreign affiliates, and more than half rely wholly on foreign firms. Thus, while China has succeeded in rapidly upgrading the technological content of its foreign trade, the high-technology content of China's exports is explained by the high-technology import content of these products. Half of China's high-technology imports are used for export processing activities (and not for the domestic market). Further, China's high-technology trade is heavily concentrated in a limited number of products: three sectors account for 80% of China's high-technology imports (radios and televisions, office machinery, and precision instruments), and the top two export products (radios and televisions, and office machinery) account for 85% of high-technology imports.⁴³

Based on unit value comparisons of China's leading electronics exports, Rodrik (2006) has pointed out that while Chinese exports often concentrate on the more labour-intensive, less sophisticated end of the product spectrum⁴⁴, Chinese exports of video recorders, and TV and video monitors have higher unit values than South Korean exports in these product lines. The same author has also shown (based on a McKinsey [2003] study) that in the consumer electronics industry (consisting of mobile phones, personal computers, "brown" goods and "white" goods) in which Chinese exports showed a higher productivity level, most of the significant firms were a variety of joint ventures and domestic (mostly state-owned) entities. Firms which were 100 per cent foreign-owned were a rarity among the leading players in this industry. Thus, according to Rodrik (2006), if China is producing an increasingly sophisticated set of electronics products, it would appear that this is a result more of the policy environment, which is conducive for entrepreneurial experimentation and cost discovery, than comparative advantage and "free markets".⁴⁵

As has been observed by some analysts of China's economic performance, China's industrial structure has been shaped by policies of promotion and protection and is more similar to the case of the first-tier NICs than the Southeast Asian countries.⁴⁶ According to Rodrik (2006), although low labour costs have helped China, this cannot account for the entire story. China has steadily moved away from being simply an

assembler of components, to achieve backward integration into the final assembly. And according to him, foreign investors have played a key role in China's ability to have made this productivity jump. However, if China welcomed FDI, it has always done so with the objective of fostering domestic capabilities, as the first-tier NICs have done and unlike most of the Southeast Asian countries. China used several policies to ensure that technology transfer would take place and strong domestic players would emerge. Localities were given substantial freedom to fashion their own policies of stimulation and support, which led to the creation of industrial clusters in particular areas of the country.

As pointed out by Tong and Zheng (2008), this increasing industrial clustering enables China to benefit from external economies. By locating closely with other firms in the same industry and related industries in the value chain, firms reduce their costs, attract new investments, facilitate innovation and improve productivity. He (2008) has noted that industrial agglomeration and industrial linkages have also been significant in attracting FDI into China's manufacturing industries. Previous foreign investment has also led to current industrial concentration of foreign investment. But, most importantly, it was found that competitive local industries that possess comparative advantages have been critical for attracting foreign investment. Thus, a strong domestic producer base has been important in diffusing imported technologies.

However, there are others like Tong and Zheng (2008), who argue that the spillover effect of foreign-invested enterprises to domestic manufacturing industries remains limited in China. According to them, the linkages between the outward-oriented sectors and the domestic market-based companies are still weak. Therefore, according to them, it is rather premature to assess the impact of the export-oriented foreign investment related sector on the technological upgrading of the domestic industry.

At the same time, it is evident from the clear advances made by China in the advanced country markets that the country has gained an upper hand in the export productivity story at least, when compared to the Southeast Asian economies.

Therefore, with China's entry into the WTO and the subsequent formalisation of the ACFTA that have consolidated the regional production networks encompassing China, the production upgradation that should have occurred in the older ASEAN members in order to move up the value chain appear to have got strained. Only concerted industrial policy interventions by the individual ASEAN countries can try and reduce the damage done.

Further, it is well known that although MNC-driven production disintegration enables more countries to take part in production networks, even small variations in costs in the host country can lead to large shifts in locational advantages from the point of view of the parent firm, which then shifts production out to somewhere else. Such footloose nature of the investment involved in production networks may call for large and sudden domestic structural adjustments in the host country, to enable its successful transition/upgradation to other higher value-added industries/segments. The required domestic production adjustment and the economic and social costs associated with it will be as severe as the extent of production concentration in particular segments.⁴⁷ Thus, the growing dependence of ASEAN countries' export growth on a single broad sector of electrical machinery, which has been reinforced by the ASEAN-China FTA, is likely to become a significant liability for these economies, unless and until there is simultaneous diversification into new and higher productivity products.

