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18. Trade, Growth and Economic Problems of NICs

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TRADE, GROWTH AND ECONOMIC PROBLEMS OF ASIAN NICs

I. INTRODUCTION

The successful growth performance of Asian NICs, consisting of Korea, Taiwan, Hong Kong and Singapore, during the last two decades and half is now a well-known history. However, one may not be too surprised to find that they also have serious economic problems. The main object of this paper is to identify these problems.

Section 2 presents the trade and growth of Asian NICs and the following sections investigate the economic problems faced by these countries. Section 3 presents the common problems faced by all these Asian NICs, namely, the restrictions imposed on technology transfers and the protectionist policies of advanced countries. Section 4 presents the country specific problems faced by each individual Asian NICs: the problem of crippled market mechanism in case of Korea, the problem of underinvestment in Taiwan, the limitation of laissez-faire system in Hong Kong and the lack of indigenous industrial entrepreneurs in Singapore. The last section gives a summary and concluding remarks.

II. TRADE AND GROWTH OF ASIAN NICs

(1) Emerging Asian NICs in World Trade

During 1970-80, the proportion of manufactures in total nonfuel exports of developing countries increased from about 26 percent to about 47 percent. At the same time, the share of developing countries in total world exports of manufactures expanded from about 5 percent to about 9.2 percent.¹

¹According to the UNCTAD data (1982: Ch. 1), world exports of manufactures increased from \$190 billion in 1970 to \$1,091 billion in 1980 and the exports of manufactures by developing countries increased from \$9.5 billion to \$101 billion. Exports of manufactures by developing countries to advanced countries increased from \$5.8 billion to \$58.2 billion and those to other developing countries increased from \$3.4 billion to \$38.6 billion. Manufactures are defined as commodities belonging to SITC code numbers 5 through 8 less 68 which exclude food products,

More than half of the manufactures exported by developing countries to advanced countries in 1962 consisted of textiles and food products. However, the share of these two items declined to about 17 percent by 1980. During 1962-80, the share of clothing and footwares and machinery & metal products expanded from less than 20 percent of total manufactures exports of developing countries to more than half of them. (Manufactures represent SITC 5 through 8 less 68 but food products are now included.) The share of iron & steel expanded from 2 percent to 4 percent and the share of miscellaneous light manufactures expanded from about 5 percent to about 9 percent. (UNCTAD 1983: 10)

However, the most remarkable fact seems to be that, out of \$101 billion worth of non-natural-resource-based manufactures (SITC 5 through 8 less 68) exported by developing countries in 1980, about \$49 billion of them were exported by the Asian NICs. In 1980, the share of Asian NICs in total OECD imports of manufactures was about 5.8 percent while the share of all other developing countries was only about 4.4 percent. More than 60 percent of the manufactures exported to OECD countries by other developing countries consisted of resource-based products such as food products, nonferrous metal products (SITC 68) and petroleum products while less than 10 percent of the manufactures exported by Asian NICs consisted of such products in 1980.

Until the early 1960s, Japan was regarded as the only advanced developing country in the world which could expand its share of international export market from 1.4 percent in 1950 to 3.5 percent in 1960. In the 1960s and 1970s, however, there emerged a new group of NICs in Asia matching the Japan's performance in growth and export expansion. The share of the Asian NICs in total world exports expanded from 1.7 percent in 1960, to 2.2 percent in 1970 and to 4.7 percent of them in 1981.

The division of labor and specialization between advanced countries and underdeveloped countries used to take the form of trade of industrial products versus natural-resource-based primary products. However, the rapid expansion of labor-intensive manufactures exports from some resource-poor developing economies, such as Japan in the 1950s and the Asian NICs in the 1960s and 1970s, resulted in a new pattern of international specialization in industrial production in terms of labor-intensive manufactures versus capital-intensive manufactures or technology-intensive manufactures.

In the early phase of the export-oriented growth of Asian NICs, the

petroleum products and nonferrous metal products which are primarily natural-resource-based products. Advanced countries are defined as OECD countries minus Greece, Spain, Turkey and Yugoslavia.

advanced countries absorbed more than 70 percent of the manufactures exported by the Asian NICs, and the latter in turn provided one of the most rapidly expanding markets for the export industries (both primary and manufacturing) of advanced countries. However, the Asian NICs exports of manufactures to the other less developed countries and their imports of primary products from these countries have steadily increased.²

As of 1980, 59 percent of the exports of Asian NICs went to advanced countries, 9 percent to each other and 32 percent to ASEAN, OPEC and other developing countries. On the other hand, 56 percent of the imports of Asian NICs came from advanced countries, 8 percent from each other, and 37 percent from other developing countries (including 17 percent of total imports from OPEC). With a further rapid growth in Asian NICs, a more distinct comparative advantage pattern would emerge between them and the other developing countries in the area of moderately capital-skill-technology-intensive products versus primary and simple labor-intensive products. Therefore, one may expect that the trade of Asian NICs with other developing countries would become as important as their trade with advanced countries in the near future.

(2) Export-Oriented Growth of Asian NICs

Existing two-factor dynamic trade models suggest that the opening-up of a labor-abundant developing economy to trade with a capital-abundant advanced economy, while maintaining constant time preference structures in each country, will necessarily lead the former to save even less and hence end-up with a lower long-run equilibrium capital-labor supply ratio. In real world, however, the opening-up of a developing economy to trade usually seems to change its time preference structure such that the country becomes to save more than the initially capital-abundant advanced country, and

²In the early 1970s, the U.S. absorbed about one third of the Asian NICs exports of manufactures classified by material (SITC 6), but in 1980 the other developing countries imported about one third of them and the share of the U.S. declined to about 20 percent. As far as miscellaneous manufactures are concerned, the reduced share of U.S. imports (from about 50 percent to 41 percent) was offset mostly by the increased share of the European advanced countries (from 28 percent to 31 percent) and other developing countries (from about 7 percent to about 12 percent). In the early 1970s, the U.S. absorbed more than 60 percent of Asian NICs exports of machineries & equipments, but by 1980 the U.S. share fell to about 40 percent which was offset by the nearly doubling of the shares of other developing countries and other advanced countries (excluding Japan).

consequently the initial difference in capital-labor supply ratios between two countries would be reduced or eliminated. Furthermore, capital flows from the advanced country to the developing country seems to speed up the process of reducing the differences in factor supply ratios between these countries.

