

Growth Triangles in Asia
A New Approach to Regional Cooperation

Hiroshi Kakazu

Working Paper No.9
April 1999

Hiroshi Kakazu (Ph.D., in Economics from the University of Nebraska) is a Vice Governor of Okinawa Development Finance Corporation in Okinawa. He is author of *The Structure of Okinawa's Economy* (Nagoya University, 1997), *Crossborder Growth Triangles in Asia* (Oriental Economist, 1995) and co-author of *Problems and Prospects of Asiatic Patterns of Development: Lessons of ADB's Thirty Years Experience* (Nagoya University Press, 1997).

Introduction

As was symbolized by the then Thai Prime Minister Chatichai Choonhavan's avowed policy of turning Indochina from "battlegrounds into marketplaces" in 1989, the entire East Asian region, including NIEs, ASEAN and Indochina, has pursued market-driven economic development through investment, trade and regional cooperation since the early 1990s. Economic dynamism in Asia has been accelerated by regional economic cooperation such as APEC and AFTA under the GATT-WTO multilateral, open trading system. The end of Cold War opened borders among contiguous areas for trade and investment which led to the creation of a new type of regional cooperation and integration called a "growth triangle."¹

The main purpose of this paper is to discuss the characteristics, significance and potential of this seemingly "Asiatic" type of regional economic cooperation focusing on the ASEAN countries.

The Driving Forces Behind the Growth Triangles in Asia

The explosive expansion of Asian economies set off a chain reaction. Waves from the rapid economic growth that began in Japan in the 1960s reached Taiwan, South Korea and other newly industrializing economies (NIEs) in the 1970s, and spread to the ASEAN countries and China in the 1980s. This rapid growth phenomenon has now permeated the whole of Asia, including India and Pakistan.

The sustainability of this growth mechanism, however, has been questioned by notable economists such as Paul Krugman² and recently by Hasegawa³ citing the current economic meltdown triggered by the currency crisis which originated in Thailand and spread dramatically to Indonesia and South Korea. They argue that Asian dynamism has been basically supported by inflows of foreign capital and accompanied by transfers of old technology combined with abundant cheap labor without improving total factor productivity (TFP). That is to say, Asian economies have expanded just like

the non collapsed Soviet economic system where massive utilization of domestic resources (capital, labor and raw materials) in state-controlled industries created growth without improving the efficiency and the quality of these economic agents.

A deeper analysis by Asian mainstream research organizations such as the Asian Development Bank⁴ and the Institute of Developing Economies⁵, however, concludes that the Asian growth mechanism will be restored, although at a slower pace. This will take place after a period of 2~3 years because the economic fundamentals of the affected countries are sound, and the setback has been caused by short-term factors such as speculative outflows of foreign exchanges and the sudden fall of stock prices. Many other Asia-watchers, however, point out that the future state of Asian economies depends largely on political stability and transparency in the region. This is particularly the case in China and Indonesia, where state-owned inefficient enterprises and crony capitalists dominate the key sectors of the economies. They are key countries which will determine the overall direction of the region's future growth. Of course, their economic management will also determine their political stability.

In the recent past, East Asian real annual GDP grew about twice as fast as the world averages; 5.6% in the 1970s, 6.9% in the 1980s and 7.4% during 1990-94. It is particularly noteworthy that the fastest growing economy in the world throughout the 1980s and the early 1990s was China whose average annual growth rate was 11.6% during 1980-94 compared to Japan's 2.7%. What makes the Chinese case significant was its sheer current and projected magnitude in the Asian economic landscape. China accounts for 51% of land area and 40% of total population of the East Asian region. Although the size of the Chinese economy in terms of nominal GDP is only 11% of Japan in 1994, its GNP in terms of purchasing power parity (PPP) is already larger than that of Japan.

Despite the recent economic meltdown in East Asia, the latest World

Bank projection shows that the East Asian economy will still be a center of high growth in the coming decade with an annual average growth rate of 7.6%, more than twice as high as the G7.

It is also noteworthy that the ASEAN economies rapidly picked up growth in the past decade making their region the world's most attractive economic growth center. The Philippine economy, which suffered decades of setback and stagnation, has also begun to contribute to ASEAN's economic expansion in recent years.

The market potential of these economies has been tapped by carefully coordinated export drives supported by directed credit, investment, and tax policies combined with well-netted information system. As symbolized by China's "socialist market economy," Vietnam's *doi moi* (renovation) and Indonesia's *deregulasi* (deregulation), behind the market-oriented policy choices. It is important to realize that the age of militarism and rigid state planning has come to an end after the collapse of the "Cold War" structure, paving the way for an age of "all-out competition" led by the market.

What are the driving forces behind the rapid progress of the Asian economies? As schematically summarized in Figure 1, there are in fact several such forces. The first is market-driven growth under stable political regimes. Market driven growth has been reinforced by sound and effective macroeconomic controls, selective and timely interventions into market functions, and an institutional capability which have been supported by stable, effective bureaucratic systems.

The second key word to understand the Asian growth miracle is "diversity" or "complementarity" within the region. As the "flying-geese formation theory"⁶ and the "catch-up theory"⁷ assert, the wider the economic and technological gap between the group in front and those behind, the faster the latter's rate of economic growth, the more dynamic its penetration and diffusion, and the longer its duration. The NIE economies, where the per capita GNP ranges from \$10,000 to \$20,000, are pressing hard on the heels of

Japan, where per capita GNP exceeds \$30,000. Behind the NIEs are ASEAN countries with per capita GNP ranging from \$200 to \$3,000. The ASEAN countries are in turn being pursued hotly by the Chinese colossus, with a per capita GNP of just over \$500. The ratio of nominal per capita income of Japan to that of China being 60 to 1.

Under an economic environment that attaches importance to an open market, the flexible multi-layered stages of economic development and the coexistence of diverse systems constitute an important driving force behind Asia's growth as theoretically demonstrated by Aoki⁸. The multi-layered catching up process in Asia has been possible, because unlike Latin America and Africa, there seems to exist "optimum gaps" among neighborhood countries as is illustrated in Figure 2.

However, the sharp rise in the value of the yen, particularly since the 1985 Plaza Accord, has accelerated Japanese investment and transfer of manufacturing facilities to the neighboring countries in the region. Japan's foreign direct investment (FDI) to the East Asian region jumped from mere \$7.6 billion in 1985 to \$53.8 billion or 7.1 times in 1990. Japanese FDI to the ASEAN-4 countries (Malaysia, Thailand, Indonesia and the Philippines) particularly increased sharply from \$2.6 billion to \$41.8 billion, or 16.2 times during the same period. Among the ASEAN-4, Malaysia, Indonesia, Thailand were the main destinations for relocating Japanese labor-intensive manufacturing industries. Although Japan's FDI in the region slowed down in the 1990s, due mainly to the weakening yen and Japan's domestic financial problems, the magnitude is still much higher than the 1980s'.

Asia's economic and cultural diversity and competition have also accelerated the complementary nature of trade, investment and production. The basic pattern of trade between the East Asian industrialized countries (Japan and NIEs), and the rest of Asia used to be vertical, that is, Japan exported its finished goods while other Asian countries supplied raw materials.

Massive inflows of Japanese and Asian NIE investments into East Asia,

in turn have greatly accelerated the trend towards a horizontal trade and division of labor which strengthened trade interdependence in the region. East Asia's intra-regional exports not only expanded from \$49 billion in 1985 to \$342 billion in 1995, the share of intra-trade jumped from 26.2% to 39.4% during the period. Among the ASEAN-4, Indonesia and the Philippines in particular, trade interdependence within the region was intensified by exporting finished goods and parts to one another see Table 1. Reciprocal investment and complementary production, mainly parts, are surging within the Asian region, thus giving rise to a solid intra-regional circulatory structure of production and consumption.

The fourth driving force behind Asia's dynamic growth is the economic power of Chinese merchants at home and abroad who, with their huge financial power and vigorous entrepreneurial spirit, have built strong economic networks transcending national borders throughout the whole East Asian region. In particular, as a result of progress in China's reform and in its market-opening policy as well as other East Asian countries' open-door economic policies, huge financial groups of Chinese merchants have become more prominent. Hong Kong's Li Ka-shing group, Indonesia's Salim group, Malaysia's Kwok group, Thailand's Bank of Thailand group and the Philippines' Tan group, have expanded their operations beyond national boundaries to such an extent that the possible formation of a "greater Chinese economic zone" is now taken seriously.

It is obvious that those market-driven forces, coupled with cross border regionalism after the collapse of centrally planned economies, have accelerated socio-economic interactions among the bordering regions as can be seen in rising border trade and investment in the Asian countries.

