THE ECONOMIC DEVELOPMENT POLICY IN THE TRANSITION TOWARD A MARKET-ORIENTED ECONOMY IN THE SOCIALIST REPUBLIC OF VIETNAM

FINAL REPORT

EXECUTIVE SUMMARY

Jan. 1996

JAPAN INTERNATIONAL
COOPERATION AGENCY

MINISTRY OF PLANNING AND INVESTMENT
THE SOCIALIST REPUBLIC OF VIET NAM

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INDUSTRIAL POLICY

June 1996

DAIWA INSTITUTE OF RESEARCH LTD.
THE JAPAN ECONOMIC RESEARCH INSTITUTE
PACIFIC CONSULTANTS INTERNATIONAL CO. LTD.

CURRENCY EQUIVALENTS

March 1996	Currency Equivalent
	11,000VND / USD 1.00
	102.88 円 / USD 1.00

Abbreviations

AFTA	ASEAN Free Trade Area
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
CMEA	Council for Mutual Economic Assistance
FDI	Foreign Direct Investment
ODA	Official Development Assistance
SOEs	State-Owned Enterprises
SMEs	Small and Medium Enterprises
WTO	World Trading Organization

Executive Summary

Viet Nam's most promising path toward more developed industrial mix is to fully pursue the potential of labor intensive industries, both simple and high-tech. This is based on the experiences of other Asian countries, current international environment (availability of FDI and high-tech machines), views of foreign investors, and Vietnamese advantage in human resources.

Viet Nam will eventually need domestic heavy and chemical industries, but the feasibility and timing of each project must be carefully examined. In addition to the requirement of huge initial capital for investment, the price of their products fluctuates by international supply and demand, and can be lower than the production cost. Further, small difference of production cost can divide the winner and the loser. There are cases of trouble in ASEAN countries.

Foreign Direct Investment (FDI) is the key to industrialization. Streamlined policies and a standard set of procedures on FDI must be established, be administratively implemented, and be widely known inside and outside to secure consistency and reliability. FDI can even provide the opportunity to reform state-owned enterprises.

Small and medium enterprises, and rural industries are important for balanced regional development, but they face various difficulties. The first step for the Government is to create consensus for their promotion with active policies of assistance and to put some institution in charge of all the administrative affairs on them to secure an effective administration.

Viet Nam should strive to maximize the benefits of participation in AFTA, then in APEC, and eventually in WTO. Viet Nam still have some flexibility regarding the timing, speed, and content of measures in the arena of trade and investment deregulation. The prime expectation by others to Viet Nam is that Viet Nam demonstrates a long-term commitment to the liberalization process.

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III. Industrial Policy

Chapter 1 Economic Growth in East Asia and Industrial Policy

1-1 Bird's Eye View

In the 200 years since the industrial revolution, lateconers in industrialization have promoted their own industries, in many cases, by protecting them. Socialist countries had introduced centrally planned economies in order to achieve industrialization. In these cases, the planned economies were included in policy. However, the current idea of industrial policy has not existed long. It has gradually evolved and has become widely known since the late 1960s. This is the period after World War II when Japan's economic growth, and policies promoting industries were attracting attention.

Current industrial policy debate focuses on the economic growth of Japan after the War and on the high-speed growth later seen in the Newly Industrialized Economies (NIEs) and Association of Southeast Asian Nations (ASEAN) groups. For this reason, the debate tends to be simplified into a stereotypical argument between the British and American principles of "the market solves everything" and Japan's government intervention approach. But the growth pattern in East Asia varies among countries, strongly reflecting the international conditions at the time of the industrialization.

(The Case of Japan)

Latter half of the 1940s:	Reconstruction Period after the War. Priority production (coal and steel). Food production (fertilizer).
Former half of the 1950s:	Rationalization and modernization of industries. Establishment of key or basic industries (electric power, coal, steel, marine transport).
Latter half of the 1950s:	Period of industrial promotion. Simultaneous export promotion and import substitution. Nurturing heavy and chemical industries, new industries, and infant industries (petroleum refining, petrochemicals, machinery, automobiles, electronics, and electrical).
Former half of the 1960s:	Transition to an open economy: Arrangement of production and capital investment through the cooperation between the public and private sectors.

The promotion of exports had been the policy of the government from the beginning. At first, Japan took advantage of low labor costs to export textiles and miscellaneous products ("Made in Japan" meant cheap goods). But from around 1955, shipbuilding became the leading Japanese export industry.

Also around 1955, the government focused industrial policy on import substitution and the nurturing of new or infant industries. New petrochemical complexes began to appear along the shores of Tokyo Bay, Ise Bay, and the Inland Sea. The steel industry moved forward with the construction of blast furnaces, all equipped with the latest technologies. The quality of automobiles had not yet reached international levels in the early 1950s. Toyota had, with strenuous efforts, been producing domestically designed cars in small quantity while Nissan and the other smaller makers were limited to assembling cars based on cooperative agreements with foreign auto makers. Machine tool industry was also considered to be important. Improvement in three industries, machine tool, electronics parts and auto parts, was established as a key goal of Japanese industrial policy. These three areas provided intermediate inputs and their development meant the growth of supporting industries. Loans from the Japan Development Bank and the accelerated depreciation available for the capital investment in these industries were the major policy tools. Although there existed protection, schedule for future liberalization was clearly shown. They had an annual target to reduce the production cost by modernization to cope with the expected international competition in the future.

Thanks to the economic development built up by this post-war industrialization, Japan joined the advanced countries in 1964, a symbolic year in many ways. The major events of 1964 in Japan were the Tokyo Olympics, the start-up of the Tokaido Shinkansen (bullet trains), and the opening of the first expressways. The International Monetary Fund (IMF) included Japan among the article 8 countries (treated as an advanced nation). Japan was also approved as a member of the Organization for Economic Cooperation and Development (OECD), a group of advanced countries headquartered in Paris.

In this way, the post-war Japanese economy passed through a series of clear stages to reach maturity in about 20 years. Although government industrial policies played a role in the process, the government adhered to the principle of balanced finances. Availability of foreign capital had been limited. In Japan during the early 1950s, two-thirds of foreign currency entering the country consisted of dollars from the World Bank and the Export-Import Bank of the United States. Funds from the World Bank were used to construct steel mills, electric power plants, the Shinkansen, expressways, etc. As imports grew along with economic growth, Japan's international balance of payments reached a limit, and business conditions reversed.

The valuable foreign currency accumulated through exports was managed carefully. After agreements were reached by deliberative councils etc., foreign currency was used to import the latest machinery and to obtain rights to the newest patents. Some say that these policies constituted planned-economy industrial policy. However, even though agreements were reached by council, the economy was not led by government bureaus as much as it was propelled by the vigor of the private sector. The Japanese system was clearly different from mere protectionism. Although it protected its industry from foreign competition, a schedule for future liberalization was clarified, and within the nation, competition was fierce.

Although there was little foreign currency that could be applied to Japan's post-war industrialization, there was sufficient leeway on the American side for a fixed exchange rate, that made it easier for businessmen to make forecasts. This period can be described as a typical success story from a period when the protection of the country's domestic industries did

not cause problems. Many of these industrial policy approaches, seen in countries which industrialized after the War, served as a modified guide to the formulation of industrial policy in Korea when its economy finally began to rise.

(The Asia NIEs Case)

As the 1970s began, the economies of four Asian countries (Korea, Taiwan, Hong Kong, and Singapore) referred to as the Newly Industrialized Economies (NIEs) began to grow rapidly. The economic expansion in these areas differed from that of Japan.

Take Korea as an example. It was President Pak who established Korea's present economic course. After the signing of the Japan - Korea treaty in 1965, the country began to stimulate exports taking the lessons from the experiences of Japanese industrialization, aggressively obtaining loans to establish its heavy and chemical industries. President Pak in hopes of achieving Japanese style industrialization is said to have ignored advice by American economic advisors. In areas such as the extension of credit, the process directly reflected government intentions much more than in the case of Japan. The earliest exports were textiles and miscellaneous products, which benefited from Korea's low wages, but its industry quickly matured to the point where it could perform skilled labor intensive production such as the assembly of electrical appliances.

Another unique features of Korea's industrialization was the rapid establishment of heavy industry and the chemical industry along with its labor intensive export industries. In 1973, heavy industry and chemical industry plans were enacted and implemented to construct facilities for six industries: the steel, shipbuilding, electronics, machinery, nonferrous metals, and chemical industries. These industries were, from the beginning, designed not only to replace large-scale imports (steel, petrochemicals, etc.), but also to eventually develop into export industries. Financing, including that provided by the private sector, was under government control, and the extension of credit was carried out according to the value of exports. This spurred competition for export markets among Korean companies, with the winners putting more money into exports. This resulted in the rapid growth of a few corporate groups and the establishment of an industry dominated by zaibatsu style industrial combinations.

The establishment of heavy industries and large-scale production facilities in such a short time was criticized as wasteful planning by many experts in Japan and other countries, but Korean policy has been to use this temporary surplus capacity, to produce exports in order to pay off its debts. This reserve capacity is now an asset that supports Korea's latent strength, now that it has become difficult to build large blast furnaces and ethylene centers in most parts of the world.

The abrupt rise of Korean industry has had a big effect on Japan. In the latter half of the 1970s, Japan's shipbuilding industry began to decline under pressure from Korea. Although Japan had half the world's shipbuilding capacity at that time, by 1978, the industry cooperatively discarded about 35% of the country's shipbuilding facilities. This dealt a severe blow to shipbuilding industry communities. In the case of the iron and steel, four blast furnace at the first mill of the "Pohang Iron & Steel Co., (POSCO)" had been successively completed between 1970 and 1983 with the capacity totaling to 9 million tons per year. One of the factors behind the successful start-up of the new facility was the provision of free

technological assistance by Nippon Steel Corp. and NKK as well as financing from Japan. But as a result of a slump caused by; a) the rising yen in 1986, b) pressure from low-priced steel imports from Korea (POSCO), and c) depressed domestic demand, Japan's blast furnace operators were pushed into the red, extinguishing the flames in the old blast furnaces. Large scale petrochemical complexes also started up in the 1980s. These industries provided Korea with the ability to create new large scale plans to meet any increase in domestic demand that could have been caused by the Seoul Olympics or economic growth. They continue to exert considerable pressure not only on Japan, but on the ASEAN group as well.

The availability of foreign capital, particularly support from Japan, played a big role in providing Korea with the means to industrialize rapidly. One change in the international scene which also gave Korea a boost from the very beginning was its exporters' ability to target the huge American market and the gradually opening Japanese market. Another factor that can not be overlooked is the way that human resource development was supported by the culture and national character of the Korean people--enthusiasm for scholarship and learning from the elementary level to the highest levels and a willingness to work hard-- characteristics which guaranteed that they could easily obtain the knowledge and develop the forbearance needed for industrial production.

(Case of ASEAN Countries)

Economic growth in the ASEAN countries (In this case, Thailand, Malaysia, and Indonesia) began to attract world attention in the late 1980s. This region's economic growth has been driven by direct investment by foreign corporations and the export of their production. This pattern is quite different from that seen in the earlier NIEs group of countries.

Up until the 1970s, the goals of the ASEAN countries had been domestic industrialization, particularly the development of light industry to replace imported products. But with declining imports of consumer goods came expanded imports of capital goods, industrial raw materials, and other intermediate inputs needed for consumer production. This kept these countries' international balance of payments in the red. The final goods did not meet international standards in terms of either quality or cost, and efforts were made to restrict imports by means of high tariffs and the establishment of quotas. As these protective measures became permanent, import replacement industries remained inefficient and dependent on the domestic market. These problems have not been fully resolved.

By the 1980s, these import substitution industrialization policies had generally failed, so the ASEAN countries responded by replacing these with export promotion policies. The promotion of exports had to begin with products in which these countries enjoyed a comparative advantage. Textiles and other labor intensive light industries supported by low wages filled this role in the ASEAN countries as they had elsewhere. The process can be explained as the shift of labor-intensive comparative advantage to the ASEAN countries from the NIEs group, which were steadily losing it as economic development drove up their workers' incomes.

Rapid growth in the ASEAN countries is distinguished from that elsewhere by the fact that it has been driven by direct investment by overseas companies. To promote direct overseas investment, ASEAN governments have in some cases provided export processing

zones and enacted other policies to make it easier for foreign-owned companies to move in. In this way, one foreign-owned company after another has established production facilities in the ASEAN countries. The behavior of these foreign-owned countries has also reflected changes in international conditions. American companies moved production offshore under the pressure of the rising dollar in the early 1980s, and their destinations included the ASEAN countries. But with the rise in the yen in the late 1980s, Japanese corporations, eager to preserve their international competitiveness, also began to rapidly shift their production activities to the ASEAN countries where conditions were appropriate for their operations. The result of these events was a rapid growth in ASEAN countries' exports of labor intensive products.

These foreign direct investments constituted a brand new type of investment. Not only were far more of the owners of the factories overseas investors than in the case of Asia's NIEs countries, but from the beginning, it was assumed that most of the goods they produced would be exported. The principal export market was America, but as Japanese companies moved in, Japan joined the destinations of ASEAN exports. Eventually, domestic market also joined the target. Almost all intermediate goods and machines were brought in from Japan. The revolution in electronics played a role in this process by making it possible for the investing corporations to establish high quality labor intensive industrial production with relative ease by importing and using advanced electronic machinery.

1-2 Industrial Policy in Japan

(1) Concept of Industrial Policy

The concept of industrial policy is not an old concept. If it is said to have been established around the second half of the 1960s when, amid the on-going high economic growth, people were getting more concerned with a series of policies the government adopted to promote industrial development in Japan after the World War II. Industrial policy also started to attract the attention of foreign countries as can be seen by the fact that a report entitled "Industrial Policy of Japan" was published by the OECD.

On the other hand, the term "industrial policy" came to be widely used without a clear definition. This situation continues to this day. It may be defined literally as "a policy intended for industry." However, the Ministry of International Trade and Industry (MITI), framers of Japan's industrial policy, and a group of scholars which analyzed industrial policy from the viewpoint of economics define industrial policy as follows.

1) Definition given by the MITI's Research Institute of International Trade and Industry

The term is defined as follows in "The Theoretical Basis for Industrial Policy" published by MITI's Research Institute of International Trade and Industry in March 1990.

"All of the policies to intervene in industry to achieve some public goals in response to the limits of a market"

2) Definition given by a group of scholars

In "The Economic Analysis of Industrial Policy" published in May, 1988, the authors (Ito, Kiyono, Okuno and Suzumura)define the term as follows.
"Policies implemented in order to raise the level of welfare for the economy concerned when some problems arise in connection with resource allocation or distribution of income as a result of free competition due to a defect in the competitive market mechanism - market failure. All of the policies to achieve the goals of such policies through intervention in the distribution of resources among industries or sectors or in the industrial organization of individual industries"

The above two definitions are relatively similar, but one of the differences between the two is that "the limits of a market" as stated by the Ministry of International Trade and Industry has a broader concept than "market failure" as mentioned by the scholars. It refers to the situation where some public goals cannot be achieved through the market mechanism. Another difference is that "some public goals" as stated by the Ministry of International Trade and Industry, a large portion of which is overlapped by "in order to raise the level of welfare of the economy concerned" as referred to by the scholars, has a broader concept and includes value for the public which cannot always be measured economically.

We cannot say which definition is better, but we can at least say that the government, which is the entity that promotes industrial policy, must pursue various policy goals, and is required to estimate in advance the impact and effects of its policy on industry. In this very sense, regardless of the definition of the term, those involved in formulating policy need to consider the relationship between industry and policies in a broader concept.

(2) History of Industrial Policy of Japan

1) Economic reforms planned by the occupation army

After the War, Japan was placed under the control of the occupation army mainly consisting of the U.S. forces, and a series of economic reforms were conducted under the direct and strict order of the occupation army. Three major economic reforms included one the dissolution of the "Zaibatsu"(a financial clique and a giant family trust formulated before World War II in Japan. Several groups of Zaibatsu had dominant power in the Japanese economy.) two, farmland reform and three, labor reform.

A. Dissolution of the Zaibatsu

The purpose of the dissolution of the Zaibatsu carried out by the occupation army was to eliminate the excessive centralization in the production system and to impose certain restrictions on private ownership. Reforms following along this line were realized by the Antimonopoly Act (April, 1947) and the Economic Decentralization Act (December, 1947). These laws were revised in various forms later, and their force was weakened as a result. However, the dissolution of the Zaibatsu undoubtedly served to facilitate the separation of ownership from management and to promote competition among corporations.

B. Farmland reform

The farmland reform allowed farmers themselves to have the right to own their farmland, and thus created an incentive for large-scale land improvement, resulting in higher agricultural

productivity. It also went a long way toward increasing the production of fertilizer. An increase in agricultural income and the resultant expansion of the domestic market supported economic growth in the area of demand.

C. Labor reform

Labor reform was implemented through enactment of the three labor laws, the Labor Union Act"(December, 1945), the Labor Relations Adjustment Act and the Labor Standards Act. These laws guaranteed the rights of workers, and enabled the establishment of an institutional framework for labor-management relations in Japan. This framework is generally characterized by cooperation between labor and management. As a result, labor conditions were significantly improved in terms of both wages and labor environment, and the purchasing power of workers was enhanced. These factors therefore supported economic growth in the form of demand as well as supply.

2) Postwar rehabilitation period (1946-1948)

It can be pointed out that many of the regulatory concepts adopted during the war were reflected in industrial policy formulated immediately after the war. Methods such as import quotas, material quotas and price controls were used. The priority production system, which is regarded as an synonym for the postwar industrial rehabilitation in Japan, is a representative industrial policy in this period.

[Priority production system]

In order to achieve a quick recovery of mining and manufacturing production, government funds, imported raw materials, and foreign exchange, all of which were very scarce in those days, were placed under the strict control of the government, and priority was given, in terms of funds and materials, to a handful of important strategic industries which were considered the most important for economic reconstruction. Because the key source of energy in those days was coal and the most urgent task was to secure energy, top priority was given to the coal-mining industry as well as to the steel industry which supplied steel necessary for coal mining.

All of the imported heavy oil was sent to the steel industry while the increased portion of steel output was reinvested in the coal mining and steel industries. The increased portion of coal output was reinvested in the steel industry. In this manner, resources were injected into these two priority industries and was called the priority production system.

As a result, the output of coal increased to such an extent that the government could allocate coal to industries other than the steel industry. After steel, the second highest priority was given to "materials for stabilizing citizens' lives " such as fertilizers, soda and gas. Those industries were financed by the "Reconstruction Finance Bank" (organized in January, 1947, and later reorganized as the Japan Development Bank.)

The Reconstruction Finance Bank raised funds by issuing bonds fully accepted by the Bank of Japan, and this naturally led to inflation. As a result, new loans by the Reconstruction Finance Bank were cut off in 1949. In spite of such problems, the industrial policy at this time was successful in establishing the foundation of the production system.

3) Industrial rationalization period (first half of the 1950s)

The objective of industrial policy in the next period was to work out ways to efficiently utilize resources and to carry out comprehensive rationalization of production in order to equip industries with international competitiveness at the exchange rate of ¥360 to the U.S. dollar. This rate was set in April, 1949 and was regarded by many as an over-valuation of the yen.

A. Industrial Rationalization Council

To achieve this objective, the Ministry of International Trade and Industry in December, 1949, organized the "Industrial Rationalization Council." (In 1964, the IRC was combined with the Industrial Structure Research Council which had been organized in 1961. This union was renamed the "Industrial Structure Council"). The original Industrial Rationalization Council would serve as an advisory body for arriving at policy consensus among the government, corporations and workers. The establishment of this council allowed the private sector to virtually exchange views with government officials prior to the formulation of major industrial policies. In the Sub-Council on Capital under the Industrial Rationalization Council, major capital investment plans of individual industries were discussed and checked from the viewpoint of product demand and fund-raising. These discussions were conducted under relatively objective criteria and therefore were thought to prevent rent-seeking.

(For reference)

On criteria for selecting industries to which preferential treatment is given

The Industrial Structure Council uses the following criteria when deciding which type of industry should receive preferential treatment. These indicate that the criteria established in 1963 (a and b) were used to give priority to the industries supporting high growth. An additional consideration was given to external diseconomies such as pollution in 1970, and another to changes in the external environment such as the oil crisis in 1980.

a. Income elasticity criterion (1963 Industrial Structure Council)
b. Productivity improvement criterion (-ditto-)
c. Overcrowding and environment criterion (1970 Industrial Structure Council)
d. Work content criterion (-ditto-)
e. Dynamic comparative advantage criterion (1970 Industrial Structure Council)
f. National needs fulfillment criterion (1980 Industrial Structure Council)
g. Energy-conservation and resource-saving criterion (1980 Industrial Structure Council)
h. Security criterion (1980 Industrial Structure Council)

B. Preferential treatment

In industrial policy at this time, emphasis was laid on giving preferential treatment, including economic inducements, to technologically superior corporations within the targeted industry.

The Japan Development Bank, which in 1951 inherited assets and liabilities of the Reconstruction Finance Bank, virtually provided subsidies to the priority industry for capital investment and promoted capital investment by extending loans with interest rates lower than money market rates.

"The Export-Import Bank of Japan" organized in 1950 adopted a similar policy of virtually providing subsidies to exporters.

Since 1953 the Small and Medium Enterprises Finance Corporation has extended loans to small and medium sized companies to promote such enterprises.

As for the taxation system, a variety of special taxation measures were provided to promote capital investment and export. Such measures included "the accelerated depreciation system for important machinery"(1951-1960), "export income exemption"(1953-1963) and "the accelerated depreciation system for exporters". In addition, imported capital goods were exempt from custom duties.

Furthermore, "export insurance" which covers export risks was created to promote exports. As was the Japan External Trade Organization (JETRO) which supplies information promoting exports.

4) Industry promotion period (second half of the 1950s)

This period in addition to industrial rationalization is characterized by improvement of industrial infrastructure, promotion of new and promising industries, and the start of declining industry adjustment.

Emphasis of industrial policy shifted to synthetic fibers (Synthetic Fiber Five-Year Development Plan, April 1953), synthetic resin, petroleum refining, petrochemicals (Petrochemicals Promotion Measures, July 1955), electronics (Electronic Industry Promotion Temporary Measures Law, June 1957) ,and machinery parts and general machinery (Machinery Industry Promotion Temporary Measures Law, May 1956) which have come to be regarded as new growth industries.

On the other hand, as the energy source changed from coal to petroleum, adjustment of and support to the coal industry with its sharply decreasing output also became an important theme of the industrial policy during this period.

In this period tariffs and import quotas were widely used. They extensively protected the domestic industries and greatly contributed to their growth.

The policy in this period was implemented mainly by means of company-selective preferential treatment, and can be characterized by the low-interest loans extended by the Japan Development Bank and the Export-Import Bank of Japan, the accelerated depreciation systems, and the reduction of and exemption from taxes and tariffs.

5) High growth period (1960s)

Industrial policy in this period is characterized by transition to the open economy system, concerted investment and production adjustments by government and enterprises, and pollution control.

A. Transition to the open economy system

Sharp increases in exports of Japanese industrial products, coupled with extensive deregulation on exports in European countries, resulted in stronger demand for trade liberalization on the part of Japan. Against this background, in 1960 the government announced the trade and exchange liberalization plan, and declared both at home and abroad that Japan would shift to the open economy system. In 1964 Japan shifted from an IMF Article 14 applicable country to an IMF Article 8 applicable nation (a country which has accepted Article 8 of the IMF which called on the country to remove regulations on exchange among others).

B. System for cooperation between government officials and private enterprises (investment adjustment and production-sector adjustment)

One of the characteristics of the industrial policy in this period is the adjustment of capital investment. "Excessive competition" was considered to generate excess capacity for the whole industry by creating numerous "under-sized" enterprises, and reduce international competitiveness. Accordingly, the Ministry of International Trade and Industry directly intervened in the capital investment of capital-intensive industries including steel, synthetic fibers, petroleum refining, petrochemicals, and paper and pulp. In pursuit of economies of scale, efforts were made to specialize production and to establish a large-scale production system by means of an industrial complex.

Such intervention in industry is a kind of direct administrative measure. However, not being based on law, it can only be realized when the interests of both the government and the private enterprises are in accord. This was the period when two different views concerning measures to implement the industry policy were pitted against each other - whether to take direct, regulatory measures or to take indirect guidance measures. By the end of the 1960s the view that indirect guidance measures should be taken became dominant.

C. Pollution control

With widespread pollution damage in various parts of the country in the second half of the 1960s, pollution control became one of the pillars of industrial policy. The Basic Law for Environmental Pollution Control" went into effect in 1967. Also enacted the same were the about time "Water Pollution Prevention Law", the "Noise Pollution Control Law", and the "Air Pollution Prevention Law."

6) Stable growth period (After the 1970s)

The industrial policy in this period was formulated to cope with the great change in the economic structure Japan endured when many industries lost their competitiveness due to the oil crises of 1973 and 1979. It was also in response to the growing concern of the international community over a large share of Japan's economy in the world and increases in exports from Japan.

A. Adjustment of and support to structurally depressed industries

In May 1978 the "Law for Temporary Measures to Stabilize Specified Depressed Industries" was enacted. Several seriously depressed industries with excessive production capacity, and in which more than half of the companies continued to fall into the red, were designated as "structurally depressed industries." Designated industries included aluminum refining, synthetic fibers, shipbuilding, corrugated paper, the spinning industry and chemical fertilizers. They were allowed to form a cartel to scrap surplus facilities, and a credit fund was established to provide guarantees on bank loans which were needed to renovate outdated facilities. Despite such efforts, the second oil crises made it much harder to adjust those specific industries; therefore, the "Law for Temporary Measures to Improve the Structure of Specified Industries" was enacted in 1982 to adjust and support the industries. This consisted of grants-in-aid for the development of technological innovation of production processes and subsidies for business tie-ups, consolidations and for investment in new and efficient facilities.

B. Promotion of investment in R&D in high-tech industry

The government promoted research on high technology by conducting, at government expense, a large-scale research project on basic technologies that could not have been carried out by private enterprises. The government also provided preferential tax measures or subsidies to private enterprises that participated in the joint R&D union. The most famous example of successful joint R&D union is the "Ultra Large-scale Integrated Circuit Technology R&D Union" which consists of five semi-conductor manufacturing companies and develops computer technologies.

C. Measures to cope with international economic friction

Exports of automobiles and televisions, which had relatively minor damage from the oil crises, increased sharply, and political problems frequently developed between Japan and its trade partners. This prompted the government to promote deregulation and liberalization in the domestic economy, including abolition of import regulations, and to implement voluntary restraint for exports. This voluntary restraint was implemented in many industries, including textiles, steel, automobiles, machine tools and ICs.

In this period the application scope of various preferential measures used as an industrial policy tool was relatively reduced as compared with before. This was partly because providing export subsidies was no longer permitted internationally.

MITI's approach in this period was becoming softer than before. One example of this may be the provision of information and guidance through the formulation of a vision of industries in the next decade.

1-3 Economic Growth and Industrial Policy in Asia NIEs and ASEAN

(1) Overview

While the economies of many developing countries remain sluggish, Asian countries (*1) have rapidly industrialized. This industrialization has been fueled by the export of manufactured products, while foreign capital in the form of direct investment and loans from overseas has also played a major role in the growth of Asian countries.

Asian countries have these similarities in their pattern of industrialization, but there are nevertheless significant differences between countries in terms of the ratio of foreign capital companies in the domestic industry, the growth of the supporting industries, such as the export industry which supply intermediate inputs to finished product industries, the upgrading to the heavy chemical industry which is capital-intensive, and so on. These differences are the result of the different policies of each country.

This paper reviews the characteristics of economic growth of Asian countries, analyzes the causes of this growth, and assesses the applicability of such growth to the industrial development of Viet Nam.

(2) Characteristics of Asian Countries' Industrialization

The industrialization of Asian countries has been export-led. This is clear from the fact that, in these countries, the proportion of industrial products in total exports has rapidly increased in line with industrialization, and the ratio of the export-oriented production to total industrial production has increased as industrialization has progressed.

Two characteristics of industrial exports from Asian countries are as follows:

1) 'Stratified policy' of advanced markets

2) Concentration on labor-intensive, non-durable consumer goods

'Stratified policy' in 1) above refers to the way in which developing countries seek to upgrade their products exported to South American and West European markets (*2), while less developed countries take over production of the lower-grade products. Asian countries have developed their exports in this manner, and to expand exports, each country has adopted a broad economic policy.

To understand the second item 2), it is important to consider the following facts:

A. Thus far, even the leader among Asian countries, South Korea, has only been able to gain a limited advantage in goods other than labor-intensive products.

B. Export products have been upgraded only in the labor-intensive product group. That is, textile goods have only been replaced by electric appliances, while less capital-intensive, unskilled labor-intensive goods have only been replaced by capital-intensive, skilled labor-intensive goods.

C. Exports are biased towards finished products. Fewer intermediate inputs are exported, and the level of domestic production is also small. Intermediate inputs that are used for export products with set standards are often imported(*3).

Industrial products exported by Asian countries are thus still centered on labor-intensive goods, but the structure of the domestic industry of each country is changing towards the heavy chemical industry, mainly raw materials(*4). This suggests that exports alone cannot explain the industrial growth of Asian countries.

(3) Stages of Industrial Growth in Asia

The industrial growth of Asian countries can be roughly divided into the following stages:

1) 1st Stage of Import Substitution
(domestic production of light industrial goods)

2) 1st Stage of Export Substitution
(export of light industrial goods)

3) 2nd Stage of Import Substitution
(domestic production of heavy chemical industrial products)

4) 2nd Stage of Export Substitution
(export of heavy chemical industrial products)

The division of stages such as 2) and 3) above is often ambiguous in the cases of Asian countries other than Japan (*5). But broadly speaking, South Korea and Taiwan are now in the latter half of stage 3), Thailand and Malaysia are in the first half of stage 3), and Indonesia and the Philippines are in stage 2). It is important to note that, in the transition from stage 1) to 2), economic policies shift from inward to outward. That is, policies inevitably change as the country moves from one stage to the next. The next section defines these inward and outward policies.

(4) Change of Policy

Outward and inward policies are defined as follows:

1) Outward policy

An outward policy is generally recognized as one that encourages exports. According to its strict definition, it is a 'policy that gives the same amount of incentive to both production for the overseas market and that for the domestic market'.

Here, it is not necessary for the incentive given to production for the overseas market to exceed that for the domestic market. If the incentive is the same, the industry having an advantage over others is automatically converted to an export industry (6).

2) Inward policy

An inward policy means a policy that provides a stronger incentive for production for the domestic market than for the overseas market. Certainly, in this case exports are impeded.

Historically, developing countries in starting the process of industrialization after the end of World War II, adopted inward policies and sought to promote industrialization for import

substitution. It was thought that, to encourage import substitution a stronger incentive was needed for production for the domestic market than for the overseas market. It was regarded as an unavoidable consequence that exports of industrial products would be impeded.

Theoretically, however, a policy which encourages exports can co-exist with an import substitution policy under the structure of outward policy-making. Because both export and import goods can promote international trade, the introduction of a policy that provides an incentive to produce goods that are traded rather than non-trade goods will lead to the production of both export and import products(*7).

The theory of 'double industrialization' was used to explain the concurrent progress of export expansion of labor-intensive goods and the development of industries in South Korea and Taiwan. Both countries at that stage properly used both an export-encouraging policy and an import substitution policy depending on the industry concerned in order to simultaneously expand the production of both labor-intensive goods (finished products) and the goods of capital-intensive industries, which supply intermediate inputs to the former.

In many developing countries, however, goods must be imported to produce internationally competitive exports because the domestic industries are still undeveloped (*8). In this case, it is difficult to encourage exports and import substitution at the same time. To achieve this, efforts must be made to foster certain industries, which will otherwise remain as simple assembly bases that only import parts and export products.

(5) Overview of Industrial Policies of Asian Countries

1) 1st Stage of Import Substitution (inward policy)

Asian countries, shortly after gaining independence, considered that industrialization was indispensable to emerge from their colonial, mono-cultural economies. They therefore took measures to promote production for the domestic market as a quick and simple way. Most Asian governments adopted inward policies to encourage industrialization for import substitution.

Specifically, they adopted import substitution policies for light industrial products which were final consumer goods, but this inevitably increased imports of capital goods, industrial raw materials and the intermediate inputs used to produce them, thus forcing their international balance of payments into the red. To make up for this, overseas capital was required, which took the form of aid from overseas, revenues from the export of primary products and overseas direct investment.

The following policies were taken:

A. Trade and Exchange Policy

   a. Foreign money preferentially allocated to the import of inputs
   b. Dual Exchange Rate System

B. Import Restrictions

   a. Quantity quotas

b. Tariff measures

The following table, classified by country, indicates the major sources of foreign capital and major players of industrialization for import substitution:

Country	Major Sources of Foreign Capital	Major players of Industrialization for Import Substitution
Korea	aid	domestic companies
Taiwan	aid foreign direct investment	domestic companies foreign companies
ASEAN	aid foreign direct investment	foreign companies

In the 1960s, aid to Asian countries was reduced to ease the tension in American-Soviet relations and the dollar problem of the United States. In response, countries reliant on aid as a source of capital from overseas were forced to change policy.

2) Conversion to Outward Policy

Inward polices reached a stalemate and countries, having the following motives, began to adopt outward policies to encourage exports.

A. Having reached the limit of the small domestic market

B. No improvement in product cost and quality under standardization for import substitution

C. Inability to reverse trade deficits due to decreased inflows of aid

This forced the governments of developing countries to expand their exports. To do this, it is necessary to expand the production of internationally competitive goods. Typically, internationally competitive goods are labor-intensive light industrial products such as textiles. But to be competitive in quality and price, import inputs are needed, so the export industry must act to secure access to foreign money(*9,*10).

Many countries adopted policies to attract foreign capital in order to bridge the gap in their international balance of payments, and policies were implemented to attract foreign capital companies and hence overseas direct investment. Specific examples include the location of export processing areas and the fomulation of the bonded processing system.

Yet such outward policies did not necessarily ease foreign currency restrictions, and the basic problem of a lack of foreign money continued. During the stage of forming outward policies under such restrictions, countries adopted the following specific policies:

A. Liberalization policy (outward policy)

a. Abolishment of restrictions on setting up factories

b. Rationalization of the foreign exchange system

c. Easing of import restrictions

d. Preferential tax treatment of industrial investment

B. Incentives to export market

a. Measures to encourage exports, including export subsidies

b. Formulation of the bonded processing system

c. Location of export processing areas

Adoption of outward policies lead to rapid domestic industrialization and the production of goods for the export market, but only for labor-intensive goods. Because the domestic production of inputs was still undeveloped, the expansion of exports necessitated an increase of imports, thus not greatly improving the international balance of payments (especially the ordinary balance (*12)).

Exports were focused on the U.S. market, and most intermediate and input goods were procured from Japan. As a result, Asian countries developed a positive trade balance with the USA but a negative trade balance with Japan, a situation that has continued.

3) Industrialization of Exports

The key players of the export industries differ by country. The conditions of countries are different; in Taiwan most exporters are small and medium enterprises, in South Korea small and medium enterprises exist but the large financial combines dominate, while in Malaysia, Thailand and Indonesia the ratio of foreign capital companies is very high. The main causes of such differences are the method of guaranteeing export companies access to import inputs, and the policy of giving loans, which are essential for the growth of companies.

Because the domestic industry was undeveloped, particularly in the first stage of industrialization, export companies had to rely on import inputs and import capital goods in producing their products. For this, the government of each country guaranteed exporters access to foreign currency (*13).

Developing countries, because they faced restrictions on foreign currency as already mentioned, could not guarantee every company access to foreign currency, and in general only export companies received such guarantees. Exporters manufactured products for the overseas market by using import facilities and import inputs, while non-export companies began production for the domestic market using domestic-made inputs. In order to acquire as much foreign currency as possible, export companies were forced to sell most of their products overseas and were allowed to sell little in the domestic market. Domestic companies in terms of product quality and price were not competitive in the overseas market. The two types were thus separated or 'isolated' in the export industry (*14).