According to the World Tables published by IBRD, the export/GDP ratio of developing countries as a whole increased by about 63 percent (from 0.153 to 0.250) and the savings/GDP ratio increased by about 32 percent (from 0.160 to 0.211) during 1960-81. In the meantime, the export/GDP ratio of advanced countries as a whole also increased by about 71 percent (from 0.116 to 0.198), and yet the savings/GDP ratio fell by 5 percent (from 0.232 to 0.220). The percentage share of gross domestic investment in GDP in developing countries as a whole increased by 49 percent (from 17.6 percent in 1960 to 26.2 percent in 1981) while that in advanced countries increased by only about 3 percent (from 21.3 percent to 21.9 percent). We may now compare the growth performance of Asian NICs *vis-à-vis* that of their two largest trading partners, i.e., the U.S. and Japan.

The percentage share of gross domestic investment in gross domestic product in the U.S. declined from about 20 percent in the 1950s to about 19 percent in the 1960s and 1970s. On the other hand, the investment/GDP ratios in Asian NICs rapidly increased from about 0.1 in the 1950s (about 0.16 for Taiwan) to around 0.27 and 0.30 (about 0.4 in Singapore) in the 1970s. In the 1960s and 1970s, the average growth rate of per capita GNP in Asian NICs exceeded 6 percent per annum while that in the U.S. amounted to less than 3 percent. The export/GDP ratio in Korea expanded from about 0.03 in the 1950s to about 0.34 in the 1970s, and that in Taiwan expanded from about 0.09 to about 0.47. Apparently, the opening-up to trade (or the so-called export-oriented growth) was associated with rapidly rising rates of savings and investment in these countries. The efficiency gains from trade coupled with rapid capital accumulation in Asian NICs could not but result in high rates of growth in per capita income. Compared to these countries, the U.S. may be regarded as a static economy throughout the period in terms of either the rate of increase in trade volume, the rate of capital accumulation, or the growth of per capita income. The differences in capital-labor supply ratios between the U.S. and the Asian NICs must have been significantly reduced since 1960, implying substantial shifts in comparative advantage positions between them.

Japan maintained an average investment/GDP ratio amounting to about 0.29 in the 1950s, about 0.36 in the 1960s and about 0.33 in the 1970s. Per capita GDP grew by nearly 6 percent per annum on average in the 1950s, and

Table 2. Growth and Trade of Asian NICs, U.S. and Japan
(Ratio to GDP)

Annual Average	U.S.			Japan		
	1950-60	1960-70	1970-81	1950-60	1960-70	1970-81
Exports	0.05	0.05	0.08	0.11	0.10	0.13
Imports	0.04	0.05	0.09	0.10	0.09	0.12
Investment	0.20	0.19	0.19	0.29	0.36	0.33
Saving	0.21	0.20	0.20	0.30	0.37	0.34
Manufacturing	0.29	0.28	0.24	0.34	0.34	0.32
GDP ¹	(3.2%)	(3.9%)	(2.9%)	(6.4%) ²	(10.8%)	(4.5%)
	Korea			Taiwan		
	1953-60	1960-70	1970-81	1952-60	1960-70	1970-81
Exports	0.03	0.11	0.34	0.09	0.20	0.46
Imports	0.12	0.22	0.39	0.16	0.22	0.44
Investment	0.11	0.23	0.29	0.16	0.22	0.30
Saving	0.03	0.14	0.23	0.10	0.20	0.32
Manufacturing	0.13	0.19	0.27	0.15	0.21	0.32
GDP ¹	(5.1%)	(8.6%)	(9.0%)	(8.1%)	(9.7%)	(9.3%)
	Hong Kong			Singapore		
	1950-60	1960-70	1970-81	1950-60	1960-70	1970-81
Exports	1.11	0.93	1.01 ³	1.63	1.27	1.67 ⁴
Imports	1.05	0.95	1.02	1.77	1.37	1.76
Investment	0.09	0.21	0.27	0.11	0.23	0.41
Saving	0.09	0.21	0.28	-0.01	0.15	0.29
Manufacturing	0.16	0.31	0.27	0.12	0.16	0.23
GDP ¹	(9.2%)	(9.9%)	(10.0%)	(—)	(9.3%)	(8.6%)

Source: World Bank (1983), *World Tables*, Baltimore: Johns Hopkins, and Council Economic Planning and Development (1983), *Taiwan Statistical Data Book*.

Notes: 1. The percentage figures in the parentheses represent average annual growth rates of GDP.

2. Average for 1952-60.

3. The figure represents the ratio of exports of goods and non-factor services to GDP. The ratio of "domestic commodity exports" to GDP amounted to about 0.5 during 1973-82 on average. The commodity re-exports/GDP ratio amounted to about 0.17 to 0.19 in 1973-78 but rapidly rose to 0.28 by 1982.

4. The ratio of "domestic commodity exports" to "GDP" steadily increased from about 0.4 in 1972 to about 1.0 in 1982. Commodity re-export/GDP ratio amounted to about 0.5 during 1972-82 on average.

by almost 10 percent per annum in the 1960s. As a result, Japan seems to have transformed itself from a developing economy at the beginning of the 1950s to an advanced economy by the end of the 1970s. Japan's position of comparative advantage in international market seems to have been very similar to that of current Asian NICs until the early 1960s. Since the late 1960s, however, the traditional Japanese export markets such as textiles in the U.S. began to be rapidly replaced by the Asian NICs and, by the end of 1970s, Japan's export pattern became to look very much like that of a leading advanced economy. With a simple linear extrapolation, one might now argue that the current Asian NICs would become advanced economies by some time in the first decade of the 21st century, and furthermore expect to observe shifts in their comparative advantage position in the 1980s and 1990s similar to those occurred in Japan during the 1960s and 1970s.

The Singapore economy in the 1970s, which had the highest per capita income among the Asian NICs, may be characterized with a semi-infinite supply of capital (owing to the Singapore dollar market and relatively high domestic savings propensity) and low rates of growth in labor supply. In Singapore, unlike in the other three, clothing & footwears (including leather products) had never been a leading export sector, and the exports of other labor-intensive products such as textiles, wood & furniture, metal products and miscellaneous manufactures were also relatively insignificant. The most leading export sector of Singapore was the petroleum refinery and the second most leading export sector was the electronic products manufacturing. The Hong Kong economy may also be characterized with relatively abundant supply of capital (owing to the Hong Kong dollar market) but has also maintained relatively high rates of growth in labor supply (owing to the proximity with the mainland China). On the other hand, Taiwan has maintained a more rapid growth of domestic capital supply than Korea because of high propensity to save.

Among the four Asian NICs, Korea and Hong Kong seem to represent the extreme opposites in capital market distortions and credit rationing in favor of capital-intensive manufacturing sectors. Taiwan and Singapore seem to fall somewhere between Korea and Hong Kong. Hence one may expect Korea to have exported the largest amount of capital-intensive manufactures among the four countries and Hong Kong the smallest. In 1980, commodity exports of these countries amounted to \$12.6 billion for Singapore, \$13.7 billion for Hong Kong, \$17.5 billion for Korea and \$19.7 billion for Taiwan. Indeed the capital-intensive goods (excluding petroleum products) exported by Korea amounted to about \$4.1 billion, those by Taiwan about \$3.4 billion, those by Singapore about \$1.5 billion and those by Hong Kong only about \$1.4

billion.³ Korea, which had the lowest per capita income and the lowest propensity to save among the four, exported the largest amount of capital-intensive manufactures among the four (excluding petroleum products).