The Emergence of Growth Triangles in Asia

Economic integration has accelerated regional cooperation in the Asia-Pacific in recent years as can be seen in Table 2. The relevant factors have

been an Economic dynamism induced by trade and investment, coupled with the collapse of centrally planned economies and a rapid progress of the European Union (EU). The members of the ASEAN Free Trade Area (AFTA), which started just a few years ago, have now agreed to complete its targeted free trade area by 2003 instead of 2008 as originally agreed. ASEAN has also moved to bridge the Asia-Pacific and the EU by creating the Asia-Europe Meeting (ASEM) in 1996. The Asia-Pacific Economic Cooperation (APEC), which had its 8th meeting in Manila in 1997, discussed concrete action programs submitted by each member country on trade liberalization, facilitation and regional economic cooperation. Stimulated by such a vigorous wave of regional cooperation, the South Asian Association for Regional Cooperation (SAARC) agreed to start SAARC Preferential Trade Agreement (SAPTA) in 1995.

Against the above broader context of increasing regional economic cooperation in the Asia-Pacific, sub-regional or localized economic cooperation and integration called "growth triangles (GTs)" have rapidly emerged in Asia. A GT can be defined as "a transnational economic zone spread over well-defined geographically proximate areas usually covering three or more countries".⁹ Within a GT, differences in factor endowment and economic complementarity are exploited to promote external trade, domestic and foreign investment, tourism, natural and human resource development, infrastructure development and also the GT region's political stability. The term GT became popular after Goh Chok Tong, currently Singapore Prime Minister, used it with reference to "SIJORI GT."

Some important GTs are listed in Table 2, the "South China" GT, consisting of Hong Kong, Guangdong, Fujian and Taiwan, and the "SIJORI" GT, comprising Singapore, Malaysia's Johore State and Indonesia's Riau Province, have already become true growth legends. Meanwhile, the "Tumen River Delta" GT, the "Mekong River Delta" GT and the "IMT" GT in northern ASEAN have moved beyond the conceptual stage to the stage of working out

concrete development plans. Furthermore, the "BIPM-EAGA" (or "East ASEAN" GT), the "West Asian" GT involving Iran and Turkey as well, and an "Indian Ocean" GT, with an eye to Africa, have also surfaced. This author has also proposed a "Xinjian" GT including all bordering areas of Xinjiang Province of China¹⁰. The actual mechanism and the processes leading to the emergence of GTs can be generalized in Figure 3.

Robert A. Scalapino explains East Asian GTs in terms of "natural economic territories (NETs)" which emerged after the end of Cold war. Particularly after the collapse of the Soviet Union, "ideology has declined in the face of the pragmatic impulses stemming from economic primacy"¹¹. Economic primacy, coupled with reduced political risk among bordering regions, encouraged flows of peoples, trade, investment and information among the regions once separated by military walls.

This phenomenon was symbolized by then Thai Prime Minister Chatchai's policy of stressing development and sub-regional growth in 1989. The collapse of European centrally planned economies stimulated the idea of market-driven economic development through both globalism and open regionalism. Globalism was necessary to induce foreign direct investment and to promote exports under the competitive global market. At the same time, open regionalism was naturally developed, particularly in the cross border peripheries afflicted by political as well as military tensions.

The end of Cold war was a necessary condition to give birth to the GT. Complementary relationships in investment, trade and resource endowments with different stages of development, various networkings in terms of transportation, economic spillover and cultural affinity, as well as political consensus and commitment among GT regions are the keys to the success of a GT as will be discussed later.

McGee and Greenberg¹² explain GTs in terms of "spillover effects" extended from metropolitan regions. The role of metropolitan regions such as Hong Kong in the South China GT and Singapore in the SIJORI GT is an

important element in forming a GT, but not a necessary condition as long as an economic dynamism is created by regional efforts¹³. We cannot say that in the BIPM-EAGA and IMT GTs will fail because there is no metropolitan region involved. As is the case of the Labuan financial center in the BIPM-EAGA, the missing factor can even be created through regional efforts and cooperation.

Above all, the outstanding characteristic of these "Asian-made" GTs, transcending national boundaries is that, as the term "natural economic zone" suggests, free economic activities are formed in such a way to interpenetrate and spread naturally to adjoining areas with complementary relationships. This form of flexible integration is different from the "hard" economic integration based on rules worked out through prolonged negotiations, as was the case with the EU and the North American Free Trade Agreement (NAFTA). It may be characterized as "Asian," for it represents a slow, natural process that involves consensus and diversity. These GTs have the potential to develop into an "Association of Asian GTs," which in turn may become integrated with the EU, NAFTA and other regional groups, and eventually develop into an open economic league of global scale, the ultimate goal of the recently formed World Trade Organization (WTO).

The WTO consists of 130 countries and regions as of March 1998. As was evident in the excruciatingly protracted intergovernmental negotiations in the Uruguay round of GATT-sponsored multilateral trade talks, it is extremely inefficient, and prohibitively costly, to have a large number of countries simultaneously sit at the negotiating table. If the "GT method" is adopted, whereby talks are held first in each GT unit, then it will be easier to build a consensus on economic integration and at the same time to better meet regional needs. It should be noted here that GTs are consistent with and supportive of the institutional objectives of GATT-WTO, APEC and AFTA as is depicted in Figure 4.

Merits of Growth Triangles

Compared to other forms of on-going regional cooperation, such as the EU and NAFTA, Growth Triangles have the following merits:

- (1) Unlike trading blocs, which require sweeping, nationwide institutional and administrative changes, the growth triangle approach involves only contiguous parts of countries. Therefore, the politico-economic risks associated with regional integration will be localized or minimized should it fail. On the other hand, if it succeeds, its benefits will be easily expanded to the contiguous region as can be seen in the SIJORI and Southern China growth triangles.
- (2) Compared to the establishment of a formal trading block, which usually requires tedious, time-consuming intergovernmental negotiations and procedures, growth triangles can be established at a much lower cost and in a shorter period of time. This is one of the important reasons why countries such as Indonesia and Malaysia are establishing several growth triangles at the same time. The role of governments should be limited to that shortened period over which the GT process or natural process of economic integration takes place.¹⁴
- (3) The growth triangle approach will be useful to initiate the trade liberalization of a country as can be seen in the SIJORI GT in which Batam Island of Indonesia has been given the status of a free trade area. The area is a model of the AFTA which aims at an ASEAN-wide free trade area by the year 2003. By the same token, the growth triangle approach will also be useful to facilitate the transition of centrally planned economies such as Myanmar, Lao PDR, Viet Nam and Cambodia to market economies, in the Mekong River Basin GT. One of major objectives of the Tumen River GT is to open the North Korean economy to the world market.
- (4) The trading block focuses on the expansion and liberalization of the internal market of its members countries, while growth triangles are motivated by foreign direct investment and exports for which the size of the

regional market is less important than the openness of the global trading systems. Therefore the growth triangle approach is consistent with the GATT (WTO) principles of non-exclusive character of open regionalism. That is to say, the markets created by growth triangles are open to everybody.

- (5) Growth triangles can in effect internalize and therefore reduce some of the usual external risk factors involved in private investment and infrastructure projects.¹⁵ The construction of a highway or a power plant may not be economically viable if they are built within one country. But their construction may well be justified by demand within an extended transborder region.
- (6) The GT method and process can also be useful to cope with the emerging and deteriorating environmental problems in Asia through cross border cooperative efforts and sub-regional participation.
- (7) Lastly, the concept of a growth triangle can be effectively applied to develop remote, peripheral areas where economic complementarities and adequate infrastructure within the neighboring national borders exist. It is interesting to note that almost all growth triangles in Asia are located peripheral and crossborder areas where informal border trade and crossborder labor mobility have taken place actively.

A GT is usually set up within a crossborder free trade zone which can be administered jointly by contiguous governments or by a jointly created development authority, as can be seen in the SIJORI GT. The Tumen River GT has also established a joint administrative authority. In this sense, a GT is a crossborder, multinational free trade and investment area which is very much different from the conventional concepts of free ports, special economic zones, export processing zones and foreign access zones (FAZ) which are established within a country.

Limitations of the GT Approach

The GT method of regional integration has its own limitations and problems. First of all, there is the danger of the central governments losing control over the provincial and regional governments that constitute the GTs, once they generate a momentum of their own.¹⁶ A good example is in the case of the South China GT where central government mandates are resisted or ignored by Guangdong province and private sector.

Secondly, a possible unequal distribution of benefits arising among participating regions from the formation of the GT is another thorny issue. So far, Malaysia's Johore State has not shown a positive commitment to the SIJORI GT mainly because of uncertainty of benefits from the GT as well as the limited mandate of the state government. All emerging Asian GTs such as Mekong River Delta GT, BIPM EAGA and IMT GT must solve this distributional issue recognizing that all participating regions will gain in the long run by forming GTs.

Thirdly, the costs of adjustments may be higher and coordination among the participating cross border regions may be more difficult than the same activity within a country because of the different socio-political-legal systems. A good example is the Tumen River Delta GT where the Coordination Committee is facing a formidable task in forging the three cross border littoral regions.

Fourthly, because of the multi-country involvement, GT development can be riskier than purely domestic projects of a particular region where system or institutional risk is smaller than other participating regions. Of course, the risk factor of higher risk regions can be reduced by forming a GT.

