The Role of China in Regional South-South Trade in Asia-Pacific: Prospects for industrialization of the low-income countries

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Abstract

Based on his proposed alternative theoretical framework for South-South trade as a vehicle for industrialization and development (Shafaeddin,2010) and refuting the "de-coupling" thesis—that is, the East Asian countries are decoupled from the business cycle in developed countries, the author analyses the merits and shortcomings of China's regional trade with its partners. Moreover, considering the growing weight of China in the global production network and international trade he proposes policies for the future of industrialization and development of the partner countries for strengthening the role of China as a growth "pole". He suggest, *inter alia*, the need for industrial collaboration among the low-income countries, which benefit less than others from the dynamics of the Chinese economy as a "hub", complemented by adjustment assistance by China and NIEs. In order to upgrade their industrial structure, and reduce their vulnerability to changes in the economic strategy of China and the business cycles in developed countries, he also proposes technological cooperation among other main partner countries. These countries are involved in production sharing in a limited number of electric and electronic products for exportation to the third markets in developed countries.

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I. Introduction

We have shown elsewhere **(Shafaeddin, 2010**) that the theoretical literature on the rationale for South-South trade is not satisfactory. The Neo-liberals argue against South-South trade regarding it inefficient. They argue that North-South trade according to the principle of static comparative cost advantage and free flow of international trade would involve higher gains. The opponents of the Neo-liberals have not come up with a strong theoretical rationale in favour of South-South trade. We have provided an alternative theoretical framework and the rationale for South-South trade as a vehicle for industrialization and development. Our argument is based on a combination of four building blocks: the extension of the "vent for surplus theory"; dynamic comparative cost advantage, scarcity of resources needed for industrialization and development; proactive industrial policy for collective division of labour and specialization through industrial collaboration (Shafaeddin, 2010)

In the light of the above-mentioned framework, in this study we will analyses the merits and shortcomings of China's regional trade with its partners in East, South and South East Asian (ESSEA) region, particularly low-income countries. Further, we will suggest ways in which the role of China as an industrial "pole" of industrialization and development can be enhanced through industrial collaboration among low-income countries, which benefit less than others from the dynamics of the Chinese economy as a "hub", complemented by adjustment assistance by China and NIEs. Further, refuting the "de-coupling" thesis—that is, the East Asian countries are decoupled from the business cycle in developed countries—we will suggest the need for technological cooperation among countries which are involved in production sharing in order to upgrade their industrial structure and reduce their vulnerability to dependence on China, as a "hub" and the third market in developed countries.

To do so, in section II we will refer briefly to the dynamism of the Chinese economy, as a market and source of supply for South-South regional trade in ESSEA mainly through production sharing, particularly in electrical and electronic products. We will show, however, that the trade relation of China with the countries of the ESSEA region reveals three main shortcomings as far as industrialization and development of these countries is concerned. First, China's trade in these products is concentrated in trade with the first-tier NIEs and, to some extent, with the second-tier NIEs. The low-income countries of the region have benefited little from the dynamism of the Chinese market. Second, main China's partner countries in the region have become vulnerable to the risks of dependence on the Chinese market, as a hub, because of its exposure to external shocks and vulnerability to changes in economic situation in developed countries. Third, there has not been sufficient technological development by the second-tier NIEs in order to prepare themselves for the ultimate changes in the Chinese economy as their market for parts and components (P&C). To deepen their industrialization they need to upgrade their technological capabilities.

Section III is devoted to the discussion on de-coupling and vulnerability of East Asian countries to global business cycles and other short-and long-run risks related to changes in Chin's development strategy. In Section IV, policies for integration of low-income countries and upgrading of other ESSEA countries through regional cooperation will be discussed. The last section will conclude the study.

II. China as a regional industrial "pole"

a. *China's economic dynamism and trade performance*

Since the early 1980s China has been the fastest growing economy in terms of GDP, MVA and fixed capital formation and international trade, particularly manufactured goods (table 1). As a result, it accounts for a significant share of global merchandise trade in various products (both exports and imports), except foods, (table 2). When Hong Kong is included, in 2008,

China became the largest global exporter and the second world importer, after the USA. It also accounts for nearly a quarter of exports and over one-fifth of imports of developing countries (table 2).

Table 1: Annual average of growth of trade of China and developing countries (1995-2008)

Region	Non Fuel				Non fuel (SITC 0 to 8 less 3)	Fuel (SITC 3)	Total (SITC 0 to 9)
	Food (SITC 0 + 1 + 22 + 4)	Raw materials		Manufacturing (SITC 5 to 8 less 68)			
		Agriculture (SITC 2 - 22 - 27 - 28)	Minerals (SITC 27 + 28 + 68)				
	(%)						
	Exports						
1. China	9.3	7.1	19.4	21.5	20.7	14.2	20.5
2. Developing Asia including China	7.2	6.4	15.1	11.9	11.8	15.5	12.4
3. Developing countries excluding China	7.0	6.0	14.0	8.8	9.1	15.9	10.6
4. Developing countries including china	7.2	6.1	14.4	11.5	11.2	15.9	12.1
World	6.4	4.7	11.9	8.4	8.3	16.1	9.2
	Imports						
1. China	14.8	16.0	29.3	18.9	19.3	30.2	20.2
2. Developing Asia including China	7.5	7.4	16.9	10.0	10.2	18.9	11.1
3. Developing countries excluding China	6.6	3.6	12.2	8.1	8.2	16.9	9.1
4. Developing countries including china	7.3	6.8	16.2	9.6	9.7	18.2	10.6
World	6.5	4.1	11.8	8.4	8.3	16.4	9.2

Source: Calculated by the author based on UNCTAD (2009) and UNCTAD Handbook of Statistics, database.

