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SIEDCA – THE NEW MODEL OF INDUSTRIALISATION FOR RAPID GROWTH AND SUSTAINABLE DEVELOPMENT IN ASIA

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V. CONCLUSIONS AND FINDINGS
Since the Asian financial crisis in 1997-1998 there has been a tendency to reassess the Asian models and to look for a new model of development and/or industrialisation in Asia and other developing countries, particularly the ASEAN nations. This paper is one of the attempts in that direction. The aim of the paper is to introduce the new idea of the author on the Strategy for Industrialisation Enhancing Dynamic Comparative Advantage – SIEDCA - the new model of industrialisation for rapid growth and sustainable development of Asian developing countries under the new trends of liberalisation, globalisation and informatization. In order to do so, the author firstly starts with the analysis of the Asian financial crisis and the reassessment of the Asian industrialisation models which have been adopted since the 1950s and became the miracles for the development of Asian economies during the last half of the 20th Century, but then surprisingly led to the crisis in the years of 1997-1998. In the second part, the author moves on to deliberate his own idea on the SIEDCA itself to see whether it could be a new model of industrialisation suitable to the new condition of Asian developing countries and to replace the former strategies which were out of date, less successful or fell into crisis. In Part III, the author proposes the new approaches concerning the steps, criteria and methods of industrialisation which would be used as tools for the evaluation of the real situation of industrialisation and the identification of concrete steps of DEs in their process of industrialisation. Part IV refers to the experiences of Asian countries in their industrialisation, including the preparation of preconditions for take-off, the development of production and market factors for industrialisation, the alleviation of poverty along the line of equity development or the relatively equal social system, and the active role of the State in industrialisation, instead of the passive or retreating role as it has been adopted in not a few countries in recent years under the call for fast liberalisation and privatisation. Finally, the author comes to some of his conclusions and findings.
I. ASIAN CRISIS AND REASSESSMENT OF ASIAN MODELS

1.1. The Asian Financial Crisis

The Asian financial crisis occurred in 1997-98 was the largest setback in the history of Asian development since the 1950s. It challenged the Asian model and raised numerous issues and implications for Asian economic security and future development.

The crisis started in July 1997 with the Thai Government’s decision to float the Baht after decades length pegging to the US dollars resulting in the accumulated unmatched exchange rates between the two currencies. The floating of the Baht then quickly spilled over to other nations in Asia and other regions. The five most affected economies were Indonesia, South Korea, Malaysia, the Philippines and Thailand. In these countries large capital outflows run overnight, the exchange rates tumbled, the local currencies devaluated fast, domestic financial institutions, particularly the banking system was seriously damaged, financial intermediation stagnated, industrial capacities were under-utilized, serious underemployment emerged and expanded rapidly, effective demand drastically reduced, economic growth rates sharply dropped. Statistics recorded that in 1997 the outflows of capital from Asia was US$30 billions. In 1997 Indonesia devaluated her currency 80%, South Korea 60%, Malaysia, Philippines and Thailand 40%, Singapore and Taiwan 20%. In 1998 the growth rates of Thailand was –4%, Indonesia –5.2%, South Korea –6.7%. Wages dropped sharply, in January 1998 for instance, monthly earnings were $1,350 in Singapore, $1,150 in Hong Kong, $1,100 in Taiwan, $840 in South Korea, $300 in Malaysia, $100 in Thailand, $70 in the Philippines, $50 in China, and $20 in Indonesia (Economist, March 7, 1998). The costs of restructuring and recapitalisation amounted to 20-50% of the pre-crisis GDP in worst-affected economies. All these together led to the people’s hardship, loss of confidence, and quick changes of Governments in Thailand, South Korea and Indonesia.

The crisis revealed serious hidden problems accumulated as results of the previous policies such as the huge short-term private debts, the large current account deficits and the large capital inflows hoarding from the quick capital-market
liberalization. Foreign bank debt as % of GDP in June 1997 reached 45% in Thailand (out of which 30% was short-term debts), the relevant figures for Indonesia were 38% (21%), Malaysia 30% (19%), South Korea 25% (18%), Philippines 22% (15%), Taiwan 10% (9%), China 8% (4%). Short term debts as % of foreign exchange reserves in June 1997 for South Korea were 350%, Indonesia 190%, Thailand 180%, Philippines 100%, Malaysia 90%, Taiwan 30%, China 20% (Economist, March 7, 1998). Current account deficits as % of GDP in 1996 were: Thailand –8%, Malaysia –6%, South Korea –5%, Philippines –4%, Indonesia –3.5%, China +1%, Hong Kong 2%, Taiwan 4%, Singapore 15% (Economist March 7, 1998). US$73 billions of capital inflow to the five most affected nations in 1996 stopped and was replaced by an outflow of $30 billions in 1997.

The main cause of the crisis was evident: the rapid capital-market liberalization led to the imbalance of capital supply and demand. During the 1991-96 period capital inflows were more than double from US$39.5 billion to $94.1 billion as a result of the financial liberalization in previous years, with the greatest increasing in Indonesia (165%) and Korea (267%). Most of the inflows was under the forms of portfolio investment and bank lending, and almost all by private borrowings which were invested in less productive sectors like real estate speculation, resulting in large non-performing loans, high foreign debts, declining reserves, weak financial systems. As the bubble investments swelled without sufficient earnings to pay debts, bank lending started to fall from an inflow of $41 billion 1996 to an outflow of $32 billion 1997. This great capital flight turned the circle around from higher supply (inflows) over demand (outflows), which coincided with a “healthy growth”, to a situation where demand overloaded supply, thus crisis.

Three years after the crisis broke out these and other factors were addressed by Joseph Stiglitz (2000) as follows:
- The flood of short-term capital of highest and fastest returns, as opposed to long-term investment in things like factories;
- The fueling an unsustainable real estate boom, or bubble economies which eventually bursted;
- The quick and at-the-same-time in-and-out-flow of capital;
- The imprudent private sector including bankers and borrowers who gambled on the real estate bubble;
- The ignorance or the non-concern of bankruptcy and default: center of the East Asian crisis.

There was another factor which was almost not available in the literatures concerning the Asian financial crisis, that was the business cycle downturn. Since the 1950s to 1997 the year when the Asian financial crisis broke out, there had been 71 crises listed as monetary, financial and related crises throughout the world. In Asia at least 3 crises or glooming periods were witnessed since the 1950s when developing countries in the region started their industrialization: The first was the oil shock occurred in 1973-74 linked to the tripled world price of oil; the second was the debt crisis of 1980-81 mostly connected to large government debts; and the third was the 1997-98 financial crisis mainly as a result of the accumulated private debts. Crises often occurred one after the other in about 10 to 15 years.

Take the South Korean case as an example, Table 1 pointed out that in nearly thirty years from 1972 to 1999 South Korea had twice fell into business cycle crisis or downturn, in 1980 and 1998 when their GDP growth rates dropped to –2.1% and -6.7% respectively.
### Table 1: Korea’s business cycles

<table>
<thead>
<tr>
<th>Year</th>
<th>1. Agriculture</th>
<th>2. Industry</th>
<th>3. Service</th>
<th>1, 2, 3 Average Rate</th>
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<tr>
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</table>

*Source: Bank of Korea and Statistics Korea, yearly.*

The nature of the crises vary from one to the other, they may be sectoral crises like the ones broke out in the most vulnerable and bubble sectors such as oil, finance and banking, and real estate, or the crises of bias which often happened in the following cases: bias on internal factors (inward-looking or extreme self-reliance)
which confined the concerned countries, hence excluded them from growth; bias on external factors such as the high “dependency” on the outside world, thus vulnerable to outside competition and shocks; bias on Government intervention where the Governments were free to borrow, hence crisis of Government debts; bias on market-oriented policies, especially the capital-market liberalization and privatization in which private banks and firms were free to get loans and speculate, thus leading to private debts crisis. Though these crises broke out in different ways and under different forms, they may be all treated as certain forms of business cycle crises, and since they often occurred once in about ten to fifteen years, they called for major periodical adjustments of development policies in around the same periods of time to help conform the policies with market changes.

The Asian financial crisis indeed hit every country in Asia and even some in other regions. However, not every country was hit with the same pain, since demand and supply of nations are not the same, and not all nations adopted the capital-market liberalization with the same degree. Indonesia, South Korea, Malaysia, the Philippines and Thailand were the five most hard hit, but Malaysia was able to keep the economy stable, less affected by the negative effects of the crisis, and faster relieved thanks to the tight currency control measures and the restrictions of short-term international capital movements, South Korea quickly returned to her high growth track as a result of the strong banking, chabol and labor-market reforms, while Indonesia, the Philippines and Thailand were supposed to do better by following the IMF’s universal medicine of fiscal austerity (balanced budgets) and tighter monetary policies, without social mercy, as a precondition to receive aid, they were in fact slower recovered or even fell into chaos as it occurred in Indonesia, the latters’ pain happened to be sharper and longer, not sharp and short as it was first supposed. In the mean time, China and Vietnam continued to maintain a growth rate of 7% and 5% a year, respectively, during the crisis period, as they continued to keep a positive balance of capital supply and demand and managed to retain tight control on capital account transactions. Malaysia, China and Vietnam proved to be “correct” (Andrew Elek, 1999, p.18). Short-term international capital movements should not be liberalized, though the controls should not be kept long and/or permanent. IMF’s “the same medicine for each ailing nation” formula and the big
bang approach should not be applied everywhere, otherwise some nations may reap “too much shock, too little therapy” as it happened in the case of Russia (Stiglitz, 2000).

These facts suggest:
- Common and specific solutions are both needed depending on the concrete situation of the country, not on the generalizations;
- Adequate controls and institutions building, or stabilization, are necessary to moderate the negative effects of the liberalization process rather than one-way approach;
- External supports, e.g. calls for liberalization and privatization, should comply with the recipient countries’ social and economic conditions, rather than basing on the donors’ assumptions, or on pure economic principles;
- Adequate information and early warning of market developments needs to be set up.

1.2. Reassessment of Asian Models

To most Asians and many non-Asian observers and analysts, the Asian financial crisis was a big event in modern economic development, so many of them took this crisis as an occasion to reassess the Asian model to see whether it will continue to be a miraculous model or, if not, what would be the alternative for their future secured and sustainable development.

Less than a year after the break-out of the Asian financial crisis the *Economist* (March 7, 1998) judged that the Asia’s six “secrets” of success have now turned to be “deadly sins” of failure: 1- The *high savings* of over 35% of GDP, as much as twice of the US and Latin American level, was no longer their strength, it became the *sign of their weakness*, since much of the money was wasted as subsidies, over-investment, inadequate returns and massive over-capacity; 2- The *small government* with low taxes and spendings of less than 20% of GDP ushered high intervention, subsidies, tax breaks, protected monopolies and maintained underground economies which made up from 30% to 50% of the GDP of Indonesia, Thailand and the Philippines; and from 20% to 30% of GDP in South Korea, Malaysia, Taiwan; 3-
The flexibility once helped the workers and firms quickly adjusted to changes in supply and demand, later became serious rigidities in labor and capital markets, turning trade union movements into anger, and structural rigidities; 4- The good governance looked good only when the economies boomed, in reality institutions did not keep pace with economic growth, there was a lack of reliable legal regulations, inadequate bank regulations and supervision, lack of corporate transparency, widespread corruption which would probably add up to 30% to the cost of the business deal; 5- The long-term relationship between governments, banks and firms encouraged cronyism and corruption, fake collateral, high return and large and easy businesses for close friends; and 6- Education was developed, creating a well educated and skilled labor, but mainly in Hong Kong, Singapore, South Korea and Taiwan, not much in Indonesia, Malaysia, Thailand where serious shortage of skilled workers has become evident in recent years.

