

SMU ECONOMICS & STATISTICS WORKING PAPER SERIES



China's Changing Economic Structures and Its Implications for Regional Patterns of Trade Production and Integration

Tan Kim Song, Khor Hoe Ee

November 2005

Paper No. 23-2005

ANY OPINIONS EXPRESSED ARE THOSE OF THE AUTHOR(S) AND NOT NECESSARILY THOSE OF
THE SCHOOL OF ECONOMICS & SOCIAL SCIENCES, SMU

DRAFT

**China's Changing Economic Structures and
Its Implications for Regional Patterns of Trade
Production and Integration**

by

Tan Kim Song
Singapore Management University

Khor Hoe Ee
Monetary Authority of Singapore

November 15, 2005

This paper was presented at the workshop on "Southeast Asia in the World Economy: Avoiding the Problem of Globalization's Missing Middle," organized by the Institute of Defense and Strategic Study on November 10-11, at the Marina Mandarin Hotel, Singapore. The views in the paper represent strictly those of the authors and not the institutions they are affiliated with. The authors would like to express their gratitude to Ms. Tan Yin Ying for her research assistance.

I. INTRODUCTION

There is tremendous momentum for economic and financial integration in East Asia today. Partly inspired by the formation of the European Union and partly as a response to the 1997/98 Asia financial crisis, many East Asian countries are showing greater commitment to regional economic cooperation. A number of bilateral free trade agreements (FTAs) have either been concluded or are being negotiated.¹ At a less formal level, the ASEAN+3 grouping has brought the whole region together in regular consultations over trade, investment, as well as monetary and exchange rate policy matters.

Few countries in East Asia harbor any illusion of realizing a region-wide economic union any time soon, although there were clear attempts by some of them in this direction.² A crucial ingredient in any successful East Asia-wide economic integration effort is the role of China. China could be a major catalyst to the integration process if it chooses to. But it would do so only if such a move is in line with the overall objectives of its foreign economic policy. More importantly, it must be consistent with China's domestic economic agenda.

In this paper, we examine trends and developments in the regional pattern of trade and production and link it to the evolving structure of China's economy. We argue that there is scope for China to play a more active role and provide stronger leadership in East Asian economic integration. In our view, the developmental pattern in China's domestic economy and the likely changes in China's production and trade structures will justify such a policy approach. Doing so will also help improve China's economic and political relationship with the region.

¹ As of Nov 2005, there were a total of 11 intra-Asian trade agreements, either fully concluded or agreed to in principle, comprising FTAs and other agreements such as CECA, TIFA and EPA. There are 6 intra-Asian bilateral FTA negotiations in progress, and 4 at the ASEAN-country level.

² See for example, the Economic Community Vision unveiled by ASEAN in 2002. Attempts by former Malaysian Prime Minister Mahathir Mohamad to establish the East Asian Economic Caucus (EAEC) comprising primarily the ASEAN+3 countries, was unsuccessful because of opposition by the US. However, in December 2005, the East Asian Community will be holding its inaugural meeting in Kuala Lumpur, Malaysia.

In some respects, China is already well integrated with the rest of East Asian economies. Driven largely by market forces, a tightly integrated supply chain network in East Asia has emerged over the years (**Table 1**).

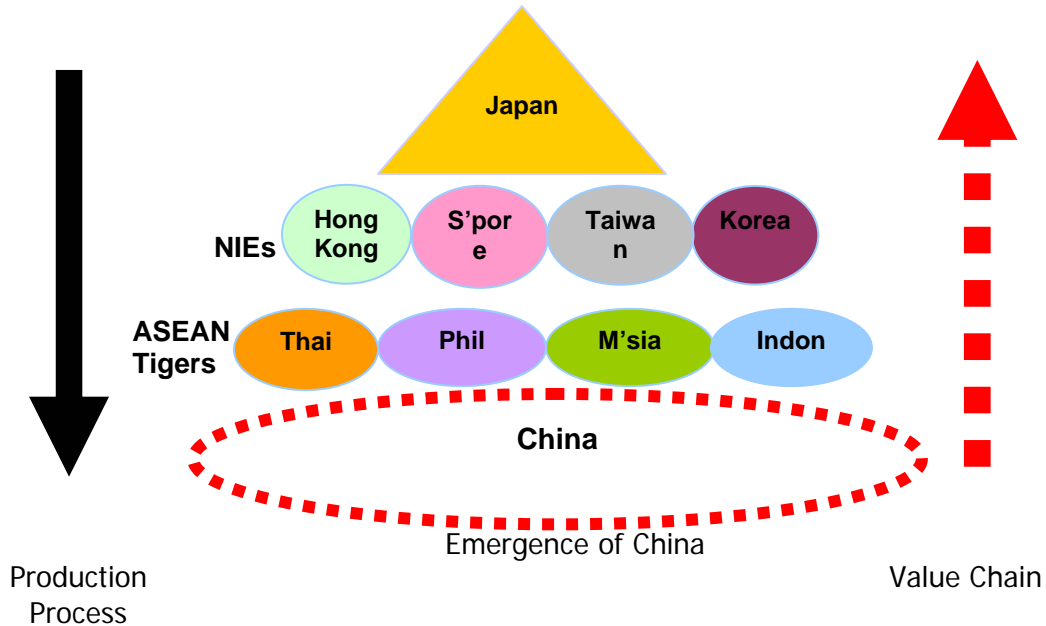
**Table 1: Asian trade with regional partners as % of total Asian trade
(1980 and 2004)**

Domestic	Trade Partner					
	NIEs	ASEAN Tigers	China + HK	East Asia ex-China	East Asia	Rest of the World
NIEs	3	10	5	13	18	82
	7	12	20	19	39	61
ASEAN Tigers	14	4	3	17	21	79
	18	10	11	28	39	61
East Asia ex-China	7	7	4	15	19	81
	11	11	17	22	39	61
East Asia	8	6	7	14	21	79
	13	8	19	22	40	60

Source: Direction of Trade. East Asia comprises 9 Asian economies, namely China, Hong Kong, the Newly Industrialised Economies (Taiwan, Korea, Singapore) and the ASEAN Tigers (Indonesia, Malaysia, the Philippines and Thailand).

As Kit et al (2005) pointed out, a large part of China’s exports are of the “processed exports” type using raw materials, component parts and equipments from the other Asian countries, and with relatively little value-added from China itself – mainly in the form of labor intensive assembling and packaging work. In effect, China has emerged as the latest goose in the “flying geese theory” that was propounded in the 1970s to explain the pattern of industrialization in Asia (**Chart 1**). Being the latest goose, China is at the back end of the flying formation engaged in the low value added manufacturing. The formation is led by Japan as it is the most advanced and earliest in terms of industrialization. Japan is in turn followed by the NIEs (South Korea, Taiwan, Hong Kong and Singapore) with the ASEAN tigers (Malaysia, Thailand, Indonesia and the Philippines) being in the third tier. However, because China is such a large economy, it has effectively emerged as the “end-station” for the production process of the whole region and exports from China provide an indirect export route for other East Asian countries to the rest of the world (principally the US and the EU).