Lastly, the socio-cultural-environmental impact of GTs is not well spelled out. There is a criticism in the case of SIJORI GT, for example, that Singapore has been exploiting the cheap labor and resources of the Indonesian Riau islands. The environmental is also becoming a thorny issue particularly in the cases of the BIPM-EAGA and Tumen River Delta GTs.

AFTA and GTs

As we have already seen the ASEAN countries have been involved in four GTs (see Table 2). There are several important linkages between AFTA and GTs. First, GTs can play an important role to accelerate AFTA's scheduled trade and investment liberalization programs. Under the AFTA-Common Effective Preferential Tariff (CEPT), ASEAN aims at reducing its overall average import tariff from the current 7.8% to less than 3% in 2003. The CEPT covers not only import tariff for almost all commodities, but it also aims at reducing non-tariff barriers such as quotas, licensing, foreign exchange regulations and administrative procedures. In view of the past performance of ASEAN's tariff reductions, the CEPT target can be achieved unless the current economic crisis hinders the pace of scheduled trade liberalization.

As a matter of fact, the CEPT target (2003) is much shorter than APEC's trade liberalization process which is supposed to be completed by the year 2020. GTs, which are initiated in peripheral areas on much smaller scale than in AFTA, will be effective arrangements to meet the CEPT target.

Secondly, GTs can be effectively used to reduce non-tariff barriers which may be more important than trade barriers in achieving open regionalism because they involve economic as well as non-economic factors. The impact of socio-economic changes within GTs will be very small compared to nation or NAFTA-wide changes because they begin in small contiguous areas.

Thirdly, as can be seen in the Indonesian case of SIJORI GT, GTs can reduce the politico-economic risk of trade liberalization under the GATT-WTO regime and AFTA-CEPT frameworks which must apply to the entire country or region instead of a limited area under the GT scheme. This is more flexible and reversible than AFTA's formal arrangements.

Fourthly, As we have already discussed, the Asian GTs can potentially provide a pragmatic and effective mechanism for linking the ASEAN countries to the rest of Southeast Asia and China, as in the case of economic cooperation

in the MRB GT. It is particularly significant with respect to ASEAN as an institution, in that the participating countries of this subregion include economies in transition not only domestically, but also in their relationship with the ASEAN region, as future members of ASEAN.¹⁷

These suggested linkages between GTs and AFTA need to be discussed in more detail under a separate heading.

Finally, ASEAN'S industrial cooperation scheme such as brand to brand Complementation (BBC) will be more effectively achieved through GTs which can be established by bilateral or multilateral agreements depending on the GT area to be formed. GTs are also an important means to develop cross-border infrastructure networks such as transportation, communication and institutions including education institutions which will promote technological developments which will facilitate AFTA's objectives.

Case Study 1: The SIJORI GT

The SIJORI GT was initiated by two heads of states (Suharto of Indonesia and Lee Kuan Yew of Singapore) in 1988 and formalized in the fourth ASEAN summit in 1992 with a strong endorsement of Malaysian Prime Minister Mahathir Mohamed. Indonesia proposed Batam island, a major island of the Riau archipelago, to be a free trade zone for cooperative development. The Batam free trade zones offered favorable terms for foreign investment and trade, including (1) 100% foreign equity ownership; (2) investment applications can be made in Batam instead of Jakarta which usually took several months or years; (3) the Batam Industrial Park, a joint venture between the Indonesian private sector and Singapore's state owned enterprises was established for the development of industrial estates and infrastructure.

These initiatives have been enhanced by the strong complementarities between Johor/Riau (Batam) and Singapore. The land size of Riau is 5 times larger than that of Singapore, but the cost of labor there is one-fifth that of

Singapore. Singapore needed to relocate its labor-intensive manufacturing industries whereas Indonesia badly needed to have industries which absorb its growing labor force. Riau archipelago has also abundant water resources which Singapore badly needs. Industrial the complementarities between Singapore and Johor state of Malaysia have long been established. At the moment, there are few links between Johor and Riau due mainly to the lack of complementarity between the two areas.

The formation of SIJORI GT spurred direct foreign investment into Batam island which increased from \$222 million in 1985 to \$867 million in 1991 or an increase about 4 times during 4 years (Table 3). It is important to note here that investment in tourism accounted for 25.6% of the total cumulative investment in 1991. Manufacturing including electronics, chemicals, oil and mining equipment, steel and iron and plastic and paper accounted for about 40.1% of the same. Table 3 reveals that Batam's industrial structure has been diversified mainly toward tourism and electronics industries from its traditional industries of agriculture and mining (oil and gas). As can be expected, Singapore accounted for 47.2% of the cumulative foreign investment in Batam in 1991, followed by the US (20.5%), Japan (7.1%), Hong Kong (4.4%) and Netherlands (4.0%).

A typical case of the horizontal division of labor can be found in fishhook manufacturing as is illustrated in Figure 5.

If we take capital intensity on the horizontal axis and value-added on the vertical axis, Singapore specializes in most capital-intensive and high value-added activities such as product development, marketing, distribution of products, electroplating and quality control. Batam engages in low value-added and low capital-intensity manufacturing such as packaging and assembling of parts. Johor has attracted intermediate activities such as rigging and shelling. The division of labor between Batam and Johor is not well-established, however.

Issues and Prospects

Despite successful achievements, the SIJORI GT is facing many socio-politico-economic issues which will require solution if further progress will be made. First, there is the issue of national sovereignty which has been debated ever since the GT was conceived. Some quarters in the Indonesian part of GT are unhappy about the GT framework because the main stage of the SIJORI GT, namely Batam Island, is under the influence of Singapore where the major players are Chinese. Without the framework of AFTA under which the ASEAN countries agreed to have a free trade area by the year 2003, the three partners would have had formidable task to form the SIJORI GT.

Second, the distribution of benefits from the GT formation has also been a long standing issue. The Indonesian public has the impression that "Singapore gains more from the partnership in terms of profits reaped by Singaporean investors, and the low wages paid to Indonesians."¹⁸

The benefits for Johor are uncertain. This is a major reason why the Malaysian partner is not positively committed to the scheme. Singapore, in the short-term, has to pay investment and adjustment costs for constructing infrastructural facilities and for relocating labor-intensive industries from Singapore to the Indonesian islands. In the long-term, however, Singapore will gain from the expansion of markets, from the restructuring of its sunset industries and above all through the easing of pressure upon its resources, including land and water.

Third, SIJORI GT is very small compared to the other Asian GTs. A small market, labor force and area make the GT comparatively costly because it cannot reap economies of scale in investment, production and distribution. The SIJORI GT may also lose its comparative advantage in attracting foreign investors unless improvements in infrastructure and labor productivity are made.

Fourth, environmental and social issues are emerging with the influx of investors, workers and tourists. The rapid concentration of investment

activities on Batam Island have accompanying social costs in terms of high prices, traffic congestion, pollution and conflicts between the local residents and migrant workers, mainly from Java.

Lastly, Johor in particular, has faced so-called “intra-country” issues or more precisely conflicts between national priorities and provincial interests in socio-economic development. The Malaysian government seems more enthusiastic in supporting the formation of the IMT GT than the SIJORI GT from the standpoint of optimal or equitable resource allocation.¹⁹ The Kuala Lumpur government has the fear that designation of preferential status for Johor, which is a well-developed, rich state of Malaysia, will lead to a clamor for equal treatment from the other states.²⁰ These issues are not significant for Singapore and Indonesia because unlike Malaysia, the central governments have directly been involved in the formation and implementation of the SIJORI GT.

Despite the difficult issues ahead, the SIJORI GT can be considered a success story. Indonesia and Malaysia are considering to expand the SIJORI GT including the whole West Indonesia and three Malaysian states of Melaka, Negeri Sembilan and Pahang.²¹ This is precisely the development path of GTs depicted in Figure 4.

Case Study 2: The BIPM-EAGA

One country which had been left out from GT formation in ASEAN is the Philippines. President Ramos, however, took the initiative in conceptualizing the BIPM-EAGA (acronym for Brunei Darussalam-Indonesia- Philippines-Malaysia—East ASEAN Growth Area) in March 1994. The four EAGA governments agreed to identify the opportunities and potential for economic cooperation and development in the region. Here again the ADB played an important role as a catalyst in facilitating meetings and conducting feasibility studies through providing technical assistance.²²

The EAGA includes Brunei Darussalam (B-EAGA); East Kalimantan,

West Kalimantan, North Sulawesi and Irian Java (I-EAGA); Mindanao and Palawan in the Philippines (P-EAGA) and Sabah, Sarawak, and Labuan in Malaysia (M-EAGA). With the exception of Brunei, these subregions are among the least developed of the participating countries. Therefore, both national as well as regional governments have a common interest in undertaking the EAGA scheme, by encouraging balanced regional development, employment and income creation through regional cooperation.

Complementarities

As we have seen already, the success of the EAGA depends largely on present and future resource complementarities which provide comparative cost advantages in the region. The conspicuous characteristic of this area is abundant natural resources in relative as well absolute terms including vast and rich agricultural land (Mindanao), tropical forests (Sabah, Sarawak, North Sulawesi, West Kalimantan, Palawan), oil, gas and coal (Brunei, Sabah, Sarawak, Kalimantan). There are also abundant and trainable human resources in the P-EAGA and I-EAGA.