Another issue that should be noted in this context is that over-dependence of ASEAN on China for routing its exports may also be problematic as China has been facing countervailing and antidumping duties on its exports to the US and the EU. This tendency has been increasing over the last few years. At one level, this could cause at least some China-based production units to shift base;⁴⁸ at another level, it would call for ASEAN-based firms to rethink their strategies as well.

Clearly, the situation will continue to remain dynamic. Further, conclusions about the evolving nature of the East Asian-wide production network cannot be arrived at without an in-depth analysis of the electronics industry production structures and the firm-level ownership structure in each of these countries, as well as how they fit into the vertical division of labour in these industries.

VI. Conclusion

The East Asian countries are actively carrying out new regionalism as a central instrument of their industrial policy. While all the other factors discussed in the literature remain relevant in explaining new regionalism in East Asia, we have argued that Southeast Asia's entrapment within MNC-driven production networks has driven many of their initiatives involving bilateral and regional free trade agreements. At the same time, the new regionalism in East Asia is leading to the further consolidation of the electrical and electronics industry network across the region.

The underlying rationale driving regional integration (as well as the multilateral trade liberalisation agenda) is that under free trade, member countries would reallocate their factors of production to achieve structures of trade, production, and employment consistent with their comparative advantage, and that the resulting efficiency gains will give rise to increased welfare. The efficiency gains of market access come from scale economies and the diversification of production, which are arguments that apply to trade integration generally. But the formation of a regional production network that will facilitate increasing production specialisation has been especially argued to be mutually beneficial for the economies involved in the resultant trading network.

However, what needs to be stressed here is that the attainment of welfare gains in both these contexts hinges crucially on the assumption that factor reallocation based on comparative advantage will be made, which will enable economic restructuring. That is, the success and sustainability of any regional integration process (and more fundamentally, the required economic restructuring) depends on whether and how effectively the required factor reallocation occurs (both regionally and within the members' domestic economies internally).

Enabled by standardisation, the production of electronics does allow countries to participate in different stages of the production process. However, in mass-production industries that are characterised by rapid technological change, extensive backward and forward linkages and high income elasticity of demand,⁴⁹ this involvement cannot remain a static one. The continuous participation of a country within these technologically-dynamic industries will require consistent upgradation of the technological capabilities of the indigenous industry. Thus, trade performance (and thus industrial performance) of ASEAN will depend on several factors: the rate of growth of world trade in their major export industries, which are electrical and electronics industries; the ability of the domestic industries in Southeast Asia to continuously upgrade their production and technological capabilities; and the ability of these countries to continuously enter into new and higher value added export sectors. However, in conditions that are rife with uncertainty and involve technological and information spillovers, markets under-provide investment in new or non-traditional products. As emphasised by Rodrik (2006), industrial policy has a critical role to play in filling in this market incompleteness by subsidising investments.⁵⁰ We have argued that the ongoing regional integration moves involving Southeast Asian countries will further reinforce their dependence on FDI and, in turn, will

reduce their national policy choices, especially because of the need to harmonise towards international standards.

Further, in sectors and products with increasing returns to scale, China will continue to be the most significant player in this regional production network due to its sheer size, as emphasised by Tong and Zheng (2008) also. The vast and growing domestic market in China allows companies to take advantage of economies of scale, which therefore offers them adequate margin for price competition. Indeed, between 2001 and 2006, China nearly doubled its share in world trade from 4.1 per cent to 7.3 per cent. During this period, China's exports grew at nearly 30 per cent.⁵¹ Meanwhile, Southeast Asian countries' exports grew at just around 11% during 2000-06. As a result, their share in world exports has hardly increased after peaking at 6.7% in 2000. It stood at 6.4% in 2006.

Thus, at one level, the ASEAN-China FTA will reinforce the low-medium level technological division of labour within the region. The Southeast Asian economies, except for Singapore, are struggling to make the shift from labour-intensive manufacturing to more skill-oriented, high-technology and high-value-added industries. In the absence of significant efforts in upgrading their industrial structure, imports from China could erode the industrial base in countries with competing industries.

In the final analysis, it is evident that without effective strategies for industrial upgradation and transformation at the national levels, ASEAN's attempts to obtain increased investment and export market access based on FTAs will fail to be effective. This is so since the strength and stability of the ASEAN economies will be dependent on their national strategies to a larger extent, than on regional and multilateral initiatives.