Chart 1: ‘Flying Geese’ Configuration of Asian Production



Such an integrated supply chain puts China at the center of the production network in East Asia, but it also creates imbalances in its bilateral trade accounts with some of its major trading partners, resulting in bilateral tensions. Specifically, it has contributed to China’s large and persistent current account surpluses with the US and the EU, making China an easy target for protectionist lobbies in these countries. Until last year, China’s trade surpluses with the US and the EU were largely offset by its deficits with other East Asian countries, leaving China more or less “balanced” in terms of its overall current account position. **(Table 2)** However, by running huge trade surpluses with the US and Europe, China is arguably “taking the hit” for the other Asian economies on the issue of global trade imbalance.

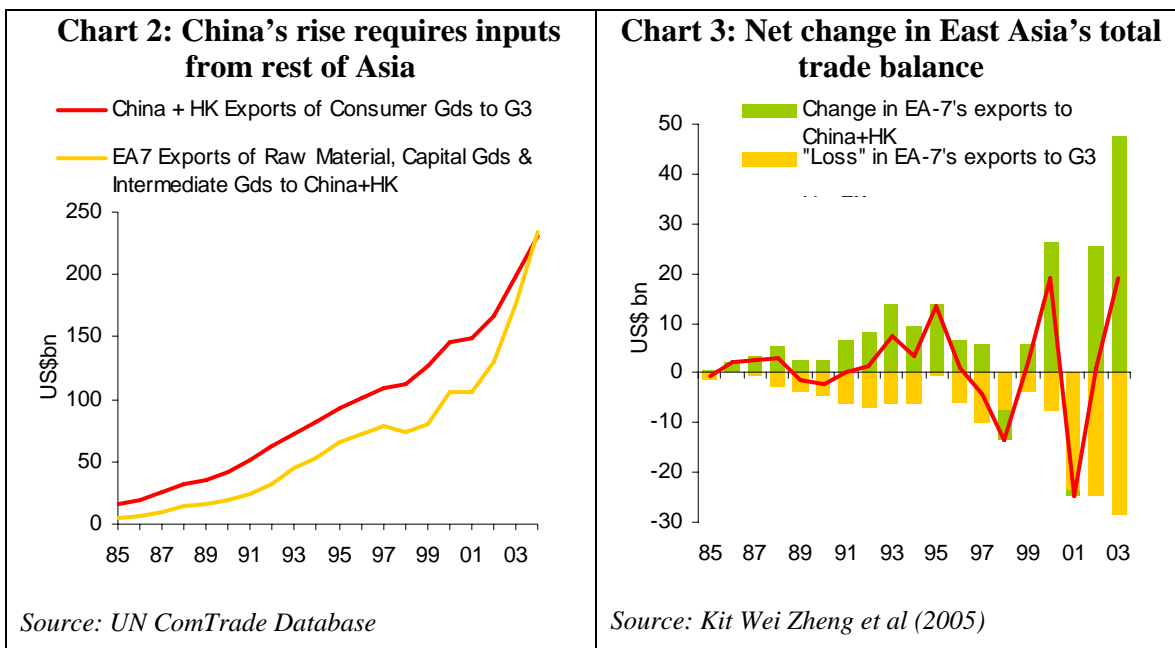
Table 2: China’s Merchandise Trade Balance against Selected Countries and regions (US\$ bn)

	1990	1995	2000	2004
USA	10.4	33.8 (8.6)	83.8 (29.8)	162.0 (80.3)

Europe	-2.0	-2.3	7.1	22.2
Japan	1.6	-0.5	1.6	-20.9
East Asia	11.7	11.7	-13.6	-19.5
Korea	0.2	-3.6	-11.1	-34.4
Taiwan	-1.9	-11.7	-20.5	-51.2
Singapore	1.1	0.1	0.5	-1.3
East Asia + Japan	14.8	10.6	-10.4	-61.2
Overall Trade Balance for China	8.8	16.7	24.1	32.1

Source: DOT and CEIC. Figures in parentheses refer to bilateral trade balance derived from Chinese data. Data for 1990 from this latter source was not available.

The emergence of the supply chain also generated tremendous anxiety initially among China's neighboring countries which experienced a "hollowing out" of their labor intensive industries such as consumer electronics and hard disk drives. Over time, however, the "hollowing out" phenomenon appears to have slowed or bottomed out in many countries and its adverse effects on these economies have been offset to a large extent by the enormous demand from China for imports of raw materials and intermediate inputs (Charts 2 & 3. see Kit, et al, 2005). Notwithstanding these changes, many East Asian countries remain concerned about the potential adverse impact that an economically stronger China may have on them, both politically and economically.



Note: EA7 refers to the East Asian economies ex-China and Hong Kong.

It would not be in China's interest to allow such a "skewed" external account position to persist. Doing so will subject China to continued political tensions with its major trading partners in the West while inviting suspicions from its neighboring countries. In our view, developments in the Chinese domestic economy will likely help reduce the imbalances over time. But China could try to expedite the process by making changes in its own economic policies. Domestically, it could adopt measures to foster greater integration of its vast internal markets and pursue policies that address the growing social and economic imbalances within the country. On the external front, it could promote deeper economic integration with the rest of East Asia, albeit in a mode different from that which exists currently. The current mode of regional integration, based on low-cost processing production in China, with little innovation content, will not be able to provide the basis for sustained growth in China in the long run. At the same time, the "China-centric" characteristic of the current integration model has been a concern in some East Asian countries.

An alternative approach to regional economic integration that is not based on a China-centric supply chain model could provide a more viable option for the region in the long run. The approach should result in an intra-regional trade and investment pattern that is more diverse and balanced, reflecting the comparative advantage of each country's natural endowment and its niche competence and specialization within each industry. Not only will such an approach be better received by other regional economies, it will also dovetail with the development dynamics in China's domestic economy and form part of the policy package to help bring the Chinese economy to its next level of development.

The rest of the paper is organized as follows. In the next section, we will discuss the likely developmental path of the Chinese economy in the medium and long term. Specifically, we will discuss how the current production structure, dominated by low-cost, "processed production", will likely evolve into a multi-track production structure, with China gaining competitiveness across the whole spectrum of the production chain, from the low- to the high-end. Section III discusses the implications of the changing Chinese

production structure on the regional economies as well as regional trade and investment patterns. Section IV discusses the regional economic strategy that China should follow, given its likely developmental path and its impact on the region. Section V extends the discussion on regional integration to monetary and financial matters. Section VI concludes.

II. EVOLUTION OF THE CHINESE ECONOMY

The Chinese economy is entering a new era of development. While the average standard of living has risen substantially after almost three decades of fast growth averaging nearly 10% a year, there are also signs of potential “crack-lines” in the economy. Excessive reliance on exports and foreign direct investment (FDI) as the main engine of growth has made China more vulnerable to changes in the global economy than what an economy of its size should be. Rising income and regional disparities, caused in part by concentration of growth in the coastal provinces, poor logistic network, provincial protectionism, and fragmentation of the internal markets, are becoming a source of social instability that could disrupt the economy’s future growth. Meanwhile, the low consumption rate in the domestic economy -- contributed in part by the underdevelopment of the services sector -- and the increase in households’ precautionary savings in response to the breakdown of the traditional social security system and the rapid ageing of the population -- have made investment the main driver for domestic demand, which tends to increase the volatility of growth in the economy.