Where can capital be raised in order to exploit these natural resources? One regional capital center will be Brunei where surplus funds generated by oil and gas exports are available. We do not know, however, the amount of funds which can be invested in the region. The other possible funding source in the immediate future will be the Labuan international offshore financial center (IOFC) which was launched in October 1990. A key feature of the Labuan IOFC is the comprehensiveness of offshore financial services and products offered to customers worldwide, ranging from offshore banking, insurance, trusts, mutual and unit funds, fund management, leasing, venture capital, shipping and petroleum operations, and various offshore corporate treasury and capital market operations.

As of December 1996, about 1,000 offshore companies including 872 trading and non-trading companies, 52 banks, 17 trust companies and 11

insurance related companies have set up operations in the Labuan.²³ Deposits and loans mobilized through the IOFC banking facilities amounted to \$4 billion and \$12 billion respectively. The number of offshore establishments more than doubled in the past two years. The growth momentum of the IOFC is certain to accelerate in the near future given the recent Malaysian government decision to make Labuan a regional financial center. The Labuan IOFC offers various tax incentives such as a mere 3% tax on net profit (the lowest in the world), 50% tax abatement for expatriates and duty free imports of capital and consumer goods.

There is no doubt that the Labuan IOFC can be used to finance the EAGA projects because of its ideal location at the center of the EAGA and various incentives not only for non-regional activities but also for regional ones. The Labuan IOFC can be particularly attractive to the Islamic communities of the EAGA because of its investment know-how and services. What is more important is that Labuan can be used as a business information center of the EAGA not only for offshore banking related businesses, but also for investment consulting, trade, shipping, tourism and human resources development in the region.

Human Resources

The EAGA contains two of the largest labor surplus countries in ASEAN, namely Indonesia and the Philippines. The per capita GDP of these countries reflects the relative wage rates and scarcity of labor supply in the region. The labor costs of Brunei and Malaysia are much higher than that of Indonesia and the Philippines. The size of the labor force in the EAGA is estimated at 11.3 million in 1995 and is expected to reach over 18 million in 2010 or about a 3% average annual rate of increase. If we consider high unemployment and underemployment in the region particularly in I-EAGA and P-EAGA, the labor surplus is expected to persist in the future.

Labor movements among the EAGA regions have been already active.

Foreign born persons constituted about 45% of the working population in Brunei and 37% in Sabah in 1991. East Indonesia and Mindanao have been the major suppliers of labor to these labor deficit areas. In general, Philippine labor is in demand in the service sectors, and Indonesian labor has been attracted to the agricultural plantations in the labor deficit EAGA.

Human resources development, however, is of crucial importance for successful EAGA projects because the EAGA labor force, except small Brunei, is characterized by low education and low skills. Thus, labor flows based on complementarities in skill levels and qualifications are one important aspect of EAGA regional cooperation.

Trade and Investment

Reflecting the resource endowments, the EAGA region has for a long time reaped comparative advantages in producing and exporting resource-based products such as oil, gas, agricultural, forestry and fishery products. Despite the effort in promoting agro-industrial activities and labor-intensive manufacturing, the region has largely remained a group of resource-based economies. It should be noted, however, that the region has long history of crossborder barter trade. Although official statistics are not available, the main barter flows are between Mindanao, Sabah, Labuan, East and West Kalimantan. It should also be noted that along with the expansion of direct foreign investment and trade liberalization in the EAGA region, intra-industry trade has also emerged in recent years.

Investments in the EAGA region have been dominated by the large multinational and national companies in the resource-based industries. After the establishment of the EAGA, however, investments in the region have picked up rapidly in recent months, particularly in the Labuan and Davao areas.

Development Strategy and Constraints

EAGA's development strategy is based on an analysis of the economies of the EAGA subregion with a focus on the following sectors: (1) agriculture, fisheries and forestry, (2) industrial development, (3) tourism, (4) trade and investment in financial services, (5) human resource development, (6) transport and communications, and (7) power and energy. The major and immediate focus is to develop the region's abundant natural resources in a sustainable fashion.

The ultimate objective of the development strategy is to change the economy of the region from one based on the extraction of resources and low order advantage to one based on higher order processing and non-resource-based activities. The regional economy would then be capable of imparting new skills to workers, generating greater value added production and higher incomes for the population while reducing poverty and regional income inequality.

These strategic objectives will be achieved through private sector initiatives, that is to say trade and investment dictated by market forces. Of course, the public sector plays an important role in supporting the private sector initiatives through improving infrastructure, strengthening organizational structure and coordinating various agencies. It is particularly important to note that the EAGA region's indigenous private sector is still small and evolving and it requires public support.

The EAGA development strategy will be hampered by a number of constraints such as deficiencies of physical and commercial infrastructure. Other problems include transportation and information networking, natural resource depletion, a lack of entrepreneurial capacity and cumbersome and rent-seeking type of administrative and policy procedures.

Plans and Implementation

The ADB study, which has been approved by the EAGA participants,

has proposed 151 plans (policy, program and project initiatives) in 7 areas (primary industries, trade and investment, tourism, transport and communication, power and energy, human resources and industrial development). These initiatives are categorized as short term (2 years), medium term (2-5 years) and long term (6-10years). The short term plan, which consists of 98 initiatives, addresses the need to create an institutional capacity within the EAGA through human resources development, the development of physical infrastructure and financial/technical services. Tourism and agricultural developments are also promoted as realistic sources of foreign exchange earnings.

The medium term plan, which consists of 49 initiatives, focuses on a comprehensive improvement and management and resources of the region, as well as the adoption by the private sector of a wide range of commercial and investment opportunities in production sectors. The transport and communication projects dominate the plan.

The long term plan consists of 4 initiatives related to private investments and supporting infrastructure particularly in the high value-added industrial sector. In the long run, the plan intends to create self-generating or sustainable industrial activities by nourishing the private sector. The public sector plays a facilitating role in this sense.

Case Study 3: The IMT GT

The IMT (Indonesia-Malaysia-Thailand) growth triangle, or Northern ASEAN GT was launched in 1993 under the initiative of the ADB. The IMT GT covers 180,136 square kilometers with total population of 21 million. They account for 6.6% and 8.3% respectively of their country totals. One major purpose for forming the GT is to narrow the regional income gaps within the participating countries. The real per capita GDP of these 3 regions is much lower than their respective national average. The per capita incomes of IMT-Malaysia and IMT-Thailand are about one-half of their national average.

For Indonesia, in addition to the income gap, this region has been a political problem area due to frequent ethnic struggles between the Chinese who dominate the local business and the indigenous Indonesians (pribumi). It should also be noted that Aceh has an independence movement with a long history of struggle against Jakarta since colonial times.

Another major purpose in forming the IMT GT was to create an international commercial hub port in the region which includes a large portion of the Malacca Straits (1200 km). It is well known that until Singapore emerged as the region's commercial hub center in the early 19th century, Malacca and Medan were the most active trading ports in Southeast Asia. Although it is not officially stated, the three participating countries are anxious to invoke past glory by forming the GT. The formation of the IMT GT will also strengthen the demands of the participating countries, Indonesia in particular, that the current open and free navigation of the Malacca Straits should be regulated by the coastal countries. The coastal countries have been complaining of the damage of fishery resources and environmental destruction caused by oil spillovers, from tankers. The Straits, however, are a "lifeline" for the East Asian economies, particularly for Japan which imports about 40% of its raw materials including oil.

Complementarities

The IMT GT has diversified economic resources including natural, human, trade and investment and tourism resources which complement each other. The IMT-Indonesia possesses a huge landmass with rich oil and natural gas deposits which can be exploited by the IMT-Malaysia's industrial technology, while the latter lack land and labor force. The IMT-Thailand has a comparative advantage in producing and exporting agricultural and forestry products such as fruits, vegetables and has an ample supply of parawood reserves. The IMT-Malaysia has an advantage in industrial production.

Wage levels within the IMT regions reflect per capita GNP of the

countries concerned. The Indonesian per capita GDP (\$405) is about one-half, and one-third of Thailand and Malaysia respectively which an indication of wage levels in the IMT. The IMT-Malaysia will specialize in relatively high technology products, the IMT-Thailand for low-technology products, while the IMT-Indonesia will specialize the least capital-intensive or most labor-intensive products for the regional division of labor.

Human Resources

Human resources development in the IMT-GT must be approached from two important aspects. One aspect is to facilitate labor mobility within the region in order to strengthen the labor complementation among the participating regions. As we have seen already, the IMT-Malaysia has been facing labor shortages, while the IMT-Indonesia and Thailand has been exporting labor to Malaysia. The labor flows between national borders, however, are not simple flows of capital and natural resources because they are inevitably accompanied by social costs including communal conflicts, the provision of the infrastructure necessary to support an increased population and the problems of an illegal foreign labor force.