Though these “deadly sins” were somewhat exaggerated and could not be used as facts to do away with the real value of the “secrets” of Asian success, they were to some extent true as they reflected the other side of the market-economy coin and would be treated as signs of defects or loopholes in the Asian model which called for correction.

The Asian 1997-98 crisis which was defined as the financial crisis revealed, however, not just financial matters, but also many other social and economic problems, challenges and concerns, because it was the result of a long series of accumulated hidden problems which remained in place till the ripe time to explode. That was why since the time the crisis broke out a wide range of problems has been raised including the bubble economies, the social-related matters like the growth without equity, the increasing poverty, the widening gap between the rich and the poor, the expanded unemployment and underemployment, the unsecured labor conditions, the regional imbalances, the excessive bias either on Government intervention or market force influence, on internal or external dependency, the business cycle down-turns, the oil shock, the food insecurity, the labor insecurity, the economic insecurity, the unmanagable capital-market liberalization and
privatization, the environment pollution and damage, the globalization that challenges the Nation-State, and other problems.

To date though not all problems have been solved and not all questions answered, certain perspectives have been developed in Asia as such that export-orientation in combination with timely import-substitution, globalization and liberalization are still opportunities for nations to gain, however excessive and improper liberalization and bias on external factors are critically vulnerable to external shocks, thus appropriate monetary and financial regulations, human resource development, institution building, continuing trade liberalization, are needed in order to mobilize and combine internal and external forces or resources for both short-term and long-term development. In that context, market forces will be further developed while “the State will continue to be an effective instrument in harmonizing the diversity of benefits which cover such matters as financial, market regulations, job security, environment quality, social security net, and in ensuring that these matters will reinforce the common prosperity” (Pitman Potter, 2000, Pp.1-4). The open market economy will continue to be the most effective mechanism to make the best use of the opportunities and benefits and to mitigate the disadvantages that globalization and liberalization bring about, to acquire new knowledge and technologies for the future development of developing economies oriented toward the information-technology or knowledge-based economy, certainly with substantial adjustments.

With the attraction of the new information technologies and its increasingly influencing impact of on economic development, most of the fashioned economists in the West has in recent years turned their focus to the “new economy” or the knowledge-based economics, thus development economics which has long been discussed since the 1950s and focussed mainly on developing economies (DEs) has now seemed to be out of fashion and less concerned. But for most of the current hundred DEs, the latter is still far more important than the “new economy” or the knowledge-based economics as the DEs are still greatly in need of industrialisation which has been proved to be the key element and the only way to help bring their economies out of the agrarian, poor and backward status. Development economics is
also far more developed by itself because of its continuous, successive and updated
changes of focus from growth to development, and recently, to sustainable
development which embraces not only economic growth, but also social
development and environmental protection, though not yet much new and high
technology. Development economics, particularly industrialisation as its core
component, is therefore still needed to be discussed and developed, especially by
economists from developing countries for the sake of their own countries’
development. IT, e-commerce, e-banking, the knowledge-based and new economics,
along with globalisation and liberalisation, are of course included as new factors of
development, though with a lower degree compared to developed nations.

After fifty years of development since the Second World War or since the
liberation of most developing countries, few dozen of these countries, mostly in East
Asia and Latin America, have been able to move ahead and become industrialised or
newly industrialised, while the majority of them, particularly the African countries,
lag behind, remaining almost as poor and backward as those “Third World”
countries fifty years ago with around 70-80% of their population continuing to live
and work in agriculture and in rural areas, GDP per capita income grew from
roughly $100 to just $200 or $300, and about half of their population living below
the poverty line. The “Third World” countries have thus been differentiated into
three classes, the first group which includes a small number of countries became
industrialised and joined the developed world (like South Korea joined OECD
countries, for instance), the second and also small in number became newly
industrialised – called the NIEs or the NICs, while the rest remain developing
countries, including a few dozen of the least developed nations. In accordance with
these three groups, three generations of industrialisation have emerged in Asia and
Latin America, without any one coming from Africa, except South Africa, to join
them. In Asia, the first group is made up of those “tigers” as Singapore, South
Korea, and Hong Kong and Taiwan (as territories of China), if Japan is to be seen as
the earlier comer and not included in this group. The second group of Asia appears
to be the “mini tigers” such as Indonesia, Malaysia, the Philippines and Thailand.
And the third group, which is currently identified as emerging, transitional economies or “transition tigers”, includes China, India and Vietnam. Other countries like Campuchia, Laos, Myanmar in Asia, and most of the countries in Africa, have not yet been listed in these three groups. Should they join the *fourth generation of industrialisation* of DCs? If yes, how to? And by what way?

In order to find the answers to these questions, it is necessary firstly to review the industrialisation strategies that have been adopted so far. Actual developments in Asia since the 1950s have shown both inward- and outward-looking strategies, particularly the import-substitution, the heavy-industry-based and the export-orientation strategies which were carried out under the market, the centrally-planned and the mixed economies. To date, it seems that most of the people appreciate the export-orientation strategy for its unchallenging successes and ignore or underestimate the others. But in practice, each of the strategies has played its historical role, though some may be more successful than the others. Even the export-orientation strategy has since the break-out of the Asian financial crisis in 1997-98 faced critical reassessment. Hence there has been call for re-formulation of development strategy in Asia and other developing regions. After the Asian financial crisis, the Thai Prime Minister, for instance, called for the greater mobilization of internal forces, and because of that he was questioned by foreign investors whether his country would continue to rely on foreign investment or not.

This situation suggests the necessity to trace back to the former strategies to see how each of them performed.

The first strategy that a large number of Asian developing economies adopted during the 1950s and the 1960s was the *import-substitution strategy* which was formulated at a time when the old colonial countries were driven away from the young independent States of Asian nations and carried along with them most of their industrial facilities, leading these newly liberated nations to build their own economies as the foundation of their political independence. The choice they made
at that time was the development of their domestic potentials, including the building of local industries, the mobilization of internal savings, the development of domestic markets through nationalization and protection policies. This strategy played a very important historical role during the initial stage of their industrialization, it set up the national industrial bases and infrastructure of the countries, it helped the new Governments in these countries to practice their newly independent national economic and industrialisation policies. However, to the mid of the 1960s, it was found that these industries were not efficient due to the insufficient economies of scale, the lack of market for their products, the shortage of capital and modern technologies, the increased trade deficits resulting from the larger imports of machines and intermediate goods compared to the small amount of exports. To overcome such difficult conditions, most of these countries had timely changed to the export-orientation strategy since mid-1960s.

The export-orientation strategy became therefore their second industrialization strategy that replaced the previous import-substitution one. This new strategy was, instead of relying heavily on the internal factors, exposed to the international markets for capital, modern technologies and the outlets for their products, among other things, through export incentives and foreign direct investment (FDI) attraction. Since then this strategy has brought Asia tremendous achievements that it has been appraised as the most successful strategy since the mid-1960s to the present time, though certain feed-backs occurred during the Asian financial crisis of 1997-98.

Beside the above two mainstream strategies that most Asian developing economies adopted, there have been some other strategies which were not as popular as the ones that have been just mentioned, notably the heavy-industry-based industrialisation strategy which was carried out under the centrally planned economy and the mixed economy characterized by half-planned and half-market economies. The strategy of heavy-industry-based industrialisation started from the 1950s in Asia with China, Vietnam and North Korea adopted the centrally planned economy and India followed the mixed economy. One of the most important features of this strategy is its over-emphassy on the role of heavy industries as the
key factor of industrialisation. Though this strategy has in fact helped the countries adopted them to build to certain degree necessary industries and infrastructure, they failed in mobilizing sufficient capital, modernizing technologies, developing competitive products, and worse even, they led to serous imbalances and shortages, so it was finally recognized not very successful, as a result the countries that followed it have had to change one after the other, with China formally changed since 1978 under the reform and open-door policy, Vietnam since 1986 under the policy of renovation, India since 1991 under the policy of reform and liberalization, and North Korea being currently changed starting from the cancel of coupons.

The review of the former strategies helps make clear that the most successful strategy is the one that have made the best use of comparative advantage - the export-orientation - which has been able in around four decades to combine the internal and external factors of a country in the development of their competitive industries for both the domestic and the international markets; while the others were less successful or failed to succeed because they either focused so much on the factors of non-comparative advantage (basic and/or heavy industries), on the demand side rather than the supply side (the basic needs…), or overstressed the internal rather than external factors (inward-looking or self-reliant). To date, however, even the most successful export-orientation strategy has been questioned and reassessed for it went too far to bias on the external factors to swell up the bouble economies which resulted in the 1997-98 Asian financial crisis. These developments suggest that under the new trends of liberalisation, globalisation and informatization, a new industrialization strategy for developing economies, particularly the later comers, is needed which would firstly and necessarily avoid bias and develop a new balance between the internal and external factors, and secondly to meet the new conditions, e.g. to grasp the opportunities and to overcome the challenges brought about by globalization, liberalization and the emerging knowledge-based economy. That new strategy should be the one which is able to promote the dynamic comparative advantages of developing nations, and because of that it should be named as the Strategy of Industrialization Enhancing Dynamic Comparative Advantages – the SIEDCA.
II. SIEDCA - The New Model of Industrialisation for Rapid Growth and Sustainable Development

2.1. Initial Ideas on Dynamic Comparative Advantage

Another question raised in the new context of the liberalisation, globalisation and informatization trends is that should the later comers or later industrialising countries continue to rely on the old patterns of industrialisation which have led to miraculous successes or should they need to find a new and appropriate model of their own? The following analysis will help in one way or another to clarify the reply.

Tracing back to the 1950s we might recall that it was not only Africa which has made some faults, but Asia had also made several bad choices. Though in Asia today, particularly during the period from the mid-1960s since the start of the export-orientation strategy to the financial crisis of 1997-98, most people talked about their success, appraising it as the miracle in development, but when addressing this, they simply forgot about the not-a-few unsuccessful choices the Asians have made such as the heavy-industry-based strategy copied from the former Soviet model, the import-substitution strategy adopted prior to the export-orientation strategy, and the mixed model adopted in India from the 1950s to 1990. The main lesson from these failed choices was that these countries either based their strategies on their subjective expectation or on the conditions not of their available comparative advantages, e.g. the resources to build heavy industries, particularly they overstressed their internal factors and, in some cases, over-expected the assumedly large Soviet aid.

Recent studies of East Asian economies have suggested that only when these countries turned to choose the strategies that have efficiently utilized their comparative advantages that they have been successful. This was clearly illustrated in H. Edward English’s paper entitled “Dynamic Comparative Advantage - A Basis for Industrial Policy” (p. 12) when he pointed out 6 features of the utilization of the basic advantages in South East Asia, including:
Edward English’s finding of “resource intensity” was later further developed by Ross Garnaut and K. Anderson into four enlarged categories as follows:

(i) Resource-based industries with relatively low capital (and high labor) inputs;
(ii) Resource-based industries with relatively high capital (and low labor) inputs;
(iii) Non-resource-based industries with relatively low capital inputs; and
(iv) Non-resource-based industries with relatively high capital inputs.