Fortunately for China, these “crack-lines” are by now sufficiently recognized by the government and attempts are being made to rectify them. In the latest Five-year Plan unveiled in October 2005, for example, the government is tackling rising socio-economic inequality by shifting away from ex-Premier Deng Xiaoping’s dictum that China should allow some to get rich first. Instead, China will aim for “Common Prosperity”. This will necessarily entail tackling rural-urban and inland/coastal imbalances by investing in rural and inland development. Cognizant of the investment imbalances across different sectors

of industry, the 11th Five-Year Plan also calls for “Sustainable Growth”, a shift from the previous emphasis on attaining high growth rates per se (Table 2).

Table 2: Key Points of China’s 11th Five-Year Plan 2006-2010

Old Paradigm	New Paradigm	Initiatives
“Getting Rich First”	“Common Prosperity”: Developing an egalitarian countryside in line with coastal and industrial development	<ul style="list-style-type: none"> ▪ Promote modernization of agriculture ▪ Increase income of farmers ▪ Build more public facilities in rural areas ▪ Gradual urbanization and planned development of different-sized cities and towns
“Growth Rate”	“Sustainable Development” Recognition that economic growth need not be achieved with all speed at all costs.	<ul style="list-style-type: none"> ▪ More regard for environmental concerns ▪ Control use and shift from foreign investments ▪ Developing innovative capacity in industry
“Strong economic growth” that came at the expense of social development	“Social Services”	<ul style="list-style-type: none"> ▪ Improving social security, especially in countryside ▪ Free education for rural children until 2010

Source: Sina.com

These policy responses, together with certain economic, demographic and social dynamics within the domestic economy, will likely have a profound impact on the country’s production structure and consequently the trade and investment patterns in other East Asian countries in the years to come. This in turn will have far reaching implications for China’s strategy for regional economic integration. We discuss below some of the major structural changes that we expect to see in the Chinese economy in the medium term.

Emergence of a Multi-track Production Structure

Like many other dynamic East Asian economies, China’s phenomenal economic growth in the last 25 years has been powered largely by exports and foreign direct investment

(FDI) leveraging on its vast reservoir of cheap labor for the low-end manufacturing production. Export-orientation and FDI-friendly policies have helped establish China’s competitiveness in the global markets for manufacturing products, especially consumer products. Chinese manufacturing exports accounted for 7% of global manufacturing exports in 2003, a huge surge from less than 1% in 1980.³ It is not surprising therefore that China is described by some as the “manufacturing factory of the world.”

As we alluded to above, a significant part of China’s manufacturing output and exports are of the “processed” type, with relatively little value added from China itself (mainly in the form of low labor costs). According to the Institute of World Economics And Politics Chinese Academy of Social Sciences (CASS), China’s processed exports account for approximately 57.8% of her total manufacturing exports. While China will continue to enjoy a comparative advantage in such production because of the abundant supply of low-cost, low-skilled labor, especially from the rural areas, this alone will not be able to provide a basis for sustained, robust growth in the long run. In the medium term, the Chinese economy must move progressively up the value chain to more capital-, skill- and technology-intensive industries. The driving force for long-term economic growth must come from innovation and productivity growth which labor-intensive and even capital-intensive production will not be able to deliver. China will have to try to transform its economy to one that is more technology-intensive and innovation-driven if it wants to move onto the next level of development. Doing so is also a matter of necessity for China because the low labor cost advantage it currently enjoys will likely be eroded as income and wage levels rise over time with continued economic growth (**Table 3**).

Table 3: Gross Domestic Product per capita by Regions, 2004 (USD)

Western China		Central China		Eastern China		ASEAN	
Shaanxi	940	Henan	1096	Beijing	3466	Malaysia	4646
Xinjiang	1354	Hubei	1269	Hebei	1567	Thailand	2521
Gansu	719	Hunan	1012	Liaoning	1968	Indonesia	1191

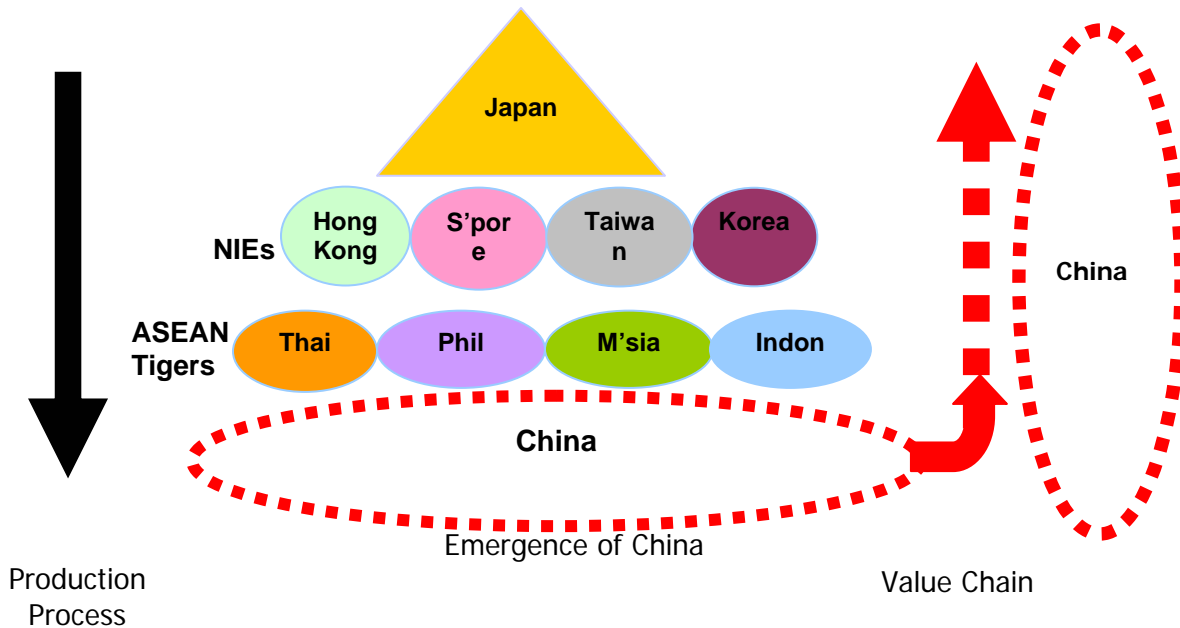
3

Qinghai	1044	Shanxi	1102	Shanghai	5165	Philippines	1010
Ningxia	946	Anhui	933	Jiangsu	2521	Vietnam	535
Tibet	933	Jiangxi	986	Zhejiang	2877		
Chongqing	1031			Shandong	2038		
Guangxi	820			Guangdong	2333		
Yunnan	799			Tianjin	3458		
Guizhou	492			Heilongjiang	1678		
Inner Mongolia	1374			Jilin	1319		
Sichuan	908			Hainan	1167		
				Fujian	2082		
Average	947	Average	1066	Average	2433	Average	1981

