

### **3. POLICY FRAMEWORK OF DEEPENING ECONOMIC INTEGRATION AND NARROWING DEVELOPMENT GAPS**

#### **3.1. Reduction of service link and network set-up costs**

One of the prominent features of the East Asian economy is the prevalence of production fragmentation, in which production processes are sliced into several sequential stages and the separated production blocks are located across countries. The resulting production and distribution networks constitute the framework of *de facto* economic integration in the region. In the age of globalization, development strategies should be designed to utilize globalization forces by effectively participating in the still-growing production and distribution networks.

In East Asia, business environments have been improved through the accumulation of ad hoc policy responses, rather than comprehensively designed policy packages. The remarkable economic growth in East Asia lends strong support for this approach. However, the rise of global competition has been urging the region to take collective actions to maintain and reinforce the resilience of the regional economy by further developing existing production and distribution networks. In order to do so, East Asia needs to share a comprehensive policy framework to design viable, effective and practical policy measures.

The key elements of the policy framework can be drawn from the New Economic Geography and fragmentation trade theory, which claim the importance of reducing the costs of fragmentation, namely service link costs and network set-up costs. The former are the recurring costs to link fragmented production blocks, and the latter are one-time costs to establish new production blocks in production networks. The reduction of these costs provides private firms an expanded window of opportunities to explore efficiency by making production fragmentation less costly. To put it differently, if service link costs and network set-up costs are reduced in a less-developed country (LDC), some manufacturing processes in relatively advanced countries will be moved to the LDC, while the remaining processes will be expanded in the advanced country. As a result, the combined production in both countries will be larger than

before fragmentation. Congestion in the advanced countries will encourage the movement.

Greater disparities in factor prices encourage production fragmentation. Development gaps can be transformed into a source of economic dynamism of the region if service link and network set-up costs are reduced by a well-prepared policy package. A policy package to reduce service link and network set-up costs can be realized by deepening economic integration, which contains elements of liberalization and facilitation of trade in goods and services and investment. Therefore, it is possible to pursue deepening economic integration and narrowing development gaps at the same time.

### **3.2. The mechanism of agglomeration and fragmentation**

In the process of industrialization in ASEAN and East Asia, international trade in parts and components has been dramatically expanded. At the background, international division of labor in terms of production processes (fragmentation) has developed to an unprecedented degree. At the same time, economic agglomeration or industrial clusters have grown in several notable places where dense vertical supply chains are formulated. In even higher development phases, economic agglomeration is beginning to nurture more sophisticated industrial structure of the knowledge economy. These fundamental transitions are rather new phenomena, starting from the late 1980s or the early 1990s. To understand the mechanism of agglomeration and fragmentation, two novel theories, new economic geography and the fragmentation theory, are extremely useful.

New Economic Geography explains agglomeration and dispersion of economic activities in geographical space. The spatial structure of economic activities is considered to be the outcome of a process involving two opposing types of forces, that is, agglomeration forces and dispersion forces. The theoretical formulation analyzes the balance of these two opposing forces that generate a variety of location patterns of economic activities.

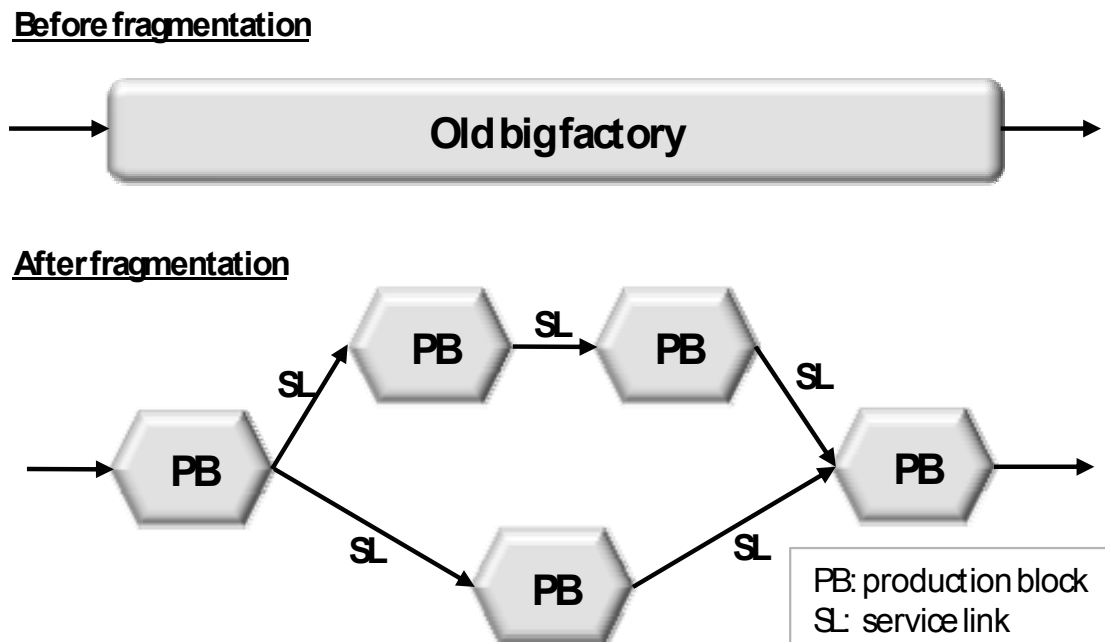
A key property of agglomeration forces resides in the circular causality of economic activities. For example, if an automobile assembler would attract a number of upstream suppliers, the resultant productivity enhancement and market expansion