(3) Shifting Comparative Advantage in Manufactures Trade

Japan's share of the U.S. import market for labor-intensive manufactures declined from about 32 percent in 1970 to about 17 percent in 1980, while the share of Asian NICs expanded from about 20 percent to 35 percent. In 1970, Japan and the Asian NICs together supplied about 52 percent of total U.S. imports of labor-intensive manufactures. In 1980, Japan and the Asian NICs as a whole still supplied about 52 percent of total U.S. imports of labor-intensive manufactures, but there occurred a drastic shift in the market share between Japan and the Asian NICs. It seems that the shifting comparative advantages between Japan and the Asian NICs were partly reflected in Japan's domestic market for labor-intensive manufactures in the form of Japan's increasing imports from the Asian NICs.⁴ But the shifting comparative advantage positions seem to have been most conspicuously revealed in the third market, e.g., the U.S. market for labor-intensive manufactures.⁵

The share of Asian NICs in the capital-intensive manufactures imports of the U.S. and European countries significantly increased. But the share of Japan also substantially increased.⁶ It seems that Japan performed best in the

³Including petroleum products, the capital-intensive manufactures exported by Singapore amounted to about \$6.9 billion, those by Korea \$4.1 billion, those by Taiwan \$3.7 billion and those by Hong Kong \$1.4 billion. Capital-intensive manufactures consist of chemicals, steel products, nonferrous metal products, machinery and transport equipments.

⁴Japan's imports of labor-intensive manufactures increased from about \$1.0 billion in 1970 to about \$7.4 billion in 1980. During this period, the proportion of labour-intensive manufactures imported from the Asian NICs expanded from about 19 percent of total Japan's imports of these products to about 35 percent of them. Labor-intensive manufactures consist of clothing & footwears (including leather products), metal products, textile products, wood & furniture, miscellaneous manufactures and electronic & telecommunication equipments.

⁵The Japan's share in the labor-intensive manufactures imports of European countries declined from about 3.1 percent to about 2.6 percent during 1970-80, but the share of Asian NICs increased from about 4.2 percent to about 7.1 percent.

⁶Capital-intensive manufactures consist of nonmetallic mineral products, iron & steel products, rubber products, electrical & nonelectrical machinery and transportation equipments. The share of Asian NICs in total U.S. imports of capital-

world market for capital-intensive manufactures in the 1970s, but the Asian NICs began to reveal their shifting comparative advantage toward capital-intensive manufactures.⁷

The replacement of Japan by the Asian NICs in OECD market of clothing & footwears started in the 1960s and Japan was almost completely removed from the OECD import market of these products in the 1970s by not only the Asian NICs but also by the other newly emerging developing countries.⁸ Similar directional changes occurred also in miscellaneous manufactures. There was a substantial expansion in the share of Asian NICs and other developing countries in the OECD import market of electronic & telecommunication equipments but the share of Japan also expanded significantly. Similar changes occurred in rubber products and precision instruments. In case of machinery & transport equipments, the shares of Asian NICs, other developing countries and Japan all more than doubled during 1970-80.

The NICs-Japan relationship began as the one of complementarity in primary products versus industrial products, and has changed into a competitive relationship in most of labor-intensive manufactures and recently in part of moderately capital-intensive manufactures. And yet, there still exists a strong complementarity relationship, albeit very much unilateral, in capital & technology intensive manufactures. On the other hand, there had existed a weak complementary relationship between the Asian NICs and the other developing countries in primary products versus labor-intensive manufactures (mostly among Hong Kong, Singapore and ASEAN). With

intensive manufactures expanded from 1.1 to 5.0 percent during 1970-80, while the share of Japan expanded from 20 to 34 percent. The share of Asian NICs in total Japan's imports of capital-intensive manufactures expanded from 1 to 9 percent during 1970-80.

⁷According to Watanabe and Kajiwara (1983: p. 22), the revealed comparative advantage (RCA) indexes of the U.S. and EEC countries have shown little changes in the 1970s for both labor-intensive and capital- and technology-intensive goods. On the other hand, the RCA indexes for Japanese capital- and technology-intensive goods have been rising, while those for labor-intensive goods have been on the decline. It is hence concluded that Japan is still in the process of catching up with the U.S. and EEC where the RCA structures have already reached the stable mature stage. That is, Japan's RCA structure is still comparatively young in its development, although it is rapidly growing closer to the mature stage.

⁸The share of Asian NICs in the OECD import market of clothing & footwears reached about 18 percent by 1970 while the share of Japan was reduced to about 7 percent. In the 1970s, there was a further expansion in the share of Asian NICs by 50 percent (i.e., from 18 percent in 1970 to 27 percent in 1980) while Japan's share was reduced from about 7 percent in 1970 to less than 1 percent in 1980.

rapid and continuous increases in real wage rates and the associated structural changes towards more capital & technology intensive manufactures in the Asian NICs, however, there emerged a competitive relationship in unskilled labor-intensive manufactures (mostly in the third market because domestic markets are heavily protected for such products in every developing country) as well as a complementary relationship in primary products versus intermediate & investment goods between the Asian NICs and the other developing countries. The competitive relationship between the Asian NICs and other developing countries has been intensified partly also because of the migration of multi-national corporations from the Asian NICs to other developing countries in search for lower wages.

III. COMMON PROBLEMS OF ASIAN NICS

(1) Difficulties in Technology Imports

In the 1950s, the EC countries were rather reluctant to provide advanced technologies to the then developing country, Japan, because they were afraid of Japan becoming a competitor in a not-so-distant future. On the other hand, the U.S. was very much self-sufficient in manufactures and never dreamed that its domestic market would one day be heavily penetrated by imports. Furthermore, the U.S. had confidence in its superiority in R & D activities and the rapid rates of technological change. As a result the U.S. sold various technical know-how to Japan extracting large amount of royalties. What the licensing arrangement could do in the hands of an innovative imitator is now a well-known history. Once burned, twice shy. Since the late 1970s, the U.S. and the major EC countries became very much reluctant to provide NICs advanced technology which would involve a substantial risk of fostering competition in the near future. Unless they are convinced of early obsolescence of the technology that is sought by NICs or unless they are convinced that NICs will anyway obtain the know-how from some traitorous advanced countries, the advanced countries seem to have tried refraining themselves from nurturing what might become another Japan.