Source: CEIC, IMF World Economic Outlook

The journey towards a more skill- and technology-intensive and innovation-driven economy has in fact started. As Rodrik (2005) noted, China is fast gaining competitiveness at the high-end of the production value chain and has for some time been producing and exporting goods that are typical of those from countries whose per capita incomes are much higher than China's (e.g. more than three times in some cases). By 2003, for instance, China was already exporting a set of products whose productivity level exceeded that of Hong Kong's and not far below that of the South Korean exports. As this trend continues, we could expect China to move into a "multi-track" production structure, assuming a dominant position across both ends of the value chain. This is in fact tantamount to China producing across the whole spectrum of the value chain. It is conceivable that, in the coming years, major Chinese cities along the coastline such as Beijing, Shanghai and Guangzhou will increasingly pose a strong challenge to the more developed East Asian economies even as the less developed parts of the country remains a large factory for low-cost production in East Asia. In effect, China is moving up the flying geese formation and catching up with the leader (**Chart 4**).

Chart 4: China realigns to produce along whole value chain



Increasingly more resources will likely be channeled into the development of the high-value-added industries in China. As with the low-cost manufacturing industries, China is likely to look to FDI to provide the lift for the higher-end industries, at least in the initial stage. The time-tested approach of offering preferential treatments to targeted MNCs will likely remain the modus operandi. However, unlike the low-cost industries which started out predominantly with an export orientation (especially those in the coastal special economic zones), the large Chinese domestic market will be a main draw for MNCs investing in high end production right from the beginning. Indeed, access to the huge domestic market is a strategic instrument that China has always used in exchange for technology from the MNCs. As Rodrik (2005) noted, while China has always welcomed foreign companies, “it has always done so with the objective of fostering domestic capabilities.”⁴ Indeed, through a combination of joint-ventures with MNCs, acquisition of foreign technology or even acquisition of foreign companies, large Chinese

⁴ A large variety of measures are employed to ensure that technology transfer would take place and strong domestic players would emerge. For example, foreign companies are required to form joint ventures with domestic firms; intellectual property protection laws are weak so that domestic firms can reverse-engineer and imitate foreign technology without fear of prosecution; Local governments are given substantial freedom to fashion their own policies of stimulation and support, which led to creation of industrial clusters in particular areas of the country. See Rodrik, 2005, pg 17.

corporations are beginning to establish their presence in technology-intensive, high innovation-content industries globally.⁵

Unlike MNCs and Chinese companies that invested in low-cost manufacturing industries in the 1980's and 1990's, both domestic and foreign-invested enterprises involved in high value-added industries face a more competitive environment in the domestic market. Trade liberalization necessitated by the WTO membership means that China will have to continue to make the domestic markets, including those in the high-tech, high value-added sector, more accessible to foreign exporters. Such competition will help accelerate the catching up process for the domestic firms and expedite China's transition towards the "multi-track" production structure.

Changes in Domestic Demand and Rising Importance of Services

A relative shift in domestic demand away from fixed investment towards both public and private consumption is another trend that may be expected in the Chinese economy in the coming years. Currently, China has one of the highest investment/GDP ratios among large economies (**Table 4**). This high ratio, together with the perceived "excess capacity" and low investment returns in some sectors, have been cited by many market analysts as an Achilles heel for China, subjecting the economy to a high level of volatility and the risk of disruptive boom and bust cycles.⁶

Table 4: Gross Fixed Investment (% of GDP)

Country	1980	1985	1990	1995	2000	2004
China	29.0	30.0	25.8	34.7	36.5	43.8
India	29.0	30.0	25.8	24.4	22.0	23.8
Brazil	n.a	n.a	n.a	20.5	19.3	19.6
Canada	23.2	20.2	21.3	17.6	19.2	19.9

⁵ Examples of such Chinese firms are Lenovo which bought out IBM's personal computer business (2005); TCL which took over the television business of France's Thomson (2003) and China National Petroleum Corp which acquired PetroKazakhstan (2005), a Canadian company with considerable oil fields in Kazakhstan.

⁶

United States	17.4	16.9	14.6	15.0	17.1	16.0
United Kingdom	18.7	18.1	20.5	16.3	17.0	16.3
Japan	31.6	27.5	31.7	27.8	26.4	23.8
Germany	n.a	n.a	n.a	21.9	21.5	17.4
Italy	25.2	21.8	21.5	18.4	19.8	19.5
France	22.9	19.1	21.5	18.1	19.5	19.1

Source: Datastream and CEIC

The issue should be seen in perspective. Although the investment/GDP ratio in China is high, the same may not be said about the ratio of total capital stock to labor supply. The latter remains relatively low in comparison with other middle income and developed economies. For instance, after three decades of rapid growth, the housing stock in most parts of China remains relatively poor and the public infrastructure and amenities, especially in transportation and communication, are still relatively poor and inefficient despite the improvements over the years. The high investment/GDP ratio may therefore be seen as part of the catching-up process by China to a higher level of development. Furthermore, reforms in the past two decades have led to the neglect of investment in social infrastructure such as hospitals and schools. Given the large infrastructure needs, it is not surprising that the investment/GDP ratio in China should be higher than in the developed economies.

The issue is not so much the rate of investment but the allocation and quality of investment. Because of the transitional nature of the Chinese economy, investments in China are still mostly undertaken by state-owned enterprises (SOEs) and financed by the state-owned banks. The evidence shows that most investments have been undertaken in the coastal provinces and concentrated in certain sectors. As a result, the economy is prone to periodic outbreak of sectoral imbalances as was the case in 2003 when it was hit by power outages across the country, as well as an excess supply of certain consumer goods and certain types of industrial products.

Increased public investment in social and economic infrastructure, particularly in the inland provinces, could lead to a more balanced investment pattern and help reduce the

volatility and sectoral imbalances in the economy. There are indications that the Chinese government would be stepping up such investments strongly in the coming years. As noted above, in the latest five-year plan, the Chinese government emphasized the development of the Western and Central regions, while renewing old industrial bases in the Northeast. Farmers' incomes will also be boosted as rural children will receive free education, while the government plans the modernization of agriculture. Whether this will lead to an increase in household propensity to consume (and a commensurate reduction in the household saving rate) will depend significantly on how quickly households change their views about the need to put aside resources for old age and retirement. This in turn hinges on when a more comprehensive social security system is established.

Private consumption, however, will likely be boosted by increased consumption of services resulting from rapid urbanization and a fast growing middle class. As in most economies, the services sector in China lags the manufacturing sector in productivity growth. The inefficiency of the Chinese services sector has been exacerbated by the dominance of the state-owned monopoly firms and the fact that many services such as housing, medical, education and transportation are still provided in-house by the SOEs. That a large part of the services activities in China is actually embedded within the SOEs and not counted separately as part of the services sector, together with the different definitions used in China to measure the size of the services sector, may have contributed to the relatively low share of services sector in the national accounts statistics. This is a problem that will be ameliorated over time.