Table 2: Percentage Share of China in world trade (2008)

Region	Non Fuel				Non fuel (SITC 0 to 8 less 3)	Fuel (SITC 3)	Total (SITC 0 to 9)	Non fuel (SITC 0 to 8 less 3)
	Food (SITC 0 + 1 + 22 + 4)	Raw materials		Manufacturing (SITC 5 to 8 less 68)				
		Agriculture (SITC 2 - 22 - 27 - 28)	Minerals (SITC 27 + 28 + 68)					
	(%)							Value (b.USD)
	Exports							
Share in world:								
1. China	3.3	28	3.6	12.7	10.6	1.2	9.0	1,399
2. Developing Asia including China	18.1	21.3	17.6	31.2	28.8	34.8	29.8	3,809
3. Developing countries excluding China	32.3	30.6	36.2	23.0	24.8	53.8	29.6	3,289
4. Developing countries including china	35.6	33.4	39.8	35.7	35.4	55.0	38.7	4,688
Share in developing countries:								
5. Share of China in Developing Asia	18.0	13.3	20.3	40.7	36.7	3.5	30.3	
6. Share of China in Developing countries.	9.2	8.5	8.9	35.5	29.8	2.2	23.3	
World: values at end year Billions USD	1,101	225	660	10,467	13,243	2,636	15,879	
	Imports							
Share in world:								
1. China	4.3	15.9	18.8	7.0	7.2	6.0	7.0	963
2. Developing Asia including China	20.4	34.5	39.9	25.6	26.1	27.9	26.4	3,475
3. Developing countries excluding China	28.1	26.2	26.5	27.5	27.6	28.8	27.8	3,671
4. Developing countries including china	32.4	42.0	45.3	34.5	34.8	34.8	34.8	4,634
Share in developing countries:								
5. Share of China in Developing Asia	21.2	46.0	47.2	27.2	27.7	21.5	26.6	
6. Share of China in Developing countries.	13.3	37.7	41.5	20.2	20.8	17.2	20.2	
World: values at end year Billions USD	1,147	235	737	10,487	13,323	2,822	16,145	

Source: Calculated by the author based on UNCTAD (2009) and UNCTAD Handbook of Statistics, database.

Trade in manufactured goods, has been the most dynamic element of China's trade with ESSEA (table 3). Nevertheless, on the whole China has been more of a market for exports of ESSEA, than a source of supply for their imports (table 4). Instead, the USA and

Europe, in particular, have been the most dynamic market for exports of China. Such a pattern of trade is influenced mainly by trade in information technology (IT) products and by the role of China as a "hub" in the international trade of the ESSEA region (see below).

Table 3: Direction of trade of China, 1995-2008

	Exports			**Imports**		
	Shares (%)		Growth rate	Share (%)		Growth rate
Groups	1995	2008	95-08	1995	2008	95-08
Developed countries:	52.3	51.8	19.1	55.9	35	14.2
Europe	14.2	21.4	23.1	16.5	10.9	14.7
USA	16.6	18.6	20.2	12.2	6.7	13.1
Japan	19.1	8.2	11.7	21.9	12.4	13.3
Others	2.4	3.7	23.2	4.3	5	19.8
Developing countries:	46.3	43.8	18.7	38.7	53.8	21.5
of which ESSEA	40.5	31.3	16.9	33.9	38	19.5
Others*	1.4	4.4	30.2	3.8	3.1	16.6
Total	100	100	----	100	100	----
Mimeo: Value ($b.)	149	1,469	19.3	132	1197	18.4

Note: *Transitional economies and Oceania

Source: Based on UNCTAD (2009), table 2.1

Table 4: Annual average growth rate of exports of various Asian trade blocs (%), (1990-2008)

Exporters	Destination (importer)					
	ASEAN (10)	SAARC (7)	APTA (6)	Total	China	Developing economies excl. China
China	21.08	22.48	17.95	21.92	-	16.46
ASEAN	12.2	14.2	18.3	13.5	24.1	12.3
SAARC	15.3	15.9	14.1	15.8	31.8	16.3
APTA	16.4	17.2	24.1	20.7	33.1	14.5
Total (ASEAN, SAARC, APTA)	13.46	15.84	20.71	14.47	21.92	11.93
Developing economies excluding China	11.3	11.9	15.6	13.7	17.5	10.8

Source: Calculated by the author based on UN COMTRADE database.

Note that imports of China from members of various trade blocs in ESSEA region has increased faster than their intra-bloc trade (tables 4). As a result, the importance of China not only as a source of supply of imports, but also as a market for exports of various trade blocs has increased significantly (table 5). Such a development implies that factors other than preferential trade agreements must have been at work in the expansion of regional trade in general and the regional trade of China with the countries of the ESSEA in particular. Compare e.g., the data on trade of China with SAARC (South Asian Association for Regional Cooperation) and intra-trade of SAARC. China has had trade agreements with ASEAN (Association of South East Asian Nations) and APTA (Asia-Pacific Trade Agreement) since 2002 and 2001, respectively, but not with SAARC. Yet, imports of China from SAARC have grown over two times faster than the intra-bloc trade of SAARC (table 4). Further, the exceptionally high rate of growth of intra-bloc trade of APTA is due to the involvement of China in the related regional agreement; China accounted for over half of intra-bloc trade of members of APTA in 2008 (table 5).