The above initial findings of “resource intensity” and “resource-based industries” by Edward English, Ross Garnaut and K. Anderson remind us of the utilization and enhancement of the comparative advantages of a nation, particularly a developing one as currently being discussed in this paper. Since these comparative advantages keep changing as the passage of time, they need to be looked in a dynamic process and to be redefined at each stage of development. For instance, the most important production factor has been changed from land and natural resources under the agrarian economy to that of capital under the industrial age, and is likely to be replaced by the knowledge under the new or knowledge-based economy which has been fast and increasingly developed during the last decade or so. Observing the development process of the currently developed countries, these changes have been apparently evident: At the beginning of the 20th Century science and technology made up only from 5 to 20 percent of the total value of their GDP growth; to the 1950s and 1960s this percentage was raised to 50 percent, since the 1980s it continued to rise to 80 percent and over; and currently information technology and knowledge has gradually moved up and in a position to replace the content of science and technology in GDP growth. In the United States, for example, IT has already made up of around 30 percent of the value of their GDP growth. The same
trend is now being developed in Europe, Japan, South Korea and other developed countries.

As far as developing countries are to be concerned, their most important advantages are currently composed of the five crucial factors such as natural resource endowment, labor, capital, technology and the market capacity with the last includes the size of their population and their GDP per capita income or their purchasing power (Dinh, 1999). In the case of a number of Asian nations, these advantages have passed three stages of quality change in accordance with the changes in the three stages of their development during the process of half a century since the 1950s. Under the first stage from the 1950s to the end of the 1980s their industrialization was still at its low level or at the beginning of their take-off, the most important factors in use were natural resources and low-cost labor, and in accordance with this the labor-intensive and natural-resource-intensive industries, particularly export-oriented products such as garments, shoes and toys were developed. During this period, some capital- and technology-intensive industries, mainly in the area of economic infrastructure, such as power, chemicals, telecommunication, electronics, financial and banking services, were developed, but they were small in number and mostly developed on a selected base as the preparation for the second stage.

To the second stage which was projected under the usual terms as “visions” from the 1990s to around the year 2020 by the 5 more developed Southeast Asian countries including Singapore, Malaysia, Thailand, Indonesia, and the Philippines, such factors as cheap labor, natural resources and agricultural products have gradually lost their comparative advantages, while new factors with new advantages as capital and technology have been increasingly developed both in terms of quantity and quality. In parallel to this change, the economic structure has also changed in such way as to increasingly utilize the new advantages in combination with the enhancement of the already available ones. Under these new conditions, the capital- and technology-intensive industries have been increasingly developed, including some more advanced industries and modern services of higher value-added content. This explains why in the economic structure of these countries, the share of
agriculture has dropped sharply, usually from 70-80 to 10-20 percent of GDP, while the shares of industries and services gone up from 10-20 to 30-40 percent, and 20-30 to 40-50 percent or more, respectively. This development proves a new trend of modern industrialization in which the economic structure not just shifts from an agrarian to an industro-agrarian one as it was the case of the classical transformation, but also to a new structure of industry-service-agriculture, or service-industry-agriculture as it occurred in a number of Asian developing economies among which Taiwan is one of the typical cases.

In the new context of globalization and in face of the new or knowledge-based economy, these countries have in recent years paid more attention to the developments of higher human resource and high-tech, especially IT industries to meet with the new requirements of the third coming period of their development whereas they may join as members of the group of developed countries.

All the facts above prove the largest reason behind the success of most of the Asian developing economies, especially the Southeast Asian ones, that is, the industrialization that enhances the dynamic comparative advantages of these economies, and that is also the principal factor leading to our perception on the new Strategy for Industrialization Enhancing Dynamic Comparative Advantage – SIEDCA.

2.2. SIEDCA - The New Model of Industrialisation for Rapid Growth and Sustainable Development

The SIEDCA is supposed to be developed basing on the change from low to high comparative advantages which are reflected in the 5 main and typical pairs of production and market factors, including labor, materials, capital, technology and purchasing power, as presented in Table 2.
Table 2: Pairs of Low and High Comparative Advantages

<table>
<thead>
<tr>
<th>Pairs</th>
<th>Low Comparative Advantages</th>
<th>High Comparative Advantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Simple labor</td>
<td>High quality labor</td>
</tr>
<tr>
<td>2</td>
<td>Traditional materials</td>
<td>New materials</td>
</tr>
<tr>
<td>3</td>
<td>Small and medium capital</td>
<td>Large capital</td>
</tr>
<tr>
<td>4</td>
<td>Appropriate technology</td>
<td>New technology</td>
</tr>
<tr>
<td>5</td>
<td>Low purchasing power</td>
<td>High purchasing power</td>
</tr>
</tbody>
</table>

Of the above five pairs of comparative advantages, the meaning of the first four is quite clear to all economists today. Only the final pair needs some more deliberation because of the misunderstanding due to the over-stress on the internal content of the market of developing economies since the 1960s and the 1970s basing mostly on the size of the population. It has been recognized recently that the determining factor of the capacity of a market is more of the purchasing power than the population size, even though the latter may play an important role. This fact explains why Singapore with a population of roughly three million people has in recent years had an annual trade value of about US$200 billion, as much as twice of the US$100 billion trade value of India whose population is of over a billion people. The reason is that Singapore’s average per capita income already reached US$2700 while that of India is still less than US$400 in which only about 10 percent of the Indian population could afford to buy durable family consumer goods as an average family in Singapore does.

Among the comparative advantages referred to in these five pairs, the low advantages are available as dominant factors in most DEs when their GDP per capita income is below $2000, then the high ones take over the dominant position when DEs’ GDP per capita reached $2000 and over. This evolution of change from low to high comparative advantages suggests in the first place that SIEDCA needs to be carried out in two stages of growth with different emphases at different steps, e.g. enhancing mainly the low comparative advantages during the first stage with an aim to build a Newly Industrialized Economy (NIE), whilst preparing conditions for high comparative advantages to emerge and to be utilized for the purpose of building an Industrialized Economy (IE) at the second stage, which would be followed by the
knowledge-based economy as the post-industrialization stage of development (See Chart 1). Under this pattern of industrialization, SIEDCA may be used as a means to help shorten the industrialization process as Japan, Korea and the other NIEs have done.

Chart 1: Changes of Low and High Comparative Advantages

The second feature of SIEDCA is that it would not be carried out in separate sets of policies of export-orientation or import-substitution, instead it would be implemented through the complementation or combination of export-orientation and import-substitution policies with the former as strategic and long-term, while the latter as short-term and in necessary cases. This is either an alternative to the export-orientation which was heavily biased on external dependency (Hirsh: “bias of hope”!) or the import-substitution which overstressed the internal factors under the structuralist or extremist self-reliant viewpoints. It is a more balanced strategy which reconfirms the long-term decisive role of internal factors with the external as important supplements. In face of the fierce competition and the new developments of globalization, liberalization and informatization, bias on either side, high self-reliance or external dependency, would be equally vulnerable and not sustainable.
III. STEPS, METHODS AND CRITERIA OF INDUSTRIALISATION

3.1. Steps of Industrialisation

There have been to the present time several efforts to identify stages of growth and/or periods of development, but no effort has yet been made to identify steps of industrialisation. This study is one of such efforts aiming to look into the way of industrialised and industrialising countries to find out the steps by which the latter may watch their steps and know at what position or where they currently are and how long they will need to move forward to come to the end that they wanted to, especially whether they would be able to cut short the process of their industrialisation like Japan, South Korea and some other countries in Asia have done. In order to do this we need firstly to learn from the studies that have demonstrated on the area, particularly the theoretical observation by W. W. Rostow on the identification of stages of growth and the practical review by Yoshihara Kunio from Japan, and Kwang Suk Kim & Joon-Kyung Kim from South Korea on the periods of development in these two economies.

In theory, the idea of “Stages of Economic Growth” was raised by W. W. Rostow in his well-known book of the same title which was published for the first time in 1960 and the second time in 1971 where he recommended the five stages of economic growth, including (1) the traditional society, (2) the preconditions for take-off, (3) the take-off, (4) the mature or industrial society (in technological term), and (5) the consumptive or post-industrial society.


Yoshihara Kunio, for instance, divided “The Historical Course of Development” in Japan into 8 periods, including: (1) 1868-1885 - Laying Foundations for a Modern Economic System; (2) 1886-1911 - Economic Take-off; (3) 1912-1936 - Rise of Heavy Industry; (4) 1937-1951 - War and Occupation; (5) 1952-1973 - Post-war Economic Expansion; (6) 1974-1984 - Overcoming the Oil Shocks; (7) 1985-1992 - Recent Economic Changes; and (8) Future Prospects (Y. Kunio, Chapter 1, pp.1-34).
Kwang Suk Kim and Joon-Kyung Kim, in a similar approach as that of Y. Kunio, basing on the practical development of the country, divided the “41 Years of South Korea’s Development (1953-1994)” into 3 periods: (1) 1953-1960 - Reconstruction; (2) 1961-1979 - Export-Oriented, High Growth Strategy of the Park Regime; and (3) 1980-1995 - Structural Adjustment and Growth in Stability.

Though the approaches and results of the division of historical periods by Rostow, on the one hand, and Yoshihara Kunio, Kwang Suk Kim and Joon-Kyung Kim, on the other, differ due to their different ways of perception in which Rostow relied on the Western concept to define the “stages of growth” while the latter bearing in mind the Eastern philosophy referring to the “steps of development”, they all have something in common which may apply to the general steps or stages of industrialization. Being an Asian, the author of this paper prefers to use the term “step”, so five steps of industrialization have been identified as follows:

The first step is the preparation of preconditions for industrialization, most important of which are the building of the market economy characterised by a unified and transferable currency, a free private enterprise, a free labor market, a free price system, a developed capital market and a liberalised trade system; the modernization of the financial and monetary system; the construction of the infrastructure; the formulation and development of modern enterprises; and the application of modern technologies. This period was referred to by W. W. Rostow as stage 2 - the preconditions for take-off; while by Y. Kunio as Period 1 in Japan’s development - Laying Foundations for a Modern Economic System lasting in 17 years from 1868 to 1885; and by Kwang Suk Kim and Joon-Kyung Kim in Korea as Period 1 – Reconstruction prolonged in 7 years from 1953 to 1960.

The second step is the building of the industrial base for the economy, in which the infrastructure continues to be built and upgraded, selected industries are to be developed to serve both internal and external markets, modern technologies and machines, particularly mechanization, electrification and electronics, are to be introduced to facilitate a revolution in industry, agriculture and service, and to raise productivity and efficiency. This period is equivalent to Rostow’s 3rd stage of take-off, Kunio’s 2nd Period of Economic Take-off in 25 years (1886-1911), or a part of Kwang Suk Kim and Joon-Kyung Kim’s 2nd period of Export-Oriented, High Growth Strategy of the Park Regime in 18 years (1961-1979).

The third step is the development of the industrial economy, which is characterized by the transformation of the economic structure with the drop of the
share of agriculture and the increase of the share of industrial production and service, and the alliance between large businesses and political powers. This period is equivalent to Rostow’s 4th stage of the mature or industrial society, Kunio’s 3rd period of the Rise of Heavy Industry in 24 years (1912-1936), or another part of Kwang Suk Kim and Joon-Kyung Kim’s 2nd period of Export-Oriented, High Growth Strategy of the Park Regime.