As China's income rises and as the urbanization and reform process continues to accelerate, demand for services, not just in quantity, but also in quality and variety, will grow strongly. The government will likely come under increasing pressure to liberalize and develop the services sector by allowing for a greater variety of services providers while SOEs will increasingly be under pressure to outsource the provision of social services so as to focus on their core production function. FDI flows into the services sector will likely rise and private providers of services in the economy will mushroom.

Monopolistic state-owned enterprises providing essential services such as healthcare, education, financial, and social amenities, will face greater pressure to reform. As He et al (2005a) noted, the repression of prices in the services sector by state-owned monopolistic providers has led to severe misallocation of resources and underdevelopment of many service industries. Opening up the services sector will help to bring about a more balanced production structure in the Chinese economy and unlock a major source of productivity growth.

By nature, the services sector will be less export oriented than manufacturing. Thus, the rising importance of the services sector will reinforce the shift of the sources of growth from external to domestic demand and production. Indeed, over time, we are likely to see a rise in China's real effective exchange rate (REER), either through an appreciation of the nominal rate (which has been made easier with the recent change in the exchange rate regime) or through faster increases in domestic prices, particularly those of services where productivity has traditionally been lower. The rising prices of services will therefore add to the pressure for REER appreciation.⁷ With the growth in the services sector, the share of external trade in GDP is likely to fall to a level which is more in line with that of a continental size economy.⁸ The actual share of trade in GDP will depend to some extent on the tradability of the services provided by firms in China. Over time, one can expect the tradable component of China's services sector to rise.

Integration of the Domestic Economy in China

An ironic outcome of the export- and FDI-led growth in the past few decades is that the Chinese economy appears to be more integrated externally than internally. Much of the integration with the global economy takes place in the provinces and cities in the coastal regions. As a result of poor integration in the domestic economy, the western and the central regions have thus far not benefited as much from China's open door policy. The poor internal integration has exacted heavy economic tolls. Not only is it a major drag on

⁷ Under the Balassa Samuelson theorem, prices of non-tradables are likely to rise faster than those of tradables because of the slower productivity growth of the non-tradable sector.

⁸ China's goods and services trade amounted to nearly 73% of GDP in 2004. This is much higher compared to developed continental economies such as the US (25%) and the Eurozone (37%).

the country's overall productivity growth, it has also been the seed of increased regional income disparity. World Bank (2005) noted, for example, that about 63% of the total cost of shipping goods from an inner province in China to the West Coast of the USA is taken up by the land transportation costs from that province to a port on China's eastern coastline. Obviously, there are enormous productivity gains (and overall economic growth) to be reaped if such transportation and logistic bottlenecks are eased. Meanwhile, rising social unrest in inner provinces in recent years is a clear warning that, left unmanaged, uneven regional developments could become a source of political unrest.⁹

“Balanced growth and development” has been a constant theme in China's national economic policy for many years although the urgency appears to have heightened in more recent years.¹⁰ Current efforts to redress regional imbalance, as outlined in the latest five-year plan, include not only business and infrastructure investments in specific locations, but also nation-wide infrastructure investment projects such as the development of nation-wide transportation and logistic network, the building of telecommunications links, relaxation of rules and regulation governing the flows of labor, capital and goods across provinces etc. A closer integration of the domestic economy will not only help narrow the income gap across the nation, but also raise the average national income level through higher productivity growth.

III. IMPLICATIONS FOR REGIONAL ECONOMIES

What are the implications of the above-mentioned economic trends in China for the rest of East Asia? A number of economists, notably Barry Eichengreen (2005), have argued that, by weaving a regional production network, China has contributed to a “core-periphery” (or 2-speed) development structure in East Asia. The more developed East Asian economies,¹¹ with strong production capacity for capital goods and high-tech, high

⁹ According to the latest report by Institute of Labor and Wages Studies, a think tank under the Ministry of Labor and Social Security, there has been a sharp rise in rural unrest related mainly to economic woes. See “China risks social unrest as income gap widens”, The Straits Times, 24 August 2005.

¹⁰ See discussions of the Chinese Communist Party's 4th and 5th Plenary Sessions, as well as the 11th Five-Year Plan.

¹¹ These include economies like Japan, South Korea, Hong Kong, Singapore and Taiwan.

value-added intermediate goods, have benefited greatly because of China's rising demands for such goods. They have also enjoyed a surge in FDI inflows as MNCs beef up their operations in these countries to capitalize on the expanding markets in China for capital goods and other high end intermediate goods. The less developed economies,¹² on the other hand, have been dealt a double blow. Not only have they failed to make inroad into the Chinese market – since they are producing similar goods as China and not necessarily at a lower cost -- they also face keen competition from China in third markets.¹³

Aggravating the situation for the less developed Asian economies is the sharp decline in FDI inflows as more and more MNCs relocate to China.¹⁴ As a result of the core-periphery structure, there would likely be greater “divergence” and a wider gap of development among East Asian economies. Unless the less developed economies in the region can find ways to upgrade their production capacity or to differentiate their products sufficiently, they risk being marginalized by China and lagging further behind the more developed economies over time.

While there is some evidence of the core-periphery structure in East Asia today, it is not clear how long the thesis will remain relevant for the region.¹⁵ Implicit in the core-periphery analysis seems to be the assumption that China will remain at the bottom of the “flying geese” pattern of development and that it will take a long time before China could catch up with the more developed East Asian economies. It does not take into account the structural changes that we discussed above. In particular, it seems to have underestimated the speed with which China is moving into the “multi-track” production structure.

¹² These include economies like the Philippines, Bangladesh, Sri Lanka, Pakistan etc

¹³ Countries which are energy and raw material producers including Indonesia, Malaysia, Thailand, Brunei and Vietnam are however able to offset some of the negative impact from the competition as they increase their exports of such materials to China.

¹⁴ See Eichengreen and Tong (2005).

¹⁵ Eichengreen acknowledges that the conclusion of the core-periphery structure is speculative and does not rule out the possibility of other possible outcomes, including the “two-track” production structure discussed here.

Indeed, once we take into account the above-mentioned trends, the implications for the production and trade patterns across East Asia could be very different and certainly more complex than that predicted by the “core-periphery” structure. Firstly, the likely shift from an excessively export-driven to a more balanced growth strategy and the expected opening up of the services sector promise greater demand for goods and services from the rest of the world, including demands from other East Asian economies. In particular, East Asian economies may have an edge over other countries in exporting services to China because of their geographical proximity to and better understanding of the market culture in China – unlike manufactured products, services are likely to remain more customized and less commoditized in the global economy.

Secondly, with the rapid industrialization and greater integration of the Chinese domestic economy, the current pattern of production network that is currently spread across East Asia is likely to break down as China moves up the production value chain and the lower end production moves inland or even offshore to other less developed economies in the region. Instead of sourcing for capital goods, intermediate goods or even raw materials from abroad, Chinese factories will be able to purchase them at competitive prices from other factories located in other provinces or cities within China. Such internalization of the production chain within China could potentially lead to a reduction in trade across the region -- a form of “trade diversion”. For example, coal imports from Australia and Vietnam by Guangdong and Zhejiang provinces may fall as if the cost of supplying coal from the northeastern provinces in China were to fall sharply with improvements in transportation and logistics.