might in turn attract another assembler. Such circular causality would generate a sort of economies of scale in a geographical sense. This mechanism would make agglomeration attract more and more economic activities.

The growth of economic agglomeration would enhance dispersion forces at the same time. Concentration of economic activities would increase land prices and wage rates, bring severe price competition among firms, and cause traffic congestion and air pollution. Due to such congestion effects, dispersion forces would be intensified, and less developed countries in the region could take advantage of it in attracting economic activities.

One of the most important factors that delicately affect the balance between agglomeration forces and dispersion forces is broadly-defined transport costs, which include freight costs, tariffs, non-tariff barriers, and risk of exchange-rate variation. New Economic Geography analyzes the factors, some of which are policy variables that determine industry location among countries or cities of different size.

**Figure 3-1: The original idea of fragmentation: an illustration**



Source: Kimura (2006).

The other novel line of thought, the fragmentation theory, focuses on the location of production processes. Production processes are fragmented into multiple slices and

located, say, in different countries in East Asia. The original idea of fragmentation is illustrated in Figure 3-1. Suppose that a firm in the electronics industry originally has a huge factory in a developed country that takes care of all its production processes from upstream to downstream. If the firm can separate its production processes and locate them in appropriate places, the total production cost may be reduced.

There are three elements that make fragmentation possible. First, there must be production cost saving in fragmented production blocks; the firm must take advantage of differences in location advantages between the original and new production sites. Second, the cost of service links that connects remotely located production blocks, i.e., costs of transportation, telecommunication, and various types of coordination, must not be too high. Third, the cost of network set-ups is small. The theory suggests that diversity or differences in development stages may accelerate fragmentation and FDI at the production process level if proper policy environment is prepared to reduce service link and network set-up costs.

New Economic Geography and the fragmentation theory provide insights on important factors that determine the location of economic activities in the globalizing era.

### **3.3. Policy environment that enables utilizing globalizing forces**

International production/distribution networks in ASEAN and East Asia are, at this moment in time, the most advanced and sophisticated in the world. As a background, East Asia has developed a favorable policy environment suitable for globalizing corporate activities. However, this policy environment is the result of accumulated trouble-shootings in response to claims and requests from the private sector, rather than being developed with well-designed strategic moves. Analytical evaluation of a policy environment that enables countries to take advantage of globalizing forces for economic development is yet to come.

New Economic Geography and the fragmentation theory provide rich implication for policy environment in the globalizing era. New Economic Geography suggests policies affecting the agglomeration forces and the dispersion forces, while the fragmentation theory identifies policies affecting production cost saving, service link costs, and network set-up costs. Combining these theories with careful consideration

related to policy needs, which will possibly differ by development stages, we can actually develop desirable policy packages in order to utilize globalizing forces. Some tentative arguments for initiating and accelerating industrialization are as follows:

1. At the early stage of development, prime concerns are how to attract the initial wave of production blocks by utilizing dispersion forces and how to participate in production networks to be able to utilize their location advantages, e.g. abundant unskilled labor. A country at this stage does not have to immediately improve the overall investment environment for the whole economy; such improvement is typically very difficult to implement. Rather, a minimal set of FDI facilitation, infrastructure services, and convenient service link arrangements should be provided at a specific industrial estate or a special economic zone.
2. After a successful start of industrialization, a series of policies helping the formation of agglomeration comes to the center of stage. It is crucial to host as many production blocks as possible by removing bottlenecks in location advantages and service link arrangements. For example, well-organized one-stop services and custom clearance services would be suggested. In particular, industrial estates are crucial for attracting FDI by foreign SMEs.
3. At a higher phase of industrialization, the participation of local firms as well as the strengthening of core ingredients of economic agglomeration, such as human resources and economic/social infrastructure, should be stressed. Due to the growth of economic agglomeration, a country quickly loses its advantage of low-wage unskilled labor. To keep massive economic activities and proceed to further economic development, it should acquire new strengths. Positive externalities from agglomeration should be fully utilized to stabilize the industrial base. Various actors in production networks, including both foreign and local firms, should be located there, attractive human resources to support higher levels of economic activities must be available, and efficient logistic arrangements should be developed to facilitate sophisticated value chain management. To reach the stage of a knowledge economy, well-balanced industrial structure, including a modern services sector, is required.

The recent wave of economic integration can be effectively utilized to promote proper policy reform and to further promote international production networks. Development strategies in the globalization era should be completely different from traditional strategies in which the domestic economy is insulated from foreign competition. Rather, national border barriers should be lowered, and international competition must be introduced. This is not, however, a simple-minded strategy of just free trade and investment but a deliberately designed strategy of utilizing globalizing forces to accelerate industrialization.

### **3.4. The economic development of latecomers**

The economic development of latecomers, in particular CLMV, is a very important agenda, not only for the countries concerned but also for ASEAN and the whole of East Asia. The relationship between the two objectives — deepening economic integration and narrowing development gaps — is extremely crucial in this context. This task is not a simple one, and efforts from various angles must obviously be taken. We however would like to claim that New Economic Geography and the fragmentation theory provide useful insights into development strategies to effectively utilize globalizing forces.

New Economic Geography suggests that latecomers may utilize the dispersion forces due to congestion in economic agglomeration. The theory analyzes two forces in economic agglomeration: the agglomeration forces and the dispersion forces. The agglomeration forces may enlarge disparities among the integrated countries (e.g., CLMV vs. other countries) as well as among domestic regions in each country (e.g., inland vs. coastal regions in China). At the same time, the dispersion forces may move manufacturing activities from forerunners to latecomers, and in doing so, narrow development gaps. The balance of these two forces would largely determine the overall effects of economic integration on industrial location patterns among the East Asian countries. From the viewpoint of CLMV, how to take advantage of the dispersion forces would become an issue.

There have, in fact, been signs of congestion in economic agglomeration in East Asia, and the dispersion forces have started working so as to influence industrial location. We have observed substantial increases in production costs in agglomeration

due to difficulties in securing labor and land, traffic jams, etc. Firms have had to find labor from far distances, and some of them eventually set up new factories in mid-sized cities or rural areas. In particular, labor-intensive or land-intensive production processes tend to shift. In recent years, many cities grew, with increasing numbers of residents, factories, and warehouses.

The fragmentation theory, on the other hand, suggests that differences in location advantages such as factor prices motivate fragmentation of production processes. Differences in wage levels between ASEAN forerunner countries and CLMV are still substantial, and thus, CLMV may rather have strengths, particularly for labor-intensive or natural-resource-intensive production processes. The important issue, then, for attracting FDI would be a proper investment climate that reduces network set-up and service link costs. Geographical proximity to growth centers would also be a strong point. Efforts for deeper economic integration are essential to preparing the necessary policy environment.

In sum, latecomers, particularly CLMV, have good opportunities for attracting economic activities in the globalizing era. By strategically improving their policy environments, they can simultaneously attain the two objectives — deepening economic integration and narrowing development gaps.

### **3.5. Fostering local firms/entrepreneurs**

How to foster local firms and local entrepreneurs in the competitive environment is a big concern of developing countries. In the past, direct or indirect protection for local firms and delaying the liberalization process were rather taken for granted in the infant industry protection argument. But, now in the globalization era, local firms must compete with gigantic multinational enterprises (MNEs) in the open market from the beginning. What sort of industrial policies or SME policies would be justifiable is one of the most controversial topics among development economists.<sup>4</sup>

The current wisdom, from theoretical literature, shows that MNEs may provide catalysis for fostering local firms. In support of this, we recently found that small and medium enterprises (SMEs), indeed, play pivotal roles in the functioning of

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<sup>4</sup> Hew and Nee (2004) present an excellent review on the current status of SMEs in ASEAN.

international production networks and economic agglomeration. There are certainly ways to foster local firms or SMEs by utilizing globalizing forces. Multiple market failures do exist in the development of local firms and entrepreneurship, and they would be mitigated by proper policy arrangements.