Because export companies were established to acquire foreign currency, the governments of Asian countries adopted a policy of weeding out exporters that failed to acquire foreign currency. South Korea took the policy of giving loans to companies in accordance with the value of the company's exports (*15). As the primary restriction on the growth of a company

was its funding, exports became the key to business growth. Companies struggled fiercely to increase exports, and the competition was won by those that increased their exports by diversifying their product range and actively investing in different products. As a result, a small number of companies grew, controlled the domestic market which was more lucrative than the overseas market, further diversified, and became financial conglomerates.

ASEAN countries actively invited foreign capital companies. Such companies help improve the nation's foreign currency situation by bringing in foreign currency in order to set up in the country. Currently in ASEAN countries, while many foreign capital companies are setting up and expanding the value of the country's exports, domestic companies are confined mostly to import substitution.

In South Korea and ASEAN countries, the strongest incentive was given to the production of finished goods. Taiwan fostered not only industries producing finished products for export but also supporting industries which supply intermediate inputs. In the 1960s Taiwan's exports began to be industrialized in earnest, and up to the 1970s the ratio of domestic inputs in the export industries rose. This improved both the trade balance and the ordinary balance (*16) and promoted industrial diversification, giving rise to many small- and medium-sized companies (*17).

4) Fostering of Input Supply Industries

Whether supporting industries are fostered or not during the industrialization process greatly affects the later macroeconomic environment. Among other Asian countries, Taiwan and China are the only countries which have positive figures for both ordinary and trade balances. In both countries, the parts industry based on rural communities is making progress, and areas of industrial concentration are forming there. In contrast, in South Korea and ASEAN countries, full-scale industrial centers accompanied by division of labor by area are not developed, although industrial areas exist. This is the result of the policy adopted by each country.

In South Korea, the production of finished products for export was given the top priority in the development of companies, followed by the production of finished products for the domestic market. The domestic production of import inputs was not given a very high priority, and the purchase of import inputs was preferred.

This is the same with ASEAN countries. There, foreign capital companies producing goods for export are isolated and operate as multi-nationals, and there is little incentive to procure parts domestically. Domestically, however, they are acting as import substitution industries. Thus, ASEAN countries do not easily admit companies which wish to produce inputs for export.

From the early 1970s in Taiwan, the concept of accelerating industrial growth by combining big companies and small/medium companies was built into the country's economic policy under the concept of the 'nucleus, satellite factory' system. A plan was drawn up to promote related types of small- and medium-sized companies, and the initiative was taken by big companies and business groups.

This concept was also adopted in ASEAN countries from the mid 1970s through the development of the 'Foster Father System' in Indonesia, the 'Vendor System' in Malaysia and

the 'Build System' (systematic business inquiry in formation system) in Thailand as provided by the Board of Investment (BOI).

In ASEAN countries, there is an increasing trend towards local procurement, reflecting the recent appreciation of the yen. Beginning with simple products such as packing materials, the procurement of parts from local companies is gradually increasing. Also, many companies in the parts industry are relocating from Japan to overseas as their parent factories move overseas. The local production of import inputs centered on Japanese and other foreign capital companies has grown in ASEAN countries.

In the formation of supporting industries in Taiwan and China, the role played by rural industries is great, since small support companies are often more suited to the rural community. Generally, the rural community must be rich in order to give rise to key players of industrialization. Taiwan and China are different from South Korea and ASEAN countries in the fact that the former countries first developed the rural community during the full-scale industrialization phase. A rich rural community leads to expansion of domestic demand and thus positively influences industrialization in many cases (*18).

5) Fostering of Heavy Chemical Industry

Asian countries have made industrial progress by developing exports under their outward policy, but such export initiatives remain restricted to labor-intensive industries. As already discussed, the heavy chemical industry is still very limited in South Korea and Taiwan. International competitiveness is essential if an industry is to develop based on exports, so import-led growth in the heavy chemical industry will be difficult.

In order to construct a well-balanced national economy; however, a heavy chemical industry is necessary, since the heavy chemical industry has a large effect on domestic industries, both upstream and downstream, and is a source of technical innovation. As the heavy chemical industry supplies intermediate inputs to finished product industries, growth of the industry will decrease the dependency of finished product industries on import inputs, thus improving the trade balance.

Here, it is important to note that economies of scale are critical in the heavy chemical industry. As huge investment is needed. The average production cost increases while production quantity is low, and this prevents the industry from being competitive in either domestic or overseas markets. Sales channels must thus be developed for industrial growth. In may cases, it is difficult for the domestic market alone to absorb products, so the importance of exports increases.

Major investments and the development of sales channels is not possible by a single company, and some form of national coordination, such as government commitment, is indispensable in fostering the heavy chemical industry. Specific examples of measures taken to foster the heavy chemical industry can be found in Asian countries, as discussed below, country by country.

A. South Korea and Taiwan

South Korea and Taiwan's industrial policies are 'double industrialization' policies, that

is, the two countries have simultaneously promoted both labor-intensive export industries and upstream industries that supply inputs to the former. To foster upstream industries, they used protectionism, including border protection and subsidies (*19).

These policies enhanced the domestic industry greatly. In recent years, at long last, the exports of some of the industries have begun to be competitive.

The heavy chemical industrialization of South Korea and Taiwan proceeded rapidly in the 1970s, and both countries reached a turning point in 1973. In South Korea, industrialization of the heavy chemical industry was carried out under the initiative of the military authorities. There is a need for self-sufficiency in the heavy industries, including the weapons industry, in the event that the American troops withdraw from South Korea (*20).

Private companies were organized under the control of the government, and large-scale projects were implemented, including the POSCO, Hyundai Heavy Industries, Hyundai Motor, Ch'angwen Machinery Corp., and so on. The South Korean government's aim was to promote the heavy chemical industry and push it to domestic import substitution and then to the export stage, but the plan was incomplete and did not go as smoothly as originally expected. There was a failure to use domestic and foreign funds due to the undeveloped domestic financial market. This failure, combined with the recession following the oil crisis, and various other reasons caused the South Korean economy to suffer later. Products inevitably became costly, and not suitable as intermediate inputs for export goods. Also the ratio of contribution to the domestic industry was small. Perhaps Japan's loss of competitiveness due to the yen's appreciation helped to stabilize the heavy chemical industry in South Korea.

The industrialization of Taiwan's heavy chemical industry was carried out more prudently. Many private businesses in Taiwan were small- and medium-sized companies, and as they were reluctant to make major investments, the investment initiative was taken by public companies. In 1973, the '10 big construction companies' project was implemented, and hence the three major sectors of the heavy chemical industry, iron-making, ship-building and petrochemicals, were promoted. Growth of the upstream and midstream sections of the industry stimulated the growth of private companies in the midstream and downstream sections.

Taiwan's industrialization cannot be compared with that of South Korea because its heavy chemical industry is smaller. But without doubt, the avoidance of over-emphasis on industrialization led to the subsequent stability of Taiwan's macroeconomic environment (*21).

A common theme among the competitive industries is the existence of competitive pressure. One important example is a government's declaration to liberalize an industry which is currently protected, thereby forcing companies into a sense of crisis. They, in effect, are saying 'you cannot survive the competition in the future if you are not prepared to liberalize now while you are protected'. Such pressure encourages competition among companies and leads to industrial reform. This policy had a great influence on the growth of auto companies in Japan and South Korea.

B. ASEAN

ASEAN countries have suffered less than Taiwan and South Korea from negative international balances of payments for certain primary products. Partly as a result of this, the

heavy chemical industrialization of ASEAN countries has often been promoted under an inward policy, though usually unsuccessfully.

In recent years, industrial development policies have been adopted under the structure of outward policy-making, but it is still difficult to assess such policies. Yet, as the scale and number of investments grow, international industrial competitiveness may be more likely under an outward policy than under an inward one.

Japanese and other foreign capital companies play a major role in the development of ASEAN industries. Foreign capital firms often provide much of the technical and capital assistance and act as key players in those industries. This is in contrast with the cases of South Korea and Taiwan, where most of the leading players were local companies, although loans and technical transfers from overseas were effectively used.

ASEAN's heavy chemical industrialization took off in the late 1970s. In order to realize economy of scale which is essential in the heavy chemical industry, the whole area of ASEAN was treated as one market zone for industrialization. However, due to a technical failure (at a steel plant based on the direct reduction (DR) method in Malaysia) and poor investment coordination in some countries (at fertilizer factories in Indonesia and Thailand, etc.), this scheme has not been successful.

6) Industrialization of Primary Products

Countries blessed with abundant resources for primary products can seek to industrialize by using such resources. Primary products which were exported unprocessed in the past are upgraded to semi-processed or finished products by adding production processes, thus improving the pattern of exports (*22).

The industrialization of primary products is very significant because import inputs are not used. Therefore, increasing output does not increase the deficit in the ordinary balance because increases in import inputs are minimized. Primary products, if industrialized, are a source of foreign currency. Also, as processing factories need not consider access to import inputs, they do not have to be located in coastal areas near the overseas market. They can instead be located further inland such as in farming villages, thus contributing to the well-balanced development of the national economy. It is also important to note that local people can participate in the industrialization process. Other merits include the expansion of the domestic market for industrial products as farming villages develop, the formation of bases for industrial development of the rural community, and so on (*23).

However, primary product industrialization is limited, and the output cannot be expected to grow greatly, hence there is little scope to absorb employment. There is no hope for rapid progress if industrialization relies only on primary products.

(6) Applicability to Viet Nam

I) Possibility of Import-Initiative Industrialization

The markets of advanced countries, overseas direct investment activities, and supply sources of intermediate inputs, are all components of a stratified policy that has played a great role in industrializing Asian countries.

Viet Nam, too, may be able to ride on the wave of this stratified policy if the country improves its infrastructure, takes measures to attract investments, and adopts a liberalization policy. However, the products that may be competitive are limited to labor-intensive goods. Furthermore, inputs must rely on imports for the time being, and measures to foster industries should be taken to ensure future self-sufficiency in intermediate inputs and to develop the heavy industries. The problem of whether or not the policy to foster the export industry is discouraging the production of inputs and industry for the home market must also be considered.

2) Heavy Chemical Industrialization

Of the Asian countries, those which tried to industrialize by adhering to their inward policy were mostly unsuccessful, and the competitiveness of those that adopted an outward policy is still weak.

One should not forget that it takes several decades for the process of heavy chemical industrialization to bear fruit in the form of strengthened international competitiveness, and constant efforts are required during the process.

The heavy chemical industry is vital for other industries, so it should be developed in conjunction with the downstream and upstream industries within the country. And in order not to damage the macroeconomic environment of the country, development of the heavy chemical industry must be appropriate to the circumstances of the country and future domestic industry. Such industrialization will inevitably become a national project.

3) Formation of Support Industries

The formation of support industries requires a separate policy. Favorable macroeconomic development cannot be expected in the long term if export-oriented industrialization offers only land and labor to foreign capital companies as at present. It may thus be necessary to encourage the production of inputs for the export industry. A good example is the way in which Japanese companies developed local procurement networks in ASEAN.

For foreign capital companies facing international competition, inefficient local procurement is unacceptable, but local procurement is acceptable if it is very efficient. For Viet Nam, it is important to create an environment in which the country can meet demand. Regardless of whether in rural areas or in urban districts, institutions and the infrastructure must be built to allow companies to conduct free and fair business, extend the scope of their business, and thus expand smoothly.

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* Footnotes

1. Here, 'Asian countries' means those that have undergone remarkable industrialization in recent years, such as South Korea, Taiwan, China, Hong Kong, Singapore, Thailand, Malaysia, and Indonesia.

2. Particularly, the role played by North America has been great.

3. In other words, support industries are still undeveloped in Asian countries

4. These industries are not truly export competitive.

5. This is because, in many cases, both the export of light industrial goods and the domestic production of heavy chemical industrial goods are sought at the same time.

6. In practice, special incentives were adopted for imports in many cases in Asian countries. A policy that offers far larger incentives to the export market than to the domestic market is sometimes called an 'over export-oriented policy'.

7. Specifically, this is a policy that offers incentives to agriculture and manufacturing rather than to the service and construction industries.

8. In the first phase of industrialization, it is very possible that international competitiveness is impeded in terms of both quality and price in production using domestic inputs. Domestic inputs themselves may not exist there.

9. In South Korea, there was a type of competition in which industrial loans were allocated depending on actual export performance. The country thus created a system under which the more a company exported, the better it could grow. This system promoted exports, but led to the problem of financial conglomerates forming in South Korea, and companies which qualified for loans were limited.

10. The World Bank in 1993 stated that a country which clarified the three R's of 'rule', 'reward' and 'referee' promoted its economic growth. The method of intervening in the market by adjusting the market without affecting the dynamism of competition is the so-called 'market-friendly market intervention'.

11. These policies are often the same in different countries.

12. In spite of a positive trade balance, the deficit does not decrease the ordinary balance after payment of freight charges, consulting fees, royalties for technical transfer, overseas remittances of profits and dividends for foreign investments. In the short-term, the deficit often increases remarkably.

13. To do this, the bonded processing system and export processing areas were used. Bonded processing is designed to collect orders from foreign companies, introduce raw materials on a duty-free basis, and process and export the total amount of ordered products.

Domestic makers act as subcontractors and receive processing fees as their only earnings, but are able to acquire foreign funds because they receive processing costs in foreign currency.

The export free area system is an extended version of the bonded processing system. It is designed to allow a foreign company to bring its facilities into a specified area in a country on a tax-free basis, process raw materials brought in duty-free, and then take the processed products overseas. The long-term capital balance is positively affected by this overseas direct investment.

14. This made it difficult to supply domestic inputs to the export industry. A considerable difference became visible between Taiwan which was able to upgrade its input industries to supply those goods to export industries, and South Korea and ASEAN countries, which failed to do so. This was reflected in the international balance of payments.

15. South Korea was able to adopt this policy because the financial sector was like the public

sector. Not only in South Korea but also in other Asian countries including Taiwan, Singapore and Malaysia, the government of each country was able to adopt a direct financial policy, such as credit allocation, because the financial sector was closely controlled by the government.

16. Taiwan's international balance of payments, both trade and ordinary, became positive in the mid 1970s.

17. Small- and medium-sized companies have made progress also in South Korea, but they are biased towards the production of finished products for export, and the number of companies that can claim to be in the international market is very small.

18. In Japan, too, there are many areas of industrial concentration in rural communities, including Aichi Prefecture, Gunma of North Kanto, Tochigi and Saitama, Nagoya Prefecture, etc.

19. Note that, if the upstream industry is protected, there is the possibility that the products cannot be used as inputs for the export industry due to an increase in cost.

20. In August, 1979, a heavy chemical industry plan was announced, and the six sectors of iron & steel, ship-building, electronics, machinery, nonferrous metals, and chemical engineering were the focus of construction. These industries were thought to be promising for South Korea's future, because in those industries Japan and other advanced countries were very likely to lose their advantage in the long term.

21. The trade balance of both South Korea and Taiwan became positive in the mid 1970s. Taiwan's balance remained positive, while that of South Korea soon returned to a deficit, only to regain its balance in the late 1980s.

22. The possibility of such industrialization is a basic theory.

23. A country which industrializes based on primary products is sometimes called a NAIC (New Agricultural Industrialized Country).

Chapter 2 Industrial Policy in Viet Nam

(1) Overview

Viet Nam has been aiming at market-oriented economy since the 1986 renovation called Doi Moi. Since the Council for Mutual Economic Assistance (CMEA) collapsed in 1991, Viet Nam has been making efforts to adapt its industrial structure to gain a comparative advantage in the international market. Many issues must be addressed, for example, improvement of the economic infrastructure, reformation of soft infrastructure (laws), improvement of human resources, and securing funds for investment. Viet Nam's government has been grappling with those issues.

Viet Nam can benefit by observing and learning from the growth patterns and policies of other industrialized countries. On the other hand Viet Nam has demerits that it should raise its international competitiveness in faster pace than other industrialized countries because Viet Nam entered regional trade agreement like AFTA. In addition Viet Nam's specific policies and tools to promote its industries should be in line with international trade rules like those of the World Trade Organization (WTO).

Consequently Viet Nam's industrial development should be at a high pace but this must be at a rate where other issues like sustaining environmental protection are considered. These targets are not easy ones but Viet Nam's government has been considering what kind of industrial growth path they should take and what kind of industrial policies and tools they should use. The main industrial policies of Viet Nam's government are as follow.

1) Industrialization should lead the economic growth in Vet Nam, and a high growth rate in the industrial sector is necessary for realizing the target of GDP growth. The target for the annual industrial growth rate from 1996 to 2000 is 14-15 percent and the value added of the industrial sector is expected to reach a figure of 34-35 percent of GDP by the year 2000.

2) Capital formulation is critically important and is presently difficult without foreign capital. Therefore, promotion of foreign direct investment (FDI) is an important issue and Official Development Assistance (ODA) should be used efficiently. Domestic funds sources should also be motivated.

Concerning FDI, the government has adopted various amendments to gradually improve the legal framework for foreign investments and it will seek further improvements.

3) Generating jobs is one of the most important policy targets that should be addressed.

The labor structure should be changed in the direction of industrialization.

4) Diversification of the economy should be based on the co-existence of various types of ownership for facilitating competition in the market economy.

From this viewpoint the non-public sector development is promoted. Small and medium private enterprises should be attentively developed, especially in the processing industries.

5) State-owned enterprises should be rearranged and consolidated in the spirit of rationalization and effectiveness, and ownership must be separated from management. There should be enough competition to enable survived in the international market.

6) Industry should be export-oriented, utilizing its advantage of domestically available labor and natural resources. At the same time there must be an efficient progression in terms of import substitution.

Concerning import substitution, Viet Nam's government should introduce adequate policy measures to protect domestic industrial products. The degree and time limit of protection should be designed to gradually improve the competitiveness of the national industrial sector.

7) Excessive population concentration in big cities should be prevented by creating satellite cities and by promoting rural development.

8) Serious environmental pollution should be prevented, especially in the chemical and metallurgical industry.

9) Differences in industrial development among various regions should be minimized. In this sense the promotion of rural development is important, especially in processing industries linked with agriculture, forestry and fishery.

10) Technology development in rural industries and in advanced fields should be promoted.

11) The economic infrastructure should be upgraded, rehabilitated and newly constructed with suitable prioritization.

12) It is necessary to create favorable conditions and legal environment. The private sector, including foreign capital, needs a level of assurance when making long-term investments in production development. It is also necessary to properly protect legitimate property ownership and private interests.

13) Institutions must be in place for the implementation of industrial policy.

14) Human training in various fields is critically important. It is also required to strengthen competitiveness of officials who formulate and implement industrial strategy.

(2) Industrial Policy of Sub-sector

Concerning sub-sectors of industries, Viet Nam had put its industrial priority on heavy industries during the regime of CMEA. Now in the third five-year plan since 1981, the government has also put priority on light industries. After Doi Moi, especially since 1991, the government has stressed the international competitiveness of consumer products, energy resources, and exportable manufactured and processed products. The next five-year plan which Viet Nam's government is formulating, will also stress electronics, machinery, construction material, and metallurgy, and will aim at making an industrial foundation for further development after 2000. Viet Nam's industrial policies on individual sub-sectors are as follow.

1) Processing industry in rural areas

The target is for 50 percent of the rural labor force to be working in industrial and service activities by 2010. As for the food processing industry, it is important to satisfy the domestic demand and to meet export requirements on quality. Particularly important areas are rice, rubber, coffee, tea, sea products, sugarcane, vegetables and fruits, and various meats. These industries are critical in gradually reducing inter-regional gaps.

2) Consumer goods industry

In order to make full use of comparative advantages in manpower, it is necessary to respond to internal demand and to promote exports of textiles, garments, processed leather, shoes, high level building materials, toys, fine-art handicraft, and other household utensils. It is desirable to shift from subcontracts to production for export.

3) Oil, refinery, fertilizer and petrochemical industry

There should be further investigation, exploration and exploitation of oil and gas. Crude oil output should be raised to 20-25 million tons per year by 2000 and to 30-40 million tons per year by 2010. Two oil refineries with annual capacities of 6-6.5 million tons of crude oil each will be established by 2002. (The first should be completed prior to 2002.) A nitrogen fertilizer plant that utilizes natural gas and with daily capacity of 1000 tons of ammonia should also be established before 2000. The petrochemical industry will be generated after 2000.

4) Power industry

Power sources should be developed between now and the year 2000 to ensure an additional capacity of 10 million KW by 2010. Power output will be 25-27 billion Kwh by 2000 and 68-75 billion Kwh by 2010. Nationwide electrification should be completed by 2010. The target for the year 2000 is 90 percent.

5) Mechanical manufacturing industry

It is important through the combination of domestic production and imports, to assure the supply of equipment to other industries like ago-processing, transport equipment and spare parts. Particular attention should be given to the shipbuilding and repair industry to meet the demand for sea transportation. Exports of mechanical products such as cars, motorbikes and electrical appliances should be promoted.

6) Electronic and information technology industry

To produce through steps various levels of completed equipment starting with semi-knockdown(SKD), to complete knockdown(CKD), and finally to intensive knockdown(IKD) with efforts for the non-existence of CKD by 2000 onward. It is important to develop support industries for the parts and elements industries. There is a need to widen computer-based services, especially application software packages for scientific research, production and daily life.

7) Material industry mainly for building

The cement industry should be strongly developed to attain an annual output of 16-20 million tons by 2000 and 30 million tons by 2010. Glass plants should be established to raise the annual output to 20-25 million square meters after 2000.

8) Mining and metallurgy

The steel industry should attain 2 million tons of production ability. After 2000, when the Thach Khe Iron ore mine will have an annual capacity of 10 million tons, a steel complex with an annual capacity of 1.5-3 million tons will be constructed. Steel output by 2010 will be 7-8 million tons annually. The aluminum industry will have production capacity of 150,000-200,000 tons annually after 2000.

(3) Regional Industrial Policy

Concerning the regional aspect of Viet Nam's industrial development, Viet Nam's government has a strategy of three growth poles. These three "triangles" are composed of Hanoi-Hai-Phong-Ha-Long, Ho Chi Minh City-Bien Hoa-Vung Tau, and the central region of Lien Chieu-Dung quat. However these three regions are far apart from each other and economic growth is considerably concentrated in southern areas. The imbalance of industrial development among regions will directly cause an imbalance of income among regions, and may cause congestion and environmental problems in urban areas.

Viet Nam's government is mindful of these potential problems as it pursues industrialization and, promotes regionally balanced industrial development as fast pace as possible. The regional industrial policies of Viet Nam are as follow.

1) Industrial development is to gradually become equal throughout the various regions of the country.

(The recent location of industrial development is not ideal. Enterprises concentrate mainly in the South East, especially in the Ho Chi Minh City area, while there is almost no industrial development in the mountain and highland regions.)

2) An infrastructure and urban development master plan is required for nationwide industrial location, individual industrial estates and Exporting Processing Zones (EPZ). In the next 10-15 years the details of this master plan should focus on power supply, water supply, drainage, transportation and communication.

3) With respect to industrial estates, those inside cities and close to dense residential areas should intensively invest in overcoming environment pollution. Such these industrial location plans must coordinate with urban development plans. It is necessary to move or even demolish those plants that prove to be too old or cause heavily poisonous pollution.

4) Immediate considerations must concentrate on the three "triangle" regions, which have favorable conditions in infrastructure, raw material supply, labor supply and market access. Hanoi- Hai Phong- Ha Long in the north region, Ho Chi Minh City- Bien Hoa- Vung Tau in the south region, and Lien Chieu- Dung quat in the central region of Viet Nam. Five of the six plans for Export Processing Zones, are located in these three regions.(Two are located in Ho Chi Minh City, one in Hai Phong, one in Quang Nam-Danang, and one in Hanoi. The sixth Export Processing Zone is located outside these three regions, in Can Tho.)

5) Regions contiguous to focal areas should be integrated into greater focal areas as they industrialize. It is thus possible from the industrial dispersion of big cities, to create various complimentary sub-industrial zones; "satellites or peripheral", "surrounding", or "supportive".

6) Where the conditions are available, new industrial estates should be generated mainly in district towns or townships to meet the demand for industrialization of agriculture and in rural areas, utilizing their local advantages.

7) In mountainous and highland regions, industrial development must be promoted through the construction of infrastructure, particularly roads. In the short run, it is necessary to develop small-scale industry related to agriculture and/or forestry and to construct small-sized hydro-power stations .

8) Location of large-scale projects in oil refinery, petrochemicals, and metallurgy, should be carefully considered and well prepared in advance, because such projects need a large-area terrain, huge infrastructure, and good environmental treatment. Such projects would be better located near seaports.

9) For food security, industrial estates must be prevented from taking over land that is used for rice production.

10) State committees for the development of local economic areas, industrial estates and infrastructure should be established to help the government monitor and supervise the regional implementation plans. These should be headed by the prime minister and representatives from various line ministries. In addition, it is necessary to establish a permanent organization for regional development and support for grass root units. This formulate organization will projects and provide advisory service.

Chapter 3 Promotion of the Modern Industrial Sector in Viet Nam

3-1 Review of the Change of Comparative Advantage among Industries in Asia

(1) Analysis of Trade Indices (Revealed Comparative Advantage: RCA)

This section is an overview of changes in the structure of comparative advantage in the countries of Asia which have, in recent years, achieved astonishing export-driven industrialization (Korea, Taiwan, Malaysia, Thailand, Indonesia, the Philippines, and China).

Comparative advantage is determined by the structure of production costs, but directly handling the data concerning the determining factors presents many difficulties. Production cost data for various countries is not easily obtained, and it is extremely difficult to convert it into an integrated form that facilitates comparisons.

In this case, it is assumed that the export performance of a country indicates that country's comparative advantage, and the RCA index will be used to compute each country's comparative advantage.

RCA is the acronym for the coefficient known as Revealed Comparative Advantage, an index which has been defined as the ratio of the distribution ratio of exports of a single country by industry and the distribution ratio of exports for the entire world by industry. The following is the equation that defines this index.

RCA = (the value of a country's exports of a certain commodity/total value of that country's exports) / (the value of world-wide exports of a certain commodity/total value of world-wide exports)

The comparative advantage or disadvantage a country has in a certain commodity is determined by whether the RCA is greater or smaller than 1.

(2) Measurement Results

The RCA has been calculated for six countries: Korea, Malaysia, Thailand, Indonesia, the Philippines, and China. These calculations were done to study how the structure of comparative advantage in these countries has changed as their economies have grown. The attached figure in which the horizontal axis represents the per capita income and the vertical axis represents the RCA is presented to clearly show how the structure of comparative advantage changes in response to rising income levels. The RCA was calculated for products in SITC Classification 8, which are simple labor-intensive commodities that do not use very much capital and for products categorized in SITC Classification 7, which are labor-and technology-intensive commodities.

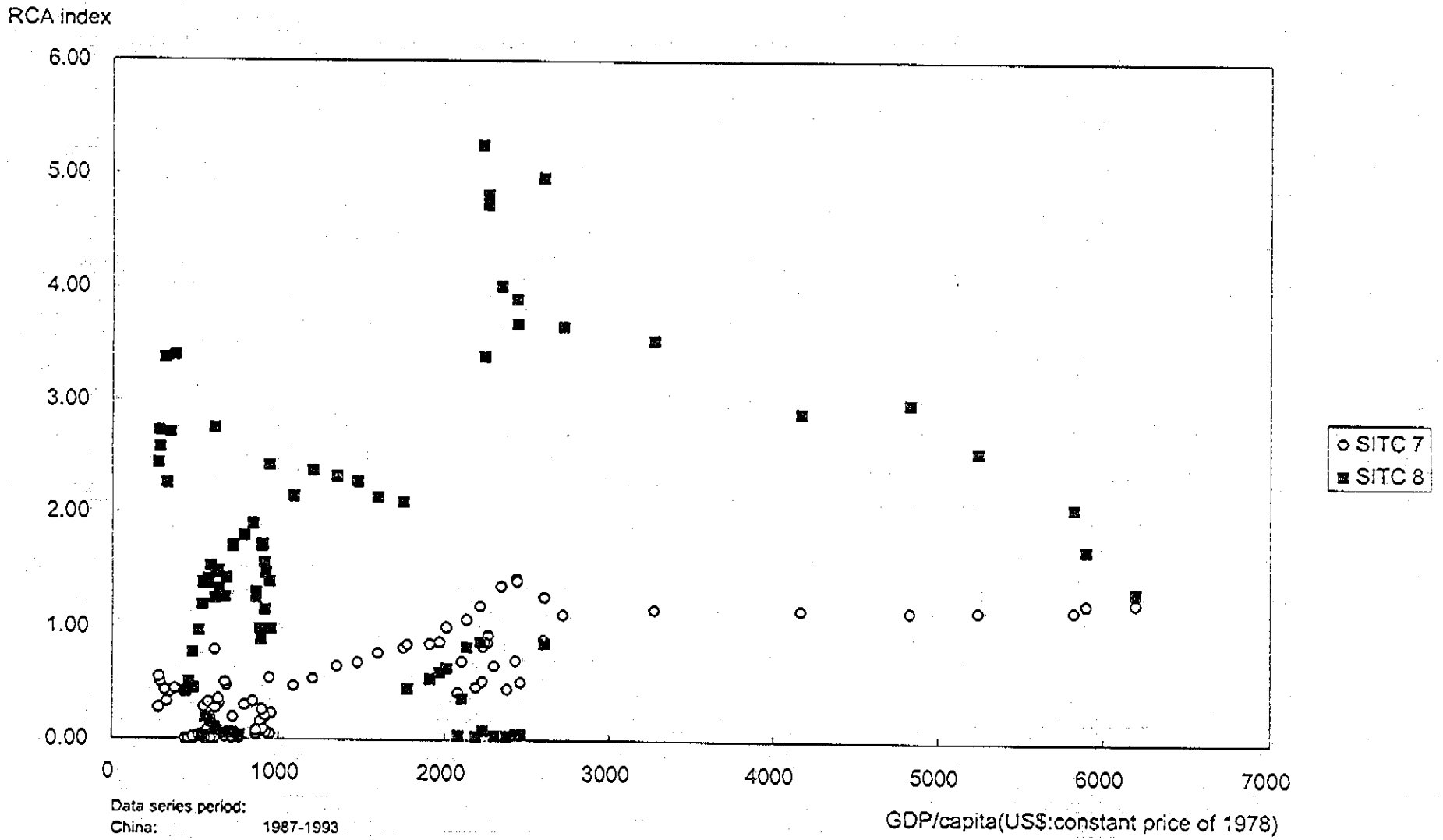
The figure shows that as the per capita income in the countries of Asia has increased, the structure of comparative advantage has changed almost identically in every case. For the SITC 8 products, the comparative advantage peaks when the per capita GDP stands at approximately $2000, but declines afterwards. In the case of the SITC 7 products, comparative advantage appears after the per capita GDP passes $2000, and it increases as this income index continues to rise. Countries which have adopted outward-looking policies

appear to pass through the process of change in their comparative advantage described above. A study of the specific products for which the Asian countries enjoy comparative advantage reveals that they are weak in products manufactured for special purposes and that their strong products are mostly general purpose products.

Another figure shows the results of a calculation of RCA for 1982, 1987, and 1992 for individual product items manufactured by capital-intensive industries in various countries. This figure reveals that even in Korea, which has led the other Asian nations in the industrialization process, the capital-intensive industries, with the exception of the steel industry and a few others, have only recently gained comparative advantage. And these industries are limited to general purpose product industries, so it is impossible to report that they have established independent positions in the world's markets. Korea is the only country where the capital-intensive industries have gained a comparative advantage. It seems that comparative advantage in capital-intensive industries only increases after income levels have risen substantially.

A summarization of the above conclusions reveals that the countries of Asia have increased their exports by gaining comparative advantage in labor-intensive general purpose products. A rise in the level of a country's export products is the result of a swing from products which do not require capital to those which do; a change which occurs as income levels rise. In a word, the rise in the level of exports from the countries of Asia has taken place primarily within the labor-intensive commodity category. It appears that in order for a country to gain a comparative advantage in capital-intensive commodities, it must achieve substantial economic development.