The forth step is the consolidation and improvement of the developed industrial society which is characterized by adjustment and expansion where policies and measures to overcome cyclic depression and structural crisis, to assure successful competition, to expand market shares, and to develop new technologies and products are to be taken. This period is equivalent to the first part of Rostow’s 5th stage of consumptive society, not yet the post-industrial society, Kunio’s 4 periods from the 4th - War and Occupation (1937-1951), through the 5th - Post-war Economic Expansion (1952-1973), the 6th – Overcoming the Oil Shocks (1974-1984), and the 7th – Recent Economic Changes since 1937 to the present time, or Kwang Suk Kim and Joon-Kyung Kim’s 3rd period of Structural Adjustment and Growth in Stability (1980-1995).

And, finally, the fifth step is the transition from the developed industrial toward the information society which is characterized by the preparation of the preconditions for the information society or the knowledge-based economy, and is reflected in the four following typical features: 1- the transformation from manual to brain labor; 2- from physical to non-physical production, e. g. from Atom – the basic unit of material – to Bit – the basic information transmitting unit – or from “A” to “B”; 3- from close and partial to open and global characteristics; and 4- from large quantity to high value production. This period is equivalent to the latter part of Rostow’s 5th stage of consumptive and post-industrial society, or Kunio’s 8th period of Future Prospects.

The identification of the steps of industrialization basing on the theoretical consideration and the practical experiences by the former comers would help providing a tool for the later comers to identify a clearer vision of their industrialization process, by which they may know where they are and to where they
will progress, would they be able to make a shortcut of their industrialization process to 66 years like the Japanese, 41 years as the Koreans, or will they gradually industrialize in 200 years and longer like the Europeans had done centuries ago?

3.2. Methods of Industrialisation

The history of industrialisation shows that industrial developments have embarked on three main periods: the mechanical, the electrical and the information. During these periods the focus of industrialisation has been changed from heavy industries to electric equipment and currently to information technologies. Though the focuses have changed, they do not necessarily replace each other, instead they complement each other, like traditional technologies could not advance without adopting the new ones or the modern technologies could not be developed without relying on the traditional and fundamental bases. That is why even though today most “modern” economists lay high emphasis on IT industry and along with it the knowledge-based economy, industrialisation in developing countries can not bypass or overlook at mechanisation and electrification, hence the current approaches of industrialisation need to include and associate all the three methods of industrialisation, that is, mechanisation, electrification and informatization. Without such an association, modern industrialisation would not be complete, it would probably on the one hand, pool back and bias on the internal resources or heavy industries as in the case of the inward-looking or heavy-industry-based strategies without efficient mobilisation of available advantages on both the national level and the world at large, or on the other hand, venture too far to new technologies without a solid base of necessary fundamental, traditional and modern industrial infrastructure.

3.3. Criteria of Industrialisation

It will certainly be not the choice of the later comers to prolong their industrialisation. What they want is surely a short-cut way of industrialisation. However, to embark on such a short-cut way, developing nations may easily fall into a voluntarist attitude without practical judgement which looks for fast growth without sustainable development, or even worse, industrialisation without both growth and development as in the case of most African countries where almost no improvement has been made in both quantity and quality and where the economies remain almost the same as agrarian and backward after over half a century of independence and industrialisation. To avoid these imbalances, a set of industrialisation criteria which includes the economic growth, the structural transformation and the protection of the environment has been made in Table 3 to
provide a tool for the evaluation of both the growth in quantity and the change in quality of industrialisation in developing countries. To apply these criteria to the evaluation of industrialisation, one may find the reason that Asia has done better than the other “Third World” regions because it not only gained higher growth in income, but also made better in the transformation of their economic and social structure and in the protection of their environment. In other words, in order to achieve a successful industrialisation, a developing nation needs firstly to acquire a high economic growth, secondly to assure a transformation oriented toward an industrialised structure and a system of social equity, and thirdly to combine these two changes with the protection of the environment, hence combining high growth with sustainable development. This latest development – *the combination of high growth with sustainable development* – has become the new objective of modern industrialisation and/or the criteria or standards for the evaluation of the success or failure of the industrialisation cause of a later comer country.
### Table 3: Criteria of Industrialisation

<table>
<thead>
<tr>
<th>Number</th>
<th>Criteria</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Growth</strong></td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>GDP Growth (%)</td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>Total GDP (US$)</td>
<td></td>
</tr>
<tr>
<td>1.3</td>
<td>Growth of GDP per capita (%)</td>
<td></td>
</tr>
<tr>
<td>1.4</td>
<td>Real GDP per capita (US$, average)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td><strong>Structural Transformation</strong></td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>Sectoral structure (Industry-Service-Agricultue)</td>
<td></td>
</tr>
<tr>
<td>2.2</td>
<td>Industrial structure (manufacture and non-manufacture)</td>
<td></td>
</tr>
<tr>
<td>2.3</td>
<td>International integration (Export-Import/GDP)</td>
<td></td>
</tr>
<tr>
<td>2.4</td>
<td>Export structure (manufacture and non-manufacture products)</td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>Labor and population structure (Industry-Service-Agricultue)</td>
<td></td>
</tr>
<tr>
<td>2.6</td>
<td>Regional structure (Urbanisation)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td><strong>Sustainable development</strong></td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>Social equity (Income Gap)</td>
<td></td>
</tr>
<tr>
<td>3.2</td>
<td>Poverty Alleviation (Population under poverty line)</td>
<td></td>
</tr>
<tr>
<td>3.3</td>
<td>Unemployment</td>
<td></td>
</tr>
<tr>
<td>3.4</td>
<td>Education (General, High education and job training)</td>
<td></td>
</tr>
<tr>
<td>3.5</td>
<td>Life Quality (Average life span at birth)</td>
<td></td>
</tr>
<tr>
<td>3.6</td>
<td>Political, Social, Economic Environment</td>
<td></td>
</tr>
<tr>
<td>3.7</td>
<td>Institutional Capacity</td>
<td></td>
</tr>
<tr>
<td>3.8</td>
<td>Natural Environment (Destruction and Recovery)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td><strong>Reference Criteria</strong></td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td>Total Factor Productivity (TFP)</td>
<td></td>
</tr>
<tr>
<td>4.2</td>
<td>Human Development Index (HDI)</td>
<td></td>
</tr>
<tr>
<td>4.3</td>
<td>Nework Readiness Index (NRI)</td>
<td></td>
</tr>
<tr>
<td>4.4</td>
<td>Competitiveness</td>
<td></td>
</tr>
</tbody>
</table>
IV. ASIAN EXPERIENCES OF INDUSTRIALISATION

4.1. Preparation of Preconditions for Take-Off

For a developing country at her early stage of industrialisation where the take-off and/or other steps have not yet come, the preparation of preconditions for industrialization is a necessity. The difference between a good or a bad preparation will result in a right or wrong track of industrialization that a country embarks on. The same thing has occurred to Japan, South Korea and Vietnam at various stages of their industrialisation.

In the case of Japan, the preparation of preconditions for take-off started in 1868 and prolonged 17 years to 1885 under the Meiji Era with the main task as Professor Yoshihara Kunio described as the “laying foundations for a modern economic system” which was characterized by a two fold feature, including the first set of activities reflected in the break-out of the old feudal regime through the destruction of the fetters of feudalism and the transition into a new economic age on the one hand; and the second set of activities reflected in the setting-up of a political integration system from the decentralized Tokugawa regime and the building of a modern capitalist economic system from feudalism on the other. The most important policies and measures implemented in the second set of activities included:

- The modernization of the monetary and fiscal system through the tax reform in which the old regime of “tax in kind” was replaced by the modern monetary tax, the setting of the yen as the basic monetary unit, and the building of the central bank (Bank of Japan);
- The recognition of private properties under which taxpayers became the legal owners of property;
- The development of education;
- The adoption of modern Western technologies by importing machines and inviting foreign technicians to Japan;
- The building of the infrastructure including railways, sea transportation, and the modernization of the communication network;
- And the development of modern enterprises, including joint-stock companies.
The introduction of those policies and measures were considered as the preparation of the preconditions for the successive period of “economic take-off” to follow in Japan from 1886 to 1911.

In South Korea the preparation of preconditions for industrialization or take-off took place in a much later period, from 1953 to 1960, under the post-war reconstruction policy. During this period the South Korean Government adopted the import-substitution strategy under which three main sets of policies were carried out through the building of the infrastructure, including roads, ports, airports…; the implementation of the stabilization policy, particularly the stabilization of price, the control inflation (resulting in the reduction of inflation from 531% in 1951 to 30% in 1956), the replacement of the multiple exchange rates by a single market rate, the increase of the interest rates in an attempt to raise the low level of investment which was around 10% of GNP, the reduction of money supply from 62% in 1955 to 20% in 1957; and the construction of selected infant industries which were protected under the regime of high tariffs and quantitative restrictions.

During this period, South Korea was provided with massive foreign aid by the United States and the United Nations which was raised from US$330 million during the 1950-52 period to $1,745 million of US official aid and $120 million UNKRA aid (UN Korea Reconstruction Agency) for the 1953-1960 period. Most of the aid was in the form of grant and implemented under the 4 categories of non-project, project, technical support and PL480 food aid. A large part of Korea’s imports (70%) was financed by aid. Over half of the Korean Government expenditures was also covered by aid through 3 categories: compensation for the reduction of money supply (through the counterpart funds); supports for defense activities; and financing of the reconstruction programs.

As a result, Korea enjoyed an average economic growth rate of 4% a year, increased the value-added manufacturing sector, mainly light industries, processed food and textile, from 8% of GNP in 1953 to 14% in 1960, reduced the share of agriculture from 47% GNP in 1953 to 37% in 1960. All of these became the very important bases for Korea to embark on the following period of 1961-1979.
characterized by the Export-Oriented and High Growth Strategy of the Park Administration.

A recent case of the preparation of preconditions for industrialization to be referred here is the case of **Vietnam** whose transformation has been characterized by the three tough transitions which occurred all at one time in a small and weak economy: from a war-torn to a peace-time reconstruction economy, from a centrally-planned to a market economy, and from an agrarian to a basically-industrialized economy. The period of “preparation of the prerequisites for the proceeding period of development” in Vietnam was projected to be carried out in the five-year plan from 1986 to 1990, but in fact until 1996 it was formally recognized that “initial achievements” were made which meant that the socio-economic crisis in Vietnam was over and the new stage of industrialization now started. During the preparation period, four main sets of policies were adopted, including the recovery, stabilization, the development of the multi-sector commodity economy, and the opening of the economy to the outside world or international and regional integration.

Implementing the first set of policies concerning **the recovery** from the war-torn conditions and the crisis aftermath, three important programs of food production and food processing, consumer goods production, and exports production were launched. The main measures carried out under these programs were the contract system in agriculture, the gradual reduction of subsidies, the expansion of the autonomy of industrial enterprises’ (mostly State-own enterprises), and the promotion of exports.