Fortunately, technology had not been the most important constraint for NICs export expansion. NICs exports were mostly either simple (skilled or unskilled) labor-intensive manufactures or commodities which could be readily manufactured with the technology embodied in the imported capital goods themselves. Furthermore, the individual firms and governments of advanced countries lacked any effective coordination among themselves and did not really try to form a united front against NICs in technology blockade.

Only in Japan, the individual firms and the government seem to have been able to make some effective arrangement to discourage the sales of disembodied advanced technologies to NICs. However, even Japan was often induced, though reluctantly, to sell the advanced technologies after being informed that some other advanced countries were willing to supply NICs the necessary technology if Japan did not supply it to them.⁹

As for the future, NICs can not be so optimistic. First, the bulk of NICs exports had already transformed from simple unskilled labor-intensive manufactures to skilled and (moderately) capital-intensive manufactures and are now at the threshold of another round of structural transformation into technology-intensive manufactures which require rather extensive licensing arrangements. Second, the advanced countries (including Japan) seem to have developed a phobia of "another Japan," and revealed symptoms of groping for a unified front against NICs in technology blockade. However, an effective blockade would be extremely difficult. Indeed the royalty payments of NICs for patent licensing have been rapidly increasing since the late 1970s. At the same time, NICs have started to spend great efforts for their own R & D activities (mostly for adapting imported technology).

A possible strategy for Asian NICs is first to concentrate their own limited R & D funds to the process of making innovations on the basis of the technologies that are considered obsolete by the advanced countries and second to obtain the more advanced technologies from those countries which already have lost all their international export markets to other advanced countries such as Japan not because of technological inferiority but because of institutional rigidity of their economic system. The latter channel may take the form of either patent licensing or joint investment arrangement.

(2) Protectionist Policies of Advanced Countries

In 1975, about 22 percent of Korea's total commodity exports were subject to various import restrictions of the advanced countries, but this ratio has increased to 29 percent by 1984. About 62 percent of such restrictions (in terms of amount of exports involved) were QR in the form of bilateral quota and voluntary export restraints, about 16 percent were price restrictions in the form of anti-dumping duties, countervailing tariffs, tariff quota system, etc.

⁹In 1982, about 56 percent of Korea's technology imports were subject to either the prohibition of exports or restrictions on export markets, and about 17 percent of the cases required the monopolistic supply of parts and raw materials by the licensor. (About 11 percent of the cases prohibited an independent development of competing production techniques by the licensee).

and the remaining 22 percent were administrative restrictions including import prohibitions and import licensing.¹⁰

The original 1973 MFA agreement did have a six percent annual growth rate written into it, but this is now written off as irrelevant. Since 1977, many advanced countries have developed the principle of assigning a global market share to the developing countries in general, and then redistribute the quotas within this global quota.¹¹

NICs exports of clothing and textiles have been held back to growth rates well below their potentials and then, when NICs moved into slightly more advanced industries available to them, they were restrained even more ruthlessly. Arbitrary import restrictions have spread into non-textile manufactures such as ships, consumer electronics, steel products, etc. This type of protectionism indeed jeopardizes the growth prospects of NICs, but it does more harm to many potential ones by shattering their hope for export-oriented growth strategy.

Among the advanced countries, Japan did not have any extensive formal quantitative import restriction system and has also maintained relatively low rates of tariff. However, the allegedly “invisible” and unofficial protectionist system of Japan seem to have been much worse and resulted in an even lower level of import-dependency in labor-intensive manufactures in Japan than in most of the other advanced countries. In 1980, total labor-intensive manufactures imported by the U.S. amounted to about \$44 billion while those imported by Japan amounted to only about \$9 billion.¹² In 1980, the U.S.

¹⁰In 1973, about 33 percent of Korea’s textile exports were subject to import restrictions of the advanced countries, but the ratio rose to 58 percent by 1980. For footwear, the ratio rose from 36 percent in 1973 to 70 percent in 1980. For steel products, the ratio rose from 0.1 percent in 1975 to 27 percent in 1980. For electrical and electronic products, the ratio rose from 0.3 percent in 1977 to 9 percent in 1980. For fisheries products, the ratio rose from 4 percent in 1973 to 66 percent in 1980. The import restrictions on other items such as stainless steel tableware, optical instruments, tire and tubes, plywood, paper products, silk, PP bags, umbrella, ceramic products, canned mushrooms, etc., have substantially expanded in the 1970s.

¹¹The protectionist policies of advanced countries which aim against labor-intensive manufactures exported by developing countries seem, quite perversely, to favor the exports of these products by an advanced country to other advanced country. In 1980, about 51 percent of wearing apparels, about 64 percent of footwears and about 77 percent of textiles imported by OECD countries were still supplied by the other OECD countries.

¹²The GDP of Japan amounted to about 40 percent of those of the U.S. in 1980. Therefore, if Japan had been as much liberal as the U.S. in its import policy, Japan’s imports of labor-intensive manufactures from whole world should have amounted to

imports of four major labor-intensive manufactures consisting of footwears, wearing apparels (including leather products), electronic products and miscellaneous manufactures amounted to about \$29 billion but Japan's imports of these products amounted to only about \$6 billion in 1982. Japan's import dependency for these products amounted to about 5.7 percent in 1982 while that of the U.S. amounted to about 15 percent in 1980. Japan's import-dependency of footwears amounted to only about 4.3 percent in 1982 while that of the U.S. amounted to about 35 percent in 1980. Japan's import dependency of wearing apparels amounted to about 8.1 percent while that of the U.S. amounted to about 13.4 percent. According to the Japanese Input-Output Table data, Japan's import dependency of miscellaneous manufactures rose from 4.9 percent to 6.4 percent but that of wearing apparels & footwears declined from 8.7 percent to 7.4 percent during 1980-82.¹³

Only about 10 percent of total NICs exports went to Japan in 1980 while about 22 percent of total NICs import came from Japan. On the other hand, nearly 25 percent of NICs exports went to the U.S. while less than 18 percent of NICs imports came from the U.S. As a whole, NICs have maintained trade surplus with respect to the U.S. and EAC and trade deficits with respect to OPEC and Japan, but their margin of deficits was much larger with Japan than with OPEC. This has created extreme difficulties between NICs on the one hand and the U.S. and EC on the other.