Thirdly, as the competition intensifies for exports and FDI flows across the region, other East Asian countries will be forced to leverage on their comparative advantage and specialize more narrowly within industries in order to define their own niche markets. Countries with natural resources like Indonesia, Malaysia, Thailand and Indo-Chinese states, for example, will continue to benefit from rising demands for such resources from China (**Table 5**).

Table 5: ASEAN Commodity, Resource, and Agro-Based Industries

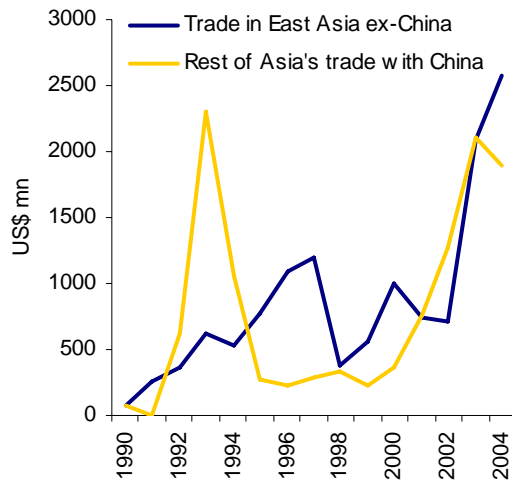
Country	Commodities, Resource & Agro-based Industries
Indonesia	<ul style="list-style-type: none">• World's largest exporter of liquefied natural gas (LNG)• 3rd largest coal exporter to China
Malaysia	<ul style="list-style-type: none">• World's largest producer of rubber gloves
Vietnam	<ul style="list-style-type: none">• One of top 10 exporters of crude oil to China• 2nd largest coal exporter to China
ASEAN	<ul style="list-style-type: none">• Supply nearly 100% of India and China's palm oil

Source: UN ComTrade Database, data as of 2004

But countries producing similar products need not be squeezed out either. As income continues to rise in China, the country's cost-competitiveness will inevitably be eroded, making it possible for other East Asian economies to retain their competitiveness in a wide range of industries from low- to high-end. The MNCs too, will continue to use some of these countries as their production bases not only because they want to diversify from China but also because they want to produce for the domestic markets in these countries.

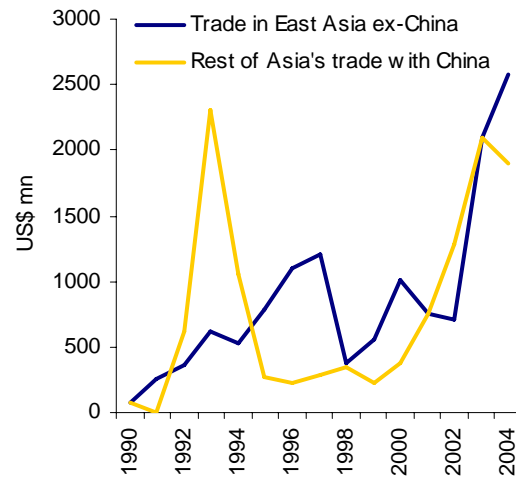
An important outcome is likely to be a considerable expansion of intra-industry trade in East Asia, as the regional economies compete in terms of differentiation of products. The intra-industry trade, which will likely take place across the whole spectrum of the value chain, would not only serve as a major source of growth for the region in future but could also play an important role in integrating the region as it does in Europe. While some parts of the old production network may remain, it is likely that the pattern of intra-regional trade will lose its China-centric character and become more diverse and complex, reflecting the comparative advantages of the regional economies and their specializations within industries (**Charts 5 and 6**).

Chart 5: Intra-Asian trade in Motor Vehicles (SITC 781)



Source: UN ComTrade Database

Chart 6: Intra-Asian trade in Household Appliances (SITC 775)



Source: UN ComTrade Database

The change in China's growth pattern will greatly reduce the likelihood of "divergence" among other East Asian economies. On the contrary, with the "multi-track" production structure, it is conceivable that over time, China could become a force of "convergence" for East Asia. The crucial link here is the integration of the domestic economy in China. The sooner the integration takes place, the stronger the "convergence" effect in the region will be felt. That is, as China's domestic economy becomes more integrated leading to rising average income and narrowing income gap across both industries and provinces within the country, it could become the "big center" that helps determine wages in both the high- and the low-income East Asian countries. Competition from China in the high-value added industries will help set the wage level in the more developed East Asian countries while Chinese wages in low-value added industries will provide the benchmark for wages in the less developed East Asian economies. As the regional income gap within China narrows, so will the income gap between the two groups of East Asian economies. Such an outcome in turn will have different implications for China's regional economic policy from that advocated by the proponents of the core-periphery thesis.

IV. IMPLICATIONS FOR CHINA'S REGIONAL INTEGRATION POLICY

One implication that emerges from the “core-periphery” thesis is that a China-centered, pan-East Asia approach to economic, monetary and financial integration in East Asia would not be feasible or desirable, even from a strictly economic perspective, as it would result in more trade diversion than trade creation. Instead, it is better for both China and East Asia as a whole to opt for some form of open regionalism. That is, while certain sub-groups in the region may move towards free trade, they should maintain strong trade links with countries outside the region. The open regionalism concept will be particularly relevant in the monetary and financial sectors. Eichengreen (2005), for example, argues that efforts to accelerate moves towards a common basket peg or a common currency regime in the region are misguided. He expects, too, that East Asia will continue to rely on other regions for capital flows and major financial centers outside the region like London and New York for financial services.

Eichengreen's argument about the potential for trade diversion in a pan-East Asia free trade zone is not convincing in view of the relatively low tariff barriers in the region and the relatively small size of the less competitive economies within the region. An East Asian region that is relatively open and produces and trades according to market forces of comparative advantage would appear to be a suitable candidate for region-wide economic integration from an economic viewpoint. If, as discussed above, China is likely to be a force of “convergence” rather than “divergence”, the “trade diversion” effect of a region-wide integration will be even more limited. Indeed, if the process is left to market forces alone, such a region-wide economic grouping will likely emerge naturally over time. Moreover, the grouping will almost inevitably be China-centered, given the size of the economy and the central role that it is likely to play in the production and trade network of the whole region. Being the natural market outcome, one could argue that this should be regarded as the “first best” solution for regional integration.

There are, however, other considerations that affect the dynamics of the integration process. It is unlikely that the integration process will be determined solely by market

forces. Every decision to go for economic integration is a political act. And for a number of historical, political, strategic and even economic reasons, the other countries in East Asia are likely to resist the emergence of a China-centered region-wide formal grouping. In particular, Japan and ASEAN would prefer to preserve their own identities, independence, and economic roles within the region. Hence, any attempt at an East-Asia-wide integration will be fraught with difficulties.