Table 5: Matrix of trade of China with various economic groups in ESSEA (%), 1995-2008

Exporters		Destination (importer)					
		ASEAN	SAARC	APTA	Total	China	Developing economies excl. China
China	1995	7.0	1.7	5.6	12.2		46.3
	2008	7.8	3.1	7.5	15.8		43.8
ASEAN	1995	24.4	2.2	7.6	28.2	2.7	43.8
	2008	25.4	4.1	17.4	43.1	9.6	50.0
SAARC	1995	6.4	4.7	6.4	12.2	1.0	32.6
	2008	7.5	6.3	15.9	25.8	9.2	45.9
APTA	1995	9.8	2.1	6.8	15.6	3.0	41.1
	2008	8.6	3.2	11.7	20.8	5.3	42.8
Total (ASEAN, SAARC, APTA)	1995	16.0	2.2	6.9	23.4	3.0	43.1
	2008	13.9	3.6	13.5	28.0	7.4	45.2
Developing economies excluding China	1995	11.2	1.9	10.4	21.1	6.5	33.6
	2008	10.3	2.8	19.5	30.4	13.8	36.2

Source: Based on UNCTAD Handbook of Statistics 2009.

b. Structure of imports of China

We have looked into the origins of imports of China from the main trade blocs in the ESSEA region (ASEAN and SAARC) as shown in tables 6 and 7. Table 6 also shows the data for India as a separate item because of its size. The tables indicate first of all that manufactured goods, particularly SITC 7 items, and minerals and metals have been the most dynamic imports of China from ESSEA.

Secondly, When India is excluded from SAARC, other members of the regional group (all are low-income countries) benefit little from the dynamism of China's market. In fact, India alone accounts for about 76 per cent and 99 per cent of imports of manufactured goods and SITC 7 products of China from SAARC respectively. The remaining countries, excluding Pakistan, account for only over 2 per cent of the China's imports of these products from SAARC (table 7). Similar tendencies are observed in the case of low-income country members of ASEAN (table 7).

Therefore, it appears that the level of development and the degree of industrialization, thus the supply capabilities, of the partner countries, are important factors in the expansion of imports of China from countries of the region.

Finally, two main SITC items, mainly electric and electronic products, account for the bulk of China's import of manufactured goods from countries where manufactured goods constitute the bulk of China's import. Such trade pattern makes them vulnerable to the business cycle in the third markets, i.e. markets of developed countries as will be explained shortly.

Table 6: Imports of China from ASEAN 10 and SAARC, 1995-09 ($m)

Items	Total	Non-fuel	Manufactured			Ores &Metal	Ag.R.Mat.	Food	2 Main SITC Items*
			Total (SITC 6+8-68)	SITC 7	Others (light manufactured)				
ASEAN 10:									
Total value (2009)	106713.9	93574.5	74932.5	56226.5	8466.1	5350.6	4944.5	8214	40560 (SITC 776 &,752)
Share in Non-fuel(2009)	114	100	80.1	60.1	9	5.7	5.3	8.8	43.3 (54.1)
Growth rate (1995-09	23	24	27	32	14	30	16	16	47.5
SAARC									
Total value (2009)	1519.9	15095.6	4685.4	718.8	2783.2	9254.7	628.3	506.5	1443.8 (SITC 651&667)
Share in Non-fuel (2009)	100.6	100	31	4.8	18.4	61.3	4.2	3.4	6.5 (20.9)
Growth rate (1995-09)	28.8	29	20.9	39.7	16.3	41.4	30.8	10	5.3
India									
Total value(2009)	13714.3	136190	3551	709.8	1716.5	9106.7	508.9	431.8	284.5 (SITC512& 682)
Share in Non-fuel(2009)	100.6	100	26.1	5.2	12.6	66.8	3.7	3.2	2.1(8)
Share of India in imports of China from SAARC	90.2	90.2	75.7	98.7	61.6	98.4	81	85.2	

Note: *Figures in brackets are shares of the item in imports of manufactured goods of China from the regions/country.

Sources: Calculated by the author, based on UN, COMTRADE Database.

Table 7: Imports of China from individual countries

Countries	Value ($m)		Shares of individual countries in China's imports of various product groups from the relevant regional trading group				% of two main products in China's imports of manuf. goods from the country	
	Total	Non-Fuel	Non-fuel	Man.	SITC 7	Others (light Manuf.)	Share (%)	SITC
ASEAN:								
Malaysia	32330.7	29718	**31.7**	32.9	37.2	20.4	70.5	776,752
Thailand	24896.9	23715.9	**25.3**	26.6	25.4	27.3	50.5	" "
Singapore	17798.6	14868	**15.9**	18.8	15.3	24.5	34.5	" "
Philippines	11946.6	11894.3	**12.7**	14.1	17.4	6	70.5	" "
Indonesia	13663.8	9395.8	**10**	4.8	3	11.1	17.2	" "
Vietnam	4746.7	2989.1	**3.2**	2.4	1.5	9.4	15.2	764,776
Myanmar	646.1	588.6	**0.6**	0.13	0.01	1.1	0.8	764,621
Lao	367.3	365.8	**3.6**	6.2	nil	0.02	nil	682
Cambodia	36.4	36.9	**0.03**	0.02	nil	0.4	nil	
Brunei	282	1.9	**nil**	nil	0	nil	nil	
Total			**100**	100	100	100		
SAARC:								
India	13714.3	13619	**90.2**	75.8	98.7	61.6	82	682,512
Pakistan	1260.2	1260.2	**8.3**	21.9	0.07	35.2	14.7	583,512
Bangladesh	140.7	140.7	**0.9**	1.6	0.12	2.24	16.1	512,611
Sri-Lanka	70.2	70.1	**0.5**	0.63	1.04	0.68	2.5	512,611
Nepal	5.3	5.3	**nil**	0.1	nil	0.15	1.4	611,741
Maldives	0.1	0.1	**nil**	0.003	nil	nil	nil	nil
Bhutan	0,05	0.05	**nil**	nil	nil	0	nil	nil
Total								

Source: Calculated by the author, based on UN, COMTRADE Database.

c. Nature of production sharing and its role in East Asian trade

Production sharing is a form of industrial collaboration and intra-industry trade whereby the process of production is fragmented into various P&C that are produced in different countries, crossing borders to another country for assembly. The intensity of such a vertical production chain depends on the nature of the product involved, which in turn depends positively on the following factors: technical divisibility of the product, factor intensity of its process of production, technical complexity of each process and the value-to-weight ratio of the product (Lall et al., 2004). SITC 7 items, particularly ICT and automobile products, have many of these characteristics. For example, for three SITC 7 items, P&C accounted for 56.5 per cent of their world exports, 80.8 per cent of exports of East Asia and 82.5 per cent of exports of China. These items include: office machine and data processing products (SITC 75), Telecommunication and sound recording (SITC 76) and Electric machinery etc (SITC77) (Athukorala et al., 2010: table 5).