Figure III-1 Change of RCA index in Asian Countries(1978-1993)

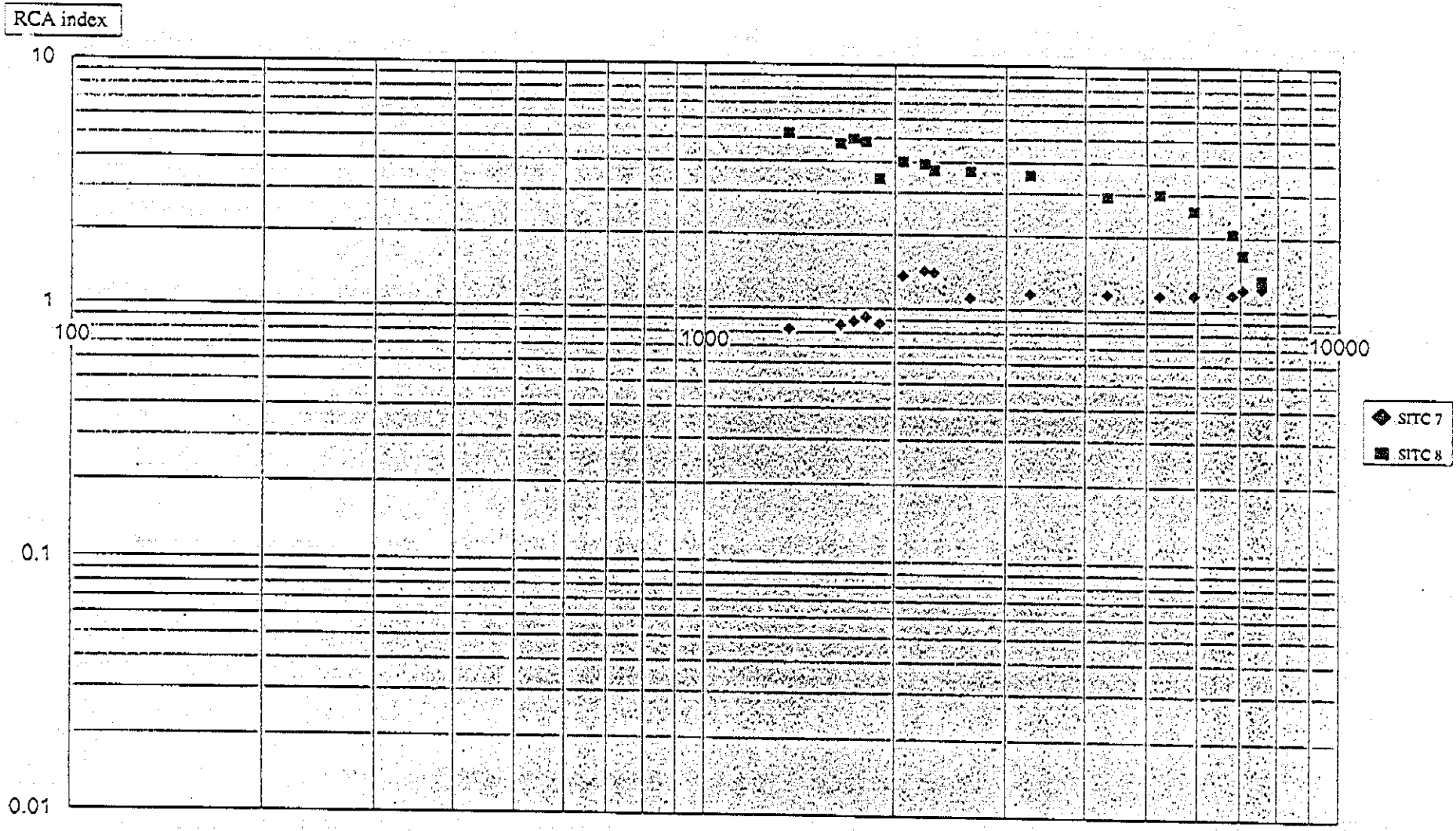


Data series period:

China:	1987-1993
Philippines:	1978-1993(exclude 1989)
Malaysia:	1978-1992
Thailand:	1979-1993
Indonesia:	1979-1993
Republic of Korea:	1979-1993

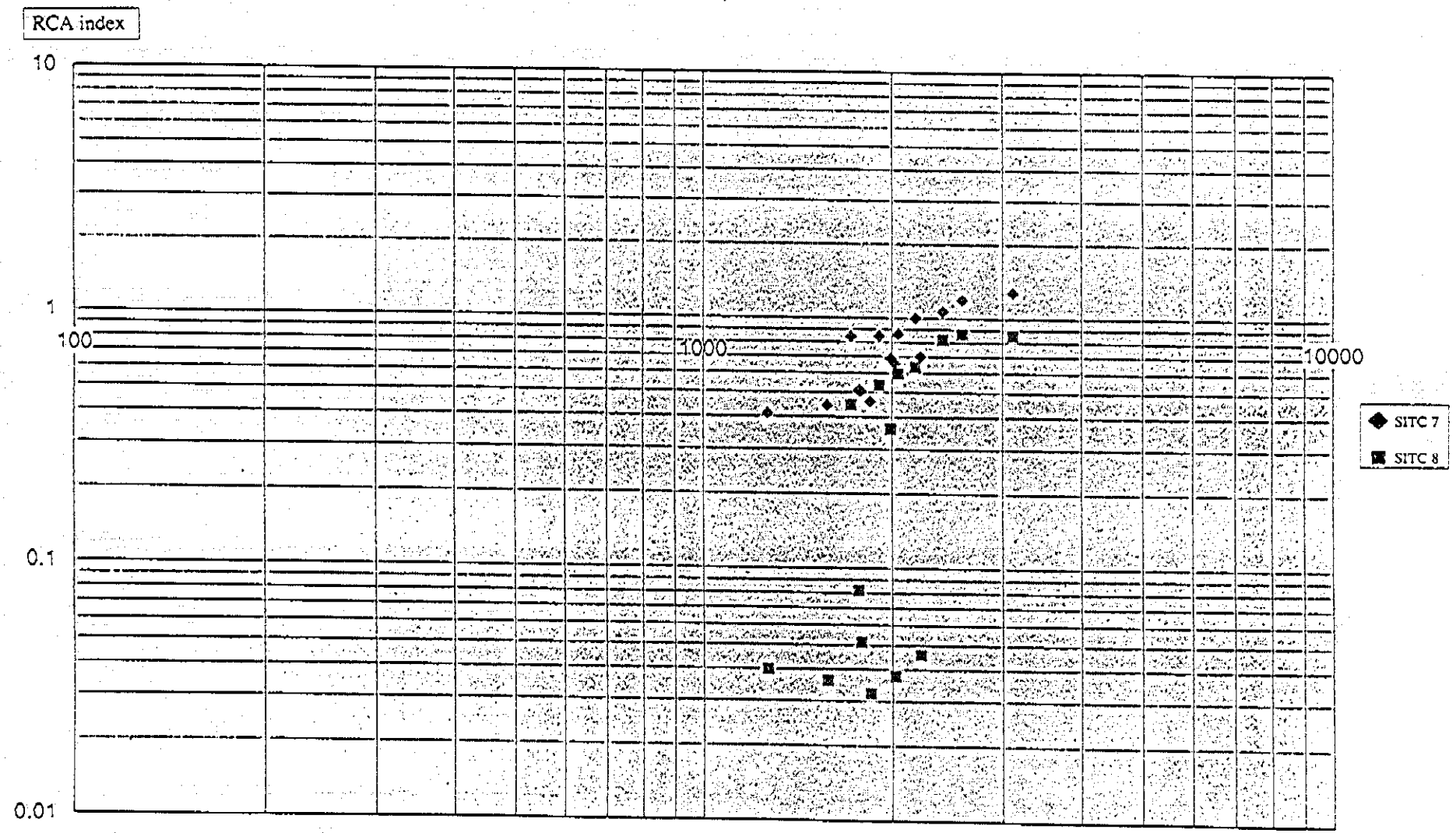
Trade Data are from United Nations, *International Trade Statistics Yearbook* , various issues.
GDP Data are from IMF, *International Financial Statistics Yearbook* , various issues.

Figure III-2 Change of RCA index in Korea(1979-1993)



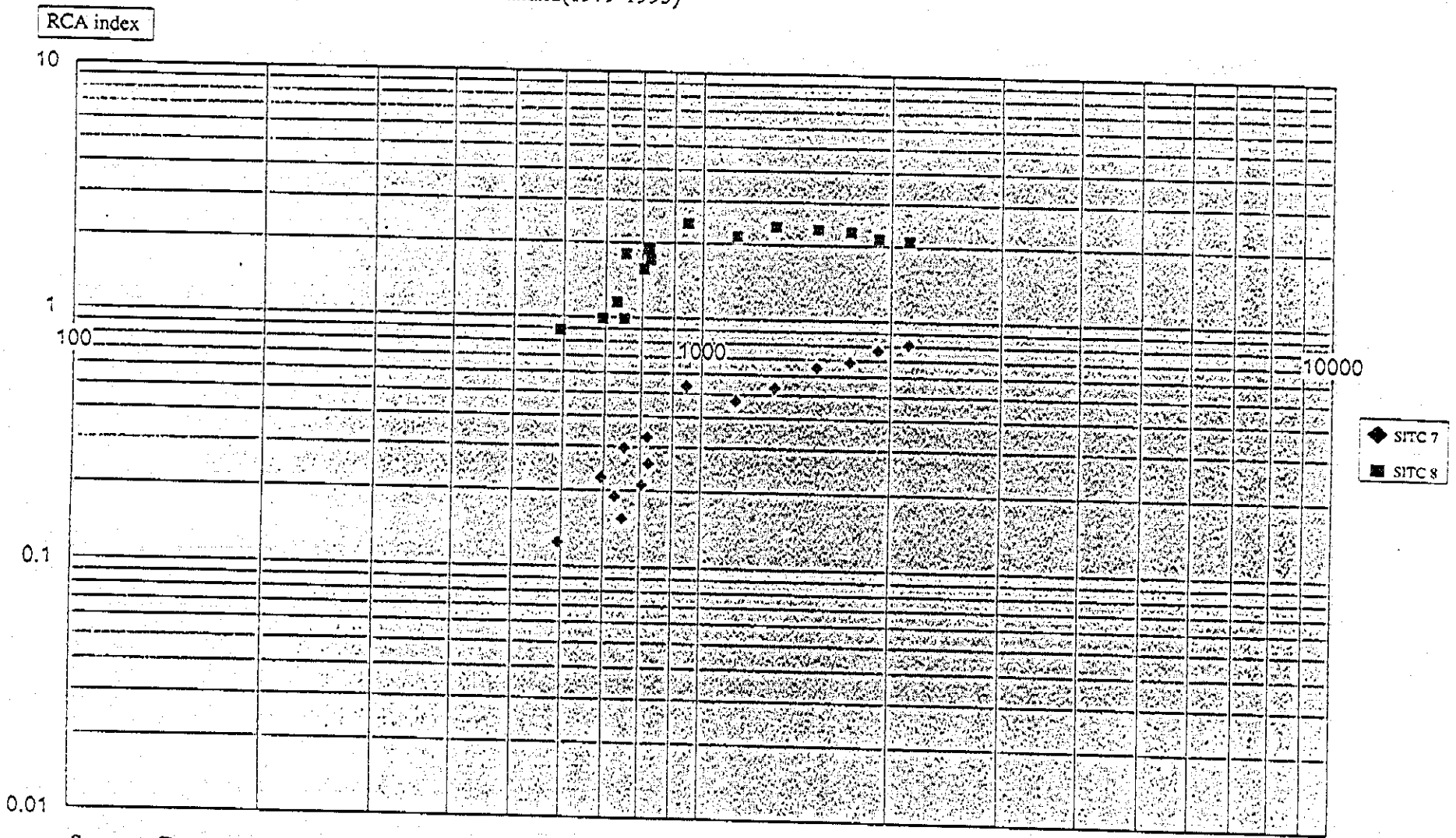
Sources: Trade Data are from United Nations, International Trade Statistics Yearbook, various issues.
GDP Data from IMF, International Financial Statistics Yearbook, various issues.

Figure III-3 Change of RCA index in Malaysia(1978-1992)



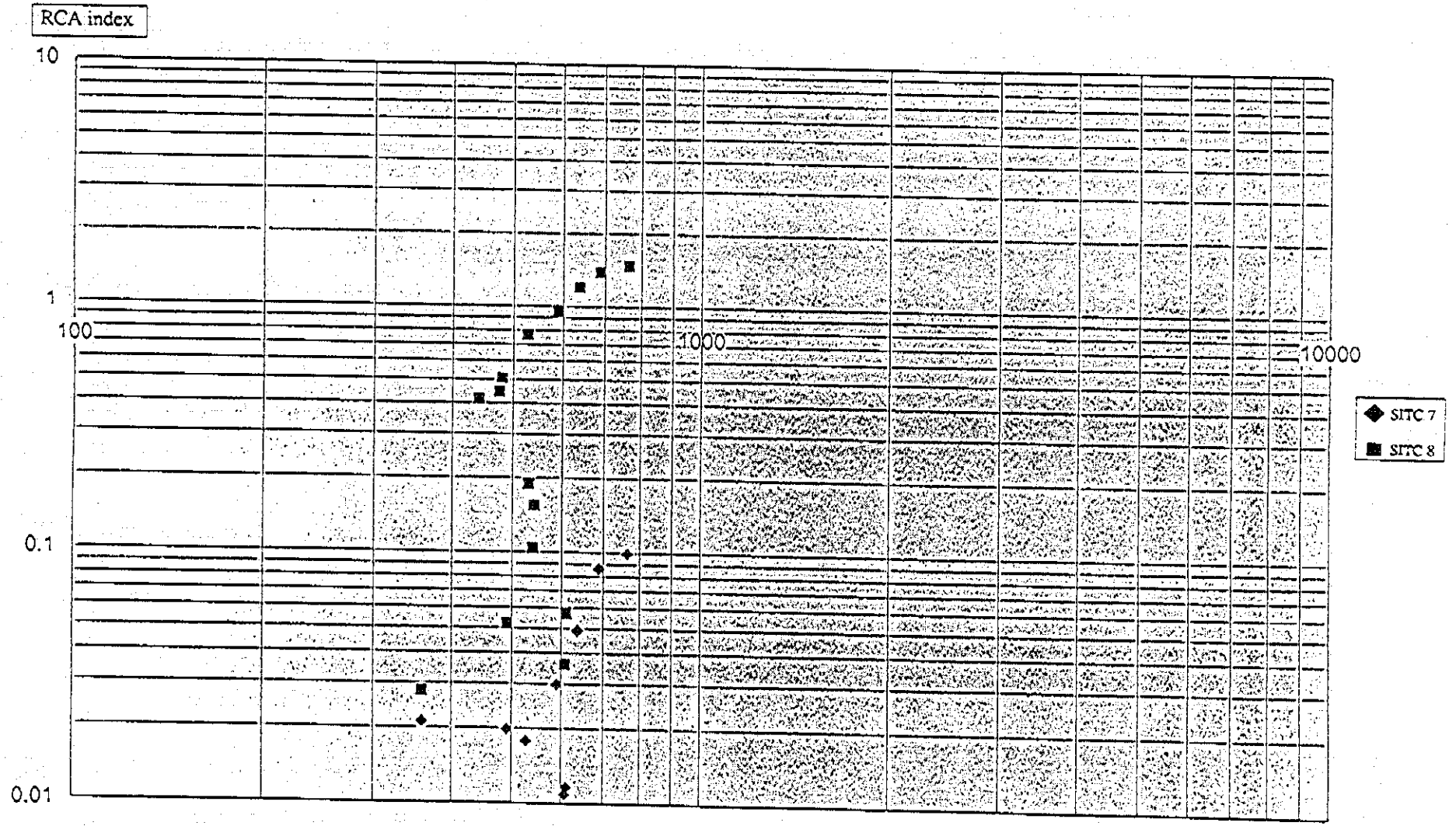
Sources: Trade Data are from United Nations, International Trade Statistics Yearbook, various issues.
GDP Data from IMF, International Financial Statistics Yearbook, various issues.

Figure III-4 Change of RCA index in Thailand(1979-1993)



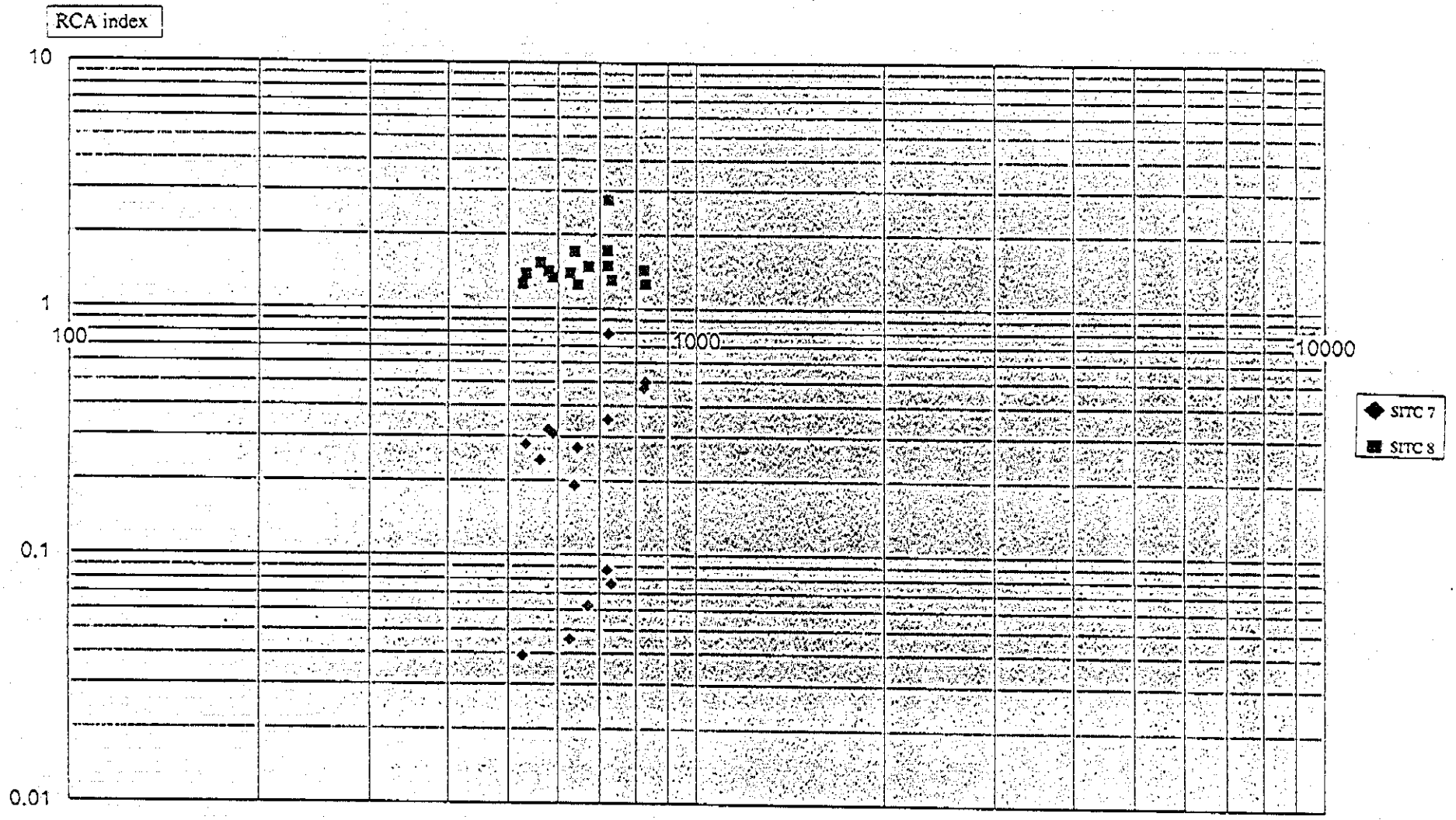
Sources: Trade Data are from United Nations, International Trade Statistics Yearbook, various issues.
GDP Data from IMF, International Financial Statistics Yearbook, various issues.

Figure III-5 Change of RCA index in Indonesia(1979-1993)



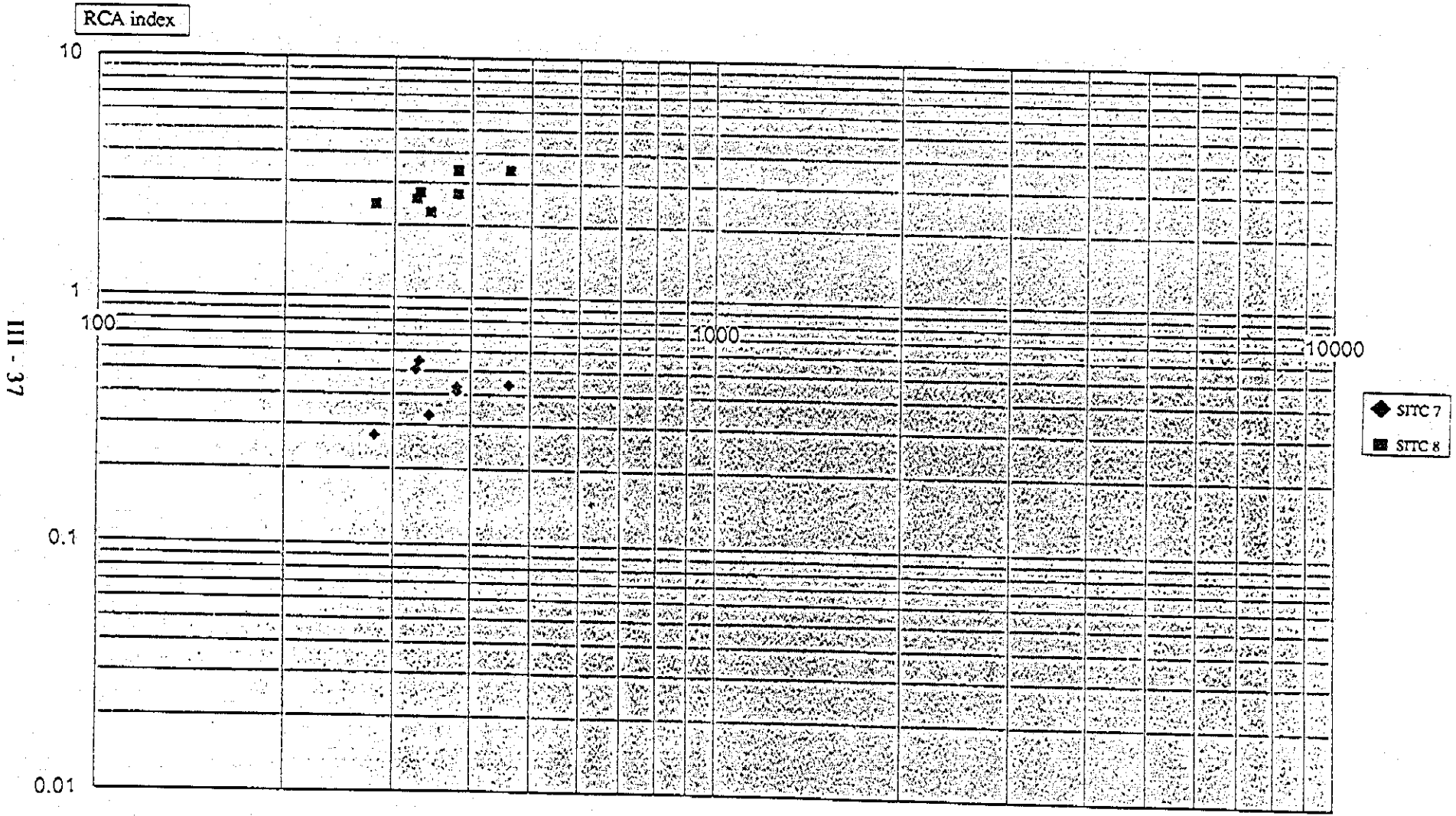
Sources: Trade Data are from United Nations, International Trade Statistics Yearbook, various issues.
GDP Data from IMF, International Financial Statistics Yearbook, various issues.

Figure III-6 Change of RCA index in Philippines(1978-1993,exclude 1989)



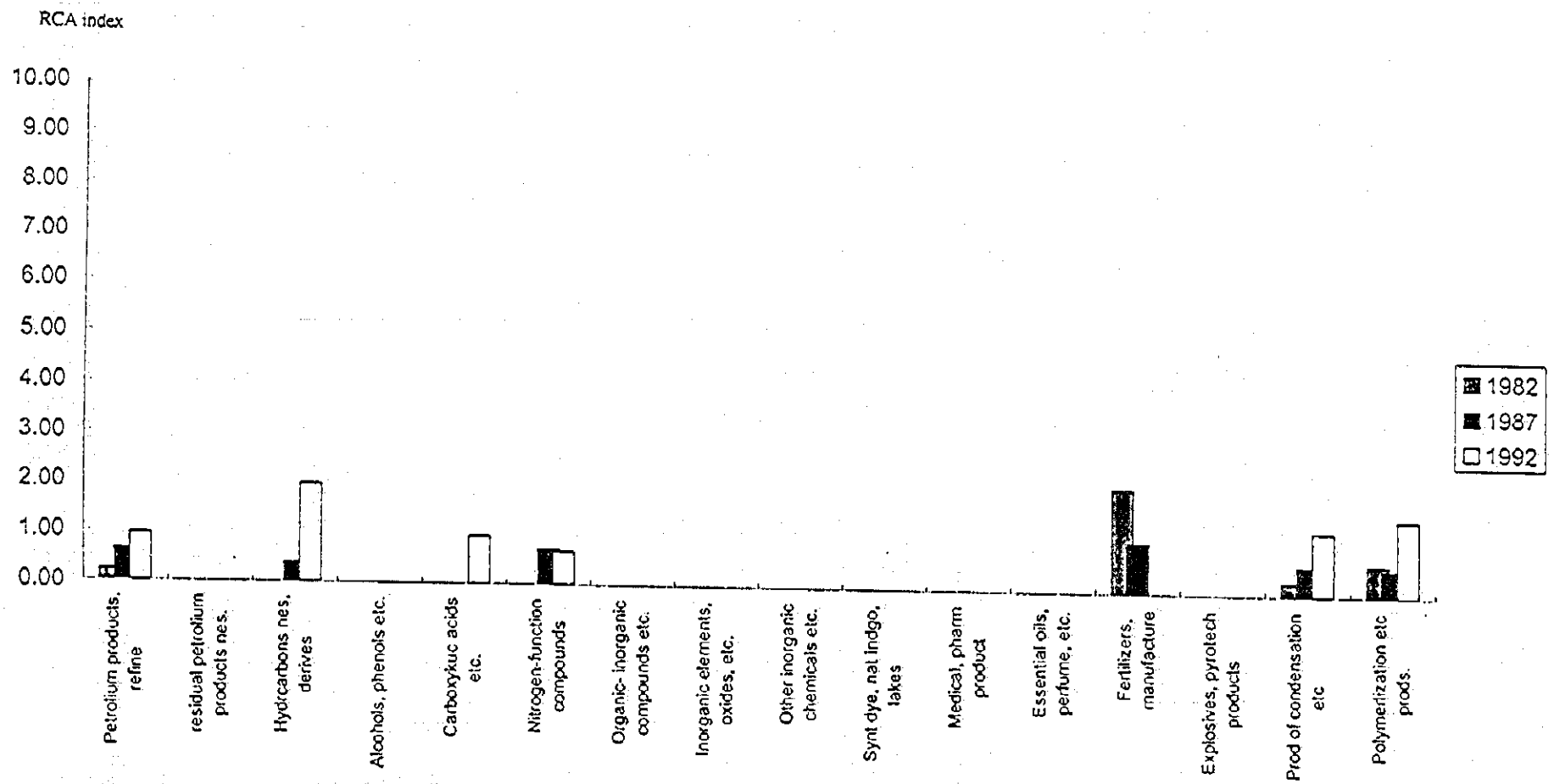
Sources: Trade Data are from United Nations, International Trade Statistics Yearbook, various issues.
GDP Data from IMF, International Financial Statistics Yearbook, various issues.

Figure III-7 Change of RCA index in China(1987-1993)



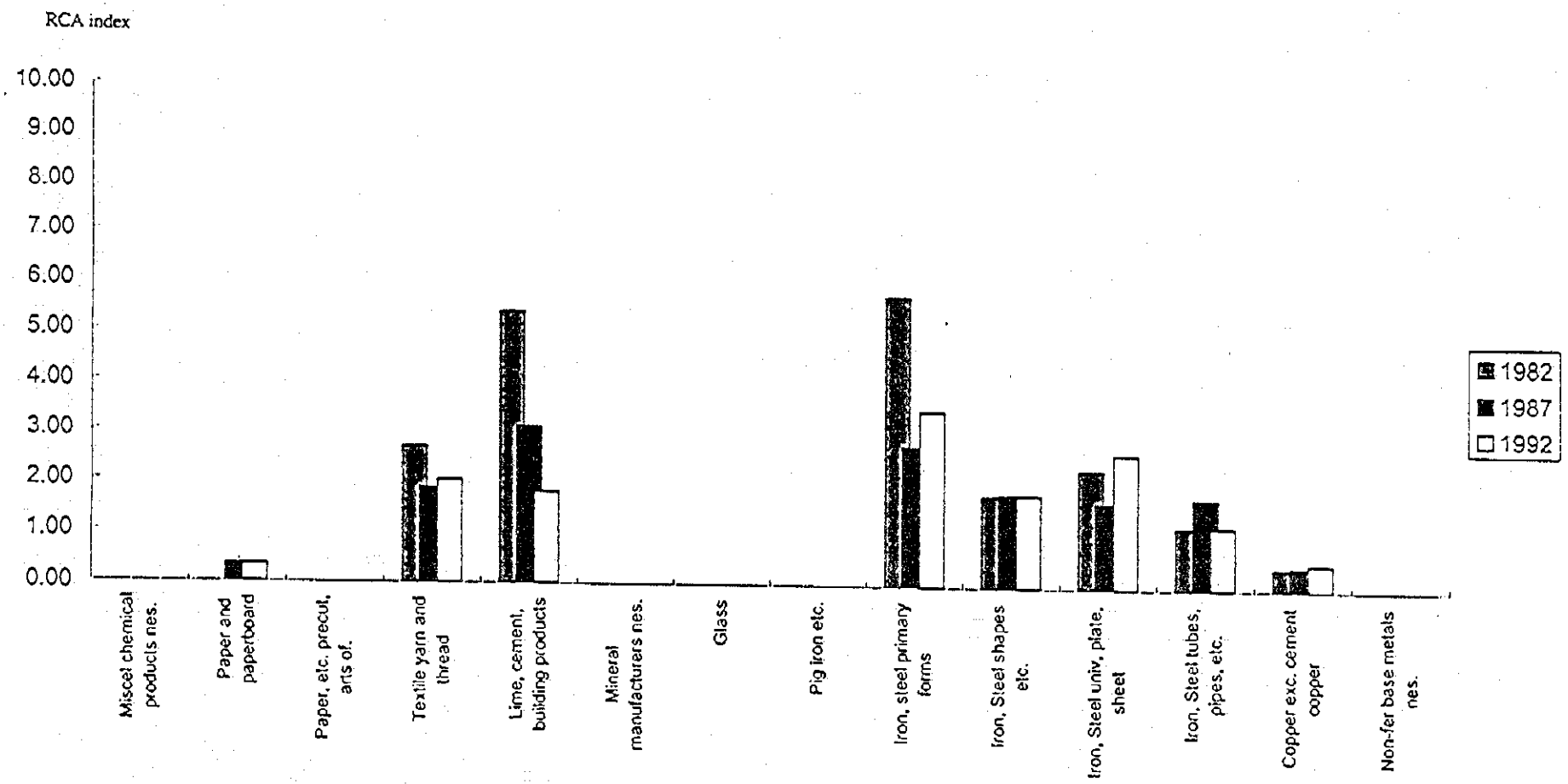
Sources: Trade Data are from United Nations, International Trade Statistics Yearbook, various issues.
GDP Data from IMF, International Financial Statistics Yearbook, various issues.

Figure III-8 RCA index of Capital Intensive Industries in Korea (1)



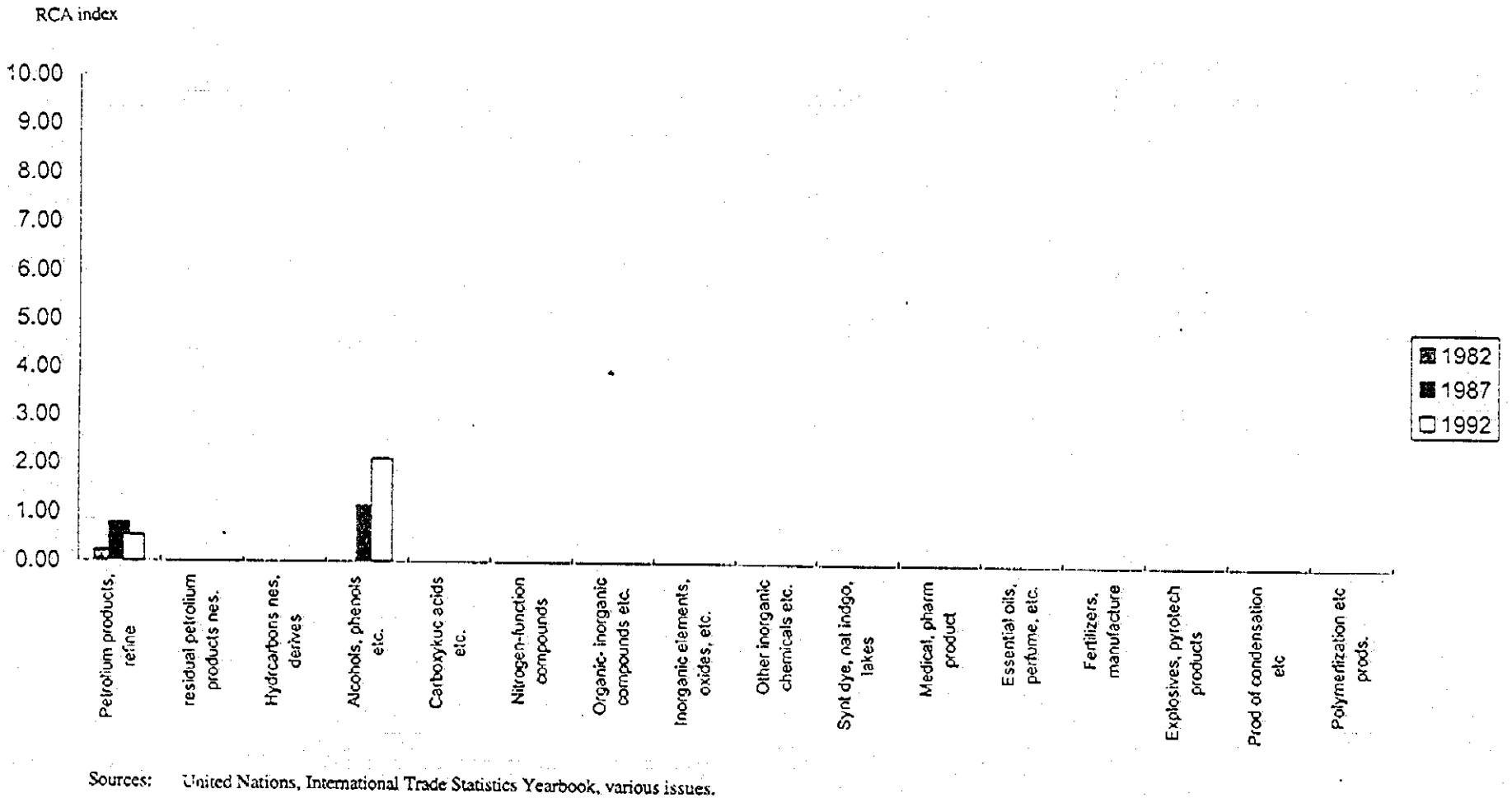
Sources: United Nations, International Trade Statistics Yearbook, various issues.

Figure III-9 RCA index of Capital Intensive Industries in Korea (2)



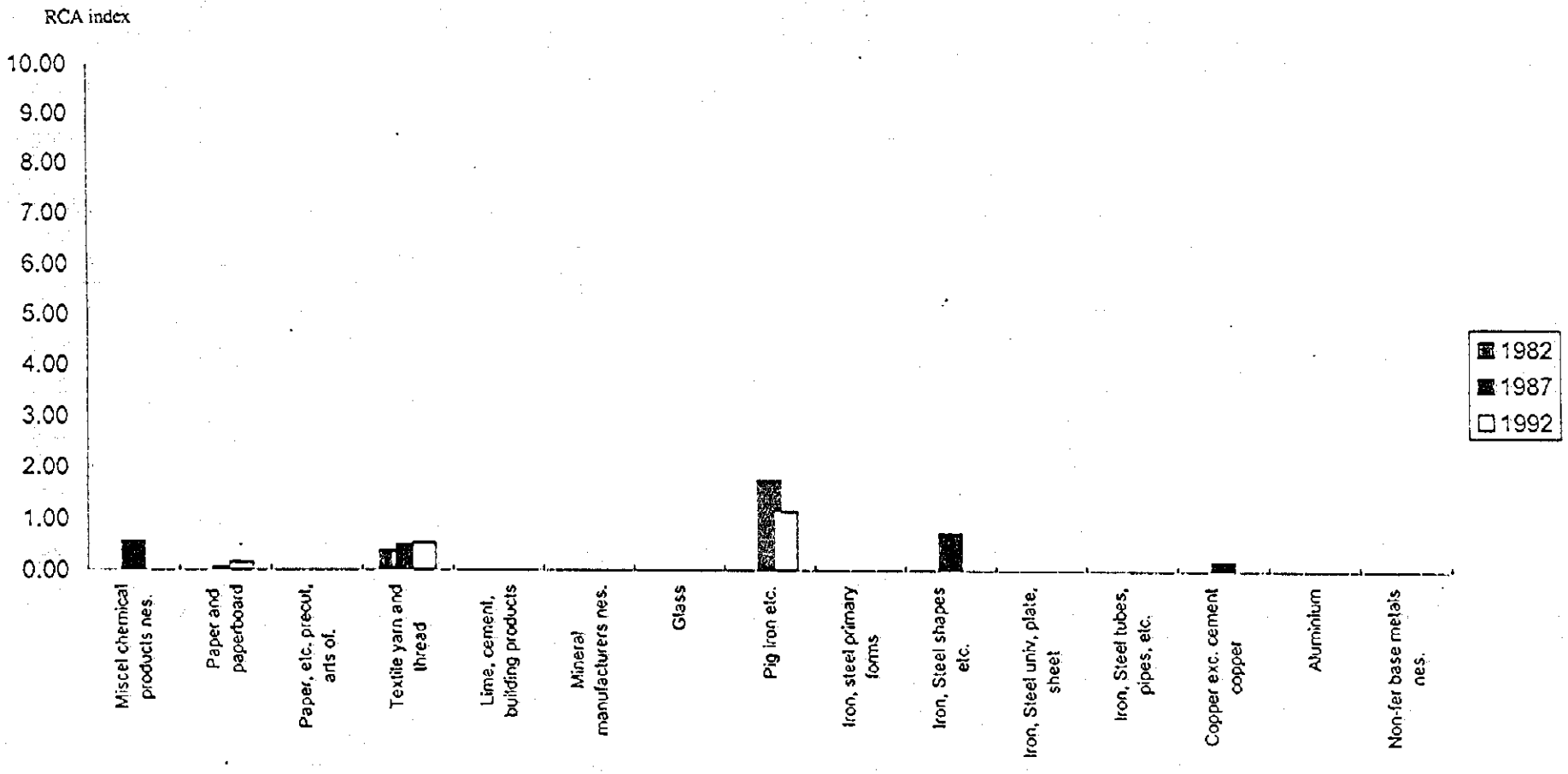
Sources: United Nations, International Trade Statistics Yearbook, various issues.