In regards of **stabilization**, numerous measures were taken such as the control of inflation through the positive interest rate policy, the reduction of money supply, and the “basket” policy of price, wage, and monetary changes. These policies first failed twice in 1981 and again in 1985 due to their “big bang” and hasty manner or due to the poor preparation, but later turned out very good results, particularly since the beginning of the 1990s thanks to the new approach of step-by-step and flexible adjustments.
The third major policy relates to the development of a *multi-sector commodity economy* which was understood as the “first step” of advancing toward the *market mechanism*, then the “*socialist-oriented market economy*” adopted in the succeeding period of 10 Years Social-Economic Development Strategy and industrialization of the 1991-2000 period and later on.

The forth set of policies was the *opening of the economy* for trade, foreign investment, and regional and international cooperation. The main measures implemented under this policy was the issue of the Foreign Direct Investment Law in 1987 and the diversification and multilateralization of directions and forms of foreign economic relations. The goal of this policy was to reverse the loss of traditional markets of the former Soviet Union and East European countries, the recapture of the regional market of Asia and the Pacific, the lift of the US economic embargo and the normalization of relation with the United States, and the expansion of Vietnam’s international economic relations as a whole.

The implementation of these policies brought Vietnam important achievements such as the overcome of the socio-economic crisis, the survival from Soviet aid cut and US economic embargo and sanction, the relatively high growth rates of 8-9% a year during the first half of the 1990s, the change from food and consumer goods shortage into surplus, particularly from the imports of a million tons of food a year to the exports of 3 million tons of rice a year, the drastic reduction of inflation from around 800% in the mid of the 1980s to 5% in recent years, the transformation of the economic structure oriented toward industrialization with the share of the industrial and service sectors rising from 60% to 75% of GDP while that of agriculture dropped from 40% to 25%, the increase of domestic capital savings from 10 to 25% of GDP, the development to certain degree of the markets for commodity, labor and capital, the improvement of the living conditions of the people with the increase of the GDP per capita from less than US$200 to nearly $400 in ten years, the expansion of trade with exports raised from half a billion US dollars a year in the mid of 1980s to nearly $20 billion by the year 2003 and imports of over $20 billion, the growth of FDI from almost non in the end of 1980s to $3 billion a year by the end of 1990s, the reception of about $2 billion a year of foreign aid, and the remittance of about $4 billion a year by overseas Vietnamese and Vietnamese
working abroad. Vietnam’s integration into the Southeast Asian and the Asia-Pacific region has been impressively developed with the latter currently makes up of 70-80% of Vietnam’s total foreign trade and FDI. Vietnam’s normalization with the United States was made in 2001. And Vietnam’s joining the World Trade Organization (WTO) is likely to be set up by the year 2005. These are the positive preconditions for Vietnam to take off, though challenges and difficulties are still numerous.

The three examples of Japan, South Korea and Vietnam which represent the three generations of industrialization in Asia suggest two points:

First, though the preparations in one country vary from the other, there are certain common areas that each country needs to do. Those are: (1) the setting up of both hard and soft infrastructures; (2) the development of various markets for commodity, capital and labor; (3) the building of selected industries; (4) the adjustment of macro-economic policies, particularly the policy of stabilization; (5) the opening of the economy to the outside world to benefit from the integration and globalisation processes; and (6) the preparation of a healthy, well-educated and skilled human resource. Though the last issue was not discussed above, it was in fact highly developed thanks to the traditional Asian culture and the continuing efforts during the period of preparation. Prior to the industrialisation process in these countries the number of educated people already made up 70-80% of their population out of which a large part was of high business skill level.

Second, the Asian experiences showed that there has been almost always a period of preparation in each country of Asia before they really embarked on the take-off or industrialization process. This requirement of precondition preparation has become an objective necessity for a developing nation to industrialize, without which the nation would probably be impossible to successfully advance to the take-off period or to embark on the path of development to become a Newly Industrialized Country (NIC), because of the very high criteria for a less developed country to become a NIC.
4.2. Factor Developments

4.2.1. Capital Formulation

Capital is the Number 1 factor for industrial production. The two major sources that helped Asia to quickly mobilize its capital are the high domestic savings and the large inflows of foreign capital through FDI and borrowings. The first was made by the self-help efforts or the good savings habit of the Asian people, the proper monetary policies of the governments, particularly the low taxes, the positive interest rates and the credibility of the banks which aroused people to save. The second was acquired mainly through the implementation of the foreign investment laws and the rapid capital-market liberalization policy. Under the inward-looking strategies, the internal resources were over-emphasized, while under the outward-looking strategies the external resources gained higher weight. To date, the internal resources have been recognised in principle as the decisive factor, while the external resources as important, but in practice the real role of each kind of the factors varied according to the policies adopted by each Government, and in not a few cases imbalances occurred leading to imbalanced developments which called for proper decisions and adjustments.

Tax is one of the most crucial instruments for the Governments in all market economies. Its roles however vary depending on the specific needs of the countries that use it. In developed countries where the level of development and the income of a large part of the population are high, the need for social welfare becomes a pressing issue, the high tax policy is supported. However, in most developing countries of Asia, social welfare is something still far ahead because of their low level of income. The most intermediate concern of the people in these countries is high growth and high savings which are inter-related. The low tax policy is therefore welcome as an important source of high savings and, thus, high growth. In most of the Asian developing countries corporate taxes often range from 20 to 25 percent while personal income tax rates are from 30 to 40 percent compared to 40-50 percent and over in developed countries. Table 4 shows the best proofs of the effects of the low personal income tax rates in Asian developing economies compared to the high tax rates in the developed world: fast-growing Asian countries tend to have lower
tax rates than industrialized slow-growing Western nations. The logic is lower taxes, lower social welfare, higher savings, higher growth; higher taxes, higher social welfare, lower savings, lower growth. The choices and priorities lay in the hands of each nation at each stage of its development.

**Table 4: Personal Taxes in Selected Asian and Western Countries**

<table>
<thead>
<tr>
<th>Country</th>
<th>Maximum personal tax rate (%)</th>
<th>Level at which maximum rate applies (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hong Kong</td>
<td>15</td>
<td>051,000</td>
</tr>
<tr>
<td>Singapore</td>
<td>30</td>
<td>272,000</td>
</tr>
<tr>
<td>Malaysia</td>
<td>32</td>
<td>059,000</td>
</tr>
<tr>
<td>Indonesia</td>
<td>35</td>
<td>023,000</td>
</tr>
<tr>
<td>Philippines</td>
<td>35</td>
<td>020,000</td>
</tr>
<tr>
<td>Thailand</td>
<td>38</td>
<td>160,000</td>
</tr>
<tr>
<td>Taiwan</td>
<td>40</td>
<td>128,000</td>
</tr>
<tr>
<td>South Korea</td>
<td>48</td>
<td>080,000</td>
</tr>
<tr>
<td>Japan</td>
<td>65</td>
<td>206,000</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>35</td>
<td>001,468</td>
</tr>
<tr>
<td>Pakistan</td>
<td>40</td>
<td>098,000</td>
</tr>
<tr>
<td>India</td>
<td>41</td>
<td>003,200</td>
</tr>
<tr>
<td>New Zealand</td>
<td>33</td>
<td>019,000</td>
</tr>
<tr>
<td>US</td>
<td>40</td>
<td>250,000</td>
</tr>
<tr>
<td>Britain</td>
<td>40</td>
<td>039,000</td>
</tr>
<tr>
<td>Australia</td>
<td>50</td>
<td>037,000</td>
</tr>
<tr>
<td>France</td>
<td>58</td>
<td>054,000</td>
</tr>
</tbody>
</table>

*Note: Estimation from the Chart.*

*Source: FEER, Nov. 24, 1994, p.48.*

Thanks to the proper policies of the Governments and the good savings habit of the people, from the 1950s to the 1990s many of the Asian developing countries were able to raise the share of their savings from 10 to 30-40% or even in some cases 50% of their GDP – the highest level in the world. As it is illustrated in Table 5 the US and German savings rates are lower than any of the Asian countries selected for comparison.
Table 5: Gross Domestic Savings as % of GDP  
(selected countries, 2000)

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>14</td>
</tr>
<tr>
<td>Germany</td>
<td>23</td>
</tr>
<tr>
<td>Japan</td>
<td>27</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>31</td>
</tr>
<tr>
<td>South Korea</td>
<td>32</td>
</tr>
<tr>
<td>Thailand</td>
<td>33</td>
</tr>
<tr>
<td>Malaysia</td>
<td>46</td>
</tr>
<tr>
<td>Singapore</td>
<td>49</td>
</tr>
</tbody>
</table>

Note: Estimation from the Chart.

Sources: - ADB, IMF, Recited from FEER, May 25, 2000, p.66. See also Gross domestic savings as percentage of GDP in 20 years (1975 and 1993) of Asian countries (including Hong Kong, Taiwan, South Korea, Singapore, China, Indonesia, Malaysia, Philippines, Thailand, India, Nepal, Pakistan, Sri Lanka), FEER, Nov. 24, 1994, p.46.

In fact, Asia’s high domestic savings has become the largest source of capital mobilization. It has greatly contributed to the high economic growth of many countries in the region, it has therefore been recognized as the largest engine of growth in Asia.

The second large source of capital mobilized in Asia is foreign direct investments (FDI) and borrowings. This part will discuss about foreign borrowings, FDI will be dealt with in a later part. In fact, foreign borrowings did positively contribute to the Asian economic growth during the initial period of industrialization from around the 1950s to the first half of the 1990s when there was a real need of this capital in the countries of the region because of the low domestic savings rate at the time.

To the second half of the 1990s, the situation had changed, most of the countries were able to raise their domestic savings to a level basically sufficient to their need, so a large amount of foreign capital mobilized as a result of the easy access to foreign capital under the rapid capital-market liberalization imposed by outsiders turned out to be over-invested, becoming a bubble and bursted due to its
misuse. *Joseph Stiglitz*, the 2001 Nobel Prize winner, in a paper written in 2002 called this “East Asia crisis, a disaster for which the US Treasury Department is at least partly to blame.” According to him, the US “Treasury, in conjunction with the IMF, encourage rapid capital-market “liberalization…”, the opening of underdeveloped markets to the onslaught of highly speculative investment, which can move in and out overnight and leave economic devastation in its wake. With the high savings rate in the East Asian countries there was no need of them to open up rapidly; those countries, in other words, had enough domestic capital for productive investment to make the need for an influx of foreign capital less urgent…Indeed, the overwhelming evidence…is that rapid liberalization is extremely risky for developing countries [emphasis – Dinh]. Treasury ignored this evidence and pushed for faster liberalization. It won – and the world lost. Having in large part created the East Asia crisis, Treasury and the IMF… “the crisis was largely the result of the overzealous market promoted by Treasury and IMF”. No more comment is necessarily to be made after those wise words by *Joseph Stiglitz*.

4.2.2. Technology Transfer

Conventional technological change has often been developed through two steps: innovation and diffusion, with the first step of initial development and commercialization of innovations concentrated heavily in industrial countries, and the second extended to developing countries normally when innovations were widely applied throughout the world.