One may use the per capita imports of manufactures (SITC 5 through 8 less 68) of an advanced country from developing countries (excluding OPEC) or the ratio of these imports to GNP as indexes of the revealed protectionist effects (RPE) that measure the degree of protectionist system actually enforced in the advanced country. In terms of these RPE indexes (computed by using the OECD trade data), Australia, Netherlands, and the U.S. should be classified as "the least" protectionist ones among the advanced countries: per capita imports ranging from \$138 to \$148 and the proportion of imports to GNP ranging from 1.3 to 1.4 percent in 1980. However, to the eyes of the

approximately \$18 billion instead of \$9 billion. Labor-intensive goods consist of clothing & footwears, metal products, textiles & leather, wood & furniture, miscellaneous manufactures, electronic & telecommunication equipments and precision instruments. (Data from OECD, *Trade by Commodities*.)

¹³In 1980, the absolute magnitude of Japan's imports of electronic products and metal products from NICs amounted to only about 10 percent and 8 percent of those of the U.S. respectively. Japan's imports of footwears and miscellaneous manufactures from NICs amounted to only about 12 percent of those of the U.S. while its imports of wearing apparels from NICs amounted to 18 percent of those the U.S. (OECD trade data.)

NICs people, the U.S. and Australia seem to maintain the most protectionist regimes one can possibly imagine. In any case, according to these RPE indexes, the most protectionist advanced countries were Finland and Japan: per capita imports ranging from \$53 to \$59 and imports to GNP ratios ranging from 0.5 to 0.6 percent.¹⁴

Unlike Japan in the past, the industrial production of the present-day NICs is heavily dependent upon the imported intermediate and capital goods from advanced countries. Therefore, to limit the exports of NICs implies to limit their ability to import from advanced countries, thus hindering the creation of new, more productive jobs in the advanced countries. An advanced country can maintain the captive domestic market for its obsolete industries through protectionist policies or through the costly "revitalizing" policies. But no economy can maintain a real dynamism in production activities while keeping a bunch of decaying industries for domestic market. Instead of defending obsolete industrial structures, far more attention should be given to encouraging the positive evolution toward ones which will give job security in the long run. And yet, since the absolute standard of living of the advanced countries is already very high, people in advanced countries seem to believe that they can afford indulging in inefficiency and low growth rates. In any case, there does not seem to exist an irresistible urge or any political momentum in the advanced countries to initiate positive actions in any meaningful scale. At most, one find energetic efforts to "revitalize" or "resuscitate" the declining industries in advanced countries.

IV. COUNTRY SPECIFIC PROBLEMS

(1) Korea: Crippled Market Mechanism

In Korea, the efficiency gains associated with the opening-up to trade have been materialized not only in the form of rapidly rising real wages but also in

¹⁴Countries like the U.K., Germany and Switzerland may be regarded to have been moderately protectionist countries: per capita imports ranging from \$95 of U.K. to \$183 of Switzerland and imports to GNP ratios ranging from 1.1 to 1.2 percent. Norway, Austria, France and Canada may also be regarded as very protectionist countries: per capita imports of manufactures from developing countries ranging from \$75 to \$84 and imports to GNP ratios ranging from 0.6 to 0.8 percent. Per capita imports of Italy and New Zealand amounted to only about \$57 and \$79 but imports to GNP ratios of these countries amounted to 0.9 and 1.1 percent respectively. Although imports to GNP ratio of Sweden amounted to only about 0.9 percent, its per capita imports amounted to about \$125 in 1980.

the form of high rates of return on investment. These enhanced rates of return in turn seem to have amplified the “animal spirit” of Korean entrepreneurs and generated such vigorous investment activities in Korea during the 1960s and 1970s. By the beginning of the 1980s, however, the exports/GNP ratio has already exceeded the 40 percent level.¹⁵ Therefore, the big efficiency gains associated with the initial phase of opening-up to trade must have been more or less exhausted. In this sense Korea might have to worry about the sagging animal spirit of entrepreneurs and the weakening vigor of their investment activities in the 1980s. However, with the vast amount of positive experiences and kinetic energy accumulated during the past two decades, the gains from “marginal” structural adjustment may continuously be amplified. For this purpose, Korea may have to pay more attention to the “marginal” efficiency and the more active role of the competitive market mechanism in general.

Korea has maintained a repressed financial regime as an important policy instrument to promote export-oriented growth. However, such a regime caused a slower growth in the magnitude of loanable funds of formal financial institutions and an inefficient and wasteful allocation of available investment funds.¹⁶ The mismanagement of credit-rationing in favor of the arbitrarily selected heavy industries was most conspicuous in the late 1970s, and consequently is believed to have lowered the overall productivity of Korean industries. The well-known notorious failure cases in Korea were the investments for non-ferrous metal manufacturing, large petro-chemical complexes, large fertilizer plants, capital-intensive armament factories, a gigantic heavy-machine factory, shipping and overseas construction sectors. The low rates of growth in industrial productivity, GNP and commodity exports experienced by Korea since the beginning of the 1980s may readily be attributed to the second oil-crisis, world-wide recession, and the prevailing high interest rates in international financial market. However, the arbitrary system of credit-rationing may also have to share the responsibility.¹⁷

Ever since 1962, the planning in Korea implied essentially the setting up of aggregate as well as sectoral targets of outputs and exports and the setting up

¹⁵As of 1984, the raw materials and intermediate inputs imported for “direct” use in export production amounted to about 41.1 percent of total commodity imports. Hence there may still be a room to increase the net value-added content of exports while even maintaining the same level of exports/GNP ratio for a while.

¹⁶There was a rapid increase in the aggregate savings propensity in Korea during 1962-84, and yet the level of savings/GNP ratio (especially the level of household savings) achieved by Korea is far below those achieved by Taiwan, Singapore, or Japan and such a difference is often attributed to the repressed financial regime.

of construction targets for various SOC facilities. The execution of planning implied mostly the actual execution of investments for the planned (or supposed to have been planned) projects "by all possible means" and, in the 1970s, mostly through the hand-picked entrepreneurs. Indeed the Korean government had promoted the expansion of domestic production and exports of selected industries by applying various short-sighted policy measures that would damage the long-term allocative efficiency of the economy. Therefore, it is now about the time to contemplate over a change in the essential mode of planning and its execution. The highlights of planning should become a set of concrete time-phased schedules to implement various efficiency-enhancing and equity-improving system such as a household savings promotion system, an equitable government revenue and expenditure system, a financial system based on market mechanism, a liberalized import system and more competitive domestic market structures, a system conducive for a harmonious labor relations in the long-run, and so on.¹⁸ Of course the needs for government subsidy activities to take care of static or dynamic external economies will never disappear, but such cases for government intervention should never be exaggerated to the magnitude that we have observed in the late 1970s. Furthermore, the prime objective of the government five-year planning should become the development of various self-sustaining competitive market system that can select the correct industries and penalize the inefficient entrepreneurs more efficiently.¹⁹

¹⁷On the other hand, the credit rationing seems to have been also, at least partly, responsible for worsening distribution of income in Korea (see Hong, 1981). The credit rationing has been concentrated on big business groups, and as a result there occurred a concentration of production and export activities in Korea.