Figure III-10 RCA index of Capital Intensive Industries in Malaysia (1)



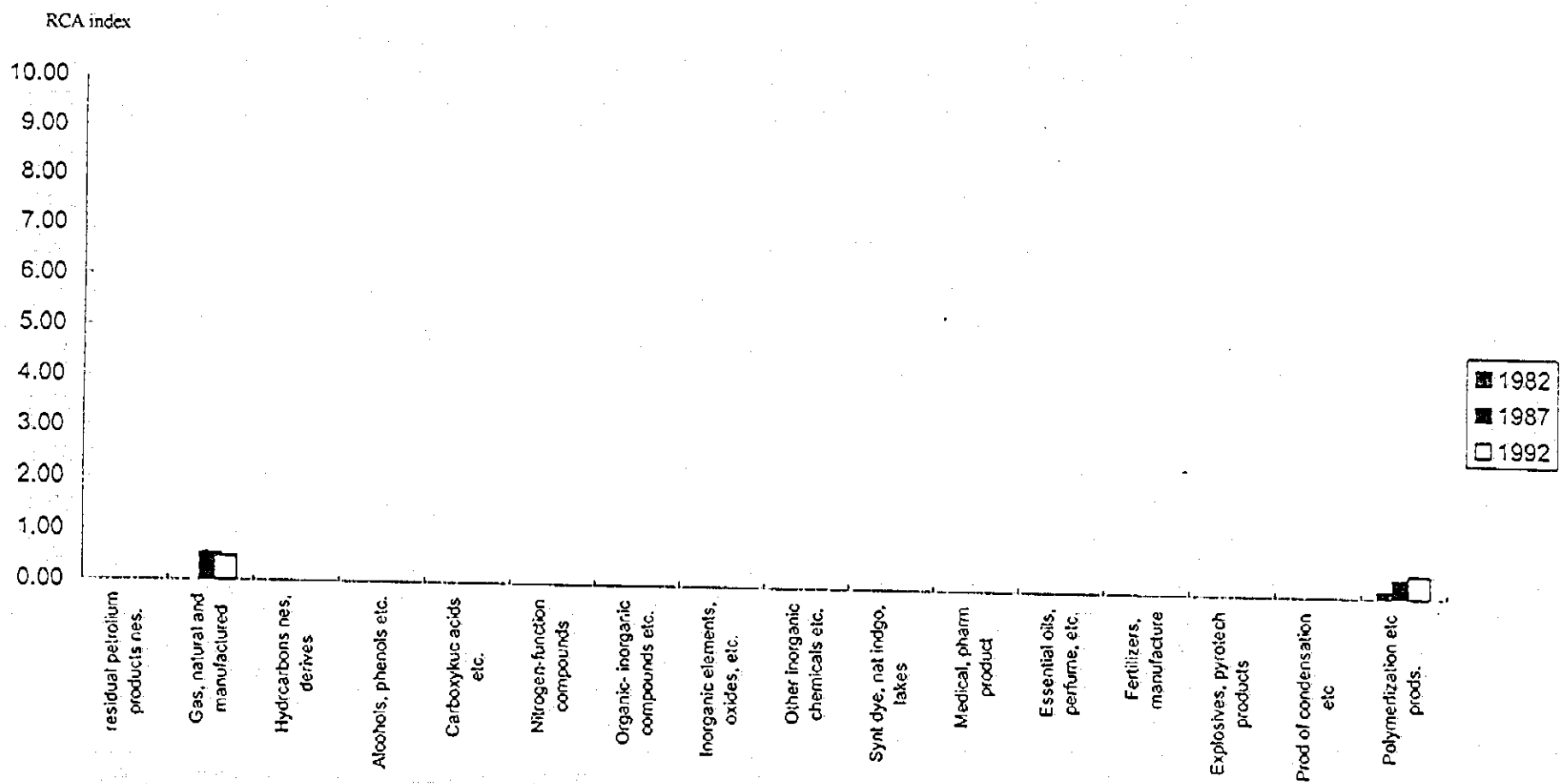
Sources: United Nations, International Trade Statistics Yearbook, various issues.

Figure III-11 RCA index of Capital Intensive Industries in Malaysia (2)



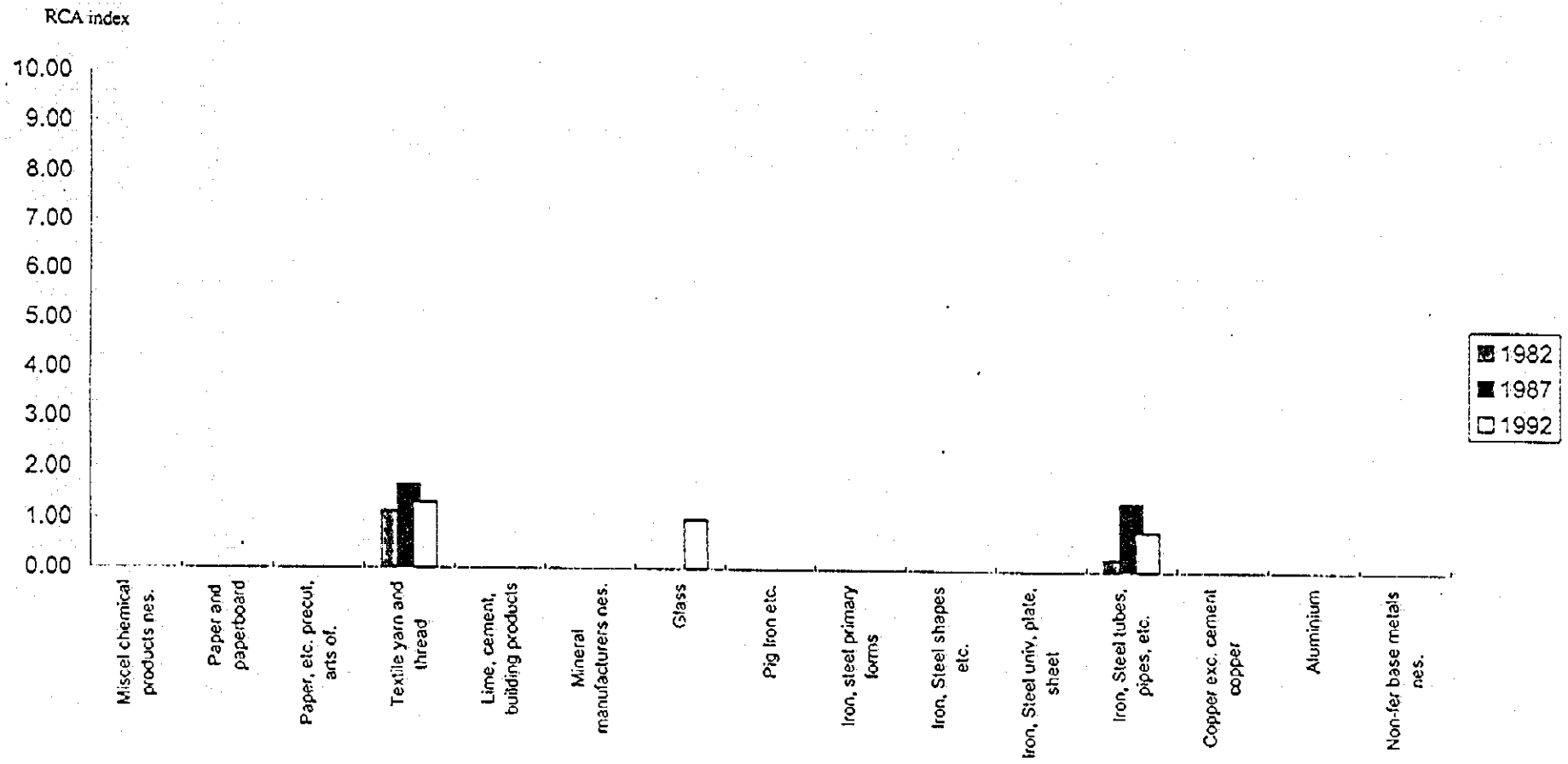
Sources: United Nations, International Trade Statistics Yearbook, various issues.

Figure III-12 RCA index of Capital Intensive Industries in Thailand (1)



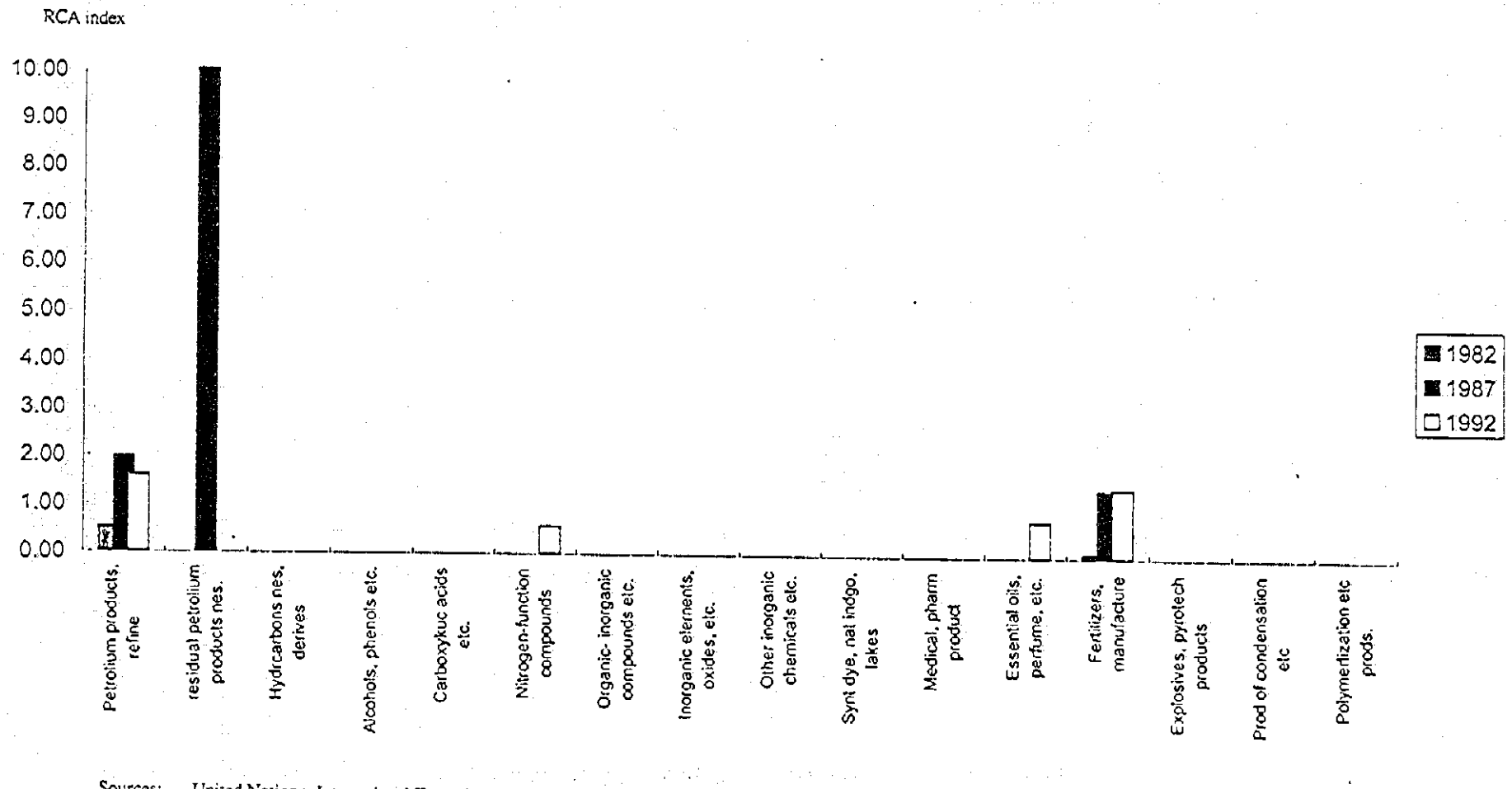
Sources: United Nations, International Trade Statistics Yearbook, various issues.

Figure III-13 RCA index of Capital Intensive Industries in Thailand (2)



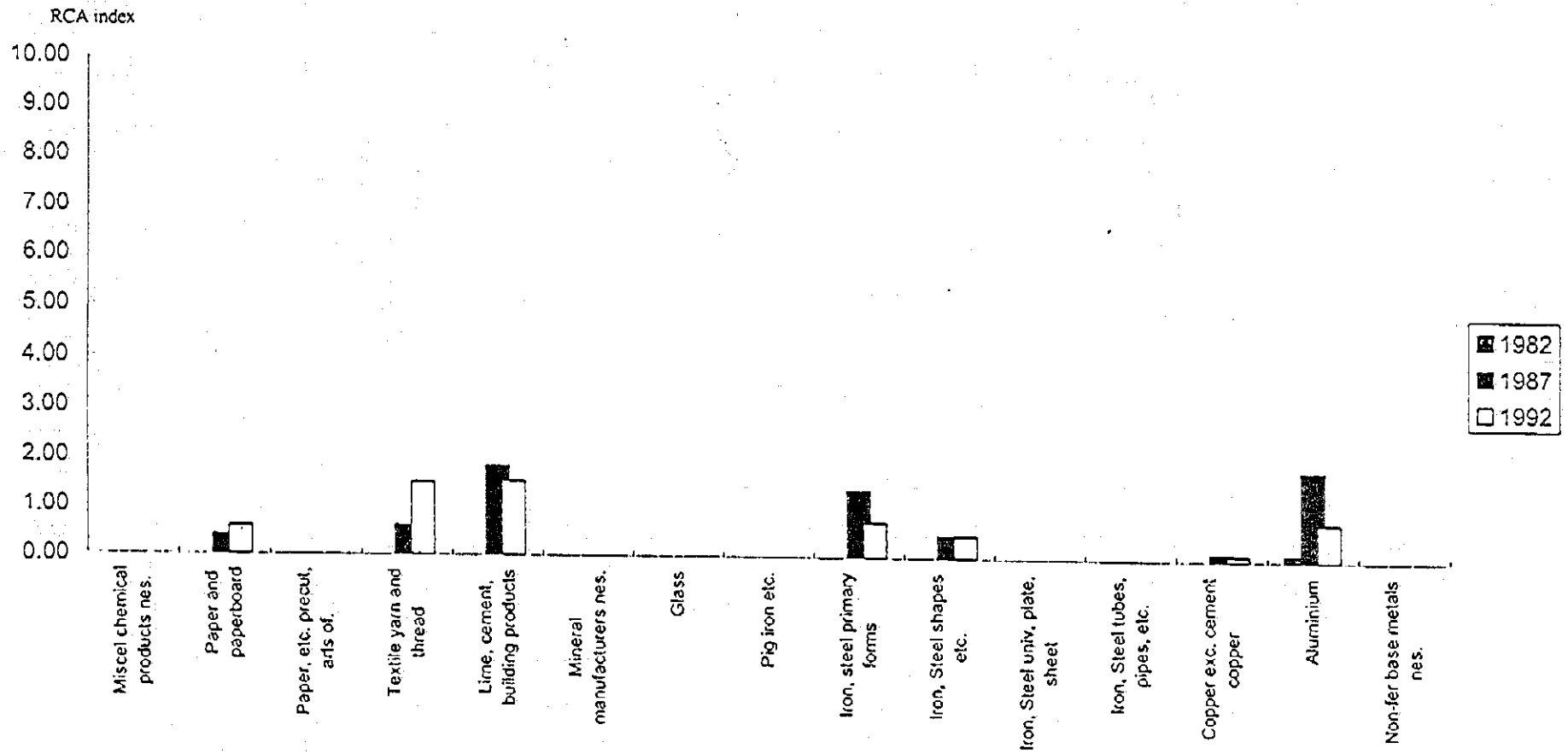
Sources: United Nations, International Trade Statistics Yearbook, various issues.

Figure III- 14 RCA index of Capital Intensive Industries in Indonesia (1)



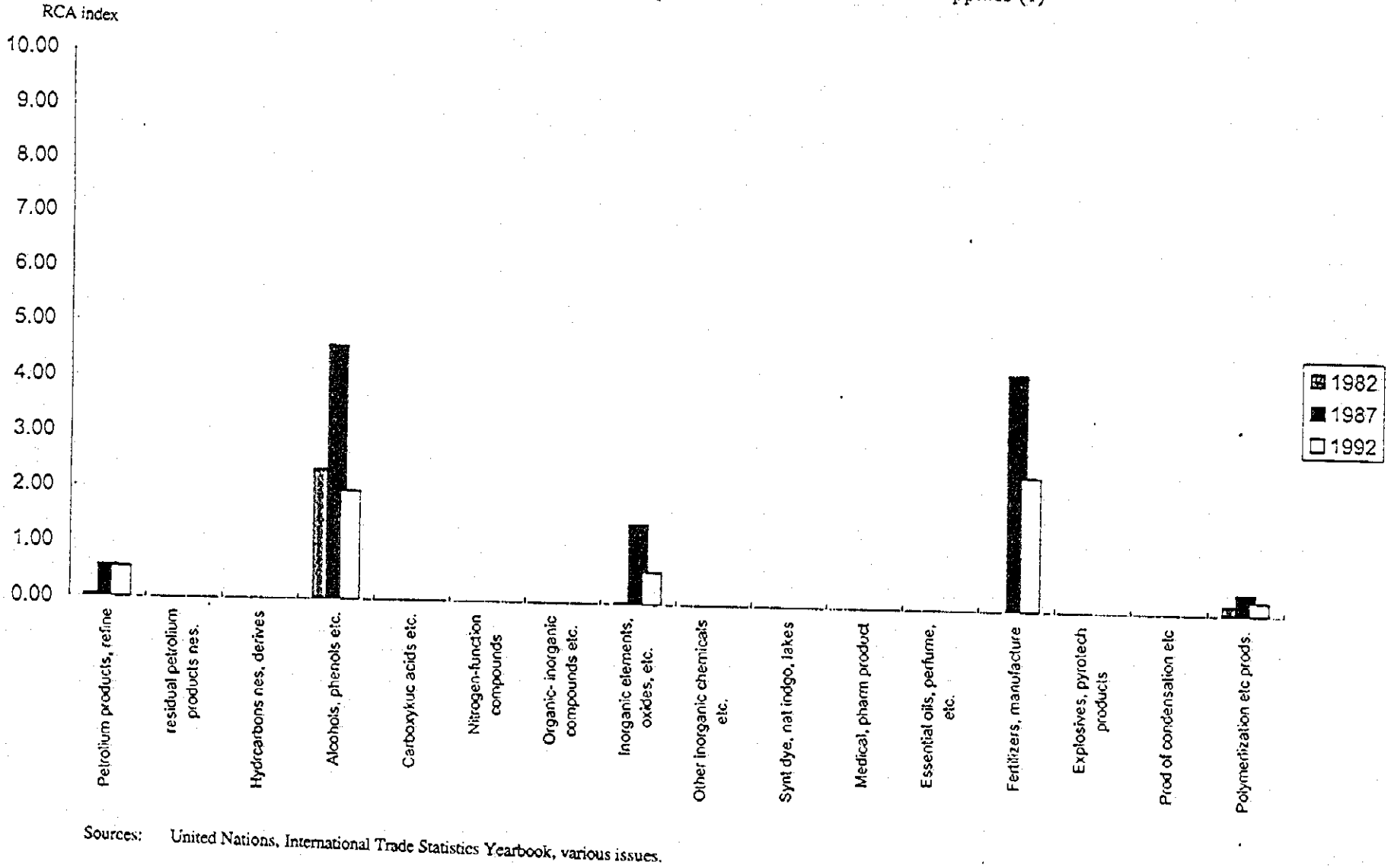
Sources: United Nations, International Trade Statistics Yearbook, various issues.

Figure III-15 RCA index of Capital Intensive Industries in Indonesia (2)



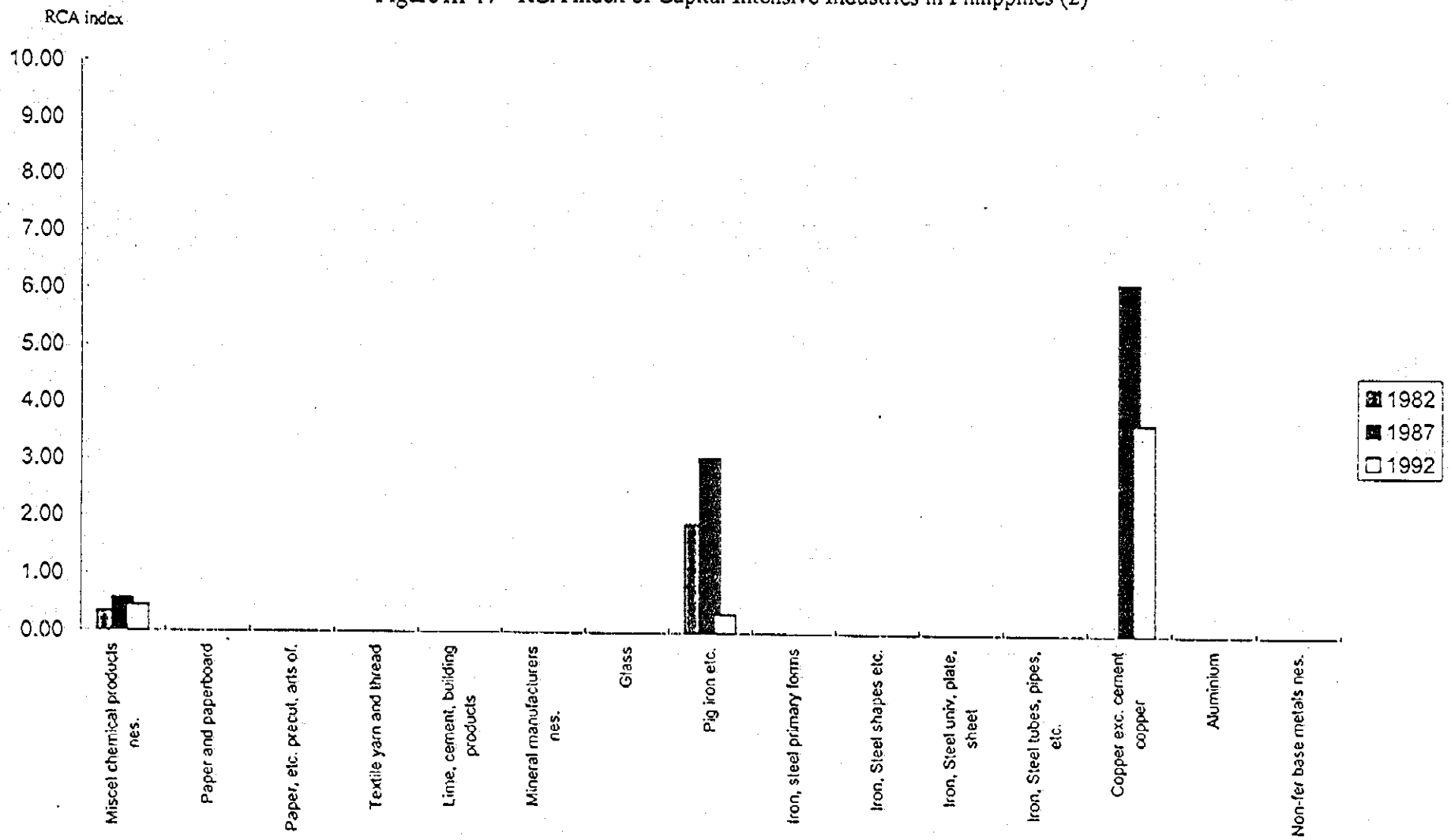
Sources: United Nations, International Trade Statistics Yearbook, various issues.

Figure III-16 RCA index of Capital Intensive Industries in Philippines (1)



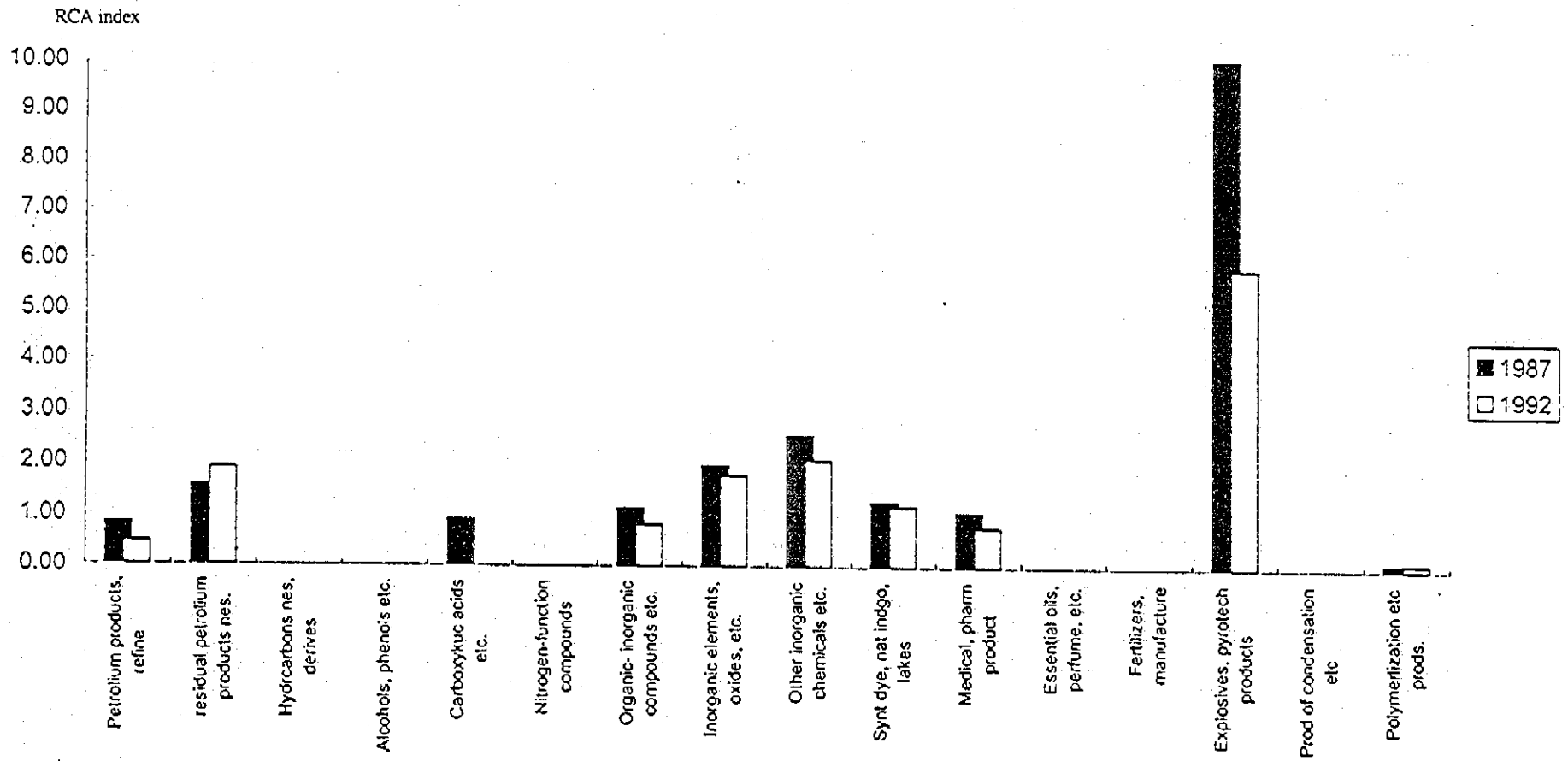
Sources: United Nations, International Trade Statistics Yearbook, various issues.

Figure III-17 RCA index of Capital Intensive Industries in Philippines (2)



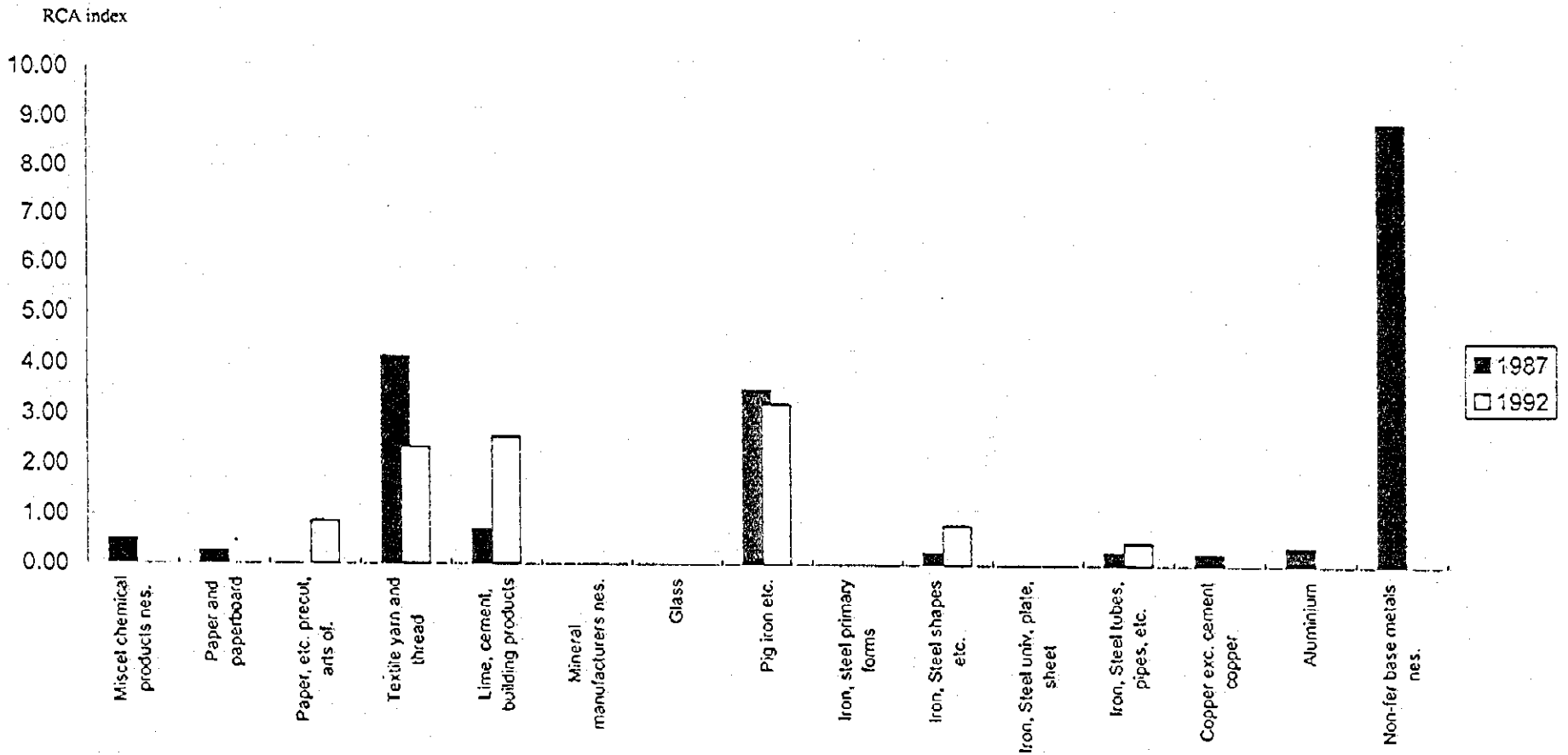
Sources: United Nations, International Trade Statistics Yearbook, various issues.

Figure III-18 RCA index of Capital Intensive Industries in China (1)



Sources: United Nations, International Trade Statistics Yearbook, various issues.

Figure III-19 RCA index of Capital Intensive Industries in China (2)



Sources: United Nations, International Trade Statistics Yearbook, various issues.

3-2 Review of the Trade and Production Structure in Viet Nam

In this chapter, we analyze Viet Nam's trade and production statistics in order to reveal the tendency of Viet Nam's industrialization. We were able to obtain Viet Nam's statistics thanks to the extensive effort of our counterpart, Ministry of Planning and Investment(MPI). We should note that due to a shortage of time, data are imperfect, and the analysis is tentative.

(1) Export

Though primary commodities remain the largest sector of Viet Nam's export, total export grew rapidly, 92.3% in US$ between 1991 and 1994. In 1994, primary commodities occupied 73.1% of total export. They contributed 54.9% of total export growth in 1993-1994, and 71.0%, 1991-1994. Crude oil is the largest single item amounted 866.8 million dollars (22.4% of the total export) in 1994, and on the other hand we should notice that "oil products" is the largest import item amounted 693 million dollars in 1994, mainly from Singapore as refined products on commission. Export diversification is mainly in light industry, which accounted for 18.3% of total export in 1994. Light industry, almost all of which is clothing(wearing and shoes), contributed 29.5% to export growth in 1993-1994, and 29.6%,1991-1994. These industries used to export mainly to COMECON countries, but after its breakdown, the destination changed to Western countries, and export was extended mainly on consignment. At the same time, export of machinery expanded quickly(332.0%:1993-1994), but because of its thin share of total export(2.3% in 1994), its contribution to total export growth was only 7.5%(1993-1994). Considering the expansion in machinery imports, their export cannot be attributed to strengthening international competitiveness.

We can see from the above that Viet Nam's export is shifting to industrial commodities, but the commodities which contribute to export growth are very few, other than clothing. Developing Asian countries have accomplished their economic growth by expanding industrial export, and upgrading the export commodity from clothing to machinery such as electronics. It seems that Viet Nam has not yet accomplished this upgrading. In order to advance, accumulation of technology and experience are required. For example, supporting industries, which are very primitive in Viet Nam, need to be developed. In many countries, this required much effort by both the private sector and government.

Revealed Comparative Advantage(RCA) shows a comparison of individual countries' export shares of particular products and world averages. Viet Nam's RCAs in manufacturing commodities are generally very low, as can be seen in the following table which lists their chief export categories. Among them, "clothing and accessories" and "footwear" RCAs were above 1.0(3.58 and 3.30 respectively in 1994), showing competitiveness in these industries. It should be noted, however, that other Asian countries typically registered corresponding RCAs of over 10 when their competitiveness in these commodities was around its peak. From that perspective, the figures for Viet Nam appear rather low, suggesting that the country still has plenty of room to expand its exports in these categories.

Table III-1 RCA of Industrial Goods in Viet Nam

SITC	Commodity	1991	1992	1993	1994
751	office machines	N.A.	N.A.	0.03	0.09
785	bicycles	N.A.	N.A.	0.14	0.10
84	clothing and accessories	1.94	2.47	2.22	3.58
85	footwear	0.49	0.86	2.55	3.30
896	fine arts products	0.00	0.01	0.01	0.00

Source: Government of Viet Nam

(2) Import

There are many imperfections in import statistics. For example, in Viet Nam when a factory, which has been constructed using FDI, imports production equipment, this equipment does not count towards imports. In such cases the import amounts will be subtracted from the FDI inflow. At the same time, it is reported that undervaluation of import goods frequently occur to avoid import duty, and smuggling cannot be ignored.

While considering the above, let us analyze import statistics. In 1994, industrial goods were the largest part of imports, accounting for 78%. They contributed 82.9% to total import growth in 1993-1994. No single category of goods can be credited alone for the import uptrend, and this in itself serves as an indication that increased imports of a broad range of industrial goods are fueling the overall flow. Most imports fit into one of two categories : capital goods (e.g., industrial machinery) or intermediate goods (e.g., raw materials). (As mentioned in the trend of export, "oil products" is the largest import item amounted 693 million dollars (11.89% of the total) in 1994, mainly from Singapore, and on the other hand "crude oil" is the largest export item amounted 866.8 million dollars in 1994, and includes exports to Singapore for refining on commission.) This situation suggests that import growth is now directly linked to domestic trends in industrialization. An example is the way export growth in apparel products has sparked an explosive uptrend in imports of intermediate goods for their production (fabrics). This however, illustrates that the Vietnamese apparel industry remains little more than a source of low-cost labor for the final product processing stages. The implication is that growth in this industry at present has only a marginal spillover effect on other domestic industrial sectors.