In Asia a limited level of technology development has been made just recently and concentratedly in a few countries like Japan and Korea where the economic and technological bases and/or infrastructure reached the developed countries’ level. Beside that, most of the change in technology has so far been diffused through the transfer and adoption of imported technologies. The diffusion of technologies to developing countries in Asia has been carried out in two stages: (a) adoption, including incorporation and adaptation of original technologies, and (b) post-adoption in which the original technologies and its initial efficiency were raised and modified to conform the changes in inputs and product markets.
Psychologically, most Asian developing nations prefer to acquire modern technologies. However, in practice they have been quite aware that it would be very difficult to do so, because firstly the developed countries often keep new technologies for themselves and do not want to transfer them to developing countries until those technologies no longer bring them super-profits, and secondly there have been not sufficient capacities and facilities in developing countries to adopt those technologies at their initial stage. Developing countries’ main choice has therefore usually been the “appropriate” technologies. But the term “appropriate” is vague and confused as it is not clear whether with that kind of technologies developing countries may be able to move forward to advanced technologies, or stay long with and trapped in the old, backward and polluted technologies. The Asian relatively successful countries like Korea and Malaysia have proved that even though we have to accept the old, backward and polluted technologies sometimes and mostly short time, there is a need of policies to contain those technologies and to encourage the advanced ones.

The vehicles for technology transfer to developing countries vary from time to time. As the Asian experiences have shown, during the initial stage of industrialization when the local entrepreneurship and the infrastructure, including both hard and soft, was poorly developed, the best way for developing countries to acquire foreign technologies, among other things, is to set up export processing zones (EPZs) and industrial zones (IZs) where better facilities are concentratedly built, and to attract foreign direct investments (FDI), particularly joint ventures, because these investments often bring new technologies to the countries where they locate. To the later periods when the general infrastructure and the technology adoption capacities of developing countries were better developed throughout the country, other forms of technology transfer may be additionally promoted, including the Build-Operate-Transfer (BOT), the Build-Transfer (BT), the unpackaged modes of transfer (subcontracts…), and the High-Tech Parks. International agencies like the UNDP, UNIDO, the sending of local personnel to be trained in developed countries also play important role in the development of new technologies in developing countries. Other forms of technology transfer as the setting up of technological
alliances among developing countries or the South-South transfer have been promoted, but so far yielded not high fruits.

In order for developing countries to acquire new technologies the roles of both the Governments and firms are equally important, especially in the evolution of the four continuous stages through (a) the accumulation of skills and know-how in new coming processes; (b) the intensive accumulation of knowledge, skills and experiences for incremental changes; (c) the improvement of available technologies; and (d) the introduction of new kinds of technologies or innovations.

From the Asian experiences the success or failure of technological accumulation in developing countries depends largely on the following key factors:

- The ability in acquisition of foreign technologies;
- The investment in education, training and research;
- The economic incentives for innovation and imitation;
- The continuous growth of demand;
- And the institutions and policies designed to encourage firms to technological accumulation.

The success in the process of technology transfer and development has been one of the most crucial factors for Asian countries come to the success in their industrialization.

4.2.3. Labor Improvement and Utilization

Asian labor has been highly appreciated for its salient features of high investment for education and hard work. The share of around 80% to 90% of their population having been educated proves the outstanding job they have done to improve the knowledge and know-how of their people in comparison to the related developments in Africa and Latin America. However, they are still in a very much lower position compared to the very well and highly educated and skilled labor in developed nations. In a world of globalization where developing nations have lower comparative advantage concerning their lower level of educated and skilled labor,
working hard is one of the advantages helping them to fill the gap between themselves and the developed nations. *Table 6* explains how much the difference between the working hours per year and the paid holidays of the workers in selected cities of Asia and Europe and how much that the Asians work harder and enjoyed less than their developed counterparts. This work ethic is a very important element in the high economic growth and the fast industrialization of Asian countries.

### Table 6: Annual Work Hours and Paid Holidays of Selected Asian and European Cities

<table>
<thead>
<tr>
<th>City</th>
<th>Working hours per year</th>
<th>Paid holidays</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asia:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seoul</td>
<td>2,302</td>
<td>7.8</td>
</tr>
<tr>
<td>Bangkok</td>
<td>2,272</td>
<td>8.8</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>2,222</td>
<td>12.1</td>
</tr>
<tr>
<td>Taipei</td>
<td>2,136</td>
<td>17.0</td>
</tr>
<tr>
<td>Singapore</td>
<td>2,044</td>
<td>17.7</td>
</tr>
<tr>
<td><strong>Europe:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copenhagen</td>
<td>1,669</td>
<td>25.0</td>
</tr>
<tr>
<td>Dusseldorf</td>
<td>1,682</td>
<td>30.5</td>
</tr>
<tr>
<td>Madrid</td>
<td>1,721</td>
<td>32.1</td>
</tr>
<tr>
<td>Frankfurt</td>
<td>1,725</td>
<td>31.2</td>
</tr>
<tr>
<td>London</td>
<td>1,880</td>
<td>22.1</td>
</tr>
</tbody>
</table>

*Note: Estimation from the Chart.*
*Source: FEER, Nov. 24, 1994.*

As the industrialization process moves on, the migration of labor from rural areas to the cities increases and the mobilization of labor force for industrial production expands, the main concerns of labor-market policies have been the protection of the low income groups (particularly the minimum wage setting), the security of workers’ jobs (job security), and the guarantee of the living conditions of the people (social security). The main aims of labor-market policies are therefore to raise the welfare of the people, to reduce exploitation and to improve labor quality and productivity.
Though these objectives have been commonly agreed upon, there has been wide disagreement about the value of institutional interventions in developing countries’ labor markets. The World Bank’s argument is, for instance, that intervention measures such as wage regulations, mandated contributions to social funds, job security and collective bargaining, are the “distortions” in an otherwise ideal world (and because of this they were identified as “distortionists”). According to this viewpoint, interventions are major impediments to the resources allocation, structural adjustments and stabilization programs, which result in sizable costs for economic and social development.

The ILO “institutionalists” on the other hand protected the “benefits of interventions” as they saw regulated markets adjust better than unregulated markets to shocks. They proposed the tripartite (unions, businesses, governments) consultations and collective bargaining.

Asian experiences have suggested a more empirical than theoretical perspective: regulation or not depends largely on the specific requirements of the economic and social developments, rather than on theory. That is why most Asian countries at the initial stage of their industrialization adopted the minimum wage regulations, and not the mandated contributions to social funds. In the case of South Korea, for example, the tripartite consultations never appeared on the agenda of their labor market policies until the 1997-98 financial crisis when the lay-off of workers was allowed, leading to serious labor disputes, because prior to the crisis workers’ jobs were secured, so there was no need of such consultations.

Richard B. Freeman (1992) was right when he stressed the need for study of specific interventions and institutions before generalizations.

4.2.4. Foreign Trade, Investment and Aid

In Asia, trade, investment and domestic savings have been recognised as engines of growth, not aid. ODA is, though important, just an assistance in itself. Many Asian DEs got large aid during the 1950s and 1960s, such as South Korea, Taiwan, Thailand, Indonesia, Vietnam (both North and South), among the others,
but did not grow well in those years. Only when their foreign trade, investment and domestic savings grew, greatly bypassing aid, their economies grew. Aid dependency in the case of South Vietnam from the 1950s to the mid-1970s was a disaster: it boosted bureaucracy, discouraged business, destroyed traditional industries while did not help developing the new ones, it damaged agriculture, turning the country from a large food surplus producer and food exporter in Indochina during the 1930s-1940s into a country of serious food shortage and a large food importer in the 1960s-1970s. The South Vietnamese economy became a negative-growth-aid-dependency economy during the whole period of 25 years under the US rule. Africa today looks somewhat similar to Asia decades ago concerning these matters. Re-orientation of the development of trade, investment, domestic savings and aid, and recapture of their proper role in growth and development is very important for the implementation of industrialisation policies.

Today though most developing countries have recognised the important role of trade, investment and domestic savings as the driving forces for development, not a few countries, particularly the later comers in Africa still rely heavily on aid, hence continuing lagging behind. So there is a need for the re-orientation of the utilisation of aid as an important and supplement source for growth and development. In accordance with this, aid priorities should be redirected from their current political-social-environmental bias (democracy, human rights, charity, poverty, gender, environment) to **economic growth first** to meet the current most important needs, rather than the other way around. In other words, **ODA should be used as incentives to promote exports, investments and savings**, and limiting imports of consumerr goods, particularly those commodities being or to be able to be produced internally, instead of focusing on election and human rights which encourage instability and terrorism. Without doing this, DEs’ economy will continue to be poorly performed, resulting in low growth and failure to pay debts, thus aid dependency, low growth and debt crisis become a vicious circle without escape. Relying on aid to reducing aid dependency is the right philosophy to choose.

In Asia, Japan and South Korea had been the typical cases of utilising foreign aid for the purpose of economic growth at the initial stage of their industrialisation,
and as a heritage from their past, today when they have become aid providers, they usually use their aid for the purpose of economic growth first.

Vietnam is to be referred here as one of the latest cases in Asia that has been able to reorient her economy from an aid dependency toward a trade- and investment-driven growth in which trade and investment have become actual engines of growth. It is still recalled today in Vietnam that during the long period of the US domination in the South from the 1950s to the mid-1970s, plus 20-years of the US aftermath embargo up to the first half of the 1990s (four decades and a half all together), the Vietnamese economy, including both parts North and South, was nearly totally dependent on foreign aid, either from the former generous Soviet Union or the US. But since the beginning of the 1990s up to the present time, new efforts of renovation and opening policies have raised the value of exports and FDI to over 10 times larger than that of aid (over US$20 billions of exports and FDI compared to about $2 billions of ODA). Aid is now around 5% of Vietnam’s GDP, or $2 billion of aid over $40 billion GDP, roughly speaking. Though aid is still a challenge for Vietnam since it relates much to the “debt trap” that one day Vietnam may fall in, one thing possible to identify is that the economy is no longer defined as an aid-dependency one, and thanks to that it has grown with a much higher rate than that achieved during the aid-dependency period.

The above developments in Japan, Korea and Vietnam show a big difference compared to many African countries where aid has normally made up 15% of their GDP and nearly half of their Government budgets, almost equal to their exports and about 5 to 7 times larger than their foreign direct investments, which led to their inability to pay and to develop, and to the only solution of HIPC (Heavy Indebted Poor Countries) where debts have been and are continued to be waived.

4.2.5. Regional and International Integration

One of the important contributions to industrialisation in Asia is the regional and international cooperation which has developed a convenient and dynamic environment for development. Among the regional organizations that have been set
up in Asia, including the Asia-Pacific Economic Community (APEC), The Association of Southeast Asian Nations (ASEAN), the Mekong Committee, and others, ASEAN has been seen as one of the most successful and typical cases of DCs’ regional cooperation, not only because of its long existence since 1967, and its expansion of membership from 5 to 11, but mostly because of its proper way of integration. The achievements of ASEAN’s integration have thus far not much been large in quantity (e.g. it tackles only about 2% of its total trade value), but it has been able to maintain regional stability for development, to proceed with the unity in diversity, to formulate a common stance (e.g. ZOPFAN – Zone Of Peace, Freedom And Neutrality) and principles to solve disputes and to avoid splits (e.g. consensus); to carry on a broad range of regional cooperation programs and projects in almost all areas of development from political to economic, social, technological, environment and other issues. In the field of economic development, for instance, cooperation has been developed in trade (PTA - Preferential Trade Arrangement), industry (AIPs – ASEAN Industrial Projects, AICs – ASEAN Industrial Complementarities, AIJVs – ASEAN Industrial Joint Ventures), agriculture, basic commodities, finance and banking, transport and communication, coordination in external economic relations or regional “collective diplomacy”, and most recently in the establishment of AFTA – the ASEAN Free Trade Area, AIA - the ASEAN Investment Area, and the preparation of conditions for the setting up of the ASEAN Community by the year 2020.