Production sharing is facilitated by the liberalization of trade and FDI, a reduction of transaction costs due to reduced costs of transportation and communication (Arndt, 2002) and the involvement of TNCs as a source of technology and a marketing channel. Meanwhile, the possibility of involvement of a country in production sharing also depends on capabilities of its domestic firms and its availability of skills, transport and communication infrastructure, institutions and the necessary back-up services ((Lall et al., op. cit.)—all of which are lacking in low-income countries and political stability as well as capability in governance (World Bank, 2009).

Trade in P&C has been a dynamic source of global trade in manufactured goods, particularly ICT products (table 8). Accordingly, during 1992/93-2005/06 over 57 per cent of global growth in ICT products originated from P&C as against about 24 per cent for

manufactured goods as a whole, 43 per cent for SITC 7 products, 10.4 per cent for electric machinery and 6.7 for light manufactured goods (SITC 8) (Athukorala and Menon, 2010: table 1). As a result, the share of ICT in global trade in P&C has increased from nearly 43 per cent in 1992/93 to 52.6 per cent in 2005/6 (loc. cit.).

The sharp increase in intra-regional trade in the East Asia region has been also largely due to the expansion of intra-industry trade, particularly in skill-, capital- and/or technology-intensive goods such as electronic products and other machinery and transport equipment (SITC 7) (Ng and Yeats, 2003). As countries develop and industrialize the prospects for regional trade increases. In particular, China has been increasingly expanded its share of global and regional trade in P&C (table 8).

d. The role of China in regional production sharing

China is regarded in the literature as the leading country in terms of deepening of vertical intra-industry trade specialization (i.e., production sharing), and as the engine of export growth of the East Asian region (e.g., Kozo, Sazanami and Yu Ching, 2006; Lall and Albaladejo, 2004; Haltmaier et al., 2007). Apart from Japan, China has been the biggest importer of P&C of SITC 7 products, particularly electric and electronic ones, in the region as well as the most important exporter of related finished goods. This is because trade in P&C, particularly electrical and electronic P&C, has been one of the most dynamic elements of China's trade in manufactured goods in general, including its regional trade with ESSEA (Pizarro and Shafaeddin, 2010). China has also become a net exporter of P&C. For example, according to one estimate, in 2005, trade in P&C accounted for about 30 per cent of China's total exports and 41 per cent of its exports of machinery and equipment (Haltmaier et al., 2007: table 2). Trade in the 10 main items of P&C (mostly electrical and electronic goods) expanded even faster than those of total P&C (Pizarro and Shafaeddin, 2010).

Table 8: Importance of trade in P&C in trade in manufactured goods

	Exports		Imports	
	1992/93	2005/6	1992/3	2005/6
Share of P&C in Global Manufacture Trade (%):				
Total	18.9	22.3	19	22.3
SITC 7	36.6	40.7	36.6	40.7
ICT products	50.5	55.5	51.2	55.5
Share of P&C in trade of ICT products of PRC(%)	26.2	38.3	62.7	81.3
Share of ICT in global trade of P&C			42.92	52.70
Share of various groups and China in global trade in P&C (%):				
Developing countries: of which:	23.8	46.1	30.3	48.4
East Asia	30.1	40.6	24.4	38.1
Developing East Asia	(14.4)	(30.6)	(21.2)	(34.1)
PRC	(1.1)	(10.9)	(2.4)	(11.5)
% Share of P&C in China's trade with:				
World	17.5		39.3	
Developing East Asia	30.6		44.7	
ASEAN	35		47.1	
ASEAN 3	28.7		39.1	

Sources: Based on Athukorala & Menon (2010), Tables 1,2,3,4

Table 9: China's trade in main parts and components and their corresponding finished products for main SITC 7 items (value $m).

Countries	Parts and components					Corresponding finished products				
	Imports		Exports		balance	Imports		Exports		balance
	Value	Share	Value	Share		Value	Share	Value	Share	Value
Rep. of Korea	11908.0	16	7610	5.9	-4298	27658	15.3	13462	4.7	-14196
Taiwan Province	5259.7	11.65	3600.0	2.79	-1659.7	32782	18.1	5256	1.8	-27526
ASEAN 4	7623	10.75	6607	5.12	-1016	43607	24.1	10612	3.7	-32992
Hong Kong (SAR)	1347.3	1.90	40240.5	31.21	**38893.2**	2446	1.4	54151	19	**51705**
Rest of ASEAN	1851.4	2.61	4093.5	3.17	2242.1	5710	3.2	10955	3.9	5245
India	125.3	0.18	2588.1	2.01	2462.8	99	0.1	5737	2	5638
SAARC excl. India	0.9	00.0	477.2	0.37	476.3	7	0	1515	0.5	1508
Total above	31115.7	43.90	65217.4	50.58	**34101.7**	112310	62	**101527**	35.7	-10783
Total excl. Hong Kong	29768.4	42	24976.4	19.37	-4792	109864	60.6	47376	16.7	-62488
Japan	20688.6	29.19	10747.9	8.34	-9940.7	24586	13.6	15574	5.5	-9012
Others	19079.5	26.92	52981.5	41.09	33902	44238	24.4	167249	58.8	122957
Total world	70883	100	128949	100	58066	181134	100	284249	100	103115
Total world ex. Hong KONG	69537.3	98.1	88708.5	68.7	19172.8	142240.3	98.6	230146	81	71252

List of parts and components: 7169,759,7649,77129,772,77689,784,7929,7139,78539.