(3) Production

The agricultural, industrial and service sectors accounted for 27.7%, 29.6% and 42.7% respectively of Viet Nam's GDP in 1994. The manufacturing sector of ASEAN countries generally accounts for around 40 percent of GDP (39.2% in Thailand, 40.7% in Indonesia), substantially higher than the manufacturing share in Viet Nam. In historical terms, Viet Nam is currently about as industrialized as Thailand was in the early 1980s. Furthermore, "food", "foodstuff" and "fuels" account for half of the industrial sector in Viet Nam. This suggests that the difference in industrial development between Viet Nam and ASEAN is even larger.

Table III-2 Shares of Major Sectors in GDP(*)(1994)

	Malaysia(**) (Mil.Ringgit)		Thailand(1993) (Mil.Baht)		Indonesia (Bil.Rupiah)		Philippines (Bil.Peso)		Viet Nam (Bil.Dong)	
Agri Sector	16,155	14.8	314,974	10.0	65,821	17.4	372	22.0	47,082	27.7
Mining	8,175	7.5	46,538	1.5	31,381	8.3	17	1.0		
Manufacturing	34,458	31.5	899,435	28.5	90,207	23.9	394	23.3	37,535	22.0
Electricity	2,454	2.2	77,294	2.4	3,913	1.0	45	2.7		
Construction	4,545	4.2	217,159	6.9	27,942	7.4	97	5.8	12,946	7.6
Industrial Sector	49,632	45.4	1,240,426	39.2	153,443	40.7	552	32.7	50,481	29.6
Service Sector	43,581	37.8	1,605,974	50.8	158	41.9	764	45.3	72,695	42.7
Total(GDP)	109,368	100	3,161,374	100	377,354	100	1,688	100	170,258	100

(*) Unless otherwise indicated, data are based on GDP at current market prices.

(**) Data are based on GDP at constant 1978 prices

Data Sources: Key Indicators of Developing Asian and Pacific Countries 1995 (Asian Development Bank)

Industrial output of Viet Nam grew rapidly by 45.2% in VND between 1991 and 1994, and the booming sectors were foodstuffs, fuels, chemical fertilizer and construction materials. Primary products such as foodstuffs and crude oil still accounted for 50.0% of the industrial sector in 1994. Notice that the growth rates of export-oriented products such as clothing were less than total industrial growth. Even though clothing export expanded, its domestic industrial share dropped. Considering that foodstuffs and fuels are characterized as primary commodities rather than industrial goods, it very well could be that Viet Nam's industrialization is mainly for a quickly expanding domestic market. This might imply that Viet Nam's industrialization is inward-oriented rather than outward-oriented.

To summarize the above, while exports, imports and domestic production grew rapidly, their leading sectors were all different.

Export	Production	Import
Clothing Transportation	Foodstuff Fuel Chemical Products Construction Material Clothing	Machines Chemical Products Clothing Material

It seems that Viet Nam's light industry development is now in a transition phase from import substitution to export substitution. But, Viet Nam does not have much international competitiveness in light industries other than clothing. Viet Nam has hardly any international

competitiveness in high-grade goods such as electronics. These goods require not only labor, but also technology and experience, including one gained through the formation of supporting industries.

Other than clothing, it appears that Viet Nam's industries do not seek to develop overseas market. Industrialization of Viet Nam is driven by domestic market expansion.

The macroeconomic environment fosters such a tendency. While there is 30% inflation on domestic prices, the exchange rate of VND is almost fixed to the US dollar. This will result in an overvaluation of VND. When the US dollar is depreciating, this nearly fixed status is allowable because VND is simultaneously depreciating, but now, the US dollar is appreciating. In the same way, the price index trend depresses manufacturing. In the period from Jan. 1993 to Dec. 1994, the price of manufacturing goods was almost stable while others surged. (see table in the next page)

Table III-3 Price Index by Commodity Groups

Month	Goods	Total Food	Agricultural Products	Processed Food	Manufactured Goods	Services	VND per US$(ave.)
Jan.1990	100.0	100.0	100.0	100.0	100.0	100.0	N.A.
Jan.1991	114.3	119.1	115.8	120.6	114.3	104.3	5,133
Jan.1992	178.9	179.3	161.2	193.0	178.9	149.8	9,274
Jan.1993	198.9	189.4	135.2	224.7	198.9	203.8	11,150
Jan.1994	205.2	199.9	148.7	236.4	207.6	240.8	10,640
Dec.1994	233.4	240.2	194.6	271.6	219.0	266.5	10,955

Source: World Bank, *Viet Nam Economic Report on Industrialization and Industrial Policy*, 1995

The recent macroeconomic situation makes a strong incentive to produce for the domestic rather than overseas market, and for the service rather than manufacturing sector. The institutional situation also fosters such tendency. The present situation, resisting private corporations, especially in the industrial sector where state-owned companies dominate, impedes the establishment of private manufacturing companies. It also seems that a lack of integrated commercial law makes business contracts unreliable and further depresses manufacturing. In this scenario, the economic growth will lean toward non-tradable goods. It will be harmful to Viet Nam's future economy.

Inward-oriented policy will soon cause standstill due to an imbalance of payments and a limited domestic market. In order to encourage manufacturing, it is necessary to abolish the manufacturing-depressive policies, and in order to promote manufacturing export, it is necessary to take an outward-oriented policy. Experiences of growing Asian countries reveal that outward-oriented policy needs the full backing of government through market-friendly intervention.

	1991		1992		1993		1994		Growth Rate (1991-1994)	Contribution (1991-1994)
Total	*2009.8*	*100.0%*	*2288.9*	*100.0%*	*2952.0*	*100.0%*	*3864.0*	*100.0%*	*92.3%*	*100.00%*
1. Food and grains	727.0	36.2%	947.3	41.4%	1102.3	37.3%	1507.1	39.0%	107.3%	42.07%
rice	234.5	11.7%	418.4	18.3%	361.8	12.3%	422.5	10.9%	80.2%	10.14%
broken rice		0.0%		0.0%	0.9	0.0%	1.7	0.0%		0.09%
cassava		0.0%	3.9	0.2%	4.1	0.1%	3.2	0.1%		0.17%
maize/corn	6.6	0.3%	8.8	0.4%	8.5	0.3%	15.4	0.4%	133.3%	0.47%
cashew	25.5	1.3%	41.1	1.8%	44.0	1.5%	72.5	1.9%	184.3%	2.53%
sugar		0.0%		0.0%	6.6	0.2%	0.5	0.0%		0.03%
sea products	285.4	14.2%	307.6	13.4%	427.1	14.5%	530.4	13.7%	85.8%	13.21%
meat	45.0	2.2%	21.4	0.9%	20.6	0.7%	17.9	0.5%	-60.2%	-1.46%
egg		0.0%		0.0%	10.3	0.3%	10.4	0.3%		0.56%
"Yen" bird's net	2.3	0.1%	3.9	0.2%	1.2	0.0%	5.6	0.1%	143.5%	0.18%
processed food		0.0%		0.0%	1.1	0.0%	3.4	0.1%		0.18%
coffee	76.2	3.8%	91.5	4.0%	110.7	3.8%	328.2	8.5%	330.7%	13.59%
tea	13.7	0.7%	16.1	0.7%	25.5	0.9%	26.5	0.7%	93.4%	0.69%
pepper	17.6	0.9%	15.3	0.7%	13.5	0.5%	29.1	0.8%	65.6%	0.62%
cinnamon	3.8	0.2%	4.4	0.2%	4.4	0.1%	4.9	0.1%	28.9%	0.06%
garlic		0.0%		0.0%	0.4	0.0%	3.0	0.1%		0.16%
red pepper	0.7	0.0%	0.6	0.0%	0.4	0.0%	0.6	0.0%	-14.3%	-0.01%
mushroom		0.0%		0.0%	2.1	0.1%	5.9	0.2%		0.32%
vegetable	15.8	0.8%	14.3	0.6%	17.8	0.6%	21.6	0.6%	36.7%	0.31%
honey		0.0%		0.0%	1.3	0.0%	0.1	0.0%		0.01%
animal's foods		0.0%		0.0%	0.5	0.0%	0.0	0.0%		
2. Drinks and Tobacco		0.0%		0.0%	2.7	0.1%	2.9	0.1%		0.16%
3. Non-food raw material	149.5	7.4%	170.7	7.5%	231.3	7.8%	290.7	7.5%	94.4%	7.62%
leather		0.0%	3.6	0.2%	3.6	0.1%	7.0	0.2%		0.38%
leather, hair		0.0%		0.0%	0.3	0.0%	8.0	0.2%		0.43%
peanut	47.9	2.4%	32.0	1.4%	61.0	2.1%	75.0	1.9%	56.6%	1.46%
soybean	3.3	0.2%	2.3	0.1%	1.3	0.0%	2.1	0.1%	-36.4%	-0.06%
sesame	3.1	0.2%	2.0	0.1%	0.7	0.0%	0.4	0.0%	-87.1%	-0.15%
coconut		0.0%		0.0%	2.1	0.1%	4.0	0.1%		0.22%
rubber	49.6	2.5%	67.1	2.9%	74.3	2.5%	133.6	3.5%	169.4%	4.53%
log wood	26.7	1.3%	16.1	0.7%	3.6	0.1%	0.0	0.0%		-1.44%
timber		0.0%		0.0%	23.2	0.8%	12.9	0.3%		0.70%
aquilegia(a kind of plant)		0.0%	1.3	0.1%	2.0	0.1%	0.0	0.0%		
silk		0.0%	0.8	0.0%	4.9	0.2%	12.1	0.3%		0.65%
jute		0.0%		0.0%	1.1	0.0%	2.0	0.1%		0.11%
marble		0.0%	5.1	0.2%	2.8	0.1%	2.3	0.1%		0.12%
sand		0.0%		0.0%	1.1	0.0%	7.1	0.2%		0.38%
steel		0.0%	12.7	0.6%	0.9	0.0%	1.8	0.0%		0.10%
zinc ore	0.3	0.0%	1.8	0.1%	3.0	0.1%	3.1	0.1%	933.3%	0.15%
tin ore		0.0%	24.3	1.1%	0.4	0.0%	0.0	0.0%		
duck feather		0.0%		0.0%	10.1	0.3%	13.3	0.3%		0.72%
rattan	13.8	0.7%		0.0%	6.5	0.2%	2.8	0.1%	-79.7%	-0.59%
herbal medicine	4.3	0.2%		0.0%	7.4	0.3%	1.7	0.0%	-60.5%	-0.14%
forest products	0.5	0.0%	1.6	0.1%	1.6	0.1%	1.5	0.0%	200.0%	0.05%
4. Fuel and minerals	630.8	31.4%	868.0	37.9%	980.6	33.2%	1009.2	26.1%	60.0%	20.41%
coal	48.3	2.4%	62.1	2.7%	51.9	1.8%	75.1	1.9%	55.5%	1.45%
crude oil	581.4	28.9%	805.7	35.2%	843.9	28.6%	866.8	22.4%	49.1%	15.39%
non-crude oil	1.1	0.1%		0.0%	80.9	2.7%	67.2	1.7%	6009.1%	3.56%
5. Cooking oil and fats		0.0%		0.0%	6.3	0.2%	14.0	0.4%		0.76%
Primary commodities total	*1507.3*	*75.0%*	*1986.0*	*86.8%*	*2323.2*	*78.7%*	*2823.9*	*73.1%*	*87.3%*	*71.01%*

Table III-4 Export of Viet Nam (Million US Dollar) (2)

	1991		1992		1993		1994		Growth Rate (1991-1994)	Contribution (1991-1994)
6. Chemical Products		**0.0%**	4.6	**0.2%**	13.0	**0.4%**	16.8	**0.4%**		**0.91%**
monosodium glutamate		0.0%		0.0%	3.1	0.1%	0.0	0.0%		
medicine		0.0%	4.6	0.2%	2.0	0.1%	2.2	0.1%		0.12%
oil-abstract		0.0%		0.0%	3.8	0.1%	3.8	0.1%		0.20%
cosmetic		0.0%		0.0%	1.4	0.0%	0.6	0.0%		0.03%
7. Other processed products	64.0	**3.2%**	44.3	**1.9%**	152.0	**5.1%**	180.0	**4.7%**	**181.3%**	**6.26%**
leather products	2.5	0.1%	10.5	0.5%	14.2	0.5%	0.0	0.0%		-0.13%
plywood		0.0%		0.0%	3.6	0.1%	4.9	0.1%		0.26%
wood products		0.0%		0.0%	49.2	1.7%	52.2	1.4%		2.82%
rubber products		0.0%		0.0%	2.0	0.1%	0.8	0.0%		0.04%
paper	1.3	0.1%		0.0%	1.9	0.1%	2.3	0.1%	76.9%	0.05%
fabric	3.8	0.2%	7.6	0.3%	4.9	0.2%	5.5	0.1%	44.7%	0.09%
embroidered product	8.8	0.4%	4.0	0.2%	4.7	0.2%	5.9	0.2%	-33.0%	-0.16%
towel, pillow	13.8	0.7%	10.2	0.4%	15.0	0.5%	29.0	0.8%	110.1%	0.82%
woolen carpet	6.2	0.3%	7.9	0.3%	4.2	0.1%	8.3	0.2%	33.9%	0.11%
jute carpet		0.0%		0.0%	0.9	0.0%	1.5	0.0%		0.08%
cement	1.0	0.0%		0.0%	2.1	0.1%	0.3	0.0%	-70.0%	-0.04%
porcelain		0.0%		0.0%	3.7	0.1%	16.5	0.4%		0.89%
iron		0.0%		0.0%	1.2	0.0%	0.8	0.0%		0.04%
steel	7.7	0.4%	4.1	0.2%	14.5	0.5%	7.4	0.2%	-3.9%	-0.02%
zinc	1.1	0.1%		0.0%	0.5	0.0%	0.0	0.0%		-0.06%
tin	17.8	0.9%		0.0%	14.6	0.5%	16.0	0.4%	-10.1%	-0.10%
8. Machines		**0.0%**		**0.0%**	20.6	**0.7%**	89.0	**2.3%**		**4.80%**
office machines		0.0%		0.0%	2.1	0.1%	0.0	0.0%		
audio-visual		0.0%		0.0%	3.3	0.1%	5.4	0.1%		0.29%
home appliance		0.0%		0.0%	5.7	0.2%	10.4	0.3%		0.56%
bicycle		0.0%		0.0%	1.6	0.1%	1.5	0.0%		0.08%
vehicle for transportation		0.0%		0.0%	1.1	0.0%	54.0	1.4%		2.91%
9. Other manufactured goods	159.7	**7.9%**	232.9	**10.2%**	438.8	**14.9%**	708.2	**18.3%**	**343.5%**	**29.58%**
products of rattan and bamboo	10.8	0.5%		0.0%	21.1	0.7%	19.3	0.5%	78.7%	0.46%
clothes	133.9	6.7%	201.9	8.8%	238.8	8.1%	504.4	13.1%	276.7%	19.98%
shoes	8.2	0.4%	16.6	0.7%	68.0	2.3%	115.4	3.0%	1307.3%	5.78%
stationery		0.0%		0.0%	2.1	0.1%	1.6	0.0%		0.09%
fine arts products	6.8	0.3%	14.4	0.6%	20.1	0.7%	12.9	0.3%	89.7%	0.33%
Manufactured products total	*223.7*	*11.1%*	*281.8*	*12.3%*	*624.4*	*21.2%*	*994.0*	*25.7%*	*344.3%*	*41.54%*

Note: The summations of each columns are not necessarily correspondent to the figures of the "Total" and the subtotal(e.g. 1.Food,Feeds).
: The data of the year 1993 and 1994 don't include the exports in ruble basis.
: The "Total" figure of the year 1991 and 1992 don't include the exports in ruble basis.

Source: Government of Viet Nam

Table III-5 Import of Viet Nam (in million U.S.dollar) (1)

	1991		1992		1993		1994		Growth Rate (1991-1994)	Contribution (1991-1994)
Total	*2562.2*	*100.00%*	*2540.7*	*100.00%*	*3923.6*	*100.00%*	*5826.0*	*100.00%*	*127.4%*	*100.00%*
1. Food and grains	103.6	4.04%			119.5	3.05%	183.8	3.15%	77.4%	2.46%
wheat	7.9	0.31%			2.2	0.06%	7.7	0.13%	-2.5%	-0.01%
wheat flour	35.7	1.39%			51.1	1.30%	52.1	0.89%	45.9%	0.50%
mal (material used in brewery industry)	3.1	0.12%			10.5	0.27%	13.4	0.23%	332.3%	0.32%
sugar	5.1	0.20%			14.2	0.36%	39.1	0.67%	666.7%	1.04%
unprocessed milk	9.8	0.38%			5.5	0.14%	0.5	0.01%	-94.9%	-0.28%
milk		0.00%			30.9	0.79%	41.3	0.71%		1.27%
2. Drinks and tobacco	54.2	2.12%			34.0	0.87%	72.0	1.24%	32.8%	0.55%
liquor	0.6	0.02%			1.5	0.04%	2.7	0.05%	350.0%	0.06%
beer	0.9	0.04%			9.3	0.24%	1.8	0.03%	100.0%	0.03%
bottled water		0.00%			2.8	0.07%	0.7	0.01%		0.02%
cigarette material	52.7	2.06%			16.8	0.43%	62.2	1.07%	18.0%	0.29%
3. Non-food raw material	62.1	2.42%			54.1	1.38%	148.9	2.56%	139.8%	2.66%
pulp	0.1	0.00%			2.6	0.07%	15.1	0.26%	15000.0%	0.46%
cotton	61.0	2.38%			20.3	0.52%	42.7	0.73%	-30.0%	-0.56%
synthetic fiber		0.00%			19.7	0.50%	40.6	0.70%		1.24%
ferrous	1.0	0.04%			1.0	0.03%	0.1	0.00%	-90.0%	-0.03%
amianthus(material used to make cement)		0.00%			2.3	0.06%	3.1	0.05%		0.09%
wool, leather, feather		0.00%			3.9	0.10%	10.1	0.17%		0.31%
rubber		0.00%			0.6	0.02%	21.2	0.36%		0.65%
gypsum(material used to make cement)		0.00%				0.00%	1.7	0.03%		0.05%
4. Fuel and minerals	485.3	18.94%			709.8	18.09%	735.6	12.63%	51.6%	7.67%
crude oil		0.00%				0.00%	7.8	0.13%		0.24%
oil products	485.3	18.94%			687.4	17.52%	693.0	11.89%	42.8%	6.36%
lubricating oil		0.00%			7.2	0.18%	16.2	0.28%		0.50%
asphalt		0.00%			11.9	0.30%	11.4	0.20%		0.35%
gas		0.00%			0.3	0.01%	3.4	0.06%		0.10%
electrode		0.00%			1.9	0.05%		0.00%		
5. Cooking oils and fats		0.00%			11.8	0.30%	21.4	0.37%		0.66%
6. Chemical products	306.6	11.97%			656.1	16.72%	1013.7	17.40%	230.6%	21.66%
acid(all kinds)		0.00%			1.3	0.03%	1.3	0.02%		0.04%
sodium hydroxide	1.5	0.06%			4.9	0.12%	12.0	0.21%	700.0%	0.32%
dyestuff	7.2	0.28%			15.0	0.38%	13.1	0.22%	81.9%	0.18%
chemicals to produce paints		0.00%			2.3	0.06%	12.7	0.22%		0.39%
dynamite	1.2	0.05%			2.0	0.05%	4.8	0.08%	300.0%	0.11%
sodium glutamate		0.00%			70.7	1.80%	44.1	0.76%		1.35%
other chemical products		0.00%			74.2	1.89%	76.1	1.31%		2.33%
herbal/medicinal materials		0.00%			47.9	1.22%	37.9	0.65%		1.16%
medicine		0.00%			86.0	2.19%	140.0	2.40%		4.29%
vegetable oil		0.00%			3.4	0.09%	6.9	0.12%		0.21%
fertilizer	260.6	10.17%			222.7	5.68%	389.5	6.69%	49.5%	3.95%
plastic	36.1	1.41%			82.0	2.09%	196.0	3.36%	442.9%	4.90%
insecticides		0.00%			33.4	0.85%	57.6	0.99%		1.76%
cosmetics, soaps		0.00%			0.7	0.02%	13.2	0.23%		0.40%
7. Other processed products	4.1	0.16%			759.4	19.35%	778.0	13.35%	18875.6%	23.71%
plaster/plywood		0.00%			0.9	0.02%	1.2	0.02%		0.04%
tires and tubes		0.00%			30.0	0.76%	28.0	0.48%		0.86%
paper		0.00%			31.5	0.80%	43.7	0.75%		1.34%
cardboard		0.00%			12.0	0.31%	23.5	0.40%		0.72%
synthetic fiber		0.00%			60.0	1.53%	80.9	1.39%		2.48%
fabric		0.00%			50.7	1.29%	55.3	0.95%		1.69%
cement	1.0	0.04%			9.6	0.24%	33.3	0.57%	3230.0%	0.99%
clinker	0.6	0.02%			7.6	0.19%	31.1	0.53%	5083.3%	0.93%
roof tiles		0.00%			21.1	0.54%	25.7	0.44%		0.79%
brick and tile		0.00%			4.6	0.12%	5.4	0.09%		0.17%
special kinds of bricks		0.00%			2.2	0.06%	11.3	0.19%		0.35%
glass, ceramics		0.00%			3.7	0.09%	9.8	0.17%		0.30%

Table III-5 Import of Viet Nam (In million U.S.dollar) (2)

	1991		1992		1993		1994		Growth Rate (1991-1994)	Contribution (1991-1994)
steel		0.00%			233.1	5.94%	204.0	3.50%		6.25%
iron tubes, pipes		0.00%			5.3	0.14%	29.8	0.51%		0.91%
copper metal		0.00%			4.2	0.11%	14.2	0.24%		0.44%
aluminum	0.7	0.03%			6.8	0.17%	18.5	0.32%	2542.9%	0.55%
lead	0.4	0.02%			2.1	0.05%	3.7	0.06%	825.0%	0.10%
zinc	1.4	0.05%			2.6	0.07%	6.9	0.12%	392.9%	0.17%
fishing net thread		0.00%			3.2	0.08%	7.4	0.13%		0.23%
tin can		0.00%			14.3	0.36%	6.6	0.11%		0.20%
soldering stick		0.00%				0.00%	7.6	0.13%		0.23%
auxiliary materials for manufacturing cigarettes		0.00%			42.1	1.07%	21.8	0.37%		0.67%
8. Machines	**102.1**	**3.98%**			**1036.7**	**26.42%**	**1438.5**	**24.69%**	**1308.9%**	**40.95%**
electricity generator		0.00%			38.9	0.99%	14.5	0.25%		0.44%
farming machine		0.00%			8.9	0.23%	26.6	0.46%		0.82%
construction machine		0.00%			13.0	0.33%	28.1	0.48%		0.86%
mining equipment		0.00%			5.9	0.15%	5.4	0.09%		0.17%
equipment in leather/textile industries		0.00%			35.8	0.91%	72.8	1.25%		2.23%
printing equipment		0.00%			3.0	0.08%	9.7	0.17%		0.30%
equipment in food processing industries		0.00%			19.4	0.49%	46.4	0.80%		1.42%
forklifts/lifting equipment		0.00%			4.8	0.12%	3.9	0.07%		0.12%
ball-bearing		0.00%			3.8	0.10%	8.1	0.14%		0.25%
office equipment		0.00%			21.1	0.54%	54.6	0.94%		1.67%
telecommunication & audio-visual equipment		0.00%			129.1	3.29%	154.2	2.65%		4.72%
electronic parts		0.00%			57.2	1.46%	102.8	1.76%		3.15%
electricity distribution equipment		0.00%			0.7	0.02%	11.9	0.20%		0.36%
medical equipment		0.00%			0.1	0.00%	0.2	0.00%		0.01%
household appliances		0.00%			12.9	0.33%	74.1	1.27%		2.27%
vehicles for land transport		0.00%			99.8	2.54%	162.7	2.79%		4.98%
vehicles for rail transport		0.00%			0.8	0.02%	1.7	0.03%		0.05%
vehicles for air transport		0.00%			9.2	0.23%	16.5	0.28%		0.51%
vehicles for sea transport		0.00%			4.6	0.12%	14.4	0.25%		0.44%
motorbikes		0.00%				0.00%	347.0	5.96%		10.63%
cement equipment		0.00%			12.1	0.31%	74.7	1.28%		2.29%
forestry equipment		0.00%			1.9	0.05%	9.3	0.16%		0.28%
other equipment		0.00%			269.2	6.86%	158.8	2.73%		4.87%
9. Other manufactured goods	**37.8**	**1.48%**			**253.6**	**6.46%**	**551.6**	**9.47%**	**1359.3%**	**15.74%**
hygienic equipment		0.00%			2.8	0.07%	10.5	0.18%		0.32%
lighting equipment		0.00%			4.4	0.11%	13.2	0.23%		0.40%
measuring equipment for non-liquid		0.00%			3.1	0.08%	2.4	0.04%		0.07%
ready made clothes		0.00%			0.2	0.01%	0.6	0.01%		0.02%
medical equipment		0.00%			21.8	0.56%	24.6	0.42%		0.75%
measuring equipment for liquid		0.00%			6.5	0.17%	5.2	0.09%		0.16%
shoe accessories	20.1	0.78%			8.7	0.22%		0.00%		-0.62%
garment accessories	17.7	0.69%			96.2	2.45%		0.00%		-0.54%
10. equipment in complete sets	**318.5**	**12.43%**			**287.7**	**7.33%**	**738.0**	**12.67%**	**131.7%**	**12.85%**
hydroelectricity		0.00%			52.1	1.33%		0.00%		
electricity transmission		0.00%			150.4	3.83%		0.00%		
oil and gas		0.00%			59.1	1.51%		0.00%		
industry		0.00%			10.2	0.26%		0.00%		
transportation		0.00%			4.7	0.12%		0.00%		
equipment for socio-cultural facilities		0.00%			11.2	0.29%		0.00%		

Note : Data of the year 1991 and 1992 have not been completed yet by the Vietnamese side.
Sources : Government of Viet Nam

Table III-6 Value Added of Industry(1990-1994)/1994's price(in billion VND)

	1990		1991		1992		1993		1994	
Industry Total	*23,539*	*100.00%*	*25,858*	*100.00%*	*29,636*	*100.00%*	*33,234*	*100.00%*	*37,535*	*100.00%*
1 Electricity	1,758	7.47%	1,841	7.12%	1,899	6.41%	2,087	6.28%	2,455	6.54%
2 Fuels	2,606	11.07%	3,579	13.84%	4,854	16.38%	5,444	16.38%	5,953	15.86%
3 Ferrous metallurgy	201	0.85%	313	1.21%	362	1.22%	469	1.41%	537	1.43%
4 Non-ferrous metallurgy	167	0.71%	219	0.85%	302	1.02%	329	0.99%	297	0.79%
5 Equipment and machinery	1,005	4.27%	983	3.80%	1,094	3.69%	1,246	3.75%	1,325	3.53%
6 Electric and electronics	457	1.94%	463	1.79%	492	1.66%	665	2.00%	796	2.12%
7 Other metallic products	546	2.32%	530	2.05%	533	1.80%	588	1.77%	616	1.64%
8 Chemical fertilizer	1,547	6.57%	1,862	7.20%	2,217	7.48%	2,629	7.91%	3,138	8.36%
9 Construction material	1,681	7.14%	1,947	7.53%	2,264	7.64%	2,606	7.84%	2,905	7.74%
10 Wood and wood products	963	4.09%	996	3.85%	999	3.37%	987	2.97%	1,081	2.88%
11 Cellulose and paper	523	2.22%	489	1.89%	551	1.86%	608	1.83%	661	1.76%
12 Glass, earthware and porcelain	245	1.04%	297	1.15%	335	1.13%	389	1.17%	379	1.01%
13 Food	789	3.35%	856	3.31%	919	3.10%	917	2.76%	1,002	2.67%
14 Foodstuffs	7,678	32.62%	8,132	31.45%	9,125	30.79%	10,219	30.75%	11,809	31.46%
15 Textile products	2,114	8.98%	2,133	8.25%	2,329	7.86%	2,343	7.05%	2,582	6.88%
16 Sewing products	341	1.45%	367	1.42%	430	1.45%	598	1.80%	713	1.90%
17 Tanning of leather	157	0.67%	93	0.36%	127	0.43%	209	0.63%	251	0.67%
18 Printing	162	0.69%	181	0.70%	210	0.71%	246	0.74%	293	0.78%
19 Others	599	2.54%	577	2.23%	594	2.00%	655	1.97%	742	1.98%

(Source) Government of Viet Nam

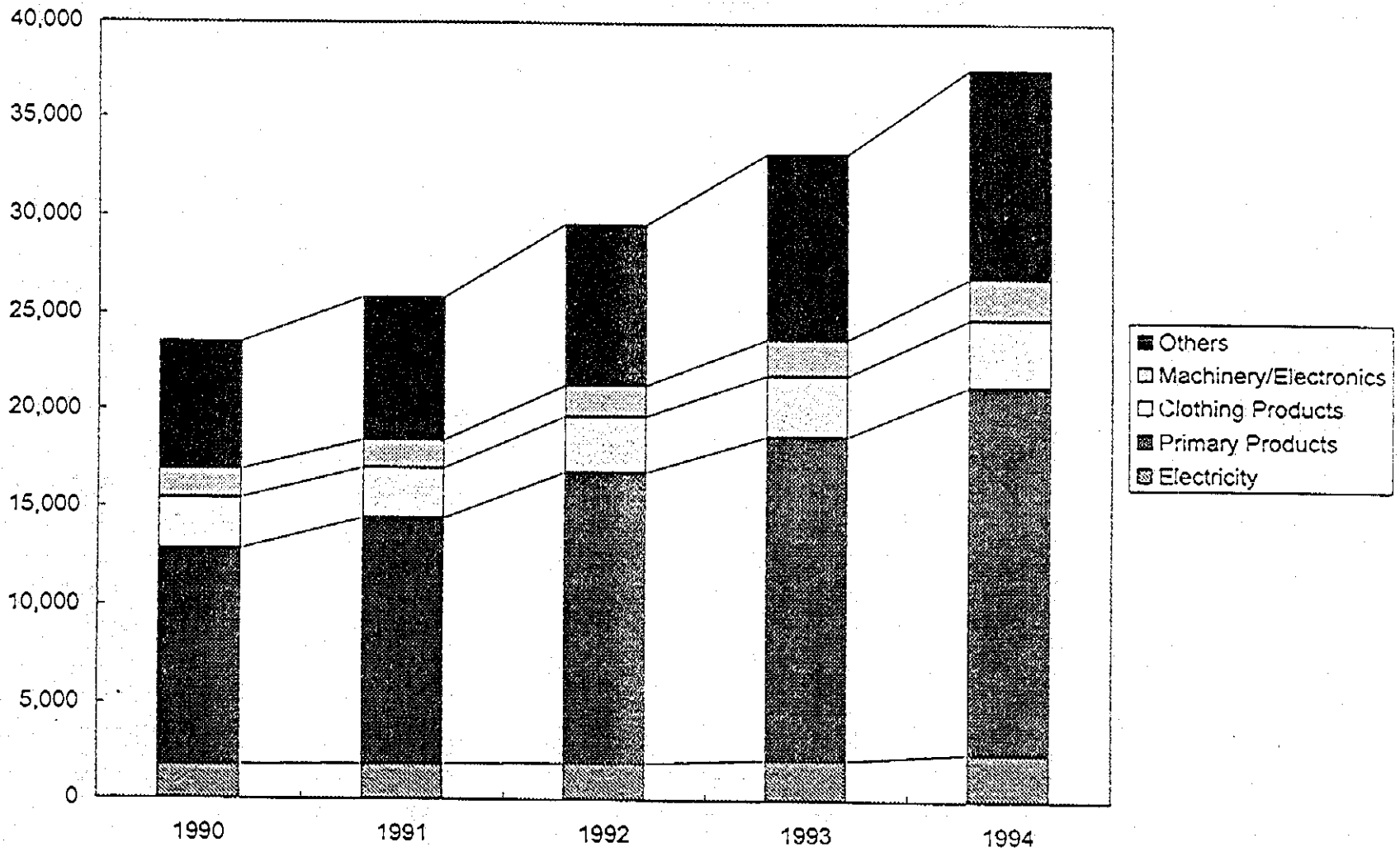
Table III-7 Value Added of Industry(1990-1994)/1994's price(in million U.S.dollar)

	1990		1991		1992		1993		1994	
Industry Total	1,393	100.0%	1,474	100.0%	2,032	100.0%	2,781	100.0%	3,426	100.0%
1 Electricity	104	7.5%	105	7.1%	130	6.4%	175	6.3%	224	6.5%
2 Fuels	154	11.1%	204	13.8%	333	16.4%	456	16.4%	543	15.9%
3 Ferrous metallurgy	12	0.9%	18	1.2%	25	1.2%	39	1.4%	49	1.4%
4 Non-ferrous metallurgy	10	0.7%	12	0.8%	21	1.0%	28	1.0%	27	0.8%
5 Equipment and machinery	59	4.3%	56	3.8%	75	3.7%	104	3.7%	121	3.5%
6 Electric and electronics	27	1.9%	26	1.8%	34	1.7%	56	2.0%	73	2.1%
7 Other metallic products	32	2.3%	30	2.0%	37	1.8%	49	1.8%	56	1.6%
8 Chemical fertilizer	92	6.6%	106	7.2%	152	7.5%	220	7.9%	286	8.4%
9 Construction material	99	7.1%	111	7.5%	155	7.6%	218	7.8%	265	7.7%
10 Wood and wood products	57	4.1%	57	3.9%	68	3.4%	83	3.0%	99	2.9%
11 Cellulose and paper	31	2.2%	28	1.9%	38	1.9%	51	1.8%	60	1.8%
12 Glass, earth and porcelain	15	1.0%	17	1.1%	23	1.1%	33	1.2%	35	1.0%
13 Food	47	3.4%	49	3.3%	63	3.1%	77	2.8%	91	2.7%
14 Foodstuffs	454	32.6%	463	31.4%	626	30.8%	855	30.7%	1,078	31.5%
15 Textile products	125	9.0%	122	8.2%	160	7.9%	196	7.1%	236	6.9%
16 Sewing products	20	1.4%	21	1.4%	29	1.5%	50	1.8%	65	1.9%
17 Tanning of leather	9	0.7%	5	0.4%	9	0.4%	17	0.6%	23	0.7%
18 Printing	10	0.7%	10	0.7%	14	0.7%	21	0.7%	27	0.8%
19 Others	35	2.5%	33	2.2%	41	2.0%	55	2.0%	68	2.0%

	1990		1991		1992		1993		1994	
Electricity	1,758	7.5%	1,841	7.1%	1,899	6.4%	2,087	6.3%	2,455	6.5%
Primary Products	11,073	47.0%	12,567	48.6%	14,898	50.3%	16,580	49.9%	18,764	50.0%
Clothing Products	2,612	11.1%	2,593	10.0%	2,886	9.7%	3,150	9.5%	3,546	9.4%
Machinery/Electronics	1,462	6.2%	1,446	5.6%	1,586	5.4%	1,911	5.8%	2,121	5.7%
Others	6,634	28.2%	7,411	28.7%	8,367	28.2%	9,506	28.6%	10,649	28.4%

(Source) Government of Viet Nam

Figure III-20
Industrial Growth of Viet Nam



Source : Government of Viet Nam

3-3 Theoretical Framework in Choosing Promising Industries

(1) Introduction

The purpose of this section is to (i) explore the possibility of the industrial development of Viet Nam, (ii) examine which industries would be promising or likely to become leading industries, and (iii) consider the role of the government in nurturing these industries.

Our concern is not in the well known dispute over the effectiveness of industrial policy between the two camps : "fundamentalists" and " mystics". Instead we are going to simply explore the " feasible" direction of industrial development in Viet Nam and the appropriate set of policy measures to realize the potentiality. Taking into consideration the fact that the market mechanism is still in the very early stage of evolution, it is apparent that we cannot rely on the market alone in industrial development. The role of government is crucial and it is important to prevent " government failure" as far as possible. In other words, it is necessary for us to tackle two tasks simultaneously : promotion of the market and development of industries.