Concerning AFTA, various approaches have been identified to solve difficult problems such as the different lists of the Common Effective Preferential Tariffs (CEPT) Scheme including 1-the Inclusion List (IL) which covers most low tax and easy-to-be applied items, 2-the Temporary Exclusion List (TEL) which makes up mainly of items that may negatively hit members countries’ industries in certain periods of time, 3-the General Exception List (GEL) which includes harmful items such as narcotics, explosives, military equipment, cultural products harmful to education and social security, exotic chemicals and pharmaceuticals, and wastes; and 4-the Sensitive Exception List (SEL), including non-processed agricultural products as meat, eggs, rice, alive animals.
AFTA has proved to be a new and better scheme compared to all prior-AFTA Programs and Projects. It has helped ASEAN member countries to expand their play-field, to enlarge their markets, to attract larger and more diversified sources of foreign investment, to facilitate production and to promote competition and complementation. AFTA which covers a group of 11 countries of 500 million people with a purchasing power of $1,300 billion, trade value of over $720 billion, a GDP of roughly $750 billion has really created greater and greater opportunities for member countries than any separate member nation can do. After nearly 10 years of AFTA implementation, an increasing number of products of member countries has been found more competitive, particularly the labor-intensive and natural resource-based products including rice, coffee, marine products, rubber, textile and garments, and even certain new high-tech products such as electronics.

AFTA has, however, faced not a few challenges such as the hard competition that led member countries to adjust some of their committed lists of items like Malaysia adjusted automobile parts; Indonesia raised petrochemical tariffs and seven other products from 5% to 25%, 30%, 40% 1997, and promised to lower them to 5% in 2003 when AFTA is to be effective, due to inappropriate taxes in previous years; or Vietnam found negative impacts on some of their products that led to the 1997 temporary ban of nine types of goods, including construction steel, paper, cement, glass, beer, soft drink, motorbike, and passenger car with less than twelve seats, which were complained by the Malaysian companies that the decision made them lose about US$248 million from contracts signed with Vietnamese counterparts.

Other problems are the competition for foreign capital and the unequal levels of development of member countries, particularly the differences between the two groups of ASEAN-6 (Brunei, Singapore, Malaysia, Thailand, the Philippines and Indonesia), which has moved on to the second step of industrialization, and ASEAN-4 (Cambodia, Laos, Myanmar, Vietnam), which is still at its initial stage of industrialization. This situation suggests the approach of competition along with complementation.
Though there remain problems, one may clearly see that ASEAN has set itself on the right track of integration which has become one of the most important pushes for their advance compared to other DEs’ regional groupings. The piecemeal or gradual approach from the stage of separate project or program cooperation under the PTA Arrangement to the AFTA general framework, and the likely coming ASEAN Community, has confirmed that ASEAN upgrading process has been developed in conformity with the common trends of the world’s principal stages of regional integration, including:

(i) The Preferential Tariff Arrangement (PTA);
(ii) The Free Trade Area (FTA);
(iii) The Custom Union (CU);
(iv) The Common Market (CM); and
(v) The Economic and Monetary Union (EMU).

Mary Jo Nicholson, Legal Aspects of International Business, p.67).

Though ASEAN is still in a lower level of integration compared to that of the European Union (EU) which has been the only regional grouping that reached the last and the highest stage of the above five main forms of regional integration, it has passed the first stage to the second and is currently attempting to advance to the third stage. This proper way of advancement has in fact made ASEAN successful and is likely to bring larger gains to ASEAN both as a collective group and as individual countries in the coming future.

4.3. Poverty Alleviation along Equity Development

4.3.1. Combination of High Growth with Sustainable Development – The New Objective of Industrialisation

This question is raised because of the wide range of changes and imbalances often accompanied the process of industrialisation, including the transformation of the economic structure, the differentiation of social strata, the widening gap of the urban and rural areas, the degradation of the environment, and others. The answer to this question helps defining the pattern of industrialisation, thus the solutions to the imbalances and changes brought about by industrialisation.
If industrialization followed the growth pattern set by conventional economic theorists it naturally follows what is often identified as the “pyramid growth” or the “trickle-down” theory which concentrates on economic growth or “figures count” meaning mainly the GDP growth rates or GDP per capita income, neglecting the social dimensions, hence growth in imbalances. If it followed the narrow concept of social equality or egalitarianism it certainly lays high emphasis on the redistribution of income rather than on economic growth, hence industrialization without growth. In some Asian developing economies these two extremes have merged during the process of socio-economic development, in which social imbalances have been overcome through the association of economic growth with social equity. In other words, growth has been made not just for growth itself whose single largest and ultimate aim is maximum profit, but also to improve the social benefits, to reduce poverty, to increase the living standards, to ensure health care, to develop education, to enhance the quality of life, and in turn social benefits have become motivations for further growth. Since the 1990s, a new concept of sustainable development was developed to cover not only economic growth and social equity, but also the protection of the environment being damaged by industrialization. This latest development - the combination of high growth with sustainable development has thus become the new objective of industrialization.

Though the trend of socio-economic development has been increasingly developed and recognized, it has not been equally understood and adopted by every country or organization. In the socialist-oriented countries, for example, the social dimensions have been highly addressed, whereas in the non-socialist-oriented ones higher economic growth has been their favor, even though both kinds of countries have formally stated to follow the market economy or being in transition toward the market economy.

The same situation has also taken place in international organizations. UNDP seems to have been the one most favored of the pattern of socio-economic development. The World Bank has changed its focus from mainly economic growth
to social-economic development,\textsuperscript{1} while the IMF on the other hand continues to stick to the market economic principles, paying little concern to social matters, and is even skeptical about equity.\textsuperscript{2}

Adopting the pattern of socio-economic development, many Asian countries have managed to maintain a high average annual growth rate of 8-9\% throughout a long period of half a century since the 1960s to the present time while having been able to reduce the difference in income between the top and the bottom 20\% of their population from over 20 times to 4-5 times during the same period. This is really a big achievement compared to Latin American and African countries where the gap between the two groups still remain as much as 30-40 times, and being the same as it was five decades ago. The typical examples of this socio-economic development in Asia have been Japan, South Korea and Taiwan decades ago, and Vietnam, China in recent years.

The increase of income and the improvement of the living conditions in Asian countries have greatly contributed to the improvement of their quality of life, particularly the extension of their life expectancy – the most general indicator of the quality of life. As it is shown in Table 7 life expectancy has been risen in all Asian countries, particularly in Japan and Hong Kong where life expectancy is already higher than the levels in Western countries like the United States, Britain and Germany.

\textsuperscript{1} The WB Development Report, 1990, addressed 3 crucial areas of development, including economic growth, human capital development, and the social safety-nets.

\textsuperscript{2} One IMF publication questioned: “Should Equity Be a Goal of Economic Policy?” IMF Fiscal Affairs Department, 1998, Economic Issues No. 16.
Table 7: Life Expectancy in Asia

<table>
<thead>
<tr>
<th>Country</th>
<th>1977</th>
<th>1992</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>74*</td>
<td>79</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>72</td>
<td>78</td>
</tr>
<tr>
<td>Singapore</td>
<td>71</td>
<td>75</td>
</tr>
<tr>
<td>Taiwan</td>
<td>71</td>
<td>75**</td>
</tr>
<tr>
<td>South Korea</td>
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<tr>
<td>Malaysia</td>
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<td>71</td>
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<tr>
<td>Thailand</td>
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<td>69</td>
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<tr>
<td>China</td>
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<td>69</td>
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<tr>
<td>Philippines</td>
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<td>65</td>
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<tr>
<td>Indonesia</td>
<td>52</td>
<td>60</td>
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<tr>
<td>Sri Lanka</td>
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<td>71</td>
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<tr>
<td>India</td>
<td>53</td>
<td>61</td>
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<tr>
<td>Pakistan</td>
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<tr>
<td>Bangladesh</td>
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<td>US</td>
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</tr>
<tr>
<td>Britain</td>
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<td>76</td>
</tr>
<tr>
<td>Germany</td>
<td>71</td>
<td>76</td>
</tr>
</tbody>
</table>

*1975.
**1993.

Note: Estimation from the chart.
Source: FEER, Nov. 24, 1994, p.49.

4.3.2. Poverty Alleviation

During the process of their socio-economic development, developing countries have faced many tough problems and challenges among which poverty is one of the top concerns. Currently countries with GDP per capita income of US$1000 or higher are considered semi-developed or developed which have basically solved the problem of poverty, otherwise they are under- or least-developed if their GDP per capita is bellow US$500. In these under- and/or least-developed countries the people who live under the poverty line often obtain very low earnings which are not sufficient to assure their basic needs including food, clothing, fuel, clean water, electricity, health care and education.
The main causes of this poverty are the poor economic and social development resulting from the low economic growth rates and the unequal distribution of income, the stagnation of productivity, unemployment, illiteracy, the high levels of fertility and the degradation of the environment. The improper policies of the Governments which lead to what being called “social exclusion” are also listed among the causes of poverty. In these cases the poor are often excluded from the normal social life, particularly from their basic needs.

In face of those problems, it is not easy for developing countries to reverse their development trends from an under-developed to a developed country overnight, it is therefore necessary for them to sort to the most effective policies of poverty alleviation. As experiences in Asian countries have shown, the most important actions for poverty alleviation at the initial stage of their industrialisation are the creation of jobs and the development of education and health care. These have often been done through the building of labor-intensive and export-oriented industries, the development of agriculture and the processing of agricultural products, the development of consumer goods and services, and the raising of investment for education and health care. The large unemployment is often seen as a big burden for developing countries, but when it is used for the development of labor-intensive and export-oriented industries, its low costs turn to be the advantage for the poor countries to produce low price and competitive products. As for education and health care, some developing countries when transforming to the market economy simply assumed that education and health care would also be based on the market principles, and because of that they reduced the investment for these two sectors, the consequence was the worsening of both education and health care, leading to the loss and the lack of skilled and healthy human resources for development. It is true that investments for education and health care often raise high costs and yield low short-term returns, but because of its dominant and long-term role in development, it should be given high priority, and the Governments should set up policies to mobilise all sources of contribution for the development of this cause, including the private sector, the mass and social organisations, and of course the Government as the main contributor.
The second important set of policies for poverty alleviation is the support for the self-help efforts of the poor themselves such as the provision of micro-credits, the training of job, and the group, team or collective cooperation. These policies are necessary because, as surveys in a number of developing countries have shown, many of the poor people have the capacity to develop, but they lack capital, skill and cooperative efforts. Supporting these efforts means supporting the long-term self-advancement of the poor to help them upgrade themselves from the list of the poor to the middle group in which they will start their own business and no longer queue for “charity” assistance that the society has to bear. Otherwise, they will continue to remain in the list of the poor waiting for assistance.

Beside the said policies, measures like the provision of food and other necessary consumer goods as subsidies or charity are also important, because it helps the poor to save themselves from the time of their most urgent needs, but the effectiveness of those measures are only of the short-run manner. So those measures should be put at the lowest in the list of priorities for poverty alleviation.