The Malaysian government is also concerned about the delay in upgrading labor-intensive industries to more capital and skill-intensive intensive by importing cheap labor. Economic integration within the IMT-GT region allows the relocation of labor-intensive industries from Malaysia to the other two labor-abundant partners which is a preferable solution to the structural adjustment of the former. Malaysian policy makers, however, are reluctant to relocate those labor-intensive industries for fear of risking a hollowing out of the manufacturing industry. As a matter of fact, most MNCs tend to relocate not just segments of their industries, but entire chains of suppliers of important inputs. This dilemma will be partly solved by market forces and partly by policy coordination among the three partners. If the IMT-GT regions are open to each other in terms of labor, capital and trade

flows, then income and employment generating effects will be maximized and the wage differentials among the partners will be narrowed.

Another important aspect of human resources is improvement of labor productivity and utilization through education, vocational training and developing new industries. The immediate task will be how to mobilize reportedly hidden unemployment and high underemployment in southern Thailand and northern Sumatra through the provision of vocational training for the young labor force thereby creating low-skill, labor-intensive industries. It is also important to promote entrepreneurship in small-sized, resource-oriented industries to absorb the abundant low-skilled labor in Indonesia where the pool of unutilized young labor force is expected to increase in the future.

Trade and Investment

The private sector must become the engine of development within the IMT-GT region, while the public sector plays a facilitating role. More specifically, the engine of growth is trade and investment initiated by the private domestic as well as by foreign traders and investors. Despite the cross-border region, intra-industry trade within the IMT-GT is very low judging by the intra-trade flows among the three partner countries. Indonesian exports to Malaysia and Thailand, for example, account for only 2.6% and 1.4% of its total exports respectively. Similar patterns can be seen in the case of other two countries Indonesia and Singapore, see Table 4. One important reason is that resource-based activities, particularly agriculture, dominate the region with few complementarities in input as well as output trade. Resource-based activities are more difficult to disseminate over national boundaries than manufacturing because they are usually protected from foreign competition which generates a regional comparative advantage.

It is important to note, however, that although statistical evidence is not available there have been increasing trade flows both formal and informal

within the IMT-GT. IMT-Malaysia has been a major supplier of manufactured products such as consumer electronics, electronic components and office equipment. IMT-Thailand and Indonesia has an advantage in exporting resource-based products such as plywood, marine, agricultural and mining products.

One important way to accelerate intra-industry trade is to create export processing zones (EPZs) within the region. Malaysia has already set up many EPZs in the region, while southern Thailand and northern Sumatra are planning them. EPZs in each region would be combined into one large EPZ to create an IMT-GT free trade and investment area.

EPZs are also important instruments to induce foreign direct investment into the IMT-GT region. In recent years FDI has been declining in the region due mainly to high investment risk accompanied by the currency crisis and loss of comparative advantage of the IMT-GT countries vis-à-vis China, India and Viet Nam. In the past, most FDI in the region was directed to resource-based industries in Sumatra and southern Thailand. MNCs invested in manufacturing in northern Malaysia for targeting export markets. There has been, however, some “regionalization” of investment particularly in the Thai-Malaysia border area. Southern Thailand is also attracting labor-intensive light manufacturing industries as well as agro-processing industries. Northern Sumatra has great potential to attract FDI in the areas of plantation agriculture, oil and gas, rubber products, food processing and tourism.

Core IMT-GT Initiatives and Strategies

To ensure the scheduled development of the IMT-GT, a comprehensive strategy including implementation priorities on a sectoral basis is required. The major action-oriented proposals or initiatives for prioritized implementation are summarized as follows:

- (1) The acceleration of trade and investment liberalization through the removal of regulatory constraints on the free mobility and flows of goods

and services, labor and financial resources within the region. Reductions of tariff and nontariff barriers must be implemented in the first stage so that cross-border trade is generated by market forces.

- (2) The promotion of cross-border trade and investment based on subregional and industry-specific complementation through region-based policy coordination. “Malaysian MNCs should be encouraged to restructure and engage in mutually beneficial coproduction activities, rather than relocating out of the IMT-GT area altogether.”²⁴
- (3) The early and strategic developments of infrastructure both hard and soft are essential for inducing private sector activities. A high priority should be placed on transportation such as roads and railways at the border point area and air transportation in order to promote tourism which can also be supported by relaxing regulations on tourist transport services. For efficient operations of transport infrastructure, the implementation of an “open skies” policy or the abolishment of cabotage is required.
- (4) The development of cross-border free or special economic zones at border-crossing points such as the Thai-Malaysian border, at Belawan port and at Penang/Butterworth port. Although the IMT-GT countries have established export processing zones (EPZ), there are significant differences by country. Among other things, for example, industrial estates and EPZs must be physically separated in Indonesia and Malaysia, but not in Thailand. Commercial free trade zones are sanctioned by law in Malaysia, but not in Indonesia and Thailand. The types of goods that can be imported duty free and without customs formalities also differ significantly among the countries. These trading systems need to be integrated in order to accelerate the free flow of goods within the IMT-GT region.
- (5) The development of manpower training program focusing on skill development in agro-industry and tourism industry in particular through the establishment of manpower development centers in southern Thailand and northern Malaysia.

(6) The enhancement of institutional capability and coordination so that private sector initiative can be maximized. Government intervention in business activities should be minimized. Closer links between the private sector and the governments will be necessary if the private sector is to function as the engine of growth for the region. A first step in this direction would be a unified approach toward encouraging direct foreign investment and other business activities in the region by forming an IMT-GT area wide chamber of commerce.

Conclusions: Factors for a Successful Growth Triangle

The important factors for a successful growth triangle have been identified in this study. One important factor is that the areas or regions participating in forming a growth triangle must be contiguous with each other, and the national boundaries must be easily accessible if not completely open. In this regard, the Tumen River GT still has a long way to go to accomplish its objectives because the political boundaries among the three littoral areas have not changed significantly despite the end of Cold war.

Secondly, there must be at least one metropolitan center, similar to Hong Kong and Singapore, which is capable of creating dynamic spillover effects for trade and investment on adjoining areas. For the Tumen River GT and BIPM GT, Hunchun and Brunei are expected to play this role respectively.

The third factor is, as we have seen already in the case of SIJORI GT, complementary relationships in resource endowments, labor, technology and location among the participants of growth triangle which must exist. Among the GTs in Table 2, the BIPM GT is probably the least justifiable area for a GT formation in terms of complementary relationships among the participating areas. Although some economists argue that Brunei together with Labuan can play an important role in providing air links, shipping services and finance, while Mindanao, Sulawesi and Sabah are suppliers of natural and tourism resources, labor and agro-industrial products, each area has a more or less

similar, competitive industrial structure.²⁵ Fourthly, the private sector is to become the engine of development for a successful GT. In order to vitalize the private sector, greater freedom should be allowed to trade, labor, and capital than at present.

Fifthly, a successful growth triangle requires a reasonably well-developed infrastructure, and particularly a transportation system. The lingering question is who and how these huge infrastructure requirements can be financed. The Tumen River Delta GT alone requires \$30 billion over 20 years for infrastructure projects.²⁶ In order to finance these projects through debt security or equity issues by means of the now fashionable BOT scheme, these projects must be justifiable on the basis of net financial internal rate of return (NFIRR) on capital. This author's estimation of NFIRR for the Tumen River Delta GT is much lower than the projects in Southern China GT and Bohai Economic Zone projects.²⁷

Sixthly, along with geographical proximity and complementarities among GT participants, strong cultural and social ties are the primary factors for establishing a successful GT. In this respect, the BIMP-EAGA has a better advantage over the other ASEAN GTs because the EAGA has cultivated common ties through a long history of intra-regional migration and Islamic practices.

Lastly, one of the greatest challenges facing the successful development of GTs is a high degree of political commitment to the GT concept by participating regions and countries. This is particularly true for the Tumen and BIMP-EAGA GTs where socio-politico-economic systems are complex and diversified. A strong political commitment is also absolutely necessary in order to ensure a functional institutional framework for cooperation among the central and local governments, the private sector, and the residents of GTs. Among the EAGA countries, Indonesia is considered to be most unstable politically as has been demonstrated by the recent internal political struggles triggered by the economic meltdown.

The Currency Crises and GTs

It will be appropriate to touch upon the impact of recent currency crisis on GT induced regionalism. The crisis originated in Thailand and spread to other East Asian countries, notably to Indonesia and South Korea. These affected economies have common features. First, these economies had been experiencing large external deficits which had been financed mainly by short-term, hot capital. The massive inflows of short-term capital created property and stock market bubbles.

Second, these economics maintained pegged or semi-pegged exchange rate systems which encouraged heavy external borrowing and led to excessive exposure to foreign exchange risk. Third, there was mismanagement of fiscal and financial systems which led to a sharp deterioration in the quality of bank portfolios. Fourth, there was also an institutional inability to adjust changing economic conditions including transparency of tax and business practices and various reform programs scheduled under the WTO-APEC-AFTA framework. Finally, external developments, particularly financial turbulence and the depressed markets in the Japanese economy, exacerbated the crises.