When we review the prospect of industrialization in Viet Nam, the issues of state enterprises and rural industries are very important. These issues will be treated in detail in the second phase of our study. In this phase, we are going to focus the attention on which industries are promising and likely to become the leading industries in the next decade.

(2) Theortical Framework for Choosing and Nurturing Promising Industries

1) Technological Characteristics of Industries

It is useful to describe the features of various industries utilizing the following two axes (Figure III-21)

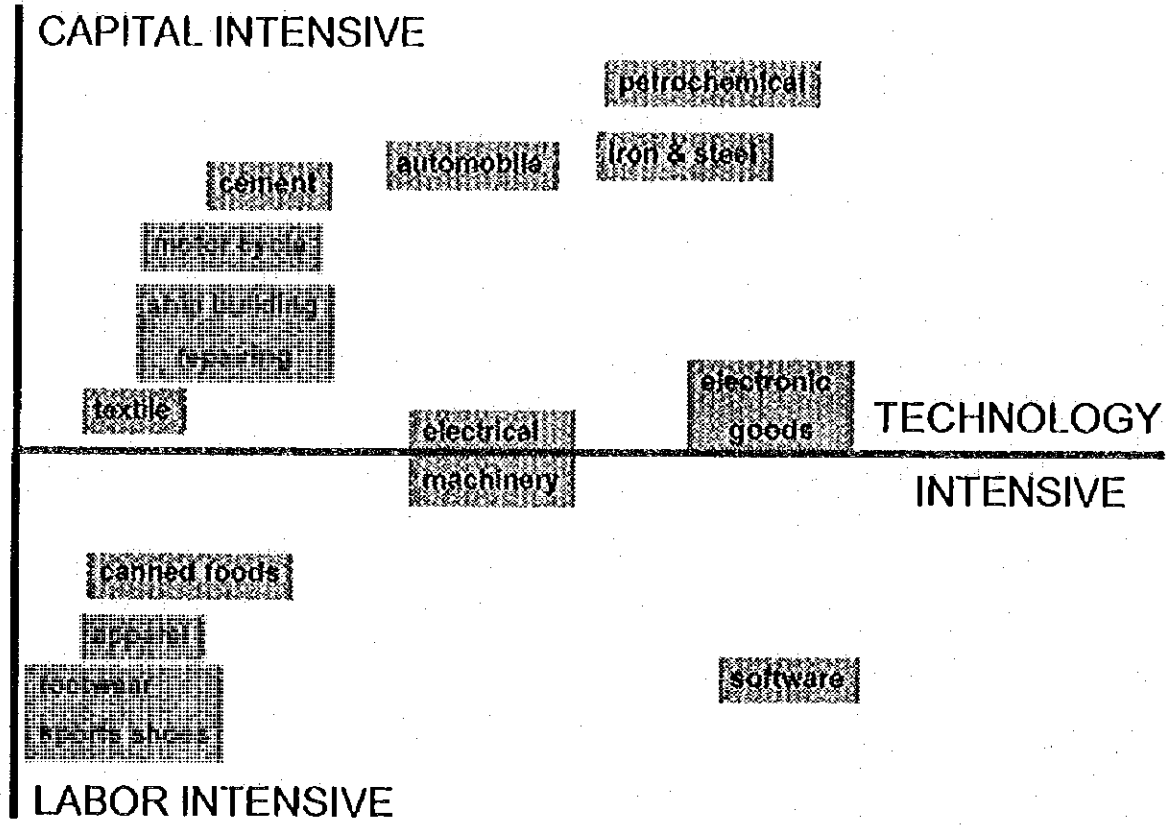
A. Capital or labor intensiveness

: This can be measured in terms of the capital-labor ratio of production. (Table III-8)

B. Technology intensiveness

: While the level of technology could be measured in terms of the ratio of research and development expenses to revenue (Table III-9), it is more practical, according to our experiences, to rely on common sense.

Figure III-21 Capital or Labor Intensiveness & Technology Intensiveness of Industries



When we plot a specific industry in the format of Figure 1, it should be taken into account that the "appropriate technology" for the industry differs from one country to another. In developing countries such as Viet Nam, the appropriate technology is less capital intensive and less technology intensive than that of industrialized economies.

2) Exploration of Dynamic Comparative Advantage

When we consider the prospect of comparative advantage of the Vietnamese industries, the following are the most important elements to be taken into account.

A. Lessons from the experiences of East Asian economies

The experiences of neighboring economies, particularly ASEAN countries, are important as references. In other words, it is realistic for Viet Nam to replicate what happened in ASEAN countries in pursuit of the appropriate path of industrialization.

The study of the changes in the following indicators could be useful as they are supposed to reflect the structural changes in comparative advantages in ASEAN:

a. Revealed Comparative Advantage (RCA)

: Study results were reported at the Workshop, which was held in Hanoi in August 1995.

$$\frac{\text{(Export of commodity } j \text{ by country } i\text{) / (Total export by country } i\text{)}}{\text{(Export of commodity } j \text{ by the world)/ (Total export by the world)}}$$

b. Revealed International Competitiveness (RIC)

$$\frac{\text{(Export - Import)}}{\text{(Total production)}}$$

c. Effective Exchange Rate

$$\frac{\text{(Foreign price of the commodity) (Nominal exchange rate)}}{\text{(Domestic price of the commodity)}}$$

B. Voices of Forcign Investors

The opinion of potential investors gives a good idea of the feasibility of a specific industry in Viet Nam. However, it should be examined whether the investor's opinion is based on the condition of protection measures; which as a matter of fact, is very common. If it is, then the feasibility should be discounted.

C. Factor Endowment

a. Human resources : entrepreneurs, managers, engineers/ technicians, skilled labor force etc.

b. Natural resources : the importance of this factor has declined as a result of the success of coastal industrial complexes with deep sea ports in Japan and Korea.

3) Impact on the Total Economy

It is noticed that some industries have larger impacts on macroeconomy, and accordingly it is desirable to nurture these industries if they are feasible. It is meaningful to scrutinize the feasibility of such industries in Viet Nam.

The following criteria are particularly useful for identifying the industries with larger impacts on macroeconomy.

A. Forward and Backward Linkages (Table III-10)

: Forward linkage : supply of intermediate goods from one industry to others

: Backward linkage : procurement of intermediate goods by one industry form thers

B. Job Creation Effect (Table 4)

: This aspect is highly important for Viet Nam which suffers from huge underemployment.

C. Income Elasticity

: When the percentage change in quantity demanded, caused by a one percent increase in income, is larger than one percent and industry has a large impact on the total economy. Heavy and chemical industries have larger income elasticities than others.

D. Scale Economy : Marshallian externality

: An increase in the total output of an industry tends to shift the cost curve of each firm in that industry downward, and price also declines. This phenomenon is called "Marshallian externality." In order to realize Marshallian externality, heavy initial "set-up " costs must be born.

Typical cases of Marshallian externality are found in heavy and chemical industries.

4) Export Orientation vs Import Substitution

As is well known, there are two alternative approaches for industrialization, export oriented and import substituting, and the superiority of the former is broadly accepted.

However, it should be pointed out that export orientation is not equal to simple trade liberalization. As a matter of fact, many countries had periods of import substitution at the beginning of their industrial development and afterwards shifted to a more export orientation after acquiring production experience and competitiveness. This type of strategy is based on the infant industry argument.

The applicability of this approach should be carefully examined using the Mill - Bastable Test, because this was effective in one group of countries and disastrous in another. To justify the infant industry approach, the present value of social benefit should exceed the present value of social cost of temporary protection. In other words, the industry under protection should achieve comparative advantage with a certain period.

(3) Identification of Promising Industries in Viet Nam : Preliminary View

Our studies on the experiences of selected East Asian countries (refer to our report at the Hanoi workshop in August 1995), the result of interviews with potential investors of Japan (further extensive interviews will be made in the second phase of our study), and the availability of well educated and hardworking labor force strongly suggest that the most promising path for dynamic comparative advantage for the Vietnamese industries would be to shift :

From [labor-intensive industries of low technology]

toward [labor-intensive industries of high technology]

Apparently the Vietnamese government has strong interest in some heavy and chemical industries that are capital as well as technology intensive, perhaps because of the large macroeconomic impacts of these industries. It is meaningful to study the feasibility of these industries. Preliminary study results are shown in the following part of this chapter. We wish to call attention to the fact that there have been a lot of failures in ASEAN countries in these sectors, and therefore the Vietnamese government should heed the lessons of neighboring economies to avoid similar mistakes.

There is no doubt that the export oriented strategy is preferable. The Infant industry approach could be acceptable only if an industry could become competitive with a certain period.

(4) The Role of Government

Although there is no doubt that the driving force of industrial development is the private sector, the role of the government is also crucial, as the market mechanism in Viet Nam is still in the very early stage of its evolution. When we consider the role of the government, however, the following two points should be fully taken into account :

A. The policy measures should be compatible with the requirements of the WTO as well as the AFTA . Compatibility with the WTO regime was covered in our report to the Hanoi Workshop in August 1995.

B. The policy measure should not cause excessive distortions and should be lifted after a certain period.

1) Providing Incentives

In order to foster and stimulate entrepreneurship it is crucial to offer a set of through fiscal and monetary policy incentives, such as favorable tax treatment, directed credit with subsidized interest rates and so on. This aspect is to be dealt with in detail by the Fiscal and Monetary Policy Group.

2) Providing Information and Guidance

It is crucial for entrepreneurs to maintain updated information on the market, technology, and the capital market. As the private flow of such information through the market mechanism is limited, the government's function is essential. In Thailand, the close collaboration between JETRO and the Thai government was crucial in the success of the promotion of export oriented industries. The following fields are considered to be particularly important :

A. Technology including quality control and production management

B. International marketing, sales promotion, designing and packaging etc.

3) FDI Promotion

It is desirable for the government to attract "supporting industries," to reduce the chronic imbalance in the international balance of payment and secure enough job opportunities for the Vietnamese workers.

4) Providing the Basic Preconditions for Industrial Development

A. Macrocconomic stability

B. Social and political stability and good governance

C. Infrastructure

D. Basic education

E. Competition

Table III-8 Capital and Labor Intensiveness : the case of Japan

	(Capital Stock)/(Revenue)			(Labor)/(Revenue)		
	1970	1980	1990	1970	1980	1990
Food	0.102	0.098	0.145	0.060	0.076	0.084
Wood & Wood Products	0.090	0.081	0.102	0.118	0.128	0.125
Textile	0.128	0.097	0.133	0.171	0.172	0.182
Chemical	0.332	0.211	0.265	0.039	0.038	0.035
Steel	0.221	0.229	0.250	0.018	0.022	0.025
Electrical Machinery	0.139	0.128	0.195	0.083	0.089	0.072
Automobile	0.280	0.187	0.252	0.061	0.059	0.060

(source) Shujiro Urata and Keiki Kawai, " Nihon no Seizogyo no Hikaku-Yui Henka to Sono Yoin-Bunseki, Sangyo Renkan Vol.6 No.2, October 1995

Table III-9 Technology Intensiveness : the case of Japan
: (Research & Development Expenses)/(Revenue)

	1970	1980	1990
Food	0.01	0.14	0.17
Wood & Wood Products	0.00	0.03	0.28
Textile	0.00	0.08	0.21
Chemical	0.09	1.45	2.95
Steel	0.01	0.20	0.33
Electrical Machinery	0.00	1.55	3.66
Automobile	0.03	1.71	4.14

(source) Urata & Kawai op. cit.

Table III-10 Forward and Backward Linkages: the case of Thailand

	Forward Linkage		Backward Linkage	
	1975	1985	1975	1985
Food & Tobacco	0.909	0.935	1.245	1.221
Textile & Leather	1.148	1.141	1.250	1.219
Other Light Industries	0.918	0.875	1.134	1.027
Petrochemical	1.584	1.423	0.902	0.874
Metal	1.073	0.894	1.127	1.058
Machinery	0.848	0.787	0.957	0.946
Transportation Machinery	0.799	0.820	1.040	1.020

(source) Ikuo Kuroiwa, " Kokusai Sangyo Renkan-Hyo wo Mochiiteno Nihon-Thai Keizai Bunseki", October 1991

3-4 Five Capital Intensive Industries and Possible Problems for New Investment

In the preceding section, we have presented the theoretical framework of choosing and nurturing promising industries and identified promising industries in Vietnam. Its preliminary view suggests that the most promising path of dynamic comparative advantage for the Vietnamese industries would be to shift from labor intensive industries of low technology toward labor intensive industries of high technology. This view is based on the preceding experiences of some East Asian countries, opinions of potential investors, and Vietnamese advantage in human resources.

On the other hand, capital intensive industries have also played an important role in industrialization historically in some countries. This section examines the nature and the trend of the international market of some heavy and chemical industries, in which the Vietnamese government has strong interest. They include iron & steel, petroleum refining, petrochemical, cement and urea fertilizer. These industries, especially the former three, require huge amount of investment with long pay-back period and small difference of production cost per unit could divide the winner and the loser. They are international commodities and the price of products fluctuates according to the global economic situation, and supply & demand. For these reasons, the timing of investment, the trend of international supply & demand, and the feasibility of each project must be carefully examined, even though the country with sizable population like Vietnam will eventually need all these industries domestically.

One common aspect of these five industries is that natural resources necessary for these industries exist in Vet Am and there may exist a natural tendency to take advantage of this fact by adding more values to these materials. However, like in iron & steel industry, the experiences in Japan and Korea have proven that the existence of raw materials does not necessarily give an advantage in international competitiveness. Raw materials can be sold as they are, although too much attention to them could bring another danger of so-called 'Dutch disease'. Vietnam's real strength lies in human resources and industrial policy should encourage this advantage.

(1) Iron and Steel

(Summary)

1) Although it is forecast that aggressive capacity increasing programs will be implemented in Korea, Taiwan and other Asian countries, a shortage of steel in the ASEAN region will continue even after the year 2000 because of the active growth in demand for steel for the construction of infrastructures, etc.

2) The distinctive feature of the steel industry in ASEAN countries is that existing equipment consists of electric furnaces and rolling mills for domestic demand. Construction and expansion of middle-scale electric furnace steel production plants (up to about 1 million tons) and rolling facilities are also the main focus of investment programs for the future. It is forecast that the development of blast furnace steel production will stay in a limited range even in the future because a) scale of investment is large, b) domestic demand (especially steel plate demand for automobiles and home electric appliances) is still small and feasibility is low in each country, c) infrastructure such as harbors for unloading and shipment are not sufficient yet, and d) there is a shortage of skilled technicians.

3) In the case of Vietnam, there is the possibility that an integrated steel plant based on the direct reduction (DR) method or blast furnace method will be feasible in the future since raw material resources such as iron ore, coal, etc. are domestically available. However, it has been proven from experience in Japan and Korea that the existence of raw material resources does not necessarily give an advantage in international competitiveness in the steel industry and that it is effective to try to reduce costs by importing large quantities of the most suitable iron ore by ships exclusively used for that purpose and manufacturing steel products in a seaside plant in large quantities. It is possible, therefore, that the construction of an integrated steel plant with the concept of using an existing mine would tend to be a captive mine, lack flexibility, and fail due to high costs.

4) It seems that the investors' side is also cautious about the construction of large-scale integrated steel plants in ASEAN countries at present due to large risks and problems related to the lack of infrastructure, shortage of technicians, etc. Considering expected capacity increases in Korea and Taiwan, excess capacity of steel production will also bring unsuitability to the international price of steel products. In fact, in other ASEAN countries, integrated steel production has begun in relatively small-scale DR method plants. In some cases, plants have become burdens due to high costs. In country M, for example, a Direct Reduced Iron (DRI) plant, which commenced operation a few years ago with the capacity of 1.2 million tons per year, is running a huge deficit due to the abnormally high cost of initial investment. Truck transportation costs are also huge due to the great distances separating the steel making and rolling facilities. The burden of the government caused by the plant is snowballing yearly. On the other hand, in country I, a DRI plant has been successfully operated and capacity expansion has been planned. In both countries the demand for steel has been growing rapidly, reflecting the high economic growth, but the profitabilities of the two projects differ largely. This shows that, even in the case of constructing relatively small-scale integrated steel plants, careful examination in feasibility is necessary.

5) In the beginning of the 21st century, when steel demand in Vietnam is expected to have grown to a massive scale, there will be a possibility of constructing a 3 million ton class, integrated steel plant. However, it would be necessary, at that time, that a) it be an internationally competitive project (Desirably, the location of the plant should be at a seaside site suitable for a massive plant complex that can take advantage of the economy of scale.) and b) a considerably large amount of the products be consumed in the domestic market. If the former is not so, the portion which corresponds to the high cost must be covered and, therefore, the burden would have to be borne by public finance or consumers. If the latter is not fulfilled, the degree of exposure to the risk of international market conditions would be heightened and the business risk could not help but be heightened.

1. Steel Demand Forecast in Asia

The trend of steel product consumption (apparent consumption amount of crude steel) in the world (1972 ~ 2000) shows that it has progressed firmly and has accumulated 700 million tons up to present, although there were ups and downs depending on the economy. In the future, the International Iron and Steel Institute (IISI) predicts that the demand will grow

steadily to 770 million tons in 1995 and 800 million tons in 2000 with China and ASEAN countries being the force behind the expansion of the Asian economy (Fig. III-22, Table III-11).

Under such circumstances, it is forecast that an excess demand will continue in Asian countries as a whole, although each country, not to mention Korea and China, will aggressively push forward capacity increase programs in compliance with flourishing domestic demand. The balance of steel trade for 1993 showed an excess of crude steel imports of 58 million tons. This number was especially influenced by China's excessive imports. The extent of excessive imports is also increasing in ASEAN countries such as Thailand, Malaysia, etc., due to the rise in their income levels (Table III-12,13,14).

Steel product demand in ASEAN countries (Thailand, Malaysia, Indonesia, Singapore and the Philippines) has expanded from the level of 10 million tons in the early 1980s to close to 25 million tons in 1993. Supply cannot catch up with demand and the self-sufficiency rate in steel (steel consumption amount/steel production amount) is lower than 50 percent excluding the Philippines and Indonesia. ASEAN countries as a whole are importing more steel products than they are producing.

The correlation coefficient between steel demand and GDP per capita is extremely high and the growth of steel product demand increases the most in the range where GDP per capita is $1,000 to $5,000. It is forecast that the steel product demand in ASEAN countries will expand to more than 40 million tons by around the year 2000 since Thailand and Malaysia will reach this level around 2000 and Indonesia and the Philippines will join them around 2005.

(Relationship between Economic Development and Steel Demand)

Steel demand increases in proportion to income per capita. However, when income reaches a certain level, the growth either stops or declines. Steel product consumption per capita can be estimated roughly from GDP per capita and the domestic steel product demand of a nation can be calculated by multiplying this by the population.

--- Degree of Economic Development of Asian Countries ---

GDP Per Capita (US$)		
Less than 1,000	1993	China, Indonesia, Philippines, Vietnam
	2000	China, Indonesia, Philippines, Vietnam
	2005	China, India, Vietnam
1,000 ~ 5,000	1993	Thailand, Malaysia
	2000	Thailand
	2005	Indonesia, Philippines
5,000 ~ 10,000	1993	Korea, Taiwan
	2000	Malaysia
	2005	Thailand, Malaysia
More than 10,000	1993	Korea, Taiwan
	2000	Singapore, Korea, Taiwan
	2005	Singapore, Korea, Taiwan

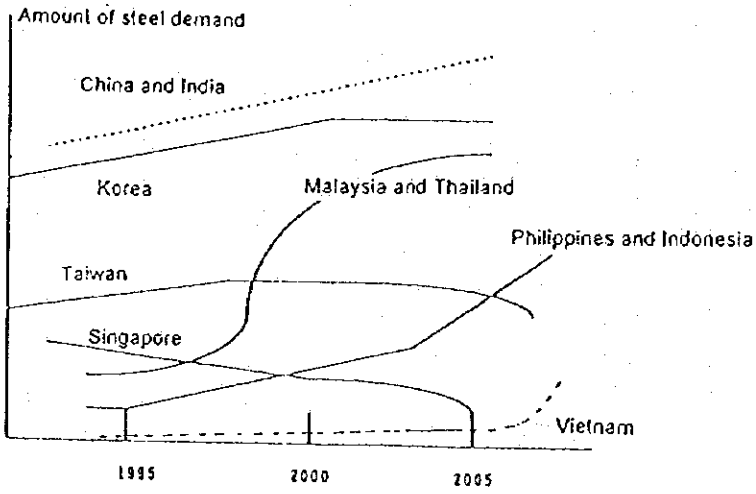
(1) In the Case of Countries with the Population of Normal Size (Based on 1990)

Less than $1,000 GDP per capital	Steel product demand expands but growth is slightly low.
$1,000 ~$ 5,000	The period when demand growth is the highest.
$5,000 ~ $10,000	Demand increases but the growth rate slows down.
More than $10,000	Demand levels off or decreases.

(2) Regional Differences, Countries with Massive Populations (China, India)

If income grows in a specific region and does not grow in other regions, the growth pattern is a gently climbing curve, not a normal S curve, because the growth curves do not move in parallel and thus overlap each other.

Figure III-23 Steel Demand Transition in Asian Regions (Image)



2. Trend of Capital Investment

When we look at the existing facilities in ASEAN countries, they are mainly downstream rolling facilities. However, in addition to the existence of steel plants with electric furnaces, there are some charcoal blast furnaces in Thailand and Malaysia and integrated steel plants based on the DR method in Indonesia and Malaysia. The economic efficiency is not generally high since the charcoal blast furnaces depend on wood resources and the price of natural gas, fuel in the DR method, has increased, although the profitability differs by large extent by plant.

The main production item is bar steel for use in construction and engineering. These areas depend on imports for steel plates. However, countries such as Indonesia, Thailand, the Philippines, etc. have already been producing steel plates for the manufacturing of hot rolled, cold rolled and steel plate processed products (such as tin plates).

To cope with demand expansion, aggressive construction and the expansion of facilities

are planned in each ASEAN country (Table III-15,16,17,18). In addition to strengthening the steel making process by construction and expansion of DRI plants and electric furnaces, the reinforcement of large scale rolling processes such as hot and cold rolling mills are being planned. This reflects the increase in demand for steel plates used in home electric appliances, automobiles and construction materials.

In Korea plans have been made for large-size capital investments centered around a POSCO blast furnace and a Kanpo electric furnace. It is forecast that their reserve strength for export will increase further. In Taiwan, an increase in blast furnace capacity by CSC and others is planned. This will help cope with strong domestic demand and improve and expand public capital. At present, Taiwan is a steel products importer; however, it is highly possible that it will become a steel products exporter after the year 2000 because the demand for domestic construction will slow when there is an increase in production capacity. In China, it is forecast that the demand for steel products will enter into an adjustment phase in 1995 and 1996 due to the influence of an inflation control policy, but an increase in steel product demand has been projected because there will be improvement of the fundamental infrastructure, and production increases in automobiles, home electric appliances, etc., corresponding with higher income levels. Large size investments by Paoshang, Wuhang, and Capital Steel are being planned.

3. Investors' View

The steel industry is a typical capital-intensive industry and a colossal sum of investment is necessary for an integrated steel plant. Even for an electric furnace steel making and rolling mill, investment of more than US$ 500 million is required, if it is a thin slab rolling-type mill with new technology. Steel as well as petrochemicals is highly important as basic raw materials industry. However, it requires a long period to recover the invested funds. Stability and transparency of middle-and long-range policy based of the comprehensive master plan is necessary at the time of appropriation of a limited development fund for the steel industry. Also, it is important to secure human resources to engage in the operation and maintenance of facilities, especially in upstream processes where technology has become highly advanced.

In regard to slab rolling, the steel plate production process is short; therefore, cost competitiveness is high. However, the problems such as not being applicable to high grade steel plates, such as deep drawing plates for automobiles have been pointed out.

The DR (direct reduction steel) process utilizing natural gas has been adopted in Malaysia, Indonesia. However, problems have been pointed out in some cases in using the technology in other places on a commercial, because of a) the quality of natural gas, b) the price of natural gas, c) restrictions on location due to the problem of natural gas transportation, etc.

Figure III-22 World Apparent Steel Consumption

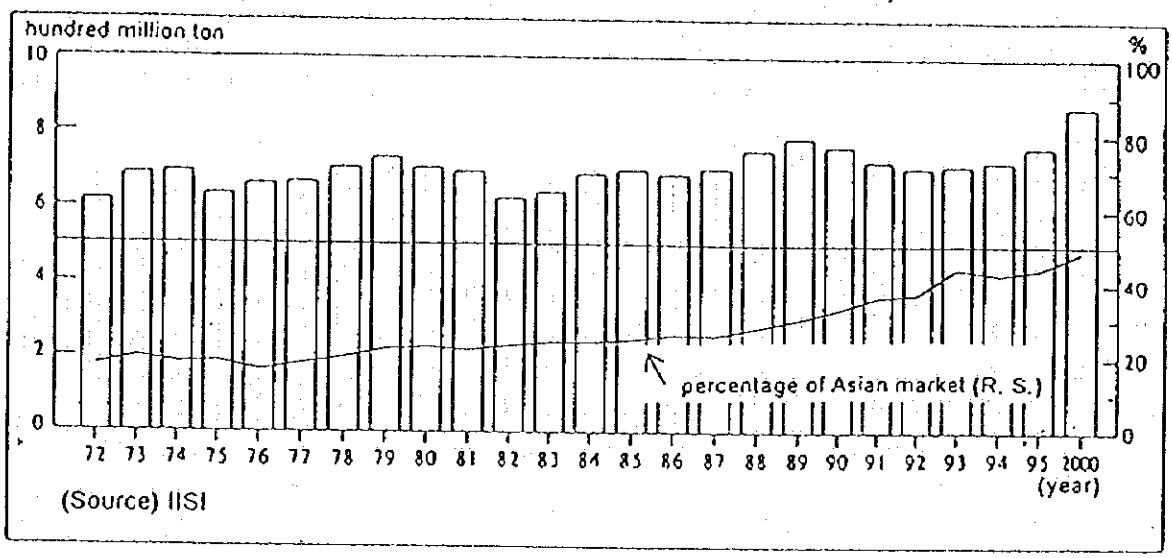


Table III-11 Steel Consumption by Area

(unit : %)

Year	Total	EU12	USSR	US	Asia						Others
						Japan	China	Korea	Taiwan	Others	
72	100		19.3	22.1	18.3	11.0	4.1	0.3	0.0	1.4	19.4
80	100	16.3	21.1	16.2	23.2	10.3	6.1	0.7	0.9	3.7	23.1
85	100	14.2	22.4	15.2	25.0	9.4	9.9	1.2	0.9	1.6	23.2
90	100	16.0	19.7	13.6	33.3	12.8	8.8	2.8	2.0	4.1	17.4
93	100	15.2	9.6	14.7	44.5	12.2	16.8	4.1	3.4	5.3	16.0
95	100	16.0	8.1	15.1	43.9	11.5	15.5	4.6	3.9	5.5	16.9
2000	100	14.7	8.0	12.4	48.1	10.7	18.7		18.7		16.7

Table III-12 Trade Balance of Steel Products in Asia ('93)

(unit : 1000ton)

	import	export	export - import
China	36,260	1,051	-35,209
Korea	5,172	11,305	6,133
Taiwan	14,889	2,699	-12,190
Thailand	6,870	255	-6,615
Singapore	3,563	795	-2,768
Malaysia	4,385	1,047	-3,338
Philippines	2,346	29	-2,317
Indonesia	2,586	783	-1,803
India	1,379	763	-616

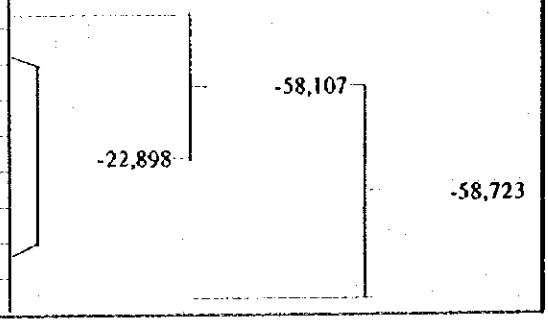


Table III-13 Steel Supply and Demand in Asia (incl. Japan and China)

(unit : 1000ton)

year	consumption	crude steel production (A)	crude steel consumption (B)	steel balance (A-B)
1984	158,336	187,311	187,049	262
85	169,324	193,316	197,524	-4,208
86	172,759	194,257	200,907	-6,650
87	182,783	202,787	212,021	-9,234
88	196,631	219,538	230,215	-10,677
89	211,157	228,396	244,954	-16,558
90	225,284	238,466	261,640	-23,174
91	236,991	249,126	274,160	-25,034
92	232,320	250,726	271,545	-20,819
93	278,093	268,585	324,497	-55,912

Table III-14 Steel Balance by Area (FY93)

(unit : 1000ton)

	production (A)	consumption (B)	steel balance (A-B)
EC	132,182	103,880	28,302
Other Europe	25,915	23,996	1,919
Europe	158,096	127,875	30,221
Eastern Europe	29,788	15,868	13,920
USSR	97,849	80,810	17,039
N. America	113,044	126,375	-13,331
S. America	33,722	20,622	13,100
Africa	14,002	17,315	-3,313
Middle East Asia	6,874	14,864	-7,990
Asia	268,585	324,497	-55,912
Oceania	8,683	6,627	2,056
World	730,644	734,889	-4,245

Table III-15 Investment program in Thailand

Company	Facility	Capacity (1,000tons)	Year of Start-up	Remarks
Thaionx	• Stainless plates		Jan 1994	Established mainly with Usinor (France). ILVA (Italy) and other companies participated.
Sahaviriya Group	• Hot rolling mill	2,400	Feb 1994	Hot rolling, cold rolling and galvanizing plants were constructed in the same area. The hot rolling mill is a joint venture with a Italian company.
	• Cold rolling mill	670	Undecided	In the planning stage with the participation of NKK and Marubeni.
Thai Coated Steel Sheet (TCS)	• Galvanizing line	135	Feb 1994	Commercial operation from Apr 1994. A joint venture between Sahaviriya and NKK, Marubeni and C. Itoh.
Saiam Yamato Steel	• Electric furnace • Cntinuous casting (billet, bloom) • Wide flange beam mill	600	Trial opertion started in Nov 1994	First wide flange beam mill in Thailand. A joint venture between Yamato Kogyo (Japan) and Saim Cement Group.
Siam Iron & Steel	• Electric furnace (40 t/ch)	160	Mid-1994	Present capacity is 240,000 t/y.
Siam Construction Steel	• Steel bars (capacity increase)	100	Within 1994	Increase from the present 300,000 t/y to 400,000 t/y.
Bangkok Iron & Steel Wks	• Wire mill	250	Early 1995	Using imported billets. (Present capacity is 250,000 t/y.)
Nanheng Steel	• Electric furnace • Steel bar/wire mill	250	Mar~Apr 1996	New mini-mill project.
Siam Cement Group	• Cold rolling mill	800-1,000	1997	License application in Aug 1994. Nippon Steel Corporation and Mitsui & Co., Ltd. are participating.
United Iron Steel	• DRI plant	750	1998	Investment by a Thai government related public corporation and an steel company.

(Source) Prepared by the Japan Iron and Steel Federation based on various information. The same up to Table III-18

Table III-16 Investment program in Indonesia

Company	Facility	Capacity (1,000tons)	Year of Start-up	Remarks
Krakatau Steel	• DRI capacity increase	800	Jan 1994	Present 1.5 million t/y to be increased to 2.3 million t/y.
	• Electric furnace • Continuous casting (slab)	800		
	• Hot rolling mill	200		Present 1.8 million t/y to be increased to 2.4 million t/y.
Hanil Jaya Metal Wks.	• Steel bar/wire mill	200		Presently producing 120,000 t/y steel bars and 180,000 t/y billets. Shortage of billets after the operation of the new mill will be imported.
Kodeco	• Hot rolling mill	1,200	End of 1997	To be constructed in the southern part of Kalimantan. The final survey will be finished and investment companies be decided within the year.

Table III-17 Investment program in Malaysia

Company	Facility	Capacity (1,000tons)	Year of Start-up	Remarks
Perwaja Steel (Kemaman Plant)	• DRI plant (HYL)	1,200	Oct 1993	
	• 2 electric furnaces (73 t/ch)	700	Early 1996	DC furnaces, order placed in Nov 1993.
	• Continuous casting (bloom)		Early 1996	Order placed in Nov 1993.
(Gurun Plant)	• Large size section mill	700	Early 1996	
Amalgamated Steel Mills	• Capacity increase	250	1/4 1994	Increase from present 500,000 t/y to 750,000 t/y.
Ornasteel	• Cold rolling mill	300	Mid-1994	
Antara Steel	• Shape steel mill	200-250	Spring 1995	
Malayawata Steel	• Construction of electric furnace (80 t/ch)	450	Early 1995	Present capacity is 160,000 t/y converter, 24,000 t/y electric furnace and 410,000 t/y steel bar.
	• Continuous casting (billet)		Early 1995	
Mega Steel	• Hot rolling mill	1,800	Late 1995-early 1996 (first stage)	Mini-mill established by ASM in 1989 for the purpose of manufacturing steel plates, etc.
Nusantara Steel	• Hot rolling mill	1,600	1997	Technical cooperation by Mitsubishi Heavy Industry.
Saba Gas Industries	• HBI Plant	1,000	1997	Owned by the steel enterprises group including ASM, Southern Iron & Steel, Malayawata. Present production is 600,000 t/y.

Table III-18 Investment program in the Philippines

Company	Facility	Capacity (1,000tons)	Year of Start-up	Remarks
P. Jacinto Group	• Integrated steel production by Corex/DRI (Midrex) DC electric furnace/thin slab continuous casting	800	1998	Capital participation of Ting Tiek (Malaysia). ISCOR (South Africa) and a Taiwan steel maker are also expected to join. It was reported that secondhand facilities of BSC Ravenscraig Steel (shut down in 1992) were to be introduced.
Milwaukee Industries	• Electric furnace (40/50 t/ch)			DC furnace. Contract has been signed.
Cathey Pacific Steel	• Wire mill	300	1st Quater 1995	Present capacity is 150,000 t/y steel production and 300,000 t/y rolling.
Philippine Steel Coating	• Galvanizing line	200	1996	Cooperation with a foreign enterprise is expected.

(2) Petroleum Refining

(Summary)

1) The petroleum products demand in the East Asian region is expected to show high growth in the future due to the rise in economic activities and in income levels. In regard to petroleum refining capacity on the other hand, many countries are planning aggressive expansion coping with the demand increase in gasoline, gas oil, etc. However, progress in the construction of new joint-venture refineries with foreign oil companies, has been delayed in China, Indonesia and other countries, because the foreign enterprise sides are considering the feasibility cautiously.

2) With respect to crude oil, it is forecast that dependency on the Middle East will heighten in the East Asian region in the future. In petroleum refining, the movement toward building refineries in the consuming areas rather than near raw material sources is expected to be strengthened. This is because, when the export-oriented petroleum refining business is carried out near the raw material production area, profit feasibility is low not only in Vietnam but in all the countries since a) the new refinery cannot compete with the refining costs of Singapore, which is the export base in the region, b) the consumption pattern of petroleum products and the ways of coping with quality standards, etc. are different in each market, and c) there are problems related to the marketability of by-products.

3) The demand for petroleum products in Vietnam was 66,000 B/D in 1993 and is expected to reach to about 120,000 B/D in the year 2000 (forecast by the Petroleum Association of Japan). Domestic demand may be still small to develop a full-scale refinery (minimum 100,000 B/D), although the viability of the plant partly depends on the future production of Viet Namse crude oil. Furthermore, Vietnam is planning a petroleum refining business under joint venture with foreign capital and it is extremely important, in such a case, to maintain profitability. There are many tasks which the Vietnam side must clear up in the future including administrative organization. Otherwise, the introduction of Foreign Direct Investment (FDI) will be difficult. There are cases in other countries where joint-venture projects do not proceed due to conflicts of interests between investors and host countries. In country C, for example, prospective foreign capital providers insisted on minimizing the number of employees to increase productivity. On the other hand, the host country demanded massive increases in employment from the viewpoint of job creation. As a result, the project has not proceeded.