There is ample evidence that local firms are participating in production/distribution networks, particularly in machinery industries. An empirical study of Thailand, based on industrial surveys, revealed several interesting research findings (Yokota, 2008a). First, between MNEs and SMEs, there have been positive spillovers and linkage effects in the machinery industry, but not in other industries so far. Second, the impact of trade liberalization differs from industry to industry; trade liberalization has increased productivity in the machinery industry and labor-intensive industries. Third, in particular, local firms in the machinery industry have received the largest benefits from trade liberalization.

Another example of the link between MNEs and local firms can be found in Penang, Malaysia. In Penang, many indigenous enterprises have developed through linkages with foreign electronics companies. Indigenous enterprises are participating in producing not only parts and components but also industrial equipment. We also observed that foreign assemblers operating in Thailand have gradually expanded their outsourcing to indigenous suppliers. Most indigenous enterprises that have linked with MNEs are SMEs. Some have succeeded in the global marketplace, serving customers both in Asia-Pacific and around the world.

Economic integration has provided business opportunities not only in terms of participating in production/distribution networks but also in capturing enlarged markets. A Malaysian electrical appliance firm is expanding OEM production, outsourced from MNEs, as well as increasing direct sales of its original brand to the ASEAN integrated market. It is notable that in agricultural products, including food and beverages, ASEAN enterprises have demonstrated a big presence. A Philippine giant food and beverage manufacturer has extended its business overseas to Australia, China, Indonesia, and Vietnam. A leading Thai agro-based company has expanded its businesses in Cambodia, China, India, Indonesia, Malaysia, Myanmar, Singapore, Vietnam and other countries.

Trade liberalization may lead to market share reallocations towards more productive firms. The way to avoid this is to promote product differentiation. When

there are fewer substitutes among products, firms can enjoy sufficient margin. In other words, demand for the products is less sensitive to the changes in the broadly-defined transport costs. An empirical study clarified that the total value of transported goods declines dramatically before reaching 100 miles (Hillberry and Hummels, 2005). However, products differentiated enough can be sold in distant markets. Furthermore, moderate competition among firms under product differentiation can facilitate industrial agglomeration.

Industrial agglomeration or clustering has the potential to increase firms' productivity. For example, an enormous leather industry in Agra, India, provides various type of footwear (Knorringa, 1994). With large-scale production, many varieties are sustained by pooling skilled labor, co-operation among SMEs and specialized jobs, which bring with it backward and forward linkages. A study on SMEs in Indonesia show better performances by clusters of SMEs than by stand-alone SMEs (Hew and Nee, 2004).

Many indigenous enterprises have succeeded in improving their performance by establishing linkages with MNEs, expanding their businesses in integrated markets, or cooperating with other SMEs through the formation of industrial clusters. We should conduct serious research on successful cases among local firms/entrepreneurs in ASEAN and the surrounding region and contemplate necessary policy support.

### **3.6. New policy challenges:**

#### **The widening scope of integration and sustainable economic growth**

The economic integration process in ASEAN and East Asia has, so far, been somewhat biased toward trade liberalization and facilitation. In forerunners of ASEAN and China, the policy environment for international production/distribution networks in the manufacturing sector has demonstrated good progress, although there is still a lot of room for further improvement of the business environment. Some other aspects of economic integration, including services sector, are still largely premature. A well-balanced industrial structure and a solid knowledge base should be established in order to further climb up the development ladder. Some policy fronts may require explicit comprehensive initiatives of *de jure* economic integration, rather than depending on the accumulation of incremental policy improvements.

It is also crucial as prerequisites to meet conditions for sustainable economic growth relating to energy, environment, macroeconomic stability, and structural reform. Well-balanced growth over a long period of time is indispensable to the ultimate goal of economic growth and development. In particular, growing energy demand has increased the risk of a shortage of energy supply. Indeed, the emergence of China and India has provided dynamism in the global economy, but at the same time, has increased energy consumption.

East Asia has enjoyed high economic growth for decades. At the same time, economic growth has been accompanied by serious environmental problems, some of which have become trans-boundary issues. Forest fires and the resulting smoke haze that periodically blanketed Southeast Asia have existed for more than a decade, notwithstanding the ASEAN agreement on the trans-boundary environmental protocol in 2003. There is urgent need for making economic growth compatible with the preservation of the regional and global environment.