List of corresponding finished products: 7169, 751&752, 764-7649, 771-77129, 776-77689, 722&781, 785-78539, 792-7929.

Sources: Sources: Calculate by the author, based on UN, COMTRADE Data base.

Data for the regional trade of China in P&C and their corresponding finished products for SITC 7 items are exhibited in table 9, in which the countries/regions are ranked according to the value of imports of P&C in 2009. The data also includes total trade of China with ESSEA, excluding Hong Kong (SAR, China). Hong Kong is excluded because of its special situation as a major re-exporter of the related products imported from China and the discrepancies between the data reported by China and Hong Kong (SAR) as exporter and importer, respectively. Such discrepancies cannot be explained by transport costs alone.

According to the table, first of all, China is not only a large market, but also a net importer of P&C and finished products from ESSEA even when Hong Kong (SAR, China) is excluded. Yet it is a net exporter to the rest of the world, particularly for finished products. Therefore, it acts as an export hub (bridge) for the ESSEA region; in 2009, 43 per cent of its imports of P&C originated from ESSEA while over 64 per cent of its finished products were exported to other countries (5.5 per cent to Japan and 58.8 mainly to the USA and Europe (table 8). When Hong Kong is excluded the last figure increases to 64.3 per cent.

e. Lack of integration of low-income countries

All developing countries of the region have not benefited from the dynamism of the Chinese market to the same extent. Three groups can be distinguished in order of their importance as providers and markets for the selected products. The first group includes the Republic of Korea and Taiwan (Province of China). China's trade balance with these economies is significantly negative for both P&C as well as finished products. They are major regional suppliers of sophisticated P&Cs and finished consumer goods and capital equipment to China.

The second group consists of four ASEAN members: Indonesia, Malaysia, Singapore and Thailand (ASEAN 4). China is also a net importer of both P&C and finished products from these countries. Nevertheless, as far as finished products are concerned, the figure is

heavily influenced by imports from Singapore. Otherwise, China is a net exporter of finished goods to the other countries.

The third group consists most of other ASEAN countries and members of SAARC. China's import from the rest of ASEAN and members of SAARC is insignificant except for the Philippines and to some extent Vietnam. The Philippines have become an increasingly important exporter of electronic products since the late 1980s because of the involvement of Japanese and the United States TNCs. Three characteristics of the country have attracted FDI: its proximity to other East Asian countries involved in the production network; its ease of regional transport due to its vast coastal areas; and its low-wage and skilled manpower. Japan and the United States have been its main markets, but its exports of high-tech products to China have also increased significantly, from 1.3 per cent of its total exports in 2000 to 13 per cent in 2005 (Haltmaier et al., 2005: 32-36). In 2009, imports of 7 main electric and electronic products, accounted for over 79 per cent and 89 per cent, respectively, of China's imports from the Philippines, out of which, two products (SITC 776 and 752) accounted for 63% and 71%, respectively.

III. Vulnerability of ESSEA countries, or de-coupling

The ESSEA countries which depend on the production sharing system, dominated by China, face a couple of short/medium and long run risks.

a. Short/medium-run risks

One short/medium run risk facing them is related to their exposure to the global business cycle, directly and through the "hub", due to the fall in demand for finished IT products of China in the market of developed countries. It is a myth to believe that China (and East Asia) is decoupling with developed countries as argued by some (Anderson, 2007; Economist, 2007; Bergsten, 2008). In fact, the link has intesified. Generally speaking, OECD countries

accounted for over 61 per cent of destination of processing exports of the East Asian region, out of which the USA and EU-19 accounted for 31.1 per cent and 25 per cent, respectively (Ma et al., 2009: table 2). The business cycle correlations of East Asian countries with China as well as developed countries have increased considerably as shown in table 10. The only exception is the correlation of direct trade of East Asia, excluding China, with G7. The correlation between growth in East Asia's interregional exports and USA's non-oil imports increased from -0.01 during the 1990s to 0.83 during 2000-August 2009 (Kim et al., 2010: 8).

Table 10: Business cycle correlation of East Asian[a] countries

	Pre-(1997/8) crisis[b]	**Post-crisis[c]**
Business cycle correlation with PRC:		
East Asia excluding PRC	-0.379	0.549
G7	-0.304	0.580
US	-0.490	0.517
Japan	-0.633	0.477
Inter-regional Business Cycle correlation:		
East Asia-G7	0.084	0.611
East Asia-Us	0.233	0.715
East Asia excluding PRC-G7	0.619	0.537
East Asia excluding PRC-US	-0.345	0.724

Notes: a: PRC, Hong Kong (SAR), Taipei, China, Indonesia, Rep. of Korea, Malaysia, the Philippines, Singapore and Thailand. b: 1990 Q 1-1996 Q4. c: 2000Q1-2007Q2.
Source: Kim et al., (2009: 37).

Similarly, growth rates of exports of China to G3 (USA, EU and Japan) are "highly correlated with those of the PRC imports from the rest of East Asia" (Kim *et al*., 2010: 8). In other words, not only China itself is exposed to the business cycle in developed countries, but also are the Asian exporters of P&C via their exposure through China. Hence, East Asian countries and the US/European economies are "recoupling" rather than decoupling (Kim, *et al*., 2009).

The argument on decoupling is based on an erroneous methodology of analysis in which the rates of growth of GDP of China and developed countries, rather than their deviation from the trend growth rates, are compared (Walti, 2009).

Another source of short-term risk is related to the interdependence of these countries as the correlation of business cycles between economies across the East Asian region has increased considerably since the mid-1980s (Zebregs, 2004: 14; Kim et al., 2009).[1] Development of bottlenecks in production of an item of P&C or a shock in one country may be transmitted to another country through the production sharing network, leading to slowdown in growth of other exporting countries.