4) Foreign investors also consider the viability of petroleum refining to be under various constraints.

A. Demand Forecast for Petroleum Products in Asia

It is forecast that the growth of petroleum products demand in Asia, which is higher than other regions in the world, will continue, reflecting active economic activity. In Asia, nine countries in the East Asian region which are members of the NIEs and ASEAN (Korea, Taiwan, Singapore, Hong Kong, Indonesia, the Philippines, Thailand, Malaysia and Vietnam) are either in the middle of full-fledged motorization or in the process of becoming motorized due to their economic growth and increase in income. Therefore, a steady increase in demand for light oil

grades such as gasoline, gas oil, etc. is predicted. Also, growth of gasoline demand is expected in Vietnam.

As forecast by the Petroleum Association of Japan, the demand for petroleum products in the East Asian region will increase from 4,754,000 B/D in 1993 to 6,836,000 B/D in 2000 with an average annual growth of 5.3 percent. The individual growth rates for gasoline (average annual growth of 6.6 percent) and middle distillates (average annual growth of 7.1 percent) are forecast to go up (Table III-19).

Refining capacity has usually been in the state of shortage for the past ten years all over the Asian region (except the Middle East and Japan) However, in East Asia, the state of shortage has been gradually improved. This is the result of capacity increases in Korea, Singapore, Taiwan, etc. A refining capacity in this region is expected to be relatively in surplus toward the year 2000, although there exist some uncertainties (Table III-20). With regard to China, it carries the most weight in supply and demand in the Asian region. China is also anticipated to have the highest growth rate next to South Asia (India, Pakistan and Sri Lanka) , but it is in a state of chronic shortage of refining capacity due to the delay in petroleum refinery construction.

B. Trend of Capital Investment

Up until now refineries have been constructed and expanded in each country to address the active expansion of petroleum products demand. Future expansion of refining capacity such as the construction of many new refineries is also being planned in each country. However, although the extent of construction and refinery expansion through 1997 has almost been decided, it is necessary to realize that there are uncertain aspects, particularly in China, as shown in the case of Aramco where progress has become unpredictable due to the rupture in negotiations with the State Planning Committee.

The general view of tendencies in East Asian countries is as follows.

Korea: Facility expansion is progressing taking into consideration deregulation and liberalization of the petroleum industry, which are expected to be enforced in January 1997. Capacity expansion of approximately 800,000 B/D by five petroleum refining companies by 1997 has been planned and 50 percent of the products produced from surplus capacity are expected to be exported to overseas markets (China and Vietnam).

Taiwan: Capacity expansion of two petroleum refineries and re-enforcement of the secondary facilities are being planned under the initiative of CPC.

Singapore: It is the biggest export base for petroleum products in Asia and the base of major oil companies. It will continue in the future to assume the role of swing refinery (the refining base to for supplying products to countries lacking sufficient capacity).

Indonesia: Although EXOR-1 which started operation in 1994 was originally planned to export 80 percent of its products, the export volume is forecast to decrease greatly due to the expansion of domestic demand, etc. The national plan other than EXOR-1 is still under uncertainty

Malaysia: Malacca Refinery started operation in 1994. The use of natural gas is being promoted in order to secure the export surplus power in crude oil, but demand for petroleum products is increasing, making gasoline and gas oil key products. Capacity expansion such as Malacca No. 2 Refinery is being planned.

Thailand: Growth in domestic demand for petroleum products is high due to the development of the economy. ESSO, Shell and Caltex are planning the construction and expansion of refineries for the domestic market.

C. Investors' View

Petroleum refining is a capital-intensive business and added value is low (Fig. III-24). Therefore, in the beginning, the business is not profitable unless it is protected. For major oil companies such as Shell and BP, profitability is maintained by continuous involvement in every stage, from the production of crude oil to the sale of petroleum products and by developing their business globally.

Although construction plans in China and Indonesia for export-oriented petroleum refineries of Middle East crude oil are intended to position petroleum refining as the industry for obtaining foreign currencies, most are unsuccessful because a) they are not competitive with Singapore and b) petroleum products are co-products and the business is not profitable without strong marketability. Recently oil producing countries such as Kuwait have been strengthening the movement toward acquiring refineries in consuming countries.

In Vietnam's development of the petroleum refining business, prior conditions must exist for profitability. First, they need to focus on domestic demand. Second, new entry into the market is to be restricted. Third, the location is to be near the consuming area. Fourth, retailing business can be carried on. This final point on retail especially causes anxieties because; a) Petro-Vietnam, an authority responsible for negotiating with foreign capital in the petroleum business, is not controlling domestic sales, and b) it will take time to unify the responsibility of the downstream business which presently is divided among several government agencies. In Thailand and Malaysia, petroleum business is dependent on foreign capital. In Indonesia, on the other hand, the petroleum business is monopolized by a government enterprise (Pertamina). The refining margin is low in Thailand and Malaysia since petroleum product pricing decisions are linked to Singapore prices. However, foreign capital has been approved in retail business. In Indonesia, product prices are decided by the government and an arrangement has been made to subsidize Pertamina when a difference occurs between supply cost and product price.

Table III-19 Asia pacific refinery balance

(unit ; 1,000b/d)

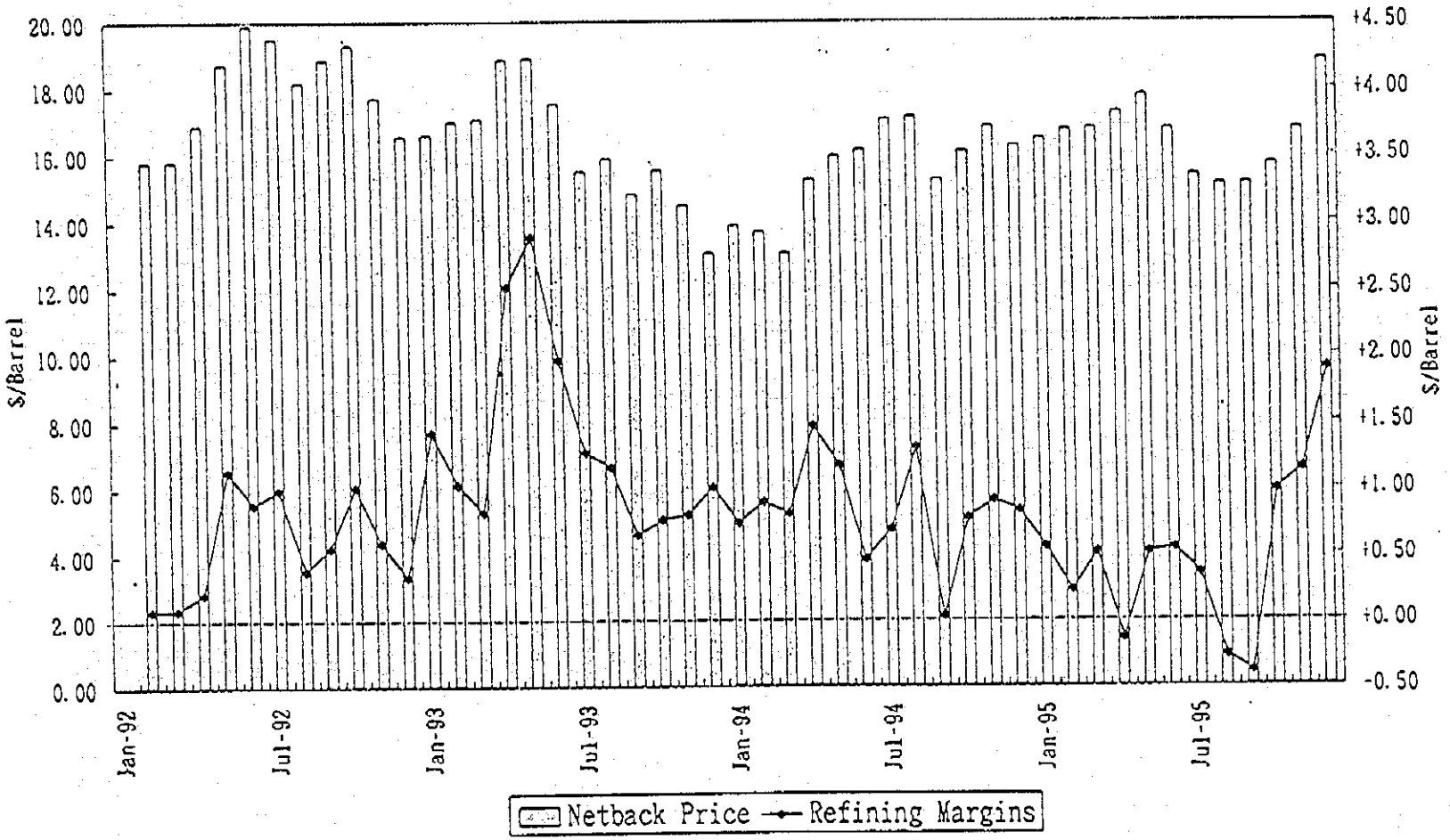
	1993(acutual)				1997(projection)				2000(projection)				rate of operation	
	capacity A	throughput B	demand C	balance B - C	capacity A	throughput B	demand C	balance B - C	capacity A	throughput B	demand C	balance B - C	1997	2000
China	3,160	2,436	2,682	-246	4,030	3,103	3,504	-401	4,340	3,472	4,224	-752	77%	80%
Korea	1,675	1,490	1,550	-60	2,501	2,250	1,947	303	2,801	2,521	2,188	333	90%	90%
Taiwan	600	499	612	-113	900	792	676	116	1,120	986	732	254	88%	88%
Philippines	300	286	260	26	396	376	341	35	396	376	420	-44	95%	95%
Hong Kong	0	0	211	-211	0	0	256	-256	0	——	362	-362	——	——
Indonesia	867	825	800	25	1,040	988	1,012	-24	1,040	988	1,197	-209	95%	95%
Malaysia	233	234	317	-83	495	446	370	76	495	470	441	29	90%	95%
Thailand	355	363	528	-165	730	693	750	-57	770	732	900	-168	95%	95%
Vietnam	1	1	66	-65	139	125	93	32	164	148	120	28	90%	90%
Singapore	1,062	1,064	410	654	1,199	1,079	443	636	1,199	1,079	475	604	90%	90%
East Asia	5,093	4,762	4,754	8	7,400	6,749	5,888	861	7,985	7,300	6,835	465	Ave. 91%	Ave. 91%
Pakistan	91	90	204	-114	91	90	279	-189	121	121	354	-233	100%	100%
India	1,065	1,065	1,176	-111	1,385	1,316	1,588	-272	1,878	1,784	2,040	-256	95%	95%
Sri Lanca	50	49	34	15	50	50	51	-1	50	50	68	-18	100%	100%
South Asia	1,206	1,204	1,414	-210	1,526	1,456	1,918	-462	2,049	1,955	2,462	-507	Ave. 95%	Ave. 95%
Australia	705	657	696	-39	705	670	737	-67	705	670	778	-108	95%	95%
Total	10,164	9,059	9,546	-487	13,661	11,978	12,047	-69	15,079	13,397	14,299	-902	Ave. 88%	89%

Source ; PAJ

Table III-20 Refinery balance by area

	1993(actual)	1997(projection)	2000(projection)
China	-24.6	-40.1	-75.2
East Asia	0.8	86.1	46.5
South Asia	-21.0	-46.2	-50.7
Australia	-3.9	-6.7	-10.8
Total	-48.7	-6.9	-90.2

Figure III-24 Dubai's crude oil netback price & refining margins (Singapore)



(3) Petrochemical

(Summary)

1) The petrochemical industry in Asian countries has been achieving rapid development in recent years, riding on the back of healthy increases in demand and government-led measures for protection and growth. ASEAN countries, in particular, have since the second half of the 1980s entered a phase of full-fledged development into upstream petrochemical sectors.

2) However, care is needed in the timing of entry into upstream petrochemical sectors, for, although they are of very great importance as base material industries, they have industrial characteristics such as; a) large scale investment and, moreover, susceptibility to large changes in international situations, etc., thus large business risks, b) poor feasibility if domestic markets have not grown sufficiently to accommodate products, and c) comparatively little employment absorbency, because they are capital intensive. The experiences of Indonesia, Thailand, and Malaysia (countries endowed with crude oil and natural gas resources) show that these counties have moved into upstream sector of ethylene center, while nurturing petroleum refining projects, thus developing bases for their petrochemical industries, and while waiting for the timing that downstream industries such as plastics processing have moved into a growth phase, thanks for example to the introduction of foreign capital.

3) Nevertheless, we need to bear in mind that the experience of neighboring ASEAN countries will not in itself be useful for Viet Nam. To begin with, Indonesia, Thailand, and Malaysia, in line with the establishment of the Asia Free Trade Association (AFTA), have gradually started to promote measures to liberalize their petrochemical industries, such as; a) abolishing entry restrictions, b) reducing tariffs, and c) deregulating foreign capital. However, for late-starting Viet Nam, international tolerance of policies for protection of its petrochemical industry is waning. Secondly, plans are in progress for capacity expansion in Singapore and elsewhere in Asia with the intention of expanding market share. Relative superiority in cost competitiveness is anticipated to influence the success or failure of each project more than has been the case hitherto.

4) In Viet Nam, as in other ASEAN countries, a petrochemical complex would be for import substitution. In this case, feasibility must be examined carefully in terms of conflicts of interest between downstream and upstream activities. In country T, this examination was not enough. As a result, the export ratio of upstream plants had to increase and the managerial risk of the plant increased. In country I, where a petrochemical complex, constructed with 100 percent foreign capital, commenced operation last year, the ratio of sales to the domestic market was low and the ratio of export, where the profitability is generally low, had to be increased. As a result, the profitability of the plant has been low.

5) Therefore, for commercialization, it will be important to fully examine the content and period of internationally tolerable industrial policies for the petrochemical industry, while it will also be necessary to carefully check whether or not it has cost competitiveness that could stand up to international competition.

A. Prospects for petrochemical products in Asia

In conjunction with the outstanding economic growth in Asian countries in recent years, demand for petrochemical products in the Asian region is expanding rapidly. Bearing in mind the constraint of foreign reserve in these countries, it would be difficult to say that the present rapid growth of demand will continue unconditionally. Nevertheless, the volume of plastics used per capita in Asian countries is still at a considerably low level compared to developed countries (Fig. III-25), and thus the latent demand in Asia can be considered extremely high.

The demand for petrochemical products in the Asian region (excluding Japan) in 1996 is forecast at 15.1 million tons in ethylene equivalent, thus forming the third largest market after North America (21.22 million tons) and Western Europe (18.2 million tons) (Table III-21).

Meanwhile, although production capacity is expected to increase in South Korea, Indonesia, Thailand, Malaysia, and elsewhere, domestic demands probably will not be met other than in Korea and Singapore. Therefore, the balance of supply and demand in Asia as a whole is expected to bring a shortfall of about 4.3 million tons in 1996 (Table III-22, Fig. III-26).

Looking ahead to the year 2000, the supply and demand balance for petrochemical products in the Asian region is expected to depend as ever on imports from outside the region, since an increase in demand is anticipated in conjunction with the economic growth of the various countries in the region.

B. Trends of capital investments

According to a Ministry of International Trade and Industry (MITI, Japan) forecast, based on official figures from each country, the global production capacity for ethylene (77 million tons in 1994), is expected to increase by 19 million tons to 96 million tons in 2000, thus approaching the 100 million ton mark.

The production capacity increase of 19 million tons is broken down into 7 million tons for the Asian region, 5 million tons for North America, 3 million tons for the Middle East, and 1 million tons for Western Europe. Thus Asia is expected to be the region that will lead the world-wide increase in equipment capacity (Table III-23). Within the Asian region, vast increases in capacity are forecast for China (1.8 million tons), where the petrochemical industry is seen as one of the country's priority key industries, India (1.7 million tons), where there is an energetic move towards self-sufficiency, the ASEAN region (1.6 million tons), and elsewhere. On the other hand, in Western Europe the scale of new equipment is shrinking while in North America and the Middle East large increases in capacity are planned.

C. Trends in equipment expansion plans in the Asian region

a. South Korea

The South Korean government's petrochemical investment guidance plan (that previously restricted investments for equipment expansion) started by deregulating downstream products in October 1994. At the same time, the policy changed to one of recognizing equipment

expansion on a case-by-case basis. A decision was made to abolish the said guidance plan on January 1, 1996, so at this stage there is some uncertainty as to what moves South Korean petrochemical manufacturers will make in future.

b. Taiwan

The CPC's No. 5 Ethylene Cracker Plan (400,000 tons), on which construction was started in April 1990, started operation in April 1994 . At the same time the No. 2 Cracker (230,000 tons, 1973), that had problems associated with pollution and obsolescence, was closed down. As a result, ethylene production capacity in Taiwan at the end of 1994 was 1.02 million tons, though the capacity for priority products was 1.56 million tons (ethylene equivalent). There are prospects for ethylene equipment capacity to be increased to 1.35 million tons by the year 2000.

c. China

Since 1983, the China Petrochemical Public Corporation (Sinopec), originally a centrally controlled organization, has been progressively regionalized. As a result, regional governments, the chemical industry sector, and the Petroleum and Natural Gas Corporation as well as Sinopec have taken part in new ethylene projects in the first half of the 1990s (1.27 million tons). Sinopec's capacity ratio as of 1997, when the new equipment project will be completed, is expected to be about 80 percent.

In June this year the Chinese government announced the "Chinese Industrial Policy Guidelines for the 1990s" (industrial policies aiming at the year 2000) in which emphasis is placed on the petrochemical industry as a priority key industry. Ethylene equipment capacity is expected to increase to 1.85 million tons by 2000.

d. ASEAN

(a) Thailand:

The NPC2 plan is proceeding more or less as scheduled, for example operation of an ethylene plant started at the end of 1994. New equipment is planned in line with domestic demand.

(b) Indonesia:

Construction of this country's first ethylene plant (Chandra Asri) is now underway. Expanded equipment plans for the downstream product, polyolefin, are also taking concrete shape. Although numerous industrial development projects have been scheduled, nearly all of them are lagging behind. Several equipment expansion plans in downstream sectors are planned on the strength of thriving demand.

(c) Malaysia:

In addition to polyvinylcloloride (PVC), polystyrene (PS), and polypropylene (PP), a polyethylene (PE) plant started operation in 1993, followed by an ethylene center in 1994. A

system of self-sufficiency is progressively being developed to replace the former total dependence on imported raw materials. The Titan petrochemical complex started operating at the end of 1993 (ethylene, linear low density poly ethylene (LLDPE)/high density poly ethylene (HDPE)). Polyethylene Malaysia is currently constructing a LLDPE facility with completion set for the end of this year.

(d) Singapore:

At the end of 1994 work was began plans to expand ethylene and propylene equipment in the existing PCS complex (Merbau Island), with operation scheduled for 1997. Along with this, TPC plans to expand to LDPE and PP, and PPSC plans to expand to HDPE, starting operation in 1997. The SCSL is planning a new SM (320,000 tons) and PO (140,000 tons) combined plant, due to start operation in 1997.

(e) India:

Since 1991 there has been an energetic movement towards self-sufficiency in the petrochemical industry through new industry and international trade policies, and numerous project proposals have been announced.

Reliance has announced that it will expand its new ethylene plant from the initial 450,000 to 750,000 tons, and is now reconsidering its downstream products. Apart from this, there are many major proposals in anticipation of future increased demand, though there is some uncertainty as to whether or not they can actually be realized (included in forecasts).

D. The market for petrochemical products in Asia

The market for petrochemical products in Asia is characterized as being the most volatile in the world, because (a) markets in individual countries are not so large, and (b) demand far exceeds supply inside the region. Therefore the size of the supply from North America, Western Europe, and other locations outside the region has a big effect on the market situation.

Recent movements indicate that Southeast Asian markets are now plummeting after headlong inflation between 1994 and 1995 (Fig. III-27,28). The market inflation was mainly caused by a reduction in supply volumes outside the region, resulting from factors such as (a) a tightening of supply and demand in the West due to economic recovery, (b) an accident in a major petrochemical plant in the USA, and (c) a shift to an emphasis on profitability by South Korean manufacturers that had previously been making ultra-cheap exports on a full-operation principle.

As stated above, an insufficient supply of petrochemical products inside the Asian region is expected to continue in the future. Therefore, the supply-demand setup of dependence on imports from outside the Asian region is basically not expected to change. However, Asia continues to be a marginal market toward the future. A gradual ease is expected in the situation whereby major changes are caused by external factors such as supply trends in developed countries, rather than by supply within the Asian region. The background to this lies in the strong possibility that, if the Asian market continues to grow and move towards uniformity, the world's largest-scale market will be born, and this will become the most

important market for the world's petrochemical manufacturers. In this context, moves to greater self-sufficiency in petrochemical products in Asia and moves by corporations in developed countries to incorporate the growing Asian market into their business plans are expected to accelerate. And, as a result, given such an increase in supply capacity on the Asian market and increased numbers of companies entering it, the market is expected to be formed with greater emphasis on supply-demand factors inside the region, rather than on external factors from outside the region.

E. Investor prospects

In South Korea, Taiwan, and Singapore, and recently also in ASEAN countries like Thailand, Malaysia, and Indonesia, integrated (from upper of downstream) production systems have been set up in the petrochemical industry (Fig. III-29). The background for this is that developing countries, in the process of aiming for economic growth, have placed the industrialization of the petrochemical industry central to their national economies, both as a key basic material industry and as a means for getting foreign currency.

In Viet Nam, too, it is felt that cultivating a petrochemical industry is important in the process of industrialization and in improving the added value of petroleum and natural gas. However, moves into ethylene centers and upstream sectors that require large investments will provide little stimulus for employment in the short term. On the contrary, the business risk will be high as the recovery period is protracted, and, particularly in Viet Nam's case, there will be little leeway for absorbing upstream sector products on the domestic market and thus, initially, exports will be indispensable (normally the risks for upstream sector businesses are too high unless the domestic sales ratio is about 80 percent). For these and other reasons the timing of industry startup needs to be studied carefully.

An environment may be created in a petrochemical industry where future upstream business sectors are nurtured by first enhancing downstream sectors such as plastic processing. It will also be important to promote the introduction of foreign currency into export-oriented processing and assembly industries such as the household electric appliance and automobile industries, that consume processed plastic materials in large volumes while simultaneously supporting the growth of local industries for general goods and building.

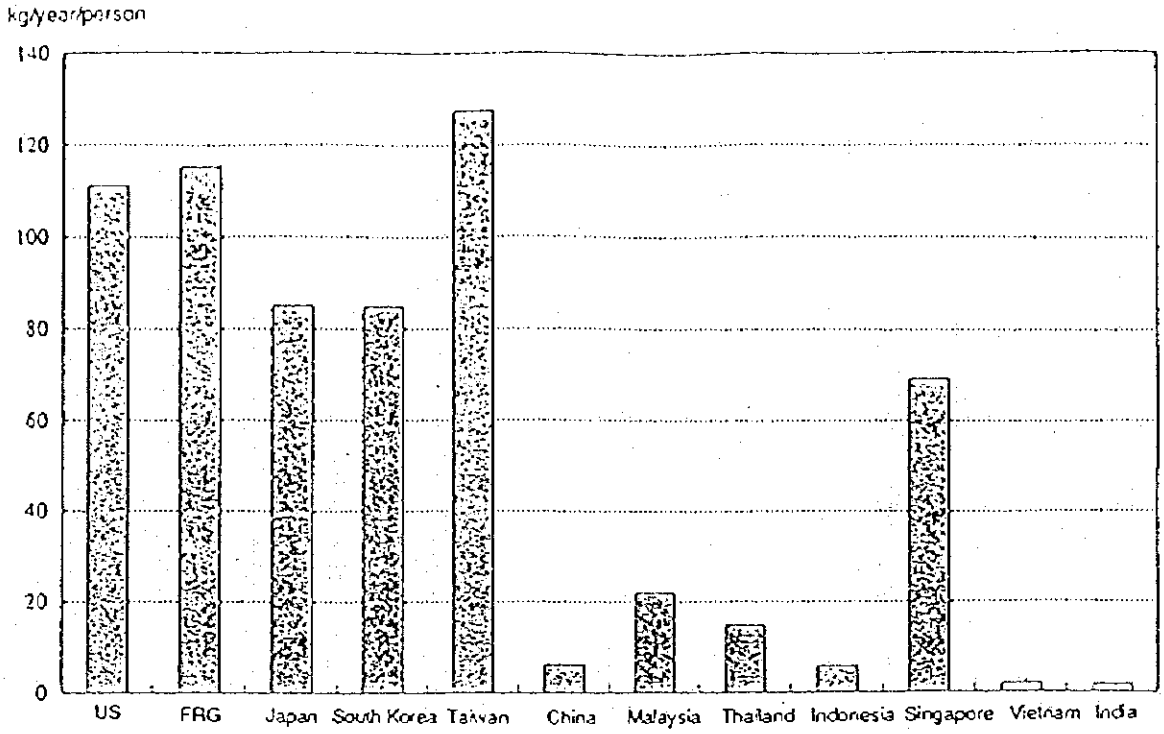
The growth pattern of the petrochemical industry in ASEAN countries has great significance for Viet Nam, as stated above, but these early starters have protected domestic companies through customs tariffs. The policy objective has been to cultivate the petrochemical industry in this way (the exception to this is Singapore with its principle of total market liberalization). However, in the wake AFTA in 1993, there are increasing moves towards liberalization, including reduced tariff rates, and the ASEAN market has thus started moving towards unification.

Meanwhile, if an all-integrated plant is to be constructed, it will be extremely important to have a clear project concept of either export orientation or import substitution when carrying out feasibility studies. In the case of import substitution, it will be particularly necessary to make full feasibility studies when downstream sector interests conflict with upstream sector interests. If such prior studies are not carried out adequately and the weight of products, destined for the domestic market but sold in export markets, increases after the plant has started operation, it

will not only be vulnerable to fluctuations in the international market, but the export portion will definitely be below the expected profits and the business management risk will increase greatly.

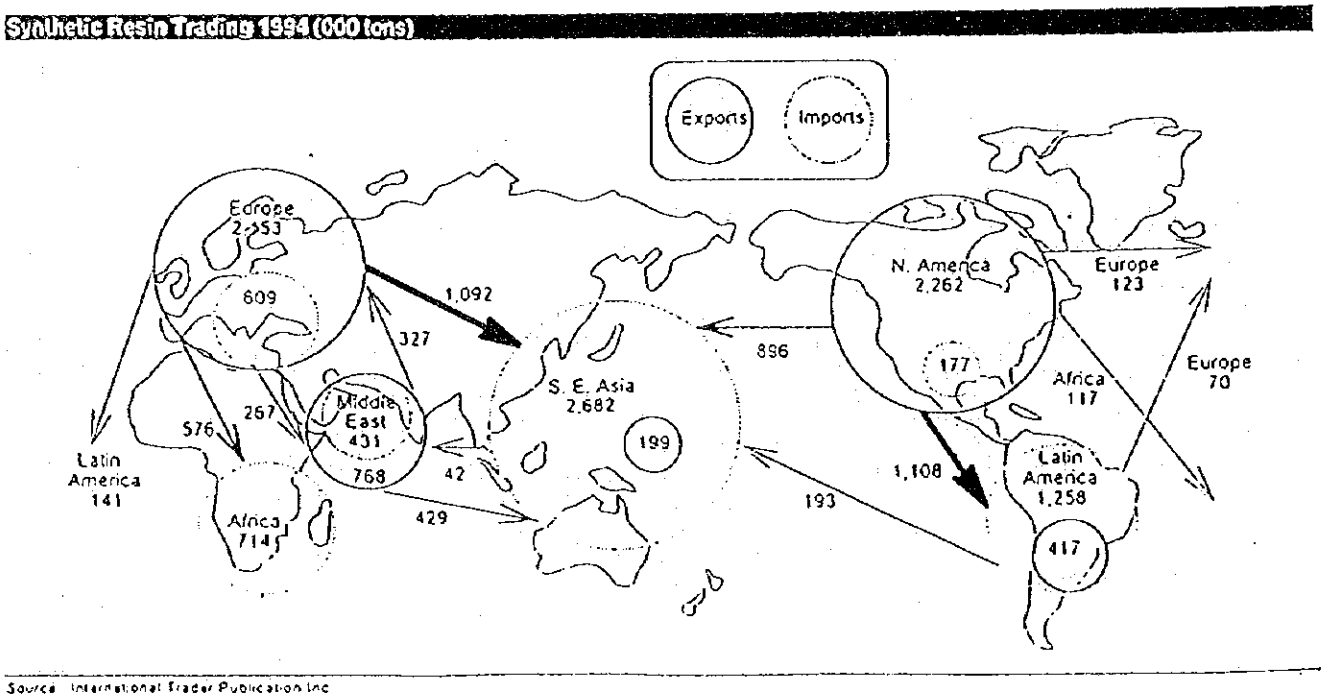
In view of the nature of the business, the petrochemical industry (whether it takes a domestic market dependent or export-oriented form) is inevitably susceptible to the risk of fluctuations in the international market situation. Even in the case of Japanese or South Korean petrochemical manufacturers, corporate earnings have been considerably affected by international market situations. In the case of multinational conglomerates, such risks are alleviated by spreading operations from upstream to downstream sectors in a balanced manner and are hedged by the global dispersal of operations in various regions. But petrochemical companies of small corporate scale and limited resilience experience major fluctuations in their business performance every time the market situation changes. Therefore, for a late-starting company to keep the effects of such international market fluctuations to a minimum, it is important that it enters the industry after developing sufficient absorbency in the domestic market.

Figure III-25 Annual per capita consumption of plastic(1993)



(Source) Compiled by JDB from 1994 International Plastic Corporation Executives Conference documents, etc.

Figure III-26



Source International Trader Publication Inc

Table III-21 Petrochemical Consumption (Ethylene base)

(unit : 1000T)

	actual			Forecast					
	1992	1993	1994	1995	1996	1997	1998	1999	2000
Asia	10,423	11,405	12,897	13,940	15,103	16,452	17,794	19,236	20,814
Oceania	538	621	669	702	731	761	795	827	861
Europe	16,354	15,997	17,193	17,689	18,201	18,728	19,272	19,829	20,405
Middle east	1,057	1,085	1,258	1,336	1,422	1,514	1,612	1,717	1,829
N. America	18,157	18,363	20,308	20,609	21,222	21,855	22,505	23,302	24,030
S. America	3,631	3,823	4,180	4,419	4,648	4,853	5,137	5,531	5,833
Total	53,175	54,232	59,314	61,500	64,196	67,163	70,263	73,754	77,244

Table III-22 Petrochemical Balance

(unit : 1000T)

	actual			Forecast					
	1992	1993	1994	1995	1996	1997	1998	1999	2000
Asia	-3,696	-3,601	-4,351	-4,487	-4,259	-4,270	-4,903	-5,548	-6,101
Oceania	-180	-214	-259	-292	-321	-351	-344	-376	-410
Europe	158	88	259	164	78	302	266	-348	-731
Middle east	1,620	1,646	2,070	2,127	2,383	2,744	4,038	4,367	4,763
N. America	3,089	2,858	2,900	2,864	2,713	2,704	2,643	2,606	2,592
S. America	-96	-81	-103	-132	-152	-216	-431	-719	-945
Total	1,217	840	658	567	722	1,243	1,626	223	-278

Table III-23 Projection of Ethylene capacity

(unit : million ton)

C.Y.		World	Asia	Korea	Taiwan	China	Asean	India	Europe	N. America	Middle east
1989		60.8	10.4	1.2	1.0	2.1	0.4	0.3	15.2	20.0	2.8
1994		76.7	15.3	3.6	1.0	2.3	1.3	0.6	19.4	24.9	3.9
2000		95.9	22.3	3.6	2.4	4.4	2.9	2.2	20.5	30.2	7.1
Incremental Capacity	89-94	15.9	4.9	2.4	0.0	0.2	0.9	0.3	4.2	4.9	1.1
	94-2000	19.2	7.0	0.0	1.4	1.9	1.6	1.6	1.1	5.3	3.2
average growth	89-94	4.8%	8.0%	24.6%	0.0%	1.8%	26.6%	16.1%	5.0%	4.5%	6.8%
	94-2000	3.8%	6.5%	-	15.1%	10.4%	13.5%	26.1%	0.9%	3.3%	10.6%

Figure III-27 ETHYLENE(SPOT)

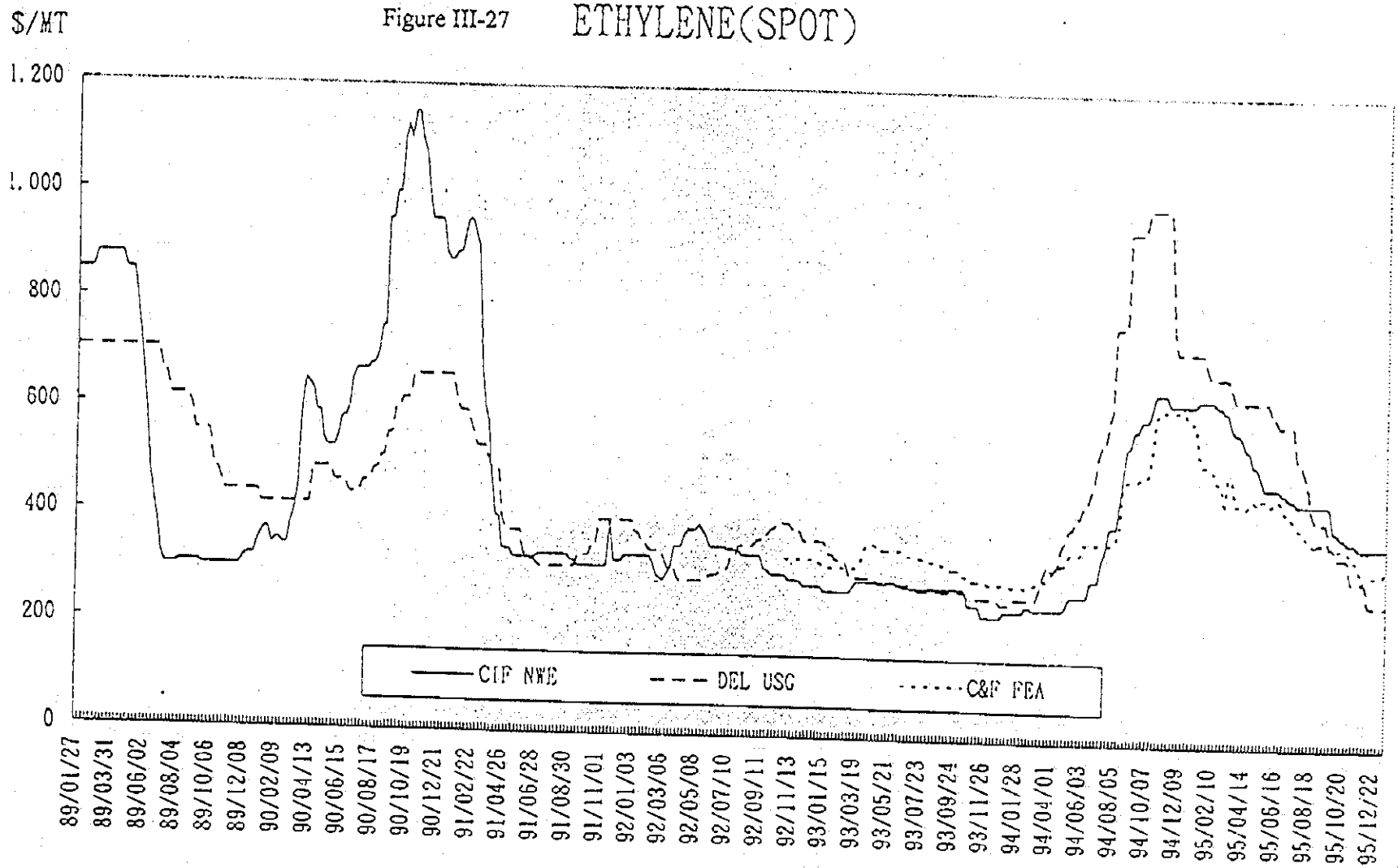


Figure III-28 Background for Rapid Increases in Southeast Asian Market Prices (polyolefin)