Continuous production restructuring and upgradation through indigenous technological capability development is a necessary pre-condition for a sustainable shift to export-led growth. This remains true and even more critical in the case of an industrial policy strategy that includes bilateral free trade agreements such as the ASEAN-China FTA.

Notes

- ¹ This is the revised version of a paper presented at the Centre for Economic Studies and Planning SAP-DSA Conference on 'Economic Structures, Growth and Development', Jawaharlal Nehru University, New Delhi, India, 31 January-2 February 2008. An earlier version of this paper titled "The New Regionalism in Southeast Asian Trade Policy: An Analysis of the ASEAN-China FTA for Prospects in Market Access and Regional Standards" was presented at the '5th European Association of Southeast Asian Studies (EuroSEAS) Conference', University of Naples "L'Orientale", Naples, Italy, 12-14 September 2007. The authors are grateful to Prof. Pietro Masina, Prof. Jayati Ghosh and Prof. C.P. Chandrasekhar for their support for the original paper, and also to the EuroSEAS Secretariat, IDEAs, the Centre for WTO Studies (IIFT) and the IIFT Library services. They would like to especially thank Prof. Jayati Ghosh, whose comments and suggestions have enriched the paper significantly. They would also like to acknowledge the comments received from the participants at the two conferences and also the help from Prof. Dic Lo. The views expressed herein are those of the authors and do not reflect the views of the organisations to which they belong.
- ² This characterisation of the early phase in SE Asian regionalism follows Chia (2002), which distinguishes between economic regionalisation and regionalism. As opposed to regionalisation which is market-led integration, regionalism refers to formal economic cooperation and economic integration arrangements and agreements between two or more countries, which are *designed* (emphasis own) to achieve integration.
- ³ The original five ASEAN members in 1967 were Indonesia, Malaysia, the Philippines, Singapore and Thailand. Brunei Darussalam joined ASEAN in 1984, followed by Vietnam in 1995, Laos and Myanmar in 1997 and Cambodia in 1999.
- ⁴ UNDP (2006).
- ⁵ Low (2000).
- ⁶ For a brief history of the development of FDI-led division of labour in the machinery industries in Southeast Asia since the mid-1960s, see Athukorala (2007). For a detailed study of the FDI-led development of the machinery industries in Thailand, refer to Francis (2003).
- ⁷ According to data provided by Clarete et al. (2002), despite the fact that export-oriented growth by these countries, particularly Malaysia and Thailand, had accelerated from 1986 onwards, intra-regional export share of ASEAN declined to about 19% during 1985-89 when compared to 20.8% during 1980-84. This was probably because of the fact that the expansion of these countries' trade with non-members occurred at a much higher pace than their trade expansion within the region.
- ⁸ For a detailed discussion of the trade-investment linkages in the region, see Francis (2004).
- ⁹ See Athukorala (2006).
- ¹⁰ See Francis (2003).
- ¹¹ See Francis (2004).
- ¹² "CEPT" is an agreed effective tariff applied preferentially to goods originating from ASEAN member states.. A product is deemed to be originating from ASEAN Member States, if at least 40% of its content originates from any member state.
- ¹³ Under AFTA, commodities traded in the region were categorized into various categories subject to different rates of liberalization, namely, Inclusion List (IL) with fast track and normal track liberalisation, and Temporary Exclusion and Sensitive Lists. Industries included in the fast track list include nearly all the existing manufacturing product categories (www.aseansec.org).
- ¹⁴ See UNESCAP (2004).
- ¹⁵ See Pangestu and Gooptu (2003).
- ¹⁶ See Francis (2004) for a detailed exposition of this argument.
- ¹⁷ WTO International Trade Statistics, 2003.