Yet further source of risk is the change in the exchange rate system in China. The Chinese currency is fixed and pegged to the US dollar with a band. A switch to floating exchange rate creates instability in export of P&C to China (Thorbecke, 2008). Recently, the band has been widened and there is a pressure on China to revalue its currency, or to switch from a fixed exchange rate system to a floating one. In the former case the appreciation of the currency makes Chinese exports more expensive reducing its demand for imports of P&C. At the same time it makes the imported price of P&C cheaper. The overall effects on exports of China, thus the demand for P&C, which is a derived demand, is not clear depending on the import intensity of exports and the behaviour of the pass-through of the import price of P&C (Athukorala et. al., 2010 and Jangwanich, 2010). In East Asia, where importance of P&C in international trade has increased from 20 per cent in 1992 to about 41 per cent in 2008 (Kim et al., 2010: 9), the link between exports and exchange rate has weakened. P&C are less sensitive to changes in exchange rates. Meanwhile, it is also argued that devaluation by other East Asian countries does not necessarily affect China's exports (Liao et al., 2010). This is because the complementarity effects of China's exports (through imports of P&C) with most exporters of P&C are greater than their competitive effects with their exports of final products. Thus China would benefit from cheaper imports of P&C which accounted for nearly 29 per cent of its total exports from developing East Asian countries in 2005/06

(Athukorala et al., 2010). In East Asia, "world demand, FDI and production capacity have increased their importance in determining exports" (Jangwanich, 2010).

b. Long-run risks

The long-run risks are related to the slowdown of China's imports of P&C from ESSEA for two different reasons: the substitution of domestically produced P&C for imports, and a shift from export-led growth to consumption-led growth, or a combination of both.

China has been increasing its capabilities in production of P&C and expanding domestic value added in assembly operation particularly in ICT products (electric, electronic) and other items of SITC 7 group which are the main source of production sharing (Pizarro and Shafaeddin, 2010). As a result, its imports of P&C decelerated from annual average rate of about 44 per cent during 1992/3-2001/2 to 35.3 during 2001/2-2004/5 period despite acceleration of its exports of manufactured goods (Pizarro and Shafaeddin, 2010: table 4) . It has been improving its revealed comparative advantage in production and exports of P&C (Ibid: table 4 and Gallagher and Shafaeddin, 2010). During 2005-2009, China's imports of P&C for production of SITC 7 items declined in absolute terms, while their exports expanded rapidly; thus the balance of total trade in these products has improved by over 5 times (table 11).

Table 11: Trade of China in P&C and their corresponding finished products for SITC 7, (2005-2009) ($m.)

	P&C			Finished products		
	2005 (1)	2009 (2)	Ratio 3=2:1	2005 (4)	2009 (5)	Ratio 6=5:4
Total world						
Exports	97502	128949	1.32	199486	284249	1.42
Imports	86185	70883	0.82	172618	181134	1.05
Exports (X)-Imports(M)	11317	58066	5.1	26868	103115	3.84
X-M/M (%)	13.1	81.9	6.25	15.3	56.9	3.7
Total world excluding Hong Kong						
Exports	67611	88708.5	1.31	156375	230146	1.47
Imports	84459	69537.3	0.82	170770	142240.3	0.83
X-M	-16848	19172.8	na	-14395	87905.7	na
(X-M)/M (%)	-19.9	27.6	na	-8.4	61.8	na
ESSEA						
Exports	49327	65217.4	1.32	72592	101527	1.40
Imports	29535	31115.7	1.05	94343	112310	1.19
X-M	19792	34101.7	1.72	-21751	-10783	0.49
(X-M)/M(%)	67	109.5	1.63	-0.23	-0.07	0.30
ESSEA excluding Hong Kong						
Exports	19436	24975.4	1.28	29481	47376	1.6
Imports	27809	29768	1.07	92495	109864	1.18
X-M	-8368	-4791.6	0.57	-63014	-62470	0.99
(X-M)/M (%)	-30	-16	0.53	-68.1	-56.8	0.83

Source: Calculated by the author, based on UN, COMTRADE Database.

So far, China's imports of P&C from ESSEA region have been increasing both as a share of its total imports of P&C and in absolute terms—although the pace of the latter has been slow.[2] Furthermore, the country's export of finished products to the world as a whole expanded faster than its exports to ESSEA region. Hence, the role of China as a "hub" in the ESSEA region has been increasing. Nevertheless, as exports of P&C of China to ESSEA is increasing faster than its imports from the region, whether Hong Kong is included or not, (table 10), it is very likely that its role as a "hub" may become gradually less important in the future (Gallagher and Shafaeddin, 2010).

Shift to consumption-led growth

One reason for a possible shift from export-led growth to consumption-led growth is the development of protectionism in the importing developed countries, particularly the USA with its growing trade imbalance with China (Akyuz, 2010; Kozo, Sazanami and Yu Ching, 2006). If China wishes to continue its export growth at the rate of 20 t0 30 per cent a year, one has to take this risk seriously. Such rates of export growth at a low base is not a cause for concern of the developed countries, but at a high base it is a different thing. Currently China's exports exceed 1.4 trillion dollars. Hence, such a risk should not be underestimated.

Optimistic appraisal of China's strength reflected in its massive trade surplus underestimates its structural vulnerabilities (Fischer, 2010). China's "massive rerouting of East Asian centred international production networks" entailed development of trade deficit with East Asian countries and trade surplus with the USA and EU (Ibid.). The large volume of imports of developed countries from China makes China vulnerable to the risk of a tendency towards protectionism in the importing countries. If so, Chinese imports of P&C from the ESSEA region will be adversely affected.

A shift from export-led growth to consumption-led growth may entail less import intensity as production of consumer goods for the domestic market is less import intensive than production of ICT products for the export market (Akyuz, 2010; Lall, 2004; Humphrey and Schmitz, 2006).