¹⁸It may really be a tall order for the Korean government. With the beginning of the 1980s, however, the Korean government has really made a determined effort and brought about a surprising achievement, i.e., it could eliminate the chronic inflationary phenomena out of the Korean economy. This experience may indicate that, once the seriousness of a problem is correctly recognized, the Korean government has the ability to undertake the necessary economic reforms.

¹⁹As of 1985, one may readily say that from now on Korea will increasingly have comparative advantages in more physical and human capital intensive goods and in more technology (or knowledge) intensive goods than before. As of 1990, or even in later a year, we will be saying more or less the same thing. It should be clearly recognized that, armed with only such vague and catch-all concepts, the government cannot keep on selecting specific industries and the "right" entrepreneurs (to carry out the selected production activities) without repeating the late-1970s history of disaster.

(2) Taiwan: Underinvestment and Structural Problems

After a quarter century of sustained high growth, Taiwan is now trying to restructure its economy from the simple unskilled labor-intensive manufactures and capital & energy intensive heavy and chemical industries to high-technology skill-intensive industries. Machinery manufacturing and electronics (-cum-information) industries are indicated as the strategic sectors to be promoted because they are believed to be skill-intensive at relatively low capital intensity and furthermore energy-saving. Incentives to the strategic industries take the form of extending low-interest loans, the right to retain earnings of up to 200 percent of paid-in capital, the right to delay the start of its five-year income tax holiday by up to four years, promotion of venture capital firms, and expanded spending for R & D. It is admitted that a transition away from simple labor-intensive products to high-technology skill-intensive products is not an easy process. It is believed that some of the defensive measures taken during the recession years that were to provide special assistances to the companies in trouble resulted in the perpetuation of an inefficient allocation of resources and aggravated the problem of overcapacity (Liang & Liang, 1985, p. 13). It is further believed that the years of comfortable living has dulled the entrepreneurial spirits (*ibid.*, p. 24). The need to expedite the diversification of export market (away from the U.S.) and export commodity composition seems to be well recognized in Taiwan now. Hence the Economic Reform Committee (created in May 1985) has recommended also macroeconomic measures that would complement the industrial policies such as across-the-board income tax reduction, tax simplification, financial deregulation, and import liberalization.

In terms of the growth rates of exports and GNP, price stability and equitable income distribution, one may readily take Taiwan as “the” model case of successful economic growth among the entire Third World countries. But obviously there is nothing in this world which is perfect. In Taiwan, the percentage share of gross domestic saving in GNP exceeded 33 percent during 1976-80, amounted to about 31 percent in 1981-83 and amounted to about 34 percent in 1984. On the other hand, the share of gross domestic investment in GNP was less than that of domestic saving by 1.7, 4.6 and 6.5 percentage point in 1976, 1977 and 1978, respectively. The difference was narrowed down to 0.9 percentage point in 1979 and, in 1980, the share of investment exceeded that of saving by 1.5 percentage point. However, to repeat the 1976-78 experiences again, the share of savings started to exceed that of investment by 1.9, 5.8 and 8.9 percentage point in 1981, 1982, and 1983, respectively, and by 1984 the share of savings exceeded that of

investment by as much as 12.9 percentage point. That is, the gross domestic investment amounted to only about 21.4 percent of GNP while domestic savings amounted to 34.3 percent of GNP in 1984, generating a huge export surplus. Taiwan is still a developing economy that has to maximize the static and dynamic allocative efficiency, and yet as much as 13 percent of GNP was unutilized for its own domestic economic activities.

The difference between domestic savings and investments have been accumulated mainly in the form of foreign exchange reserves and other dollar denominated foreign financial assets whose rates of return are believed to have been much lower than those to domestic investment activities. The government might enjoy a secure feeling by having such cumulating foreign assets, but this apparently implies a waste of resources. As a solution, the Taiwan government seems to try to make a better use of its foreign exchange earnings through direct foreign investment. But it should be extremely difficult for Taiwan to find investment projects that are more profitable than those in Taiwan economy itself. The experience of the last twenty-five years shows that no country could maintain such steady high rates of return on investment as Taiwan did. Admittedly, Taiwan is now in a transitional phase of restructuring from the traditional simple unskilled labor intensive manufactures to high-technology skill-intensive manufactures, and hence many entrepreneurs would naturally be very cautious in venturing into new investment projects. And yet, if Taiwan now has to search for investment projects abroad, then one has to conclude that something has gone wrong with the Taiwan economic system itself.²⁰

The first likely candidate of suspect that might have been responsible for such a waste of resources is the Taiwan's government-dominated undeveloped financial regime. In Taiwan, the government has been the majority stock-holder of the most of the nation-wide commercial banks. As in Korea and Japan, the primary securities markets are extremely undeveloped. It is true that Taiwan has maintained relatively high positive real interest rates on bank deposits and loans. However, the interest rates were not the market clearing equilibrium rates. There have been extensive curb market transactions.²¹ Either in handling the subsidized policy-loan allocation or in

²⁰Of course there have been some highly successful foreign direct investments such as the investment in the U.S. to manufacture raw petrochemical materials for plastics industries in Taiwan that is to secure direct and reliable sources of the low-cost raw material supply for Taiwan's plastics industries.

²¹According to Lundberg (1979, pp. 279-280), "Inadequate financing resources, especially for medium sized and small family enterprises, have been supplemented by borrowing from friends and relatives and by employee deposits. Uncertainty as to

handling the unsubsidized commercial-loan allocation, the Taiwanese financial system seems to have operated with increasing inefficiencies. There has been an impressive financial deepening as measured by the M_2 /GNP ratios. And yet, the Taiwan's financial system has been far from the efficient modern system based on market principle. As evidenced by the enormous gap between savings and investments, its financial system has failed to function as an efficient intermediary between the savers and the investors. In theory, the gap could have been filled up by active government policy-loan allocations and direct investment activities. But the government seems to have been too conservative and too cautious to assume such an active role. In Taiwan, the banks are often called "pawnshops" because they normally require very large collaterals and lack venture capitalist capabilities. Therefore what might be needed for Taiwan now is not the simple "financial deregulation" but a fundamental reform of its financial system.

Taiwan eliminated the bulk of its formal QR regime by the early 1970s: the import liberalization ratio by items expanded from 61.5 percent in 1970 to 96.5 percent in 1973. However, what Taiwan did during 1970-73 seems to have been a fairly nominal import liberalization and the imports have still been subject to strong quantitative restrictions through various special laws and invisible unofficial means.