If we consider that these East Asian economies have grown 7-8% a year over the past decade, the current woes are in large part the price of their previous success. As we have discussed already, the majority of experts believe that the crisis does not mean the sudden death of the 'Asian miracle.' Some economists even view the crisis as a "blessing in disguise" because it has dampened the overheated, bubble economies and helped push them towards sustainable growth. An article from the *Economist*, however, worries about the consequence of the crisis:

The most serious risk is that deep recession could lead to widespread ethnic violence and a breakdown of social and political order. It could also provoke a backlash against

globalisation and a general resentment of westerners. If desperate governments were to react to social unrest by imposing tight capital controls and declaring a moratorium on foreign-debt payments, then Asia could indeed suffer a “lost decade” of prolonged stagnation, cut off from international capital.²⁸

The above concern depends mainly on two important propositions. One is how far and how quick these bubble-burst economies swallow the bitter medicine prescribed by IMF for reconstruction. The IMF reform programs, among other things, include (1) institutional changes to strengthen financial sector regulation and supervision, (2) increased transparency in the corporate and government sectors, (3) the introduction of internationally accepted best practices such as the Basle capital adequacy standards and internationally accepted accounting practices and disclosure rules, (4) the creation of a level playing field for private sector activity, (5) open domestic markets for foreign participants, and (6) the implementation of fiscal reform programs which include tightening government budget deficits and the closing down inefficient financial institutions.²⁹ President Suharto and his successor initially refused to comply with the IMF reform programs, but he soon found that there was no choice but swallow the medicine in order to restore international confidence in the currency and economy. South Korea and Thailand supported the programs from the beginning.

The second proposition is how far the international community will cooperate in absorbing the adverse effects of the crisis. China has made it clear that it does not intend to devalue the yuan which will trigger a “beggar thy neighbor policy” through competitive devaluations through out the region. Japan in particular is a key player in stabilizing the Asian-made turbulence because Japan is the largest investor and creditor in the region. The IMF and the United States have been urging Japan to stimulate its domestic market so

that it can absorb more imports from the depressed economies.

The international community is now cautiously optimistic about the restoration of the crisis. Exports from Thailand and South Korea have picked up remarkably in recent months. If these economies succeed in complying with the IMF programs, which are obviously intended to promote more open trade, international competition and transparency, then they will strengthen open regionalism instead of protective nationalism. This is a lesson that the international community learnt from the Mexican currency crisis in 1994-95. Economic development and regional cooperation never proceeds in a straight line. This is particularly true for the East Asian economies where economic and political systems differ hugely by country. We may agree with Gilpin's following assessment:

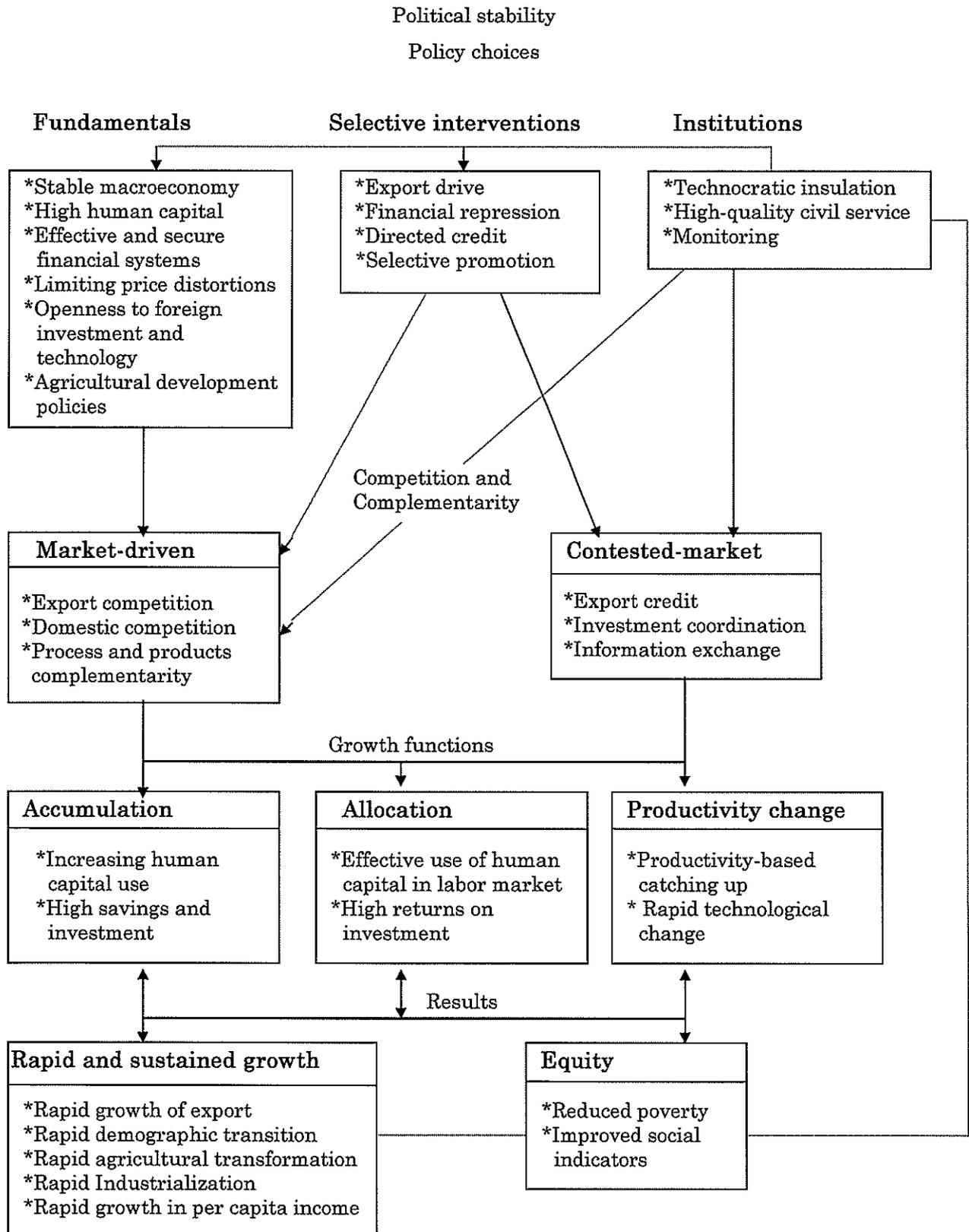
While this process of economic integration and globalization is an uneven one characterized by frequent backsliding, many believe that it is nevertheless inevitable. Although the process may be momentarily held back by irrational forces and by threatened interests responding to the forces of economic integration, with appeals to economic nationalism and demands for economic protectionism, in time the inherent logic of economic efficiency is expected to prevail as people, understanding that their true interests lie with a well-functioning world market, will eliminate protectionist restraints and move in the direction of increased globalization.³⁰

Endnotes

- ¹ Kakazu, H., Thant, M. and Tang, M., ed., *Growth Triangles in Asia: A New Approach to Regional Economic Cooperation*, Hong Kong: Oxford University Press, 1994.
- ² Krugman, Paul, "The Myth of the Asia's Miracle," *Foreign Affairs*, Vol.73, No.6, November/December 1994.
- ³ Hasegawa, Keitaro, *Ajia no Higeki* (Tragedy of Asia), Tokyo: Toyo Keizai Shinpo Sha, 1998.
- ⁴ Das, Dilip, "Recent Macroeconomic Developments and Short-Term Growth Prospects for the Developing Asian Economies," a discussion paper, Asian Development Bank, Manila, October 1997, pp.1-18.
- ⁵ Fukushima, M. & Mitsuo Takii, ed., *97 Nen Ajia Tsuka Kiki* (1997 Asian Currency Crisis), Tokyo: Institute of Developing Economies, 1998.
- ⁶ Akamatsu, K., "A Historical Pattern of Economic Growth in Developing Countries," *The Developing Economies*, Preliminary Issue, No.1., 1962, pp.3-25.
- ⁷ Okita, S., *Approaching the 21st Century: Japan's Role*, Tokyo: The Japan Times, 1990.
- ⁸ Aoki, M., *Keizai Sistem no Shinka to Tagensei* (Evolution and Diversity of Economic System), Tokyo: Toyo Keizai Shinpo Sha, 1995.
- ⁹ Thant, M. and Tang, M., *Indonesia-Malaysia-Thailand Growth Triangle: Theory to Practice*, Manila: Asian Development Bank, 1996.
- ¹⁰ Kakazu, H., "Trade and Economic Cooperation of the Regions Along the New Eurasian Continental Bridge," paper presented at the International symposium on Economic Development of the Regions Along the New Eurasian Continental Bridge, Beijing: May 7-9, 1996.
- ¹¹ Scalapino, R., "The United States and Asia: Future Prospects," *Foreign Affairs*, Winter, 1992, pp.19-40.
- ¹² McGee, T.G., and Greenberg, C., "The Emergence of Extended Metropolitan Regions in ASEAN:Towards the Year 2000," *ASEAN Economic Bulletin*, Vol.9, No.1, 1994.
- ¹³ Pernia, E. M., "A Study of the Brunei Darussalam-Indonesia-Malaysia-Philippines: East ASEAN Growth AREA," a paper presented at International Business Seminar, Kota Kinabalu: 8-9 January, 1997.
- ¹⁴ Thant, M. and Tang, M., *Indonesia-Malaysia-Thailand Growth Triangle: Theory to Practice*, Manila: Asian Development Bank, 1996.
- ¹⁵ Abonyi, George, "The Challenge of Growth Triangles for Regional Institutions," in Imran Lim, ed., *Growth Triangles in Southeast Asia: Strategy for Development*, Kuala Lumpur: The Institute of Strategic and International Studies, 1994, p.20.
- ¹⁶ Ariff, Mohamed, "Growth Triangles—Theory and Practice," a paper presented at the Seminar on the Prospects of Northern Growth Triangle, organized by the Nation Publishing Group, Thailand Hat Yai, Thailand, 1993.
- ¹⁷ Lim, Imran, ed., *Growth Triangles in Southeast Asia: Strategy for Development*, Kuala Lumpur: The Institute of Strategic and International Studies, 1994.
- ¹⁸ Chia, Siow Yue, "The Sijori Growth Triangle: Challenge, opportunities and strategic response," in Imran Lim, ed., *Ibid.*, 1994, pp.173-190.
- ¹⁹ *Ibid.*, p.183.
- ²⁰ Abdullah, Fatimah, "IMS-GT: Johor's experience," in Imran Lim, ed., *op.cit.*, 1994, pp.191-204.
- ²¹ Kawada, Atsusuke, "Henbou togeru 'Seicho no Sankaku Chita'" (in Japanese), *JETRO Senser*, June, 1997, pp.72-73.
- ²² Pernia, *op.cit.*
- ²³ Hussin, Awang A., "The Labuan International Offshore Financial Centre: Strategies and Opportunities," a paper presented at International Business Seminar, Kota Kinabalu: 8-9 January 1997.