With their high commitments to and continuous efforts for poverty alleviation, many Asian countries have been able, as seen in Table 8, to reduce to a large extent the levels of their poverty in one to two decades. This achievement in Asia shows a great different picture compared to that of Africa and Latin America where the poverty problem continues to remain as serious as forty years ago, a consequence of the low level of investment for the self-help efforts of the people such as job creation, education development, health care, work training and micro-credits provision, though large amount of kind and cash valued billions of US dollars were provided through the very sound so-called “strategies and/or programs of poverty alleviation” under which numerous generous donors’ money were given out mostly as charity.
Table 8: Changes in % of Population Below Poverty Line in Asia

<table>
<thead>
<tr>
<th>Country</th>
<th>Year: Percentage</th>
<th>Year: Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>1972: 58</td>
<td>1982: 18</td>
</tr>
<tr>
<td>Malaysia</td>
<td>1973: 38</td>
<td>1987: 15</td>
</tr>
<tr>
<td>Singapore</td>
<td>1972: 31</td>
<td>1982: 10</td>
</tr>
<tr>
<td>Thailand</td>
<td>1962: 59</td>
<td>1986: 26</td>
</tr>
<tr>
<td>India</td>
<td>1972: 54</td>
<td>1983: 42</td>
</tr>
<tr>
<td>Pakistan</td>
<td>1962: 54</td>
<td>1984: 23</td>
</tr>
</tbody>
</table>

Note: Estimation from the Chart.
Source: FEER, Nov. 24, 1994, p.46.

4.4. Role of the State: Active rather than Passive

The European countries and those in Asia, Africa and Latin America started their industrialization process in different contexts, e.g. the former started it at a time when there had been no earlier examples, while the latter already witnessed the experiences developed by the former since the 18th and the 19th centuries. The different contexts naturally lead to the differences in the patterns of industrialization of the two groups of countries, particularly the European and the Asian countries. These differences have been clearly shown in the 2 out of the 8 pairs or dichotomies defined by Christer Gunnarsson and Gerschenkron in their work published in 1985 (C. Gunnarsson, 1985, p.191)3 such as the distinction between the autochtonous or derived patterns, or between the forced or autonomous patterns of industrialization, which reflected the active or passive roles of the State in the process of industrialization.

It is clear from the above analysis that there is a difference between Europe and Asia as regards of the role of the State in the process of industrialization, whereas in the former’s case, the State was passive, since it follows the process of industrialization and makes the changes of legislation in accordance with the

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3 The other pairs or dichotomies include the concentration on producers’ goods or consumers’ goods; the industrialisation in an inflationary or stable monetary environment; the involvement merely in quantitative changes or also in structural changes; the continuous or discontinuous process of industrialisation; the development in the conditions of progress or stagnation of agriculture; and the economic or political, motivations.
changes of the market forces and the industrialization activities, while in the latter’s case, the State has been active, because *it not only involves in the formulation and enforcement of legislation, but also directly participates in the design and guidance of the implementation of industrialization policies and strategies.* And thanks to this active role, the State has positively contributed in the successful shortening of the process of industrialization in not a few countries of Asia such as Japan which had been industrialised in just about over six decades, or South Korea over four decades, compared to the two centuries of industrialisation in Europe.

Though in Asia most scholars and policy-makers have found the need that requires the State to play an active role in the later comers’ process of industrialisation, there are still different ideas concerning the identification of the proper role and functions of the State in the process of industrialisation under the market economy. The structuralist school or structuralism which appeared first in Latin America in development economics since the 1950s, for instance, advocated the dominant role of the Government in the DEs; while the neo-classical theory or neo-liberalism which was developed since the mid-1960s, particularly the so-called “Washington Consensus”, suggests the minimal role of the State and bolsters the influencing principles of the market. Asian experiences have proved another alternative, that is, the leading role of the Government in the market economy along with the influencing performance of market forces, hence the coherent association of the two. The practical experiences of Asia during the last half a century have convinced most economists of the important roles of both the Government and market forces in the market economy, particularly in the economies of developing countries where the process of industrialisation having been carried out. The main concern nowadays is therefore not the dominance of one over the other, the Government or the market, but the proper role and functions of each, especially the role and functions of the Government in the market economy.

To date analysts of Asian developments have confirmed the necessity of the important role of the Government in DCs’ market economies as a means to overcome their backwardness (*Gerschenkron*), but instead of addressing the dominant role of the Government, they called for a “market creating” (*K. Kojima,*
Robert Wade in his well-known book entitled “Governing the Market: Economic Theory and the Role of Government in East Asian Industrialisation” published in 1990 (Chapter 1), has identified not just one type, but three principal types of theory concerning the appropriate role of the Government in Asian market economies which are worth to be summarized as follows:

(i) The first type he described as the “Free Market (FM) Theory” which is characterized by the features such as:
- The State provides a suitable environment for the entrepreneurs to perform their functions;
- The State directs the resources to desired channels;
- The State relies extensively on private markets rather than heavily on central planning;
- And the State lessens the Government interference.

(ii) In the second type, the “Simulated Free Market (SM) Theory”, the State’s role is:
- To do more than just liberalizing markets and lowering distortions;
- To intervene more positively to offset other distortions (import controls, segmented financial markets,…);
- To apply moderate incentives very close to relative prices in free trade;
- And to carry out what he called the “great value” interventions including (1) export promotion, (2) trade liberalization, and (3) macroeconomic stabilization.

(iii) The third type Robert Wade defined as the “Governed Market (GM) Theory” which is, in his words, equivalent to the concept of “Capitalist Developmental State” developed by Chalmers Johnson or the term developmentalism or developmental State often referred to in development economics literatures. Of this type Robert Wade stressed the following characteristics:
- The directive role of the State like in the case of South Korea;
The State as a participant that has the determining influence in the market;
Private enterprises operate under highly centralized government guidance;
The Government’s hand reaches the activities of individual firms through its incentive and disincentive measures.

Of these three types of State, FM, SM (i and ii) are referred to, in Robert Wade’s definition (Pp.28-29), as “small followership” or “small leadership” State, while GM (iii) is defined as “big followership” or “big leadership” State. Basing on the neoclassical point of view, Robert Wade found out that the Governments in East Asia have done well in the market economy, because they have adopted the six most essential functions (pp.10-11), including:

(i) Maintaining macroeconomic stability;
(ii) Providing physical infrastructure, especially that which has high fixed costs in relation to variable costs, such as harbors, railways, irrigation canals, and sewers;
(iii) Supplying “public goods,” including defense and national security, education, basic research, market information, the legal system, and environmental protection;
(iv) Contributing to the development of institutions for improving the markets for labor, finance, technology, etc.
(v) Eliminating price distortions which arise in cases of demonstrable market failures;
(vi) And redistributing income to the poorest in sufficient measure for them to meet their basic needs.

More specifically, Robert Wade pointed out 7 areas where the Government guided markets in East Asia (p.27). Those areas are:

(ii) Redistribution of agricultural land in the early postwar period;
(iii) Taking control of the financial system and making private financial capital subordinate to industrial capital;
(iv) Maintaining stability in some main economic parameters (exchange rates, interest rates, general price level…) that affect long-term investment;
(v) Modulating (regulating) the impacts of foreign competition on the domestic economy and prioritizing the use of scarce foreign exchange;
(vi) Promoting exports;
(vii) Promoting technology acquisition from multinationals and building national technology system;
(viii) Assisting particular industries on a selective basis.

Apart from Robert Wade, some other authors also deliberated several concrete features and functions of the State in the market economy of Asia. C. Johnson, for instance, referred to a model which is characterized by the following main features of developmental state:

(i) The top priority of State should be given to economic development, particularly the definition policy purposes concerning growth, productivity and competitiveness, rather than welfare;
(ii) The State commits to private property and the markets, limiting its intervention to those areas;
(iii) The State guides the markets with instruments formulated by bureaucrats, technocrats…;
(iv) The State needs to consult and coordinate with the private sector;
(v) The State follows a mechanism in which bureaucrats “rule”, politicians “reign” through “soft authoritarianism”, responding to needs of interest groups and political party(s), and maintaining the needs of economic development vis-a-vis other claims, hence stability.

The last but not least impressive model or “formula” referred here is the one that was drawn by John M. Leger resulting from his analysis of the 20 years of growth in East Asia (FEER, November 24, 1994):

\[
\begin{align*}
\text{Hard Work} \\
+ \text{Low Taxes} \\
+ \text{High Savings Rates} \\
+ \text{Minimal Government} \\
\hline
\text{= Economic Boom}
\end{align*}
\]

To this point, it is evident for the “later comers” that the Government should play an active role in their industrialisation process. However, as Robert Wade
stressed, though most people today generally agree upon the common role of the State, there are still a lot of controversies concerning the actions of the State, due to practical proper and improper policies and measures adopted by varying Governments, particularly those policies and measures relating to the financial liberalization and privatization, resulting in different gains and losses. The Asians have been more successful because their financial liberalization was carried out without interrupting the continuous maintenance of their monetary (price) stabilization, the deepening of their financial reforms and the gradual liberalization of the capital market activities of their commercial banks; while most of the Africans and Latin Americans (Chile, Uruguay, Brazil, particularly) failed due to the rather complete deregulation and privatization, and the uncontrol of high and unstable inflation throughout the process of their financial liberalization. In Maxwell J. Fry’s words, the Latin Americans failed because they lack the “three key factors” which resulted in the contrast between Asian success and Latin American failure, that is, (1) the price stability; (2) the fiscal discipline; and (3) the policy credibility. This situation of varying policies leading to varying results suggest that each Government needs to identify the proper policies for the successful industrialisation of its own country, even though there are common areas where the State should play an active role to create and facilitate the market, instead of inhibiting it.
V. CONCLUSIONS AND FINDINGS

From the above analysis, we finally come to some conclusions and findings, among others:

The first point is that industrialization will continue to be the must for developing countries whose economies are still being in the agrarian, backward and pre-industrial status, and the Strategy of Industrialization Enhancing Dynamic Comparative Advantages (SIEDCA) is likely to be their new choice after the 1997-98 Asian financial crisis to reverse the imbalances of the previous strategies and to meet the double objective of high growth and sustainable development.

Second, though most of the later comers want, psychologically, to have a quick and a big catch, particularly a high GDP growth rate, experiences in Asia and elsewhere have proved that the step-by-step build-up or gradual approach has been more successful and faster than the big-bang approach or rapid liberalization, and in this connection the five steps of industrialization would show the way for their short-cut industrialisation.

Third, since industrialization is a long and hard cause, it is necessary for developing countries to prepare the pre-conditions for “take-off”, particularly the development of human resources, the setting-up of market institutions, the building of the infrastructure, and the strengthening of the management capacity and entrepreneurship.

Forth, though liberalization and reform are very important for more dynamic and higher growth, they should not overshadow or underestimate the quality of change, particularly stabilization, for stability and the quality of change have become the most important factors that guarantee the manageable and sustainable development, hence the avoidance of shocks and crisis.

Fifth, though international integration has become a necessity for current industrialisation under the new trends of liberalisation, globalisation and
informatization, it *needs to comply and complement national strategies and policies*, instead of external bias.

Finally, *the active rather than passive or retreating role of the State* will certainly be needed for developing countries in their industrialization process, particularly in the designing of policies, the guidance of directions, the regulation of the rules of the game, and the participation in the implementation process. Without such contributions of the State, market forces will not be able to carry industrialisation to its proper end, though how much they are to be unleashed under fast and strong liberalization and privatization, not yet to mention of the possibility that they would deviate industrialisation to serve their “animal spirit” motive of maximising profits.
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