- ¹⁸ Two major roadblocks in the CEPT implementation were considered to be Malaysia's auto industry and the Philippines' petrochemical industry, which have not been prepared for the elimination of import tariffs. Further, ASEAN's inter-regional transaction costs were also considered high then due to different standards among the member states and inefficient customs clearance procedures. See Naoko (2005).
- ¹⁹ See Francis and Kallummal (2005).
- ²⁰ See Dent (2003).
- ²¹ This term was used by Hettne, et al. (eds.) (1999).
- ²² As Beeson (2005) argues, the emergence of 'ASEAN+3', an exclusively East Asian regional grouping that includes both Japan, China, South Korea as well as the countries of Southeast Asia is evidence of a region-wide reaction and resistance to external political and economic pressures subsequent to the financial crisis. The determination to create new mechanisms with which to resist the sorts of neoliberal reforms that were being pushed in the region despite the risks and questionable benefits led to unprecedented moves designed to insulate the region as a whole from potentially destructive flows of mobile financial capital. According to Beeson, these cooperative initiatives reflect a continuing desire on the part of East Asian governments to control the manner and pace of economic integration and recognition of the growing importance of capital flows as opposed to trade. See Beeson (2005) and Ravenhill (2003).
- ²³ See Sheng (2003).
- ²⁴ Because of the FDI flows into Vietnam from Thailand, Malaysia and China, Masina (2006) has argued that Vietnam was already integrated into the regional economic dynamics by the mid-1990s itself. But, due to paucity of data, Vietnam's growing trade and investment links with the region remain unexplored in the present paper.
- ²⁵ The tariff reduction schedules for the newer members, including Vietnam, are delayed in comparison to the original ASEAN-6, as the former have been granted LDC treatment.
- ²⁶ This refers to the total ASEAN-10 market, including Lao and Vietnam.
- ²⁷ There is some discrepancy in the ASEAN trade figures reported by the ASEAN Secretariat and WTO because of the difference in coverage. The latter source was used in page 7 of this paper.
- ²⁸ With Brunei constituting just 1 per cent of total ASEAN trade, it clearly is not very significant. So, henceforth we will be focusing on the original five ASEAN members only.
- ²⁹ See Francis (2004).
- ³⁰ Haddad (2007: 11-12).
- ³¹ *Op. cit.* pp. 7-8.
- ³² Athukorala and Yamashita (2006).
- ³³ Apart from Athukorala and Yashimoto (2005) and Haddad (2007), Ando and Kimura (2003) also point out the same.
- ³⁴ Athukorala and Yamashita (2006)
- ³⁵ *Ibid.*
- ³⁶ The discussion of the nature of the production network-based trade is based on Haddad (2007).
- ³⁷ Haddad, 2007: 16.
- ³⁸ *Ibid.*
- ³⁹ Athukorala (2007) has made a similar argument. In his opinion, production network-related trade in parts and components has certainly strengthened economic interdependence among ASEAN countries and between ASEAN and other major economies in East Asia; however, this has not enabled them to reduce the dependence of their growth dynamism on the global economy. The operation of cross-border production networks depends inexorably on trade in final goods with North America and the European Union
- ⁴⁰ See Chandrasekhar and Ghosh (2008).
- ⁴¹ See for instance, Tong and Zheng (2008); IMF (2008), etc.

- ⁴² See Jomo (2003).
- ⁴³ Haddad (2007), p. 17.
- ⁴⁴ Unit value comparisons of some of China's leading electronics exports show that China's unit values are lower than those of South Korea, Malaysia or Singapore.
- ⁴⁵ Rodrik (2006) therefore discredits accounts of industrial policy in China that point to the low productivity and low technology absorption of many state-owned enterprises, and to the lack of policy coordination (across national ministries and across different levels of government). He argues that the weaknesses of the Chinese bureaucratic model have been exaggerated. As he argues, without state support and publicly funded R&D, a company like Lenovo, which became large and profitable enough to purchase IBM's personal computer business, would never have come into being.
- ⁴⁶ Rodrik (2006); Dic Lo (2007, 2008), etc.
- ⁴⁷ See Francis (2004).
- ⁴⁸ A recent Financial Times article (see Milne, 2008) reports that European companies have already slashed investments in China at the same time as they expand in Eastern Europe and Russia. Foreign direct investment from the European Union into China fell steeply in 2007 from •6bn in 2006 to •1.8bn (\$2.7bn). In Russia, it soared from •10.6bn to •17.1bn. While rising labour and transport costs in China have been cited as the reasons, trade disputes facing Chinese origin exports could be another reason.
- ⁴⁹ Dic Lo (2006).
- ⁵⁰ It is a given that not all of these additional investments will prove to be socially profitable. Thus, "good industrial policy" also consists of withdrawing support from those projects that are revealed to be failures, so that resources do not get bottled up in unproductive activities. See Rodrik (2006), p. 17.
- ⁵¹ Tong and Zheng (2008) based on China's Customs Statistics. As a result of this high growth, China's trade to GDP ratio has increased rapidly, from 40 per cent in 2000, already a high level for a large economy, to 65 per cent in 2006.

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