Currently, the X/GDP, the savings/GDP and I/GDP ratios of China are relatively high in comparison with those of the other ESSEA countries and they have been rising in recent years (Prasad, 2009). By contrast, its C/GDP ratio is lower, its Wage/GDP has not been keeping pace with labour productivity and its rural population suffer from inequality in

income and consumption with city dwellers. In fact, there are indications that a shift from export-led growth to consumption-led growth will also improve the distribution of income in favour of the lower-income strata through wages. According to an empirical study by Xing (2010: 1), "China's export share of GDP has a positive effect on the enlargement of the upper half distribution". Thus there is some scope for structural shift towards consumption-led growth. The related risk is, however, somewhat overstated. The experience of industrialized countries demonstrates that as countries industrialize, intra-industry trade in differentiated consumer goods as well as investment products also increases. During 1996-2008, the share of imports of P&C in total imports of China has declined (from about 35% to 25%), but the share of final products in its imports has changed little. More importantly, during the same period, the share of final goods in imports from East and South East Asia has increased considerably—from about 35% to 55 % (Kim et. al., 2010: 14-15). Therefore any shift to consumption-led growth would also lead to further increases in China's imports of these goods from the ESSEA region. It is also very likely that for a given growth rate of GDP, imports of raw materials and foods will also be accelerated

IV: The future of regional trade; the questionable role of market

Neither the integration of lower-income countries nor the technological upgrading of the second-tier NIEs is feasible through the operation of market forces alone. There is a need for policy initiatives by the governments of the region particularly in the case of low-income countries.

There is a misconception about the role of the market in the expansion of regional trade in East Asia as it is believed that such an expansion has been market-driven (Kawai and Wignaraja, 2007). We have shown elsewhere that: the bulk of intra-regional trade in East Asia takes place through intra-firm trade,; that such trade was mostly policy driven resulting

from changes in the FDI policies of the governments of Japan and the East Asian countries, particularly after the Plaza accord of 1985 and active participations of Japanese firms. Japanese firms purchased the bulk of their input of goods and services from the local markets and local firms. By contrast, the US firms involved produced mostly for exporting to the United States. At the same time, the governments concerned built up the production capabilities of their local firms, developed their infrastructure and utilities and provided the facilities for necessary back-up services. China also adopted similar policies with the difference that initially, inward-FDI originated mainly from ethnic Chinese investors—mainly Hong Kong (SARS), Taiwan Province of China and Singapore (Shafaeddin, 2008: 36-37 and the sources reported therein). Between 70 to 80 per cent of cumulative inward FDI of China during 1990-2002 period originated from Hong Kong (SAR, China) and Taiwan Province of China depending on whether one uses China or these two territories as reporting trade partner (Ibid.: 37).

Although the pattern of expansion of the regional trade and industrialization in East Asia resembles the flying geese model (Akamatsu, 1961; Kasahara, 2004), the geese did not fly automatically either in Japan or at the regional level in East Asia. Various government policies played an important role in development of domestic capabilities in Japan and East Asian NIEs (Fan and Watanabe, 2006; Lall, 2004; Gallaher and Shafaeddin, 2010). The trickle-down effects of the process have also reached the second-tier NIEs, although it has not had sufficient impact on their technological development. Moreover, the low-income countries of the region were not a part of the flying geese process.

As China upgrades its industrial structure, will it leave some low-technology intensive industries to create opportunities for low-income countries of the region? Although China has been improving its revealed comparative advantage in production and exports of technology-

intensive products, it still remains, and will remain for the foreseeable future, a massive exporter of labour-intensive products.

Moreover, currently, under new global economic conditions governed by market forces and liberalization, the policy space available to the low-income countries to follow similar policies followed by the NIEs to enhance capabilities of their local firms is limited. Hence, it is not clear whether the geese could easily fly over these economies to facilitate their industrialization through trickle-down effects of the dynamism of the Chinese economy. Neither is it clear whether market forces alone could induce technological upgrading of the second-tier NIEs.

V: Policy implications for the future of industrialization of the region

What sort of policy measure is required to enhance the positive impact of China's South-South regional trade on industrialization and development of the low-income countries and the exporters of P&C? In both cases, there are needs for some adjustment in the production and export structure of the countries concerned. Nevertheless, such adjustment requires proactive policies by the governments.

Industrial collaboration by low-income countries

In order to benefit from the dynamism of the Chinese economy as well as ESSEA region as a whole, the low-income countries need to expand their industrial supply capabilities. But, the expansion of the supply capabilities is faced with scarcity problems, including the scarcity in finance, skills, infrastructure, organization and entrepreneurship. Further, policies of regional investors do not favour them as outward FDI by NIEs is directed mainly to China and the ASEAN-4 (Isoga and Shibanuma, 2000). They need to mitigate their scarcity problem through industrial collaboration among themselves with some adjustment assistance by China and, possibly, NIEs (see Shafaeddin,2010).

Industrial collaboration can be facilitated by regional FDI by countries like China and NIEs as it will be beneficial to the host country as well as the investing countries as they are market seekers. The processing of raw materials before exporting to China could be one possibility, but it is not the only one. India's investment cooperation with Nepal and Sri Lanka for production of manufactured goods is an example (Wishwanath, 2007: 2).

Industrial collaboration is necessary but not sufficient. In addition to the need for industrial policy at the country level (Shafaeddin,2005), arrangements have to be made for the division of labour in required back-up services, export credit, information and the development of the necessary infrastructure, training and skills development, and business cooperation through chambers of commerce.

Cooperation among countries concerned necessitates political will, harmonization of rules of origin as well as external assistance. Often, there are political problems in securing agreements among the countries for industrial collaboration. Each country may have its own individual interest as against the common interest of the group. Appreciation by the partners of the ultimate benefits of such arrangements for individual countries requires dialogue and the dissemination of information and knowledge. The scarcity of financial and other resources also requires external financial and technical assistance: it is in the interest of China itself to provide such assistance. If China is faced with obstacles in expanding its markets in developed countries, it may be interested in expanding its regional market in ESSEA. Such expansion in low-income countries requires expansion of their effective demands which is, in turn, a function of their level of development and industrialization.