A more sensible and feasible approach to regional integration would be to promote a number of separate sub-regional integrations in the medium term and let market forces continue to work at the pan-regional level. In a sense, this is already happening in the region currently. Aside from AFTA, there are a number of FTA negotiations going on, notably between China and ASEAN (CAFTA), Japan and ASEAN (JAFTA), South Korea and ASEAN and China and South Korea. There is, however, as yet no attempt to start a bilateral negotiation between China and Japan. In most of these negotiations, ASEAN plays a key role. As most of these arrangements embrace open regionalism and are WTO consistent, the current momentum for separate FTA negotiations should be allowed to take its full course and the region should not try to force a coalescence of these separate FTAs prematurely. Eventually, if the economic imperatives become strong enough, they will merge naturally.

Ironically, the centrality of ASEAN's position in all the sub-regional groupings may be the key to the resolution of the China-Japan tension and the emergence of a region-wide integration eventually. The success of ASEAN over the years testifies to the possibility of integrating two economies which are otherwise reluctant partners, through a larger grouping that allows for different coalitions. The larger forum in ASEAN allows two rival economies from having to negotiate directly with each other. Instead they may belong to different coalitions within the larger group. The group dynamics injects a large dose of neutrality into the negotiation process, making it possible for the member economies not to see the issues solely from a bilateral perspective.

ASEAN can play the same role in easing the tension between China and Japan. Already ASEAN has demonstrated its capacity to be a catalyst for actions by the two rival economies. It was China's decision to initiate negotiations for the China-ASEAN Free Trade Agreement that prompted a fundamental re-think in Japan's foreign economic policy. Until then, Japan, being a major beneficiary of the post-war GATT regime, had paid scant attention to regional integration efforts except in cases where it intended to advance specific national interests such as the proposal for an Asian Monetary Fund. Fearing that China might be staking its claims to political and economic leadership in the region, Japan countered by starting the FTA negotiations with Singapore in January 2002. Significantly, the negotiations were completed within a surprising short period of time (one year). Japan has since followed up by starting the Japan-ASEAN FTA negotiations.

Even without a China-centric structure, China can still play a constructive role in expediting the integration process. By accelerating the CAFTA negotiations, China will likely put pressure on Japan (and other economies) to do likewise. Indeed, China surprised many when it took the unprecedented step of including an "early harvest" program in the CAFTA process. The program offers ASEAN early access to its agriculture sector – traditionally considered among the most sensitive sectors in the economy – and marks a sharp contrast to Japan's insistent on protecting its own agriculture sector. The CAFTA could conceivably serve as a template for JAFTA (and other FTAs in the region). Such a common template in turn could significantly expedite the negotiation process of an East Asia-wide FTA.

We should note that implicit in our discussion here are two assumptions. One, China will continue to opt for regional integration in one form or another even though there are economists who argue that the country would gain more by sticking to the WTO mechanism.¹⁶ Two, the ASEAN+3 grouping will be the preferred platform for China's effort at regional integration.

¹⁶ For example, see Wang Rongjun, 2004.

On the first assumption, it seems that China has made its choice clear when, to the surprise of many, it initiated the China-ASEAN free trade agreement negotiations. The reasons for the choice may be similar to those of Japan. Hideo (2004) cited three reasons to explain how the changing circumstances in the external environment made the choice for a regional preferential trading system inevitable for Japan. These reasons are just as valid for China. Firstly, the WTO negotiations have become deadlocked since 1999. It is not clear how much longer the WTO process will take before it regains any momentum. Secondly, FTAs have become too important a global phenomenon to be ignored, with as much as 90% of WTO members being party to such agreements in one form or another. Much of the preparatory work and initiatives for global trade negotiations are increasingly done at the level of regional groupings; and not being part of them mark a distinct disadvantage for Japan in global trade negotiations. Studies also show that national companies often lose out in the export markets if the country is not part of an FTA. Thirdly, there is increased recognition that the FTAs could provide external pressures for necessary domestic economic reforms in many countries.

On the choice of ASEAN+3 as the preferred platform for regional integration, Wanandi (2004) and others argue that this represents a more attractive option for China than other regional groupings such as APEC, EAEC etc. Firstly, the ASEAN+3 grouping is already more or less an institutionalized process. From the moment it was established, China has been able to effectively express its interests and priorities within the group. Secondly, the business in ASEAN+3 is conducted in the ASEAN way i.e. informal and consensual, an approach that China feels comfortable with. Thirdly, with its combined economic and financial strength, ASEAN+3 can provide an effective voice for East Asia as a group and a serious counter-weight to the US and the EU (**Table 6**).

Table 6: Strength Comparison: ASEAN+3 and Others for 2004 (US\$ bn)

Countries	Nominal GDP	Exports	Foreign Exchange Reserves
ASEAN	795	542	283
Korea	680	254	199

Japan	4671	566	835
China	1654	593	619
ASEAN+3	7800	1955	1936
United States	11734	819	87
EU	9465	1411	385
Latin America	2006	459	220

Source: IMF, DOT

V. CHINA'S ROLE IN REGIONAL MONETARY AND FINANCIAL MATTERS

As China moves rapidly up the value chain and the comparative advantages in the region evolve over time, we expect to see not only a shift in regional trade and production pattern as outlined above, but also greater outflows of FDI and portfolio investments from China to the region. For example, Chinese companies will likely take up greater stakes in various resource-based industries in the region to secure a steady supply of raw materials and other natural resources, as well as gain access to technology in these industries. At the same time, with the expansion of intra-industry trade, more Chinese companies will likely invest in various countries in the region to penetrate local markets or to take advantage of lower cost of production elsewhere in the region. Overtime, as China's financial system becomes more developed, its banks and financial institutions can also be expected to venture abroad, channeling some of China's financial savings to the region. The Chinese government may also diversify its investments in the foreign assets of G3 countries to higher yielding assets in the regional economies.

All these developments suggest that China will increasingly become a major investor and creditor in the region. It will see the region not only as a trading partner but also as a major investment destination and production base for its companies. It will therefore have strong vested interest to see that financial stability is maintained in East Asia. Maintaining financial stability in the region is, however, goes beyond the forging of formal monetary and financial integration. While some observers believe that the pace of integration should be accelerated and, if necessary, forcibly through greater political

wills¹⁷, others disagree.¹⁸ Indeed, the seemingly slow progress on this front reflects not only the diverse views among the East Asian countries but also the recognition by policy makers of the practical hurdles that need to be overcome to bring about such integration. We do not see a pressing need for China or other East Asian countries to force the pace of monetary and financial integration in the region. China could, however, make a significant contribution to regional financial stability simply by strengthening its own financial system, and by supporting the existing initiatives for region-wide policy dialogue and cooperation.