Taiwan classifies the imports into prohibited, controlled and permissible categories but the so-called 'permissibles' are subject to restrictions as to the origin of import and to the kind of agency that can import, and furthermore include the items that require the letters from the relevant producers' association that the domestic producers cannot meet the terms on price, quality and delivery of the products sought by the would-be importers. Most of the petrochemicals, basic metal products, and machineries are covered by this referral mechanism (i.e., the law of similars).²² Even the intermediate and investment goods for export production activities are often subject to quantitative import controls. Investment goods for export production are not exempt from tariff unless domestic substitutes are not available or unless the exporters produce items that appear on the special promotion list.

According to Linag & Liang (1985, p. 20), "Import and foreign exchange controls and restrictions have been relaxed considerably [only] in recent

availability of finance is expressed in the holding of large amounts of financial assets (especially bank deposits) by firms."

²²All imports and exports require license in Taiwan. When an importer applies to a bank for a license of an item that is on the covertly controlled permissibles list, the request is referred back to the Industrial Development Bureau to check the domestic availability of the product at a reasonable price (see Wade, 1985, pp. 13-14).

years. . . . However. . . . There exist not only restrictions on particular sources of origin or on the status of [import] applicants, but also the reluctance of the lower ranks of bureaucracy to give up their restrictive powers by responding with unjustifiable reinterpretation of the policies they are charged with enacting." Even the simple arithmetic average tariff rate still amounts to nearly 30 percent in Taiwan compared to about 20 percent in Korea. The fact that the government could not overcome the political pressures of vested interest groups despite such huge surpluses in commodity trade may indicate the existence of serious structural rigidities in Taiwan's economic system.

The dominating philosophy in Taiwan has been equity, and as a result the government has discouraged the concentration of bank lendings on big businesses. Taiwan is indeed the land of small and medium enterprises, which is an ideal state if one should emphasize only the aspect of equitable distribution of wealth. However, there do exist such things like scale economies in industrial activities. Therefore, over a quarter century of rapid growth, there must have naturally emerged a substantial number of big enterprises in Taiwan. The fact that we failed to observe such a natural phenomenon in Taiwan must be due to some kind of structural defects in its economy which hinder the exploitation of scale economies. What we observe in Korea, i.e., the dominance of the economy by big business groups, may represent one extreme but what we observe in Taiwan may also represent another extreme. One cannot simply attribute it to the allegedly stanch individualism of Chinese people that contrasts with the allegedly group-think mentality of Japanese and Koreans. It may be due to some kind of man-made obstacles rather than to the nature of the Chinese people. Scale economies are partly taken care of in Taiwan by the large public enterprises. But then they carry the problem of inefficiency and excessive conservatism inherent to any public enterprises.²³

(3) Hong Kong: Limitation of Laissez-Faire System

Export-oriented growth strategy is usually understood to imply an active

²³It is argued that in Taiwan there is much less direct government interferences in private business sectors than in Korea and Japan because of the lack of big business groups that are extremely susceptible to credit rationing, the ethnic tensions between the mainlander-dominated government and the islander-dominated business sector and the existence of large public enterprises that provides an outlet for government interference activities (see Wade, 1985, pp. 11-12). In Taiwan, the government enterprises have absorbed about 20 to 25 percent of total bank loans during 1961-84.

government promotion of export activities because it is believed that there are tremendous learning effects associated with the infant export activities which impart a lot of externalities. And yet the success of Hong Kong is often attributed to the very laissez-faire system. Therefore, the case of Hong Kong seems to enable us to identify the mysterious dynamic external economies that are supposed to be associated with the infant export activities. Over a hundred year period, Hong Kong had served as an entrepôt which enabled the native Hong Kong businessmen to completely master the art of doing business with the whole world market. The extensive network of overseas Chinese merchants and the massive post-war immigration of capable entrepreneurs from the mainland also enhanced the Hong Kong's expertise in global trading. Unlike the case of starting export-oriented growth from a quasi-hermitage state like Korea, there seems to have been no substantial extra-learning effect imparting a lot of externalities that could be associated with the commencement of export activities based on "domestically" produced manufactures in Hong Kong.²⁴ That is, there did not exist any dynamic external economies that had to be internalized by the time Hong Kong started its export-oriented growth. Therefore, the absence of any active government intervention in the name of export promotion did not prevent Hong Kong from achieving a high growth performance.

As a leading financial center of the world and with a high domestic saving propensity, capital supply does not seem to have been any constraint for its rapid growth. Furthermore, the direct investments by multinational corporations played an important role in technology transfer and export expansion. The quality of Hong Kong's exports has very much improved and sophisticated and, in addition, it can expect a revival of the old time entrepôt trade, connecting the cheap labor of the mainland China with the world market.

However, as of 1985, the per capita GNP of Hong Kong amounted 2.5 times larger than that of Korea and the average manufacturing wage in Hong Kong was twice larger than that of Korea. Apparently, Hong Kong's competitive power in relatively labor-intensive manufactures would rapidly be reduced in the future. Furthermore, it can not hope to attain strong comparative advantage in land and capital intensive large-scale heavy industries. The future of Hong Kong lies in highly skill and technology intensive service and manufacturing sectors that are consistent with rapidly rising wage rates.

²⁴The free-trade regime of Hong Kong implies the absence of any import-substitution bias. Instead, the size of Hong Kong economy itself must have generated an export bias, if any.

However, if Hong Kong wants to move into the highly skill and technology intensive industries in the future, the *laissez-faire* system might not be sufficient. Establishment of a more comprehensive industrial support facilities and technical back-up services (such as product testing), promotion of R & D activities, and the education of highly qualified scientists and engineers may involve substantial amount of external economies necessitating rather active government interventions in the form of subsidy and preferential tax system.

According to Chen (1984: pp. 49-50), "The Hong Kong government is still hesitant in providing technical support and back-up services to industries, despite that it is quite clear that some form of centralized effort for technological promotion is necessary for the present direction of industrial development towards products with greater capital and technology-intensity. While the *laissez-faire* system was undoubtedly a contributing factor to Hong Kong's success in the last two decades, there is no reason to insist that this system without modification will also be the best policy for Hong Kong in the forthcoming Second Industrial Revolution."²⁵

(4) Singapore: Absence of Leading Indigenous Entrepreneurial Class

In Singapore, among the total domestic exports of \$13.6 billion in 1982, mineral fuels and oil bunkers accounted for nearly 60 percent and electronic products accounted for another 15 percent. By contrast, wearing apparels and textiles amounted to a mere 3 percent, while other items such as watches & clocks, optical instruments and toys & sporting goods together barely added up another 2 percent.