Technological collaboration

The countries which rely on export of P&C to China needs, *inter alia*, to adjust their production/export structure by upgrading their technological and skill capabilities in order to reduce their vulnerabilities. One option is to emphasize production for the domestic market rather than exports. More recently in a shift from its traditional stance of propagating export-led growth, the Managing Director of IMF also recommended that "Asia, which has until now relied heavily on exports for economic growth, needed to boost domestic investment and consumption" (Choonsik and Jong-woo, 2010). Such adjustment will also help the expansion of exports of differentiated products to China even if this country shifts to consumption-led growth.

Technological development requires, *inter alia*, *R&D*, skill development etc. Regional cooperation can help the countries concerned to attain their growth objective through division of labour and specialization in R&D and development of skills.

The lack of skills and financial and technical resources prevents countries in the group to undertake research in a large number of areas individually. Large countries, such as China and India, are in a better position to do so. For example, India has succeeded to some extent in the particular case of pharmaceuticals and software industries; so has China in IT technology. Nevertheless, even for these countries the R&D/GDP ratios are far below those of developed countries (Gallagher and Shafaeddin, 2010). Therefore, the division of labour and specialization in technology development could help all countries of the group in advancing their technological capabilities. Attempts have been made by ASEAN and China to cooperate in research on ICT activities for which they have envisaged the establishment of an R&D centre for telecommunications equipment. Such initiatives need further extension.

There are a number of other areas in which China and other countries of the ESSEA region can cooperate. One is coordination of their policies for intensifying the technological spill-over of FDI. Another is cooperation on financial issues to reduce the risks of financial crisis. Having experienced the financial crisis of 1997/8, the East Asian countries have increased their currency reserves, developed on the Chiang Mai Initiative (a kind of "ASEAN, swap arrangement") and a network of bilateral financial swap arrangements among ASEAN+3 countries (For details see Shafaeddin, 2008). Nevertheless, there are areas on which they can further expand their cooperation. One can mention a few: "stronger regional cooperation in monitoring and regulating financial markets"[3]; modalities of capital controls in the region; establishment of a regional South Bank and development of strategic energy reserves (Shafaeddin, 2008).

V. Concluding remarks

Based on our proposed framework for S-S cooperation (Shafaeddin,2010), in this paper we have looked into the implications of the dynamics of the Chinese economy for the expansion of regional South-South trade, and have shed some light on its merits and caveats and proposed some changes in the strategies of the ESSEA countries in the future.

More specifically, it was shown that China has been a dynamic market and source of supply for South-South regional trade in ESSEA mainly through production sharing, particularly in electrical and electronic products. Nevertheless, the trade relation of China with the countries of the ESSEA region reveals three main shortcomings as far as its impact on industrialization and development of these countries is concerned. First, China's trade in these products has been concentrated on trade with the first-tier NIEs and, to some extent, the second-tier NIEs. While low-income countries of the region have acted as a market for exports of China, they have benefited little from the dynamism of the Chinese market.

Second, through production sharing China's regional partners have become vulnerable to the risks of dependence on the Chinese market, as a hub, because of its exposure to external shocks and vulnerability to the business cycle in developed countries. China depends mainly on the markets of developed countries for exports of the related finished-assembled-products. For example, in 2009, China's imports of two items of P&C (SITC 776 and 752) from Malaysia amounted to over $17 billion (86 per cent of imports of manufactured goods from this country) accounting for about 17 per cent of its total imports.

Third, there has not been sufficient technological development by China's trade partners which are involved in regional production sharing. They are also vulnerable to the ultimate changes in the Chinese trade and development strategy. To deepen their industrialization they need to upgrade their technological capabilities.

The regional agreements and market forces alone have not been responsible for the expansion of S-S trade in the region; trade agreements are necessary, but they are not sufficient. Demand and supply dynamism as well as policies of governments and TNCs have been among important contributory factors. In particular, the low industrial and skills capabilities have prevented their lower-income countries from getting involved in the rapid expansion of production sharing.

Similarly, in the future also neither the integration of lower-income countries nor the technological upgrading of the second-tier NIEs is feasible through the operation of market forces alone. There is a need for proactive policy initiatives by the governments for regional cooperation.

As the low-income countries have a common production and export structure, they have little prospects for expanding intra-regional trade. Such an expansion is to be policy-driven. It can be achieved through industrial collaboration among themselves for building up

their supply capacity. There is also a need for cooperation, coordination and harmonization of their development and industrial policies with a view to achieve dynamic comparative advantage. Further, it is also in the interests of China, and other "market seekers" (NIEs), to provide them with adjustment assistance, in building up their supply capacity, skills, training facilities, and back-up services, etc.

Another area for enhanced cooperation is R&D and technological capacity building by China and the second-tier NIEs for upgrading their industrial structure.

The idea is to develop complementarity through the division of labour and specialization in different products and industries. By specialization and division of labour through industrial collaboration and/or cooperation in R&D, developing countries can overcome scarcity in complementary factors of production, and benefit from larger markets and scale economies. Instead of trade leading to division of labour and specialization, division of labour and specialization, in accordance with the principle of dynamic comparative advantage, is to lead to trade. The expansion of supply capabilities and S-S trade could, in turn, reduce the risk of dependence on markets of developed countries and improve their bargaining position in multilateral forums as well as in their bilateral trade relations with the developed countries.

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End notes

[1] According to Kim, intra-regional correlation of East Asian countries increased from zero during the 1990s to 0.448 during 2000-August 2009. When China is excluded, the relate figures are 0.007 and 0.446.
[2] This is so, despite the fact that its share in total imports from ESSEA has declined as mentioned before.
[3] ADB[Asian Development Bank] Newsletter, 22 November, available at http//www.adb.org/media.