Maintaining Financial and Banking Stability in China

During the 1997/98 Asian financial crisis, China was able to insulate itself from the worst of the fallout largely because of the various capital controls in place. Indeed, the Asian financial crisis was a salutary lesson to China to be cautious in the speed and sequencing of its financial and capital account liberalization.¹⁹ It has impressed on China the importance of putting the domestic banking and financial system in order first before relaxing the rules on international capital flows. That the recent shift in China's exchange rate regime was implemented smoothly testifies to China's continued prudence in this area. It is an approach that China should continue to adopt and one that should be welcomed by the rest of the region. As Ito (2005) noted, the decision by the Japanese government to liberalize its capital account at a very gradual pace (from mid-1970's to mid-1990's) provided a stable environment for Japan to sustain strong economic growth during that period. China should continue to liberalize its capital account but it should do so fully only when its domestic financial system is sufficiently strong and robust.

Monetary and Financial Coordination in East Asia

Most of the regional cooperation efforts such as the Chiang Mai Initiative (CMI) and the Asian Bond Fund Initiative (ABFI) have focused on institution-building in the region. Efforts in exchange rate and monetary policy coordination have remained informal,

¹⁷ See Yu Yongding, 2005.

¹⁸ See for example, Tan, 2004.

¹⁹ Just before the Asia financial crisis, it was widely reported that China was targeting to achieve full currency convertibility by the year 2000.

reflecting the lack of readiness for formal monetary integration. China itself has a lot of catching-up to do in developing and strengthening its monetary and financial systems and would not be ready for any major regional integration initiatives for some time. In any case, the current structures (including both the CMI and the ABFI) provide an adequate framework for China to play a meaningful role in regional financial surveillance by leveraging on the strength of its economy and its large official reserves.

These structures also prove to be an effective vehicle for China to protect its interests in the region. Firstly, they provide a forum for China to mobilize the support of East Asian countries on international financial issues such as the recent dispute with the US over its exchange rate policy. Secondly, they allow the Chinese to balance the Japanese influence in the region. Thirdly, they allow the Chinese a channel to influence the macroeconomic policies of the Asian countries as its interests in the region continue to grow over time.

As many have noted, East Asia is far from ready for an EU-type monetary union. Given the disparate states of development among East Asian economies, a monetary union would imply a loss of monetary independence that would not be in the interest of the individual countries in the region given the asymmetric shocks that hit the economies. In any case, it is most unlikely that the Chinese political system would allow China to surrender its sovereignty to a supra-national agency.

China's interests in monetary policy cooperation are adequately served for now through existing structures such as CMI and EMEAP (a grouping of eleven central banks in Asia-Pacific). Through these fora and through its bilateral relations, China has been able to engage in regional surveillance and exert its views and influence on policy issues. As the Chinese economy continues to grow, its influence in these fora will also grow commensurately.

VI. CONCLUSION

China is entering a new era of economic development. After almost thirty years of near double digit growth, the Chinese policy makers are becoming increasingly aware of the potential pitfalls in the long run of a growth strategy that relies excessively on exports and FDI, and on the exports of predominantly processed manufactured goods. Such a strategy increases China's vulnerability to adverse events in the global economy and limits its potential to move to the next level of development. The strategy also implies continued trade and political tensions with its major trading partners in the West. Unlike Japan's economic ascent in the 1970's and 1980's, China's economic rise is greeted with much greater apprehension and anxiety by the Western economic powers, making it a more likely target of protectionist policies in these countries. As one commentator noted recently, "not since Japan moved on to the world stage a century ago, has a non-western power emerged with such potential to transform the global order as China today".²⁰

We have argued in this paper that the current pattern of trade and production network is a result of China's emergence as a low cost processing center for manufacturing value chain in the region. However, the pattern is likely to break down and become more complex and diverse as China moves rapidly up the manufacturing value chain and its domestic economy becomes more integrated. Such endogenous changes can be speeded up by policy measures to address various imbalances in the Chinese economy. Such measures include policies to integrate its domestic economy, reallocate investments to the inland provinces, devote more investment to social and economic infrastructure, and adopt measures to develop the services sector and speed up the SOE reforms. On the external front, China could play an important role to facilitate the regional economic integration process. A China-centric, pan-Asian integration approach may not be feasible politically given the intensity of nationalism at the country and sub-regional level. Instead, an approach based on open regionalism and sub-regional groupings, with

²⁰ See "China's rise threatens to divide Asia, not unite it", by Daniel Twining, *Financial Times*, 21 August 2005.

ASEAN playing a key role, may be more effective in the long run in integrating the region.

China currently enjoys a considerable amount of goodwill with other East Asian countries, reflecting in part the latter's acknowledgement of the significant stabilizing role that China has played in recent years. China's steadfast refusal to devalue the RMB during the Asian financial crisis, for instance, was widely credited with helping to arrest the downward spiral of the regional currencies at that time. And through the integrated production network that developed in the wake of the crisis, China also played an important role in the region's post-crisis recovery – serving as a destination for their exports of raw materials, intermediate goods, capital goods as well as final consumer products. China should capitalize on such goodwill to help expedite the process of trade and investment integration in the region. Doing so is not only in line with its own domestic economic agenda, it will also help assure the rest of the regional economies of China's intention to play a constructive role to bring about a win-win outcome for itself and for the region.

REFERENCE

Eichengreen, Barry, 2005. “*China, Asia and the World Economy: The Implications of an Emerging Asian Core and Periphery*”. Unpublished paper.

Eichengreen, Barry and Hui Tong, 2005. “*Is China’s FDI Coming at the Expense of Other Countries?*” NBER Working Paper No. 11335 (May).

He, Xinya, H. Wu, R. Liu and Y. Cao, 2005b, “*A Statistical Interpretation of China and the World Economy*”. Unpublished paper. Institute of World Economics and Politics, CASS, Beijing.

Kit, Wei Zheng, J W Ong and K Kwan, 2005. *China Rise as a Manufacturing powerhouse: Implications for Asia*. Paper presented at 30th Annual Conference of Federation of ASEAN Economic Association, Manila, 24-25 November 2005.

Kiyoshi Kojima, “*The "flying geese" model of Asian economic development: origin, theoretical extensions, and regional policy implications,*” *Journal of Asian Economics*, Volume 11, Issue 4, Pages 375-401 (Autumn 2000)

Rodrik, Dani, 2005. “*What’s So Special About China’s Exports?*”. Unpublished paper.

Ryosei, Kobun and Wang Jisi, 2004. “*The Rise of China and a Changing East Asian Order*”, Asia Pacific Agenda Project. Japan Center for International Exchange.

Tan, Kim Song, 2004. “*East Asia Exchange Rate Arrangements: What Should Be Done?*”, Paper prepared for ASEAN+3 Finance Ministers’ Group. ASEAN Secretariat.

Wang, Jisi, 2004. “*China’s Changing Role in Asia*”, in Ryosei and Wang, 2004.

Wang, Rongjun, 2004. “*China’s Foreign Trade Policy after WTO*”, in Ryosei and Wang, 2004.

Wanandi, Yusuf, 2004. “*China and Asia Pacific Regionalism*”, in Ryosei and Wang, 2004.

World Bank, 2005. “*China: Integration of National Product and Factor Markets*”, June 2005.

Yu, Yongding, 2005. “*New Possible Progress in East Asian Financial Cooperation*”, Paper presented at Kiep Conference, 19 August 2005.