Despite the officially avowed policy of making the private sector the engine of growth, the Singapore government has controlled most industrial sites and has maintained the power to dictate the sectors to which new

²⁵According to Chen (1985: pp. 45-48), "Owing to the basically *laissez-faire* policies in Hong Kong, industrialists have been oriented to diversify products within the existing industrial groups rather than into new industries. . . . relatively little has so far been done by the government to upgrade the technological infrastructure of Hong Kong's industries. . . . For the time being, Hong Kong still excels in products design and workmanship. . . . But it would not be long before Hong Kong loses its entire comparative advantage in the production of most products to other NICs. *Laissez-faire* industrial policy was at one time a desirable policy under which dynamic entrepreneurs could excel in product diversification. But when it comes to a phase of industrial development in which discrepancies between social and private returns are so great, it is difficult to see how Hong Kong industrialists can cope with it."

investments go. During the 1970s, the Singapore government promoted capital-intensive export industries such as oil refining and shipbuilding. Ships amounted to 2.6 percent of total domestic exports in 1982. It is now expected that, even after shipping recovers from its world-wide slump, the Singapore shipbuilding industry has to scrap more than half of the existing dock capacity. On the other hand, the oil refineries are facing increased competition from the Gulf Countries, Malaysia and Indonesia, and are operating at less than half capacity.

By the turn of the 1980s, the Singapore government adopted the strategy of enforcing high wages as a means to rapidly weed out the low value-added production lines, and promoted the more technology & skill intensive industrial electronics and capital-intensive bulk petrochemicals. However, both the high-wage policy and investment in petrochemicals have generated difficulties for the Singaporean economy. Due to the high-wage policy Singapore has lost competitive power in less sophisticated electronic products and, by 1984, could not fill the U.S. quota on wearing apparels. The Singapore government has invested heavily in the so-called bulk petrochemicals comprising of an upstream plant (naphtha cracking which produces ethylene, propylene and acetylene) and four downstream plants (polyethylene, acetylene black, ethylene glycol and oxide, and polypropylene). Ever since their operation that started in 1984, they were challenged by the Saudi petrochemicals based on zero-cost natural gas (particularly in low density polyethylene) and cheap ethane-based Canadian petrochemicals. The government owns 30 to 50 percent of stocks of these companies. Singapore has yet to restructure its product mix towards the further downstream R & D intensive speciality items such as resins, solvents, lubricant additives, oil-field chemicals, synthetic elastomers, and pharmaceuticals but then there it has to face the competition of entire manufacturers of the advanced countries.

Singapore has not imposed any restrictions on foreign direct investments. The multinational firms could even import workers with skills not readily available in Singapore. As of 1982, wholly foreign firms accounted for about 16 percent of the total manufacturing establishments but accounted for about 42 percent of total employment, about 55 percent of value added, and about 65 percent of direct exports.²⁶ The ratio of direct exports to total sales was 72 percent for wholly foreign firms compared to 32 percent for wholly local

²⁶Should we include the firms where more than half the paid-up capital were foreign-owned, about 55 percent of total employment, about 67 percent of value added, and about 84 percent of direct export were accounted by the so-called foreign capital dominated firms. "Direct exports" of manufacturing accounted for 75 percent of "total domestic exports" in 1982.

firms. Foreign investments have been concentrated on relatively capital-intensive export sectors: petroleum refineries, electronic products, electrical machinery & equipments and chemical products. There has apparently been no significant growth of an indigenous industrial entrepreneurial class in Singapore. The Singapore government is now turning to the front-line computer peripherals and softwares, artificial intelligence, robotics, biotechnology, informatics and information-intensive service sectors. However, the present government policy seems to emphasize only the creation of a highly skilled local work force with ample supply of trained professional and engineering manpower, and then to hope the multinationals once again taking the leadership in restructuring Singapore's manufacturing sector into a technology-intensive high value-added one. However, without having a core of leading indigenous entrepreneurs, the long-run prospect for the footloose multinationals to sustain Singapore's high growth rates as they did in the past seems to be quite uncertain.

An excessive infow of foreign-owned industrial enterprises may indeed seriously inhibit the formation of a local entrepreneurial class and consequently be detrimental to the economy in the long-run. Grossman (1984) suggests the need for government intervention to provide efficient risk-sharing institutions such as stock markets. That is, in order to improve allocative efficiency, government has to provide insurance to potential entrepreneurs against adverse outcomes in their industrial sector ventures. However, contrary to what the simplistic models suggest, the risk-sharing insurance may not be sufficient and the size and quality of the risk-bearing indigenous entrepreneurial class may, in and of itself, have to be a long-run policy target in order to ensure a sustained high growth. For instance, Chen (1985: p.55) is not too optimistic about the economic future of Singapore because of its heavy dependence on petro-chemical industries, strong government guidance, and foreign entrepreneurship.²⁷

V. SUMMARY AND CONCLUSION

The common problems faced by Asian NICs are the restrictions imposed

²⁷Among the Asian NICs, the degree of dependency on foreign entrepreneurship may be ranked in the following order: Singapore, Taiwan, Hong Kong and Korea. For instance, in Korea only about 6.6 percent of total foreign capital inflow during the period 1964-83 was in the form of direct foreign investments. Total amount of foreign investment amounted to about \$3.9 billion in Taiwan and about \$1.7 billion in Korea during 1962-83 (on basis of approval).

on technology transfers by the advanced countries and the protectionist policies of the advanced countries. The specific problems faced by each individual Asian NICs are: the problem of an extremely crippled market mechanism in case of Korea, the problem of serious underinvestments in Taiwan, the limitation of laissez-faire system in Hong Kong and the lack of indigenous industrial entrepreneurs in Singapore.

The Korean government has promoted the expansion of domestic production and exports of selected industries through various direct interventions of market mechanism such as arbitrary credit rationing. These short-sighted policy measures seem to have seriously damaged the long-term allocative efficiency of the Korean economy.

Taiwan is experiencing an enormous gap between domestic savings and investment. It seems that the government-dominated financial system of Taiwan has failed to function as an efficient intermediary between the savers and the investors. If Taiwan is to search for profitable investment projects abroad now, then something must have gone wrong with the Taiwan's economic system itself.

Hong Kong has to move into the highly skill- and technology-intensive industries. However, the establishment of a more comprehensive industrial support facilities and the education of highly qualified scientists and engineers would involve substantial amount of external economies. While the laissez-faire system was undoubtedly a contributing factor to Hong Kong's success in the last two decades, it may need a rather active government interventions in the form of subsidy and preferential tax system.

The present policy of the Singapore government seems to emphasize only the creation of a highly skilled local work force with ample supply of trained professional and engineering manpower, and then to hope the multinationals once again taking the leadership in restructuring the Singapore's manufacturing sector into a technology-intensive high value-added one. However, without having a core of leading indigenous entrepreneurship, the long-run prospect for the footloose multinationals to sustain Singapore's high growth rates as they did in the past seems to be, at best, quite uncertain.

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