- ²⁴ Rao, K. and Newton, J., "Overall Findings," in Myo Thant and Min Tang, ed., *Indonesia-Malaysia-Thailand Growth Triangle: Theory to Practice*, Manila: Asian Development Bank, 1996, pp. 69-110.
- ²⁵ Pernia, *op.cit.*
- ²⁶ UNDP, "Tumen River Area Development," mission report by M.Miller, A. Holm, and T.Kelleher presented at the Pyongyang International Conference, Pyongyang: 16-18 October, 1991.
- ²⁷ Kakazu, H., Campbell, B.O. and Sekiguchi, S., *A Northeast Asian Development Bank?: An Introductory Analysis*, Honolulu: East-West Center, 1994.
- ²⁸ "East Asian Economy," *The Economist*, March 7-13, 1998, p.6.
- ²⁹ Fischer, Stanley, "The Asian Crisis: A View from the IMF," An Address at the Midwinter Conference of the Bankers' Association for Foreign Trade, Washington: D.C., January 22, 1998.
- ³⁰ Gilpin, Robert, "The Emergence of Economic Regionalism," draft, July, 1994, p.7.

FIGURE 1: A MECHANISM OF ASIAN ECONOMIC GROWTH

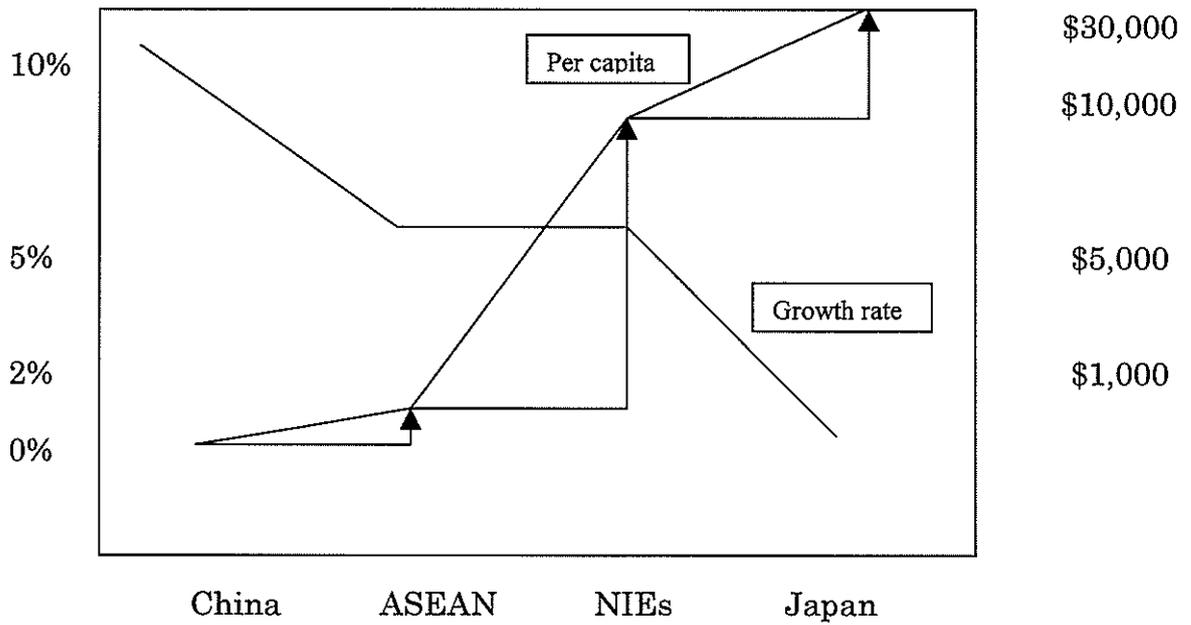


Source : Figure 2.1 (p.88) in World Bank's *The East Asian Miracle* (1993) has been revised by this author.

FIGURE 2: ARE THERE OPTIMUM CATCHING-UP GAPS?

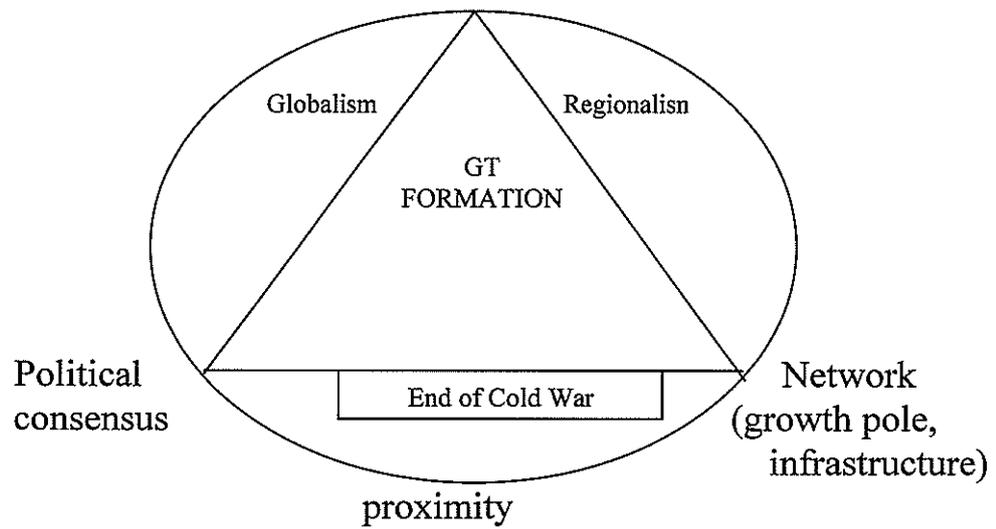
(GDP growth rate, ave. annual, 1980-94, %)

(per capita GDP, 1994)



Source : World Bank, *World Development Report 1995* and various issues, World Tables 1995.

**FIGURE 3: Complementarities
(investment, trade, resources)**



Source: H. Kakazu, *Kokyo o koeru Ajia: Seicho no Sankaku Chitai* (in Japanese), Tokyo: Toyo Keizai Shimpo Sha, 1995.

FIGURE 4: INTEGRATION OF THE ASAIN ECONOMIES: GATT-WTO, APEC, AFTA & GT PROCESSES

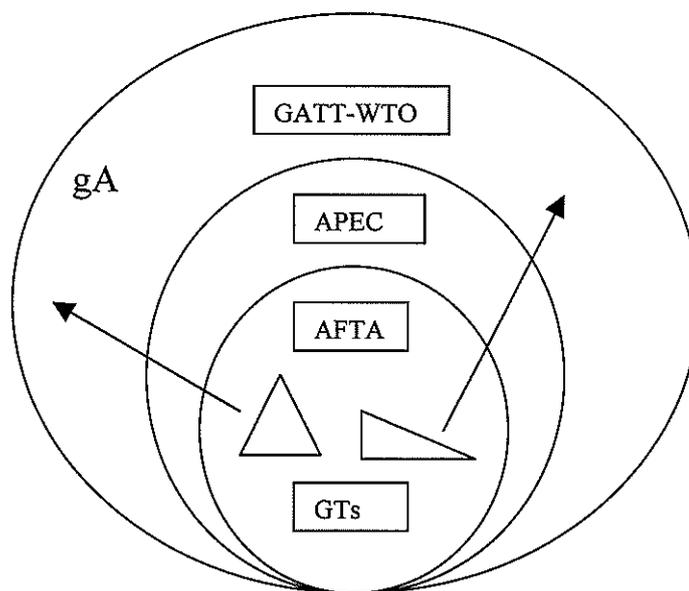
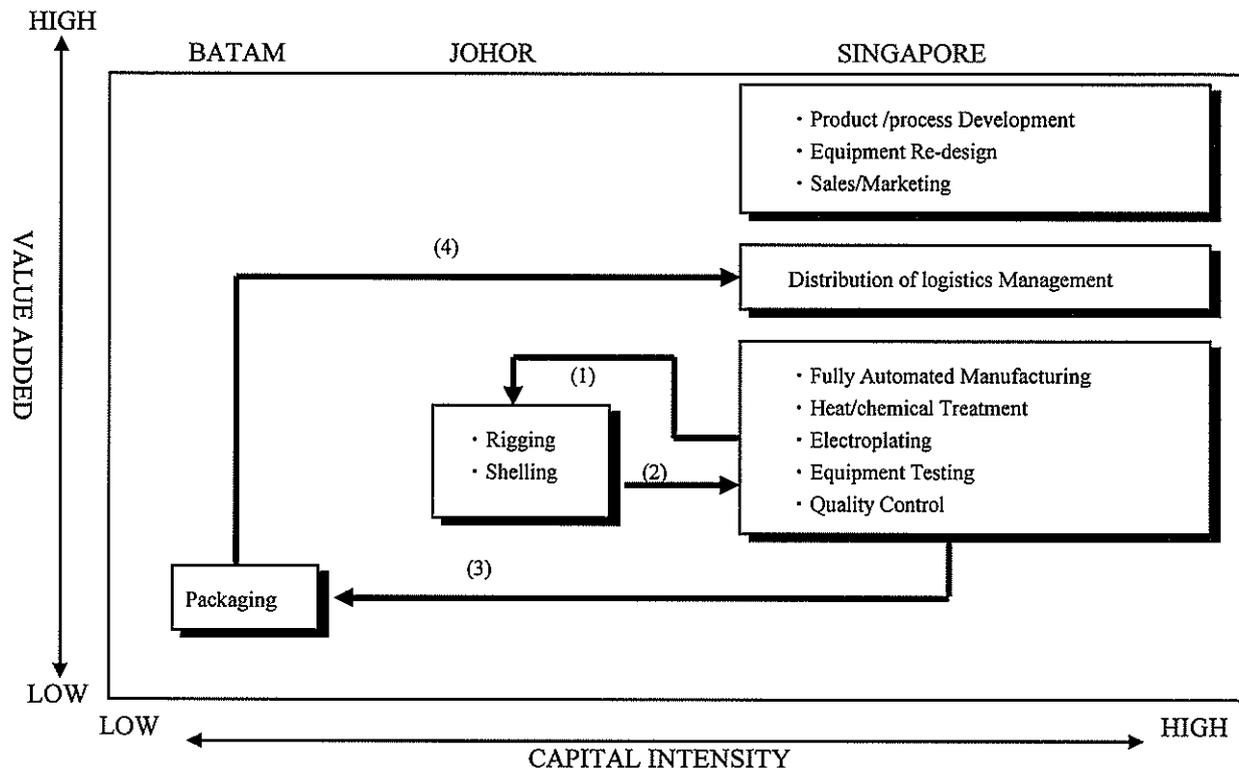


FIGURE 5: REDISTRIBUTION OF FISHHOOK MANUFACTURING IN THE SIJORI GROWTH TRIANGLE



Source: Sree Kumar, "Johor-Singapore-Riau Growth Triangle: A Model of Subregional Cooperation," in Kakazu *et al* (see Note 1.), p.186.

TABLE 1: CHANGES OF EXPORT MARKETS OF ASEAN-4, 1985-1995

(% share)

	1985				1995			
	USA	Japan	NIEs	ASEAN-4	USA	Japan	NIEs	ASEAN-4
Malaysia	12.8	24.6	28.8	6.2	20.7	12.7	31.6	6.1
Thailand	19.7	13.4	15.4	6.3	17.8	16.7	23.0	4.8
Indonesia	21.7	46.2	16.0	1.9	16.7	29.8	23.6	5.3
Philippines	35.9	18.9	12.8	5.9	35.8	16.0	15.8	7.3

Source: *Direction of Trade Statistics*, IMF.

TABLE 2: REGIONAL CO-OPERATION IN ASIAN PACIFIC DEVELOPING COUNTRIES, 1994

Name	Date of Inception	Current Participating Countries or Area	Population Involved	Focus
ASEAN	1967	Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore, Thailand and Viet Nam	389.2 million	Economic co-operation through a combination of market and resource pooling mechanisms.
AFTA	1992	ASEAN	389.2 million	To create a free trade zone in 2003.
SAARC	1985	Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka	1.1 billion	To promote active collaboration and mutual assistance in economic and social fields.
APEC	1989	ASEAN, Australia, Canada, Chile, PRC, Hong Kong, Japan, Rep. of Korea, Mexico, PNG, New Zealand, Chinese, Taipei, and the United States	2.3 billion	To reduce barriers to trade in goods and services, promote investment among participant, and create a free zone by 2020.
EAEC	1990	ASEAN, PRC, Hong Kong, Japan, Rep. of Korea, and Chinese Taipei	1.9 billion	A network of interdependence among economies in the area; facilitate existing trade and capital flows with an envisioned consequence of significant trade creation.
South China GT	Early 1980s	Southern China, Hong Kong and Chinese Taipei	120 million	Relocation of manufactured production and export of labor-intensive goods.
SIJORI GT	1989	Indonesia, Malaysia and Singapore	6 million	Production relocation from Singapore to Johor and Riau Islands, and exploitation of economic complementarity among the three subregions.
Tumen River Delta GT	1991	North Korea, PRC and Russia	-	Joint natural resource development, infrastructure and free trade zone development.
Mekong River Basin GT	1991	Cambodia, Lao, PDR, Myanmar, Thailand, Viet Nam and Yunan Province of PRC	220 million	Joint development of natural and human resources and strengthening the intraregional economy linkages by improving infrastructure.
IMT GT	1993	Southern Thailand, Northern Malaysia, DI Aceh and North Sumatra of Indonesia	21 million	To exploit economic complementarities and enhance subregional competitiveness for the trade and investment, and reduce production and distribution costs through improvement of infrastructure linkage
East ASEAN GT	1994	Brunei Darussalam, Indonesia, Malaysia and the Philippines	24 million	To improve economic and transportation linkage of the region and sector co-operation in mineral, forest and marine resource.

Source: Asian Development Bank and Kakazu.

**TABLE 3: COMPARATIVE ADVANTAGES IN
THE SIJORI GROWTH TRIANGLE**

<i>Business or Activity</i>	<i>Singapore</i>	<i>Johor/Riau</i>
Electronics	Major regional base for manufacturing ; major international procurement office	Lower labor/ land costs for labor/ land-intensive assembly operations
Oil	Refining/petrochemical processing, trading, storage and distribution	Riau island (e.g., Karimun Island) offers environmentally isolated space for oil storage
Maritime Services	Full range of ship-building, repair, and maintenance activities	Johor and Riau islands (e.g., Singkep) offer sites for shipbuilding/repair
Telecommunications and Distribution	World-class information technology infrastructure and wide range of business service; operational headquarters of many large MNCs	Many manufacturing, marketing, marketing, procurement and technical support activities by MNCs requiring coordination
Logistics and Distribution	Excellent telecommunication/ Transportation facilities and logistics management services	Wide range of export manufactures requiring transportation and logistics management support
Research and Development	Large pool of R&D scientists and engineers; R&D manpower training facilities & supporting infrastructure	MNC products requiring applied R&D and design for local market adaptations; MNC operations requiring process improvement R&D
Tourism	Excellent air travel gateway for tourists; emerging regional sea-cruise center; cosmopolitan shopping center; multicultural city	Abundant leisure resources such as beach resorts, golf courses, etc.; cultural diversity
Agribusiness	Food processing technology and biotechnology R&D capability	Abundant land resources for agriculture and animal husbandry

Source: Wong Poh Kam, "Economic Cooperation in the Southern Growth Triangle: A Long-Term Perspective," paper presented at the Conference on Regional Cooperation and Growth Triangles in ASEAN, Center for Advanced Studies, National University of Singapore, 23-24 April, 1992.

Table 4: Intra-ASEAN Trade Among the Three ASEAN Countries, 1995

(\$ million)

Imports/Exports	Indonesia	Malaysia	Thailand	Total
Indonesia		1,110	611	43,285
% of Total		(2.6)	(1.4)	(100.0)
Malaysia	976		2,901	73,990
% of Total	(1.3)		(3.9)	(100.0)
Thailand	1,554	811		56,662
% of Total	(2.7)	(1.4)		(100.0)

Source: *Direction of Trade Statistics*, IMF.