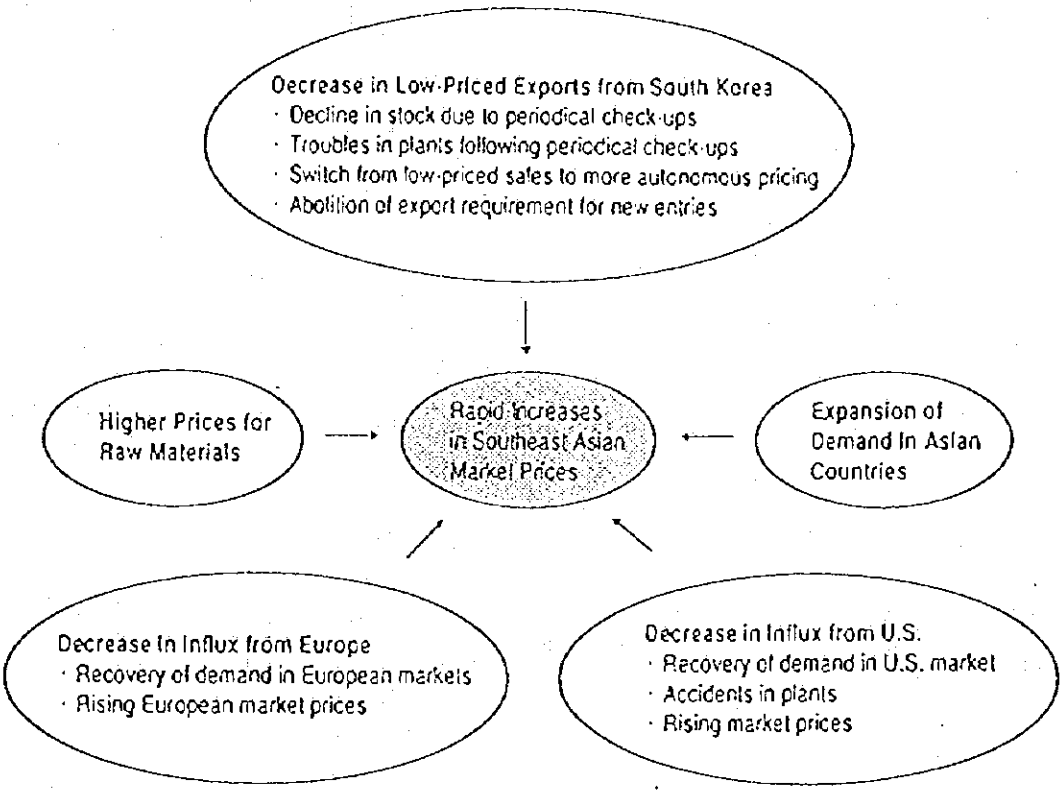
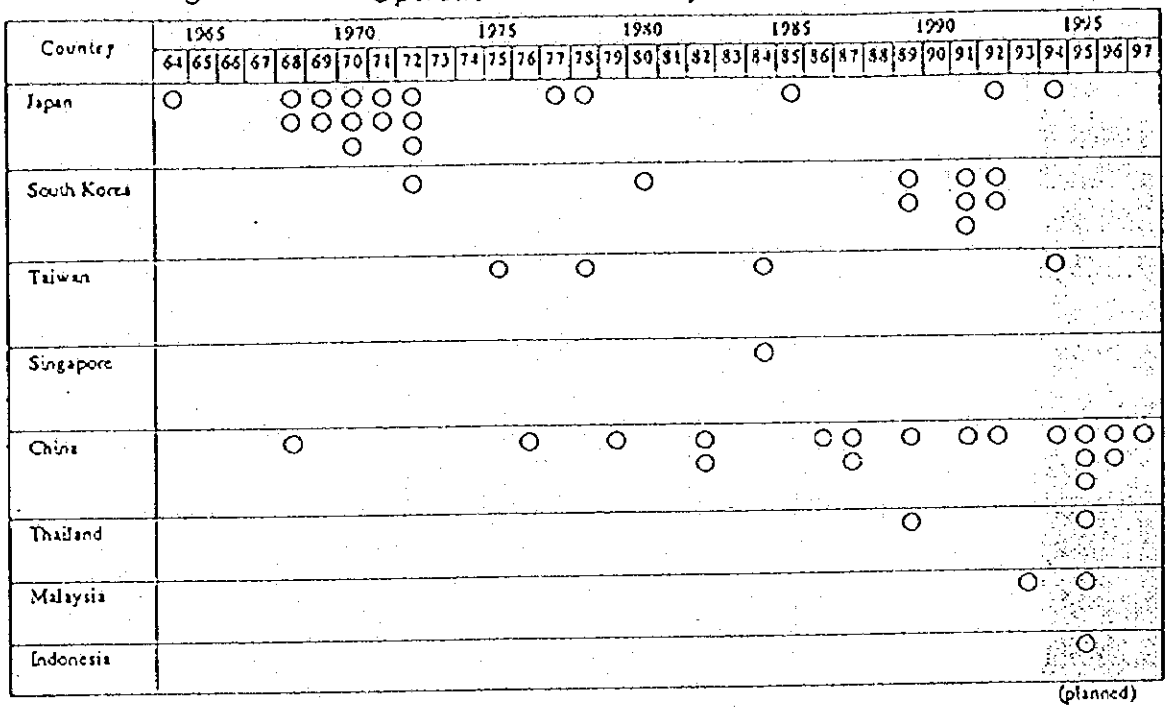


Figure III-29 Operation Period of Ethylene Plants in Asia



(Note) Start-up of each ethylene plant is indicated by ○ (does not include enlargements of capacity).

(Source) Council on the Supply and Demand of Petrochemicals, Sekiyu Kagaku Seihin no Jukyu Doko. Research undertaken by Basic Chemicals Division, MITI.

(4) Cement

(Summary)

1) It has been estimated that the demand for cement in ASEAN countries will increase at an annual rate of over 10 percent because of their rapid growth, in building demand and construction of their infrastructures. While many plans for increasing cement production capabilities are being made in response to this increasing demand, it can be predicted that the shortage of cement will continue beyond the year 2000, even if the planned production expansion is accomplished. It can also be predicted that the shortfall of cement must be filled with imported cement, coming mainly from Japan, as is the current situation

2) Cement is a primary construction material used for improvement and construction of infrastructures and buildings. Since cement is bulky and transportation costs are relatively large in the total cost, the cement industry is typically a low value-added "Regional industry." In ASEAN countries where cement bags are typically delivered by trucks and the cement is "field mixed." On site, the biggest cost component is transportation. ASEAN countries are highly motivated to replace cement imports with their own production capacity to meet increasing infrastructure improvement demands and to fix their trade imbalances. However, only Thailand has an export capacity and all other ASEAN countries depend on imports.

3) Vietnam is blessed with excellent conditions conducive to a domestic cement industry such as abundant limestone resources, and an increasing demand due to a boom in construction. However, although plant investment is small compared with petrochemicals and steel, investment returns in the cement industry take a long time because of its special characteristics as a plant industry. Production capacity of the Vietnam Cement Corporation is currently limited due to a lack of funds and difficulties in obtaining domestic private investment. Therefore, the strengthening of capacity inevitably depends on direct investment by foreign entities.

4) The aforementioned conditions appear to be attractive for foreign investment, but some investors are apprehensive about the stability and transparency of the government industrial policy on matters such as the outlook for utility prices and the transfer of profit outside the country. Cement demand will increase in the future as the economy grows in East Asian countries. A cement plant can have an international competitive edge if it is located near a limestone mine and has a facility that can accommodate 30 to 50 thousand ton-bulk ships. At present only a few plants, such as Mitsubishi Material's Kanda Plant in Japan, have international cost competitiveness in East Asia. Coastal cement plants in Vietnam have strong potential for development into trade bases with international competitiveness. However, yet to be resolved are factors, such as the sharing of costs required for improvement of the infrastructure, like ports and transportation facilities.

5) Cement industry policy requires a careful plan for expanding plant capabilities based on the various estimated demands, and unique characteristics of local industries. Local imbalances of supply and demand can cause profit instability for enterprises, even if supply and demand are well balanced at the national level. Once domestic capital has been fully accumulated, domestic investors will rush into cement plant construction, because advanced skills are not

required. Downstream industries in packing, loading, and transporting, can create sizable employment. Cement and its downstream industries can be a core in regional industry development.

A. Unique Environment of the Cement Industry in Vietnam

Primary Characteristics of the Cement Industry

Cement is an important primary construction material that supports construction of infrastructure and buildings. It is primarily a "local industry," because cement is bulky and cheap in cost per ton, thereby incurring substantial transportation costs, and it can easily deteriorate. In ASEAN countries bagged cement is delivered by trucks and "field mixed," so the largest cost component is transportation. Approximately 300 million U. S. dollars are required to construct a plant with an annual capacity of 1.4 million tons, a typical cement plant level. Therefore, plants must be operated efficiently to counter balance the fixed initial investment cost.

Positioning as a Major Industry

It will be extremely important to see how governments respond to the increasing demands for cement and how they intend to assure an adequate supply, at stable prices, for infrastructure improvements and new construction. In addition, the governments of all ASEAN countries have strong intentions to reduce their imports by strengthening their production capacity, thereby improving their import substitution.

Viewpoint on the Profitability of Cement Manufacturing Plants (See Fig. III-30)

Judging from existing cement manufacturing plants, Vietnam is blessed with excellent conditions such as; a) abundant limestone resources, b) increasing cement demand due to the construction boom, c) comparatively tight supply and demand in the East Asian Region, d) high transportation cost, and e) no substitute available. Conversely, the requirement for a large investment is only an obstruction for newcomers. It should be noted that a number of investors in the country can rush into the construction of plants once domestic capital has been fully accumulated because advanced skills are not required for cement industry construction, and this can result in a glut.

B. Outlook for Supply and Demand in the East Asian Region (See Table III-24)

a. Rapid Growth in the East Asian Region Between 1985 and 1995

In this section, we will review the outlook for the supply and demand of cement in 10 countries in the East Asian Region, including the six ASEAN countries of Singapore, Malaysia, Thailand, Indonesia, the Philippines, and Vietnam, and the East Asian countries of Korea, Taiwan, Hong Kong, and Japan.

Rapid Increase in Demand (tripled in the last 10 years, to 180 million tons)

The rapid increase in demand started back in 1987 in this region. Before that time, the economy had been depressed, and cement demand had been erratic. At that time there were no physical distribution systems for cement in the East Asian Region because the unique characteristics of cement made it primarily a "field mixing industry."

The rapid increase in cement demand in Korea and Taiwan began in 1987 under such situations. The demand increased by 80 percent in these two countries after five consecutive years of double-digit annual growth. ASEAN countries caught up with the trend of expansion at an annual rate of approximately 20 percent. As a result, the demand (estimated) of all countries, except for Japan, in 1995 increased by two or three times, and the combined demand of ASEAN countries, Korea, Taiwan, and Hong Kong reached 180 million tons.

International Cement Trade Increased Because of Delays in Improving Production Capacity

As demand rapidly increased, production capacity was vigorously improved in all countries. The production capacity of ASEAN countries and Korea, Taiwan, and Hong Kong increased from 90 million tons in 1985 to 164 million tons in 1995, an increase of 1.8 times based on kiln output, but the demand has still not been satisfied.

International cement trade in the East Asian Region increased accordingly. As it is more natural for cement, which is bulky and costly to transport, to be self-supplied in each country, it is surprising to see that a large quantity of cement, over 40 million tons, is currently being traded within the region.

b. Outlook for Tight Supply and Demand in the East Asian Region

Between 1995 and 2000, a production capacity increase of 76 million tons is planned in Korea, Taiwan, Hong Kong, and the ASEAN countries. It can be presumed that supply and demand will increase at that same rate and that deficiencies will be filled by imports, mainly from Japan, as is the current situation.

Strengthening of Production Capacity in ASEAN Countries

A summary of plans for the increase in production capacity, developed by cement associations of all ASEAN countries and compiled by the Japan Cement Association, is shown in Table 1. Presumably the total production capacity of ASEAN countries, Korea, Taiwan, and Hong Kong will rapidly expand from 164 million tons in 1995 to 240 million in 2000, an increase of 50 percent, if all goes as planned.

The report indicates that the plans include more new plant construction than expansion of existing plants, and that foreign investors tend to favor plants that not only supply local markets, but will also export to various parts of what is deemed a single East Asian market. Conversely countries such as Korea and Taiwan view expansion of existing production capacity negatively because their limestone resources are being exhausted and environmental concerns have become hot issues.

In the following sections, the feasibility of projects to increase cement production of major countries will be discussed.

In China, supply is limited against a roaring demand, and there are potential needs, particularly for high class cement ("normal Portland cement" in Japan) for use in large-scale construction projects. For this reason, the government has established a program to modify an estimated 7,000 old vertical kilns, to rotary type kilns, with the aid of foreign investment. However since land is expensive and inland markets are small, and since there is little cost difference between new construction and old plant modification, foreign investors tend to favor

new construction at new sites that are conducive to cement exporting. Considering the disparity in economic strength between the north and the south, it cannot be expected that the expansion of the markets north of the Yangtze River will equal that of those south of the river, which have as a core the Special Economic Zone. Prospective investor countries include Korea, Taiwan, and Hong Kong. Countries that also intend to secure supply sources for their own country include Thailand, and European countries (France, Sweden, etc.), as well as Japan.

Meanwhile, Indonesia is the first ASEAN country to show movement towards increasing production capacity. There are more than 30 projects that have been approved by the BKPM (Investment and Development Agency). However, while the supply of cement is tight it can be presumed that speculative projects for securing investment margin will be included. Even with the expansion of the existing plant of India Cement, the leading cement company in the country, and with construction of a large-scale plant in Kalimantan in joint venture with a Korean investor, both of which are to be completed by 2000, the production capacity increase will be limited to only 1.4 millions tons. It is predicted that production capacity will increase by at least six million tons in Thailand with new construction underway by TPI Corporation, a chemical manufacturer, who broke into the tight market dominated by Siam Cement Company, Siam City Cement Company, and Jalaparatun, and with planned Taiwan Cement's eminent joint-venture plant with a domestic company. In Malaysia, six capacity expansion projects, including one with the cement industrial association, have been announced to solve the tight supply situation, but the increase in capacity will probably be limited to only five million tons by only three of them because cement prices are controlled and profitability can become a hot issue.

Significant Expansion of Demand in ASEAN Countries

In ASEAN countries, since the expansion of internal demand measured against the growth of GDP roughly exceeds an elasticity coefficient of 1, it can be presumed that the cement market is under expansion. From the cement consumption per capita numbers (Fig. III-31) and the low supply levels of cement in the past (Table III-25), it can be estimated that the market will continue to expand as the economy develops, a different situation than that of advanced countries where cement markets have already matured.

According to the estimates made by the Japan Cement Association, it can be presumed that the cement demand in Korea, Taiwan, Hong Kong and the ASEAN countries, which will total 180 millions tons in 1995, will quickly expand to 257 million tons in 2000, and that the problem of excessive demand will continue in these areas. (See Table III-26)

China as an Uncertain Factor

The gigantic internal demands of China and its manufacturing plants are an uncertain factor for international trade in the East Asia Region. According to the World Statistical Review by CEMBUREAU, apparent consumption in China reached nearly 360 million tons in 1993, but it was deemed that the demand had almost been satisfied by the plants within the country. Exporting from the internal areas of China is impractical because of high transportation costs. It can be predicted that the exports from the Japanese joint-venture plants on the coast of China will be limited to less than 3.5 million tons in 2000 and that these exports will not greatly affect international trade in the East Asia Region.

C. View of Foreign Investors

Understanding the Roaring Internal Demand

Cement manufacturers in overseas countries focus attention on business environment issues such as; a) rich limestone resources, b) rapidly increasing internal cement demand due to the construction boom, and c) high transportation costs; and regard Vietnam as one of the most promising countries for investment. Prior to planning the construction of new plants, studies should first focus on the rapidly increasing cement demand in the country, and next on the downstream market of secondary products and exports.

Stability and Transparency of Policies

There are many ASEAN countries where various regulations exist. Sometimes, exports and imports are regulated to protect domestic industry. In other cases, there exist price controls that assure a stable supply. Indonesia does not allow the retailing of cement by foreign investors. Malaysia regulates the price of cement as controlled goods and has not allowed a price increase for over 10 years. Foreign enterprises desiring to develop their business in a country would look at the stability and transparency of policies, including cement price control policy, future prices for utilities, and profit transfer outside the country. Those desiring to export cement would point out that cost sharing for infrastructure improvement projects such as ports and transportation facilities are an uncertain factor.

Figure III-30

Elements of Cement Industry Structure

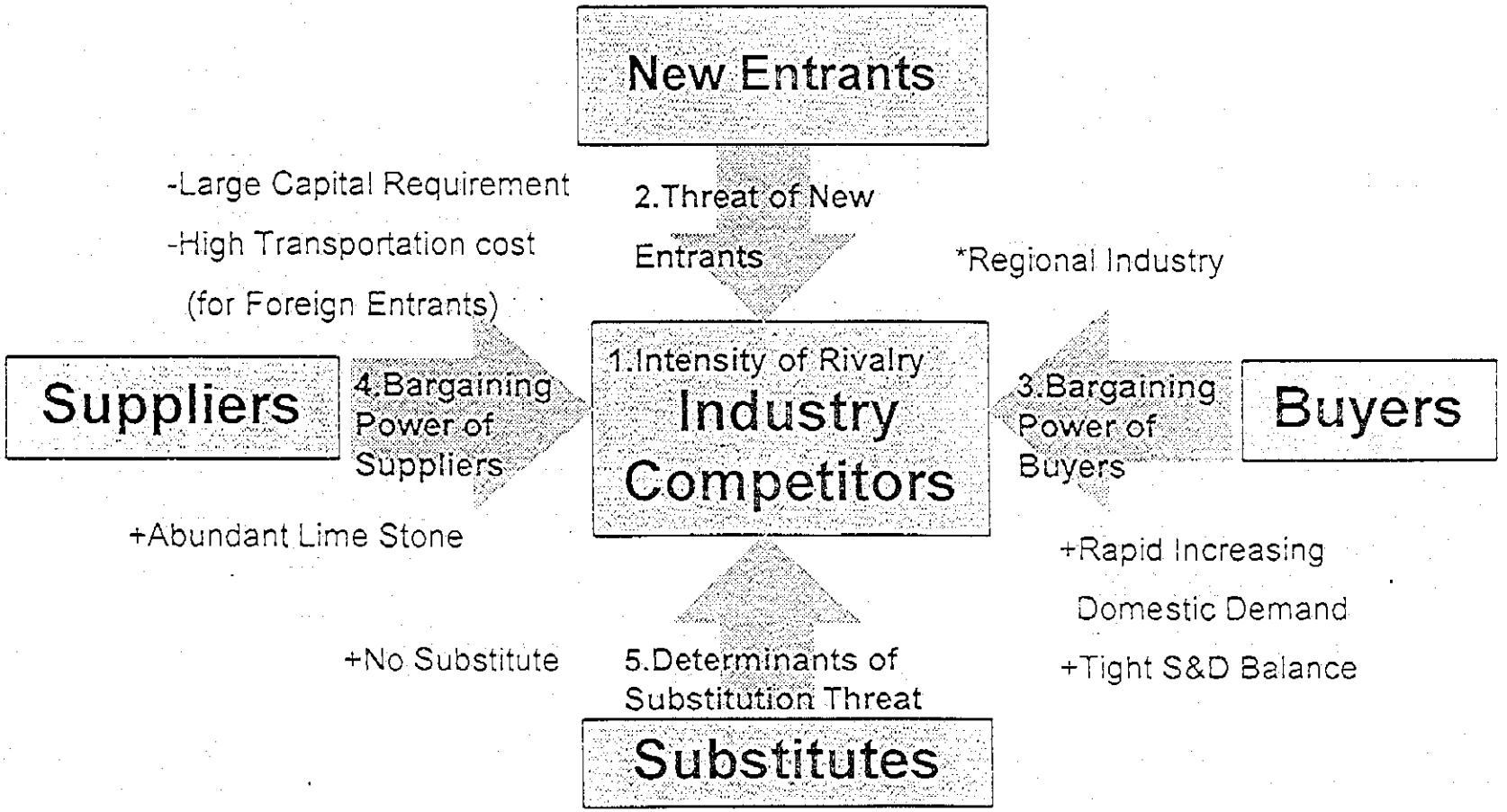


Table III-24

CEMENT IN SOUTHEAST ASIA

(million ton)

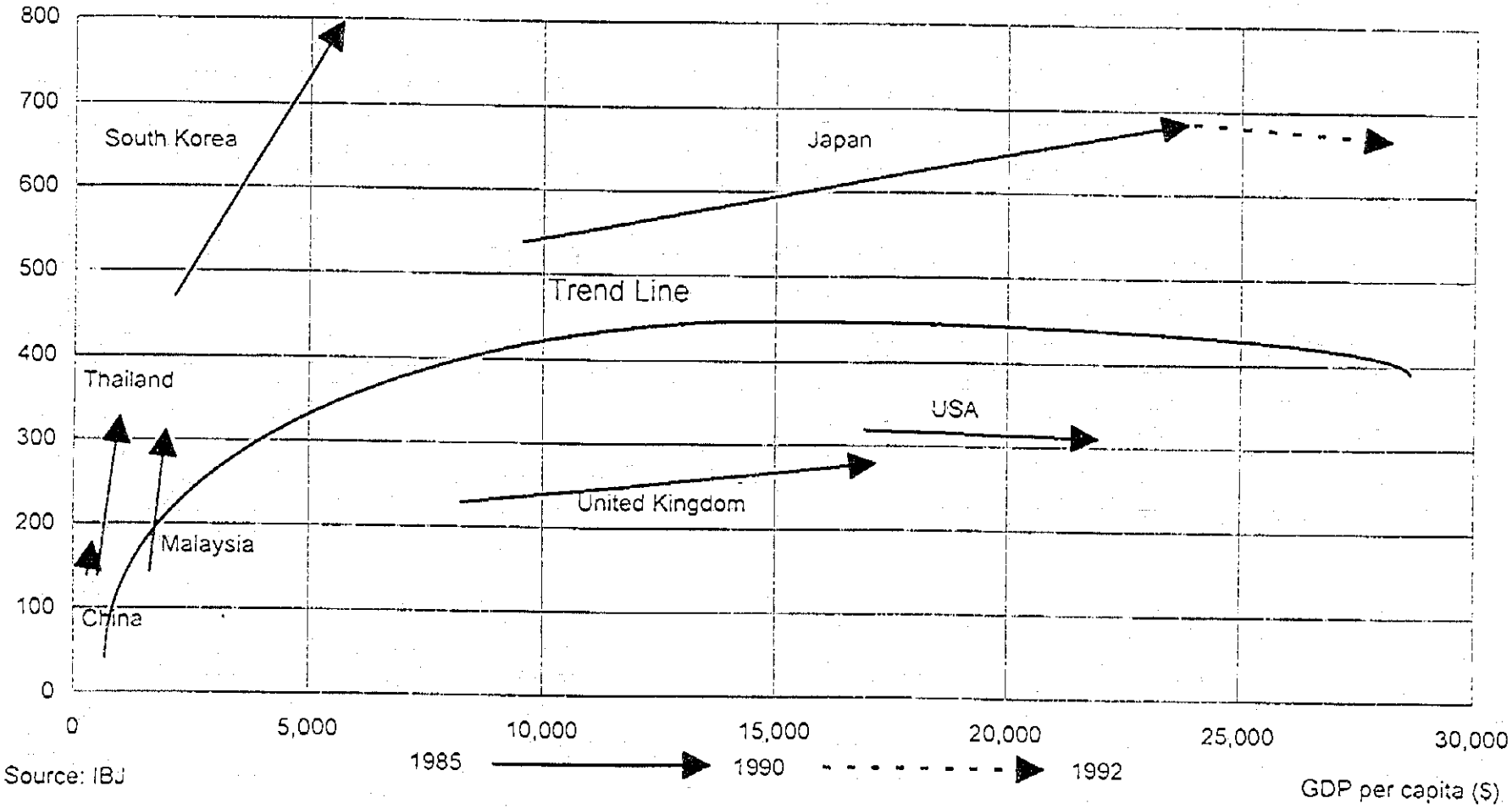
	ASEAN																				
	SINGAPORE			MALAYSIA			THAILAND			INDONESIA			PHILIPPINES			VIET NAM			(SUB TOTAL)		
	CAPABILITY	APPARENT DEMAND	BALANCE	CAPABILITY	APPARENT DEMAND	BALANCE	CAPABILITY	APPARENT DEMAND	BALANCE	CAPABILITY	APPARENT DEMAND	BALANCE	CAPABILITY	APPARENT DEMAND	BALANCE	CAPABILITY	APPARENT DEMAND	BALANCE	CAPABILITY	APPARENT DEMAND	BALANCE
1985	2.6	-2.6	5.1	4.7	0.4	9.4	7.8	1.6	17.4	9.1	8.3	5.2	2.7	2.5	1.5	1.5	0.0	38.6	28.4	10.2
1986	2.4	-2.4	6.8	3.6	3.2	9.5	7.9	1.6	17.4	9.5	7.9	5.8	3.1	2.7	1.5	1.5	0.0	41.0	28.0	13.0
1987	2.2	-2.2	6.8	3.0	3.8	12.9	9.7	3.2	17.4	9.9	7.5	4.9	4.2	0.7	1.7	1.6	0.0	43.7	30.6	13.0
1988	2.0	-2.0	6.6	3.4	3.2	13.1	11.6	1.5	17.4	10.1	7.3	6.3	5.4	0.9	1.8	1.7	0.0	45.2	34.2	11.0
1989	2.1	-2.1	6.9	4.3	2.6	15.5	15.2	0.3	17.4	11.4	6.0	6.1	6.1	0.0	1.8	1.8	0.0	47.7	40.9	6.8
1990	2.1	-2.1	6.9	5.6	1.3	15.5	18.7	-3.2	17.4	13.8	3.6	6.5	7.6	-1.1	2.5	2.7	-0.1	48.8	50.5	-1.7
1991	2.8	-2.8	6.9	7.2	-0.3	20.9	22.1	-1.2	17.6	15.5	2.1	7.4	6.9	0.5	3.9	3.2	0.7	56.7	57.7	-1.0
1992	3.2	-3.2	7.4	8.2	-0.8	32.9	22.8	10.1	19.4	15.8	3.6	7.8	7.3	0.5	3.9	3.9	0.0	71.4	61.2	10.2
1993	3.7	-3.7	8.2	8.8	-0.6	32.4	25.6	6.8	19.7	17.8	1.9	7.9	8.0	-0.1	3.9	5.0	-1.1	72.1	68.9	3.2
1994P	4.0	-4.0	8.6	10.0	-1.4	32.3	29.1	3.2	22.4	21.5	0.9	9.1	9.6	-0.5	3.9	6.5	-2.6	76.3	80.7	-4.4
1995E	4.3	-4.3	8.6	11.5	-2.9	35.4	34.4	1.0	24.7	25.4	-0.7	10.6	11.5	-0.9	5.0	7.4	-2.4	84.3	94.5	-10.2
1996E	4.0	-4.0	10.4	13.2	-2.8	41.9	39.4	2.5	26.3	28.4	-2.1	10.6	13.8	-3.2	6.7	8.5	-1.8	95.9	107.3	-11.4
1997E	3.7	-3.7	13.0	14.6	-1.6	49.0	44.8	4.2	36.4	31.2	5.2	17.4	16.6	0.8	8.1	9.8	-1.7	123.9	120.7	3.2
1998E	3.7	-3.7	15.7	15.2	0.5	52.0	50.0	2.0	43.0	34.4	8.6	22.0	19.0	3.0	12.6	11.3	1.3	145.3	133.6	11.7
1999E	3.7	-3.7	17.2	16.8	0.4	53.0	54.4	-1.4	43.0	37.8	5.2	25.9	21.9	4.0	15.0	13.0	2.0	154.1	147.6	6.5
2000E	3.7	-3.7	17.2	18.5	-1.3	53.0	59.3	-6.3	43.0	41.6	1.4	28.7	25.2	3.5	15.0	15.0	0.0	156.9	163.3	-6.4

	EAST ASIA												EAST ASIA / ASEAN			JAPAN			TOTAL		
	KOREA			TAIWAN			HONG KONG			(SUB TOTAL)											
	CAPABILITY	APPARENT DEMAND	BALANCE	CAPABILITY	APPARENT DEMAND	BALANCE	CAPABILITY	APPARENT DEMAND	BALANCE	CAPABILITY	APPARENT DEMAND	BALANCE	CAPABILITY	APPARENT DEMAND	BALANCE	CAPABILITY	APPARENT DEMAND	BALANCE	CAPABILITY	APPARENT DEMAND	BALANCE
1985	28.5	19.0	9.5	20.9	10.6	10.3	1.4	2.8	-1.4	50.8	32.4	18.4	89.4	60.8	28.6	103.3	67.7	35.6	192.7	128.6	64.2
1986	29.9	20.4	9.5	20.6	11.3	9.3	1.4	3.4	-2.0	51.9	35.1	16.8	92.9	63.0	29.9	98.0	68.9	29.1	190.9	131.9	59.0
1987	29.9	22.8	7.1	22.1	12.7	9.4	1.4	3.5	-2.1	53.4	39.0	14.4	97.1	69.7	27.4	98.0	71.2	26.8	195.0	140.8	54.2
1988	30.2	26.2	4.0	22.1	14.2	7.9	1.4	4.0	-2.6	53.7	44.4	9.3	98.9	78.6	20.3	97.9	77.5	20.4	196.7	156.0	40.7
1989	30.6	28.2	2.4	22.4	16.3	6.1	1.4	3.9	-2.5	54.4	48.4	6.0	102.1	89.3	12.8	87.8	78.7	9.1	189.9	168.0	21.9
1990	33.1	34.0	-0.9	22.9	18.1	4.8	1.4	3.8	-2.4	57.4	55.9	1.5	106.2	106.4	-0.2	87.8	84.1	3.7	194.1	190.5	3.5
1991	41.5	44.2	-2.7	22.8	19.2	3.6	1.4	4.0	-2.6	65.7	67.4	-1.7	122.4	125.1	-2.7	89.3	86.5	2.8	211.7	211.6	0.1
1992	47.8	46.7	1.1	23.4	22.9	0.5	1.4	3.5	-2.1	72.6	73.1	-0.5	144.0	134.3	9.7	90.5	82.8	7.6	234.5	217.1	17.3
1993	51.8	46.7	5.1	23.0	27.6	-4.6	1.4	3.6	-2.2	76.2	77.9	-1.7	148.3	146.8	1.5	98.0	79.0	18.9	246.3	225.8	20.4
1994P	55.8	52.7	3.1	22.2	27.2	-5.0	1.4	4.1	-2.7	79.4	84.0	-4.6	155.7	164.7	-9.0	98.0	80.2	17.8	253.7	244.9	8.8
1995E	55.8	55.5	0.3	22.4	26.5	-4.1	1.4	4.0	-2.6	79.6	86.0	-6.4	163.9	180.5	-16.6	98.0	80.0	18.0	261.9	260.5	1.4
1996E	56.6	57.0	-0.4	23.7	26.0	-2.3	1.4	4.0	-2.6	81.7	87.0	-5.3	177.6	194.3	-16.7	97.0	80.5	16.5	274.6	274.8	-0.2
1997E	58.4	57.0	1.4	23.7	26.7	-3.0	1.4	4.0	-2.6	83.5	87.7	-4.2	207.4	208.4	-1.0	97.0	80.0	17.0	304.4	288.4	16.0
1998E	58.4	58.0	0.4	23.7	27.8	-4.1	1.4	3.6	-2.2	83.5	89.4	-5.9	228.8	223.0	5.8	97.0	79.0	18.0	325.8	302.0	23.8
1999E	58.4	59.0	-0.6	23.7	28.9	-5.2	1.4	3.6	-2.2	83.5	91.5	-8.0	237.6	239.1	-1.5	97.0	79.0	18.0	334.6	318.1	16.5
2000E	58.4	60.0	-1.6	23.7	30.0	-6.3	1.4	3.6	-2.2	83.5	93.6	-10.1	240.4	256.9	-16.5	97.0	79.0	18.0	337.4	335.9	1.5

Source: Japan Cement Association, DIR

Figure III-31

GDP per capita and Cement Domestic Demand per capita



Source: IBJ

Table III-25 Cement Accumulation (1913 - 1991)

	Japan	USA	UK	China	S Korea	(t/km²) Philippine
CA/area	5,501	347	2,884	261	3,913	66
Adjusted CA/area	5,501	4,203	4,008	711	2,928	442

CA/area: Cement accumulation per national land area
Adjusted CA/area: adjusted to reflect difference of population density
Source: CEMBUREAU, IBJ

Table III-26 Cement Consumption per Capita and Population estimation

Country	Group (kg/p)	Cement Consumption per capita (kg/p)		Population Estimation (million)		
		1995	2000	1995	2000	% change
Taiwan	1500	1,223	1,304	21.5	23.0	1.4
Singapore		1,433	1,121	3.0	3.3	1.7
South Korea	900	1,233	1,268	45.0	47.3	1.0
Japan	900	645	642	125.6	127.5	0.3
Hong Kong		667	581	6.0	6.2	0.8
Malaysia		575	815	20.0	22.7	2.6
Thailand	400	567	893	60.7	66.4	1.8
Philippine	400	169	329	68.2	76.7	2.4
Indonesia	50	129	193	196.4	215.7	1.9

Source: Cement consumption per capita, Japan Cement Association
Population estimation, ADB

(5) Urea Fertilizer

(Summary)

1) World demand for urea fertilizer increased an average of 5 percent a year for 20 years from the early 1970s to the end of the 1980s. Aggressive efforts to expand supply capacity resulted in excess capacity in the early 1980s, which has continued up to the present time (See Figure III-32 and Figure III-33). Since 1990, the use of fertilizers has continued to decline because of chaos accompanying the systemic reform in Eastern Europe and the former Soviet Union. Supply capacity is now declining because developing countries were reluctant to invest in fertilizer plant in late 1980s and fertilizer factories in the former Soviet Union were shut down in recent years. According to a supply and demand forecast in July 1994, prepared by the World Bank/FAO/UNIDO and the fertilizer industry, worldwide demand for urea fertilizer is expected to recover slowly at a rate of 1.4 percent per year for the five year period from 1993/94 to 1998/99, while growth in supply capacity will be slower at 1.2 percent annually (See Table III-27). The excess capacity of the former Soviet Union countries is estimated at approximately 8 million tons for 1995, which is more than 10 percent of the total world supply capacity of 75 million tons. The movement of FSU countries can create rapid changes in the world supply and demand balance for urea fertilizer, and it is foreseen that wide fluctuations will disrupt the international market for coming years.

2) Production costs of urea fertilizer are largely determined by three critical variables: [1] cost of raw materials, [2] plant construction costs, and [3] operating rate. Naphtha and natural gas are the main materials used to synthesize ammonia, and they account for most of the variable costs. The important factors influencing sales are domestic agricultural policy and international market conditions. Urea fertilizer is a classic international market commodity whose trade price reflects the world supply and demand balance and fluctuations in the prices of its main materials: naphtha and natural gas.

3) During the 1980s, the worldwide excess capacity accompanied by a rapid fall in the price of naphtha caused a slump in the international market for urea fertilizer, with annual market fluctuating by about U.S.$60.-/ton in a year. (See Figure III-34) Fertilizer plants which did not have a production cost advantage over those in nearby countries were forced to operate at a loss, every time the international market slumped. A urea fertilizer plant (production capacity of about 500,000 tons/year of urea fertilizer) started up in country M in the mid 1980s. Production costs of urea fertilizer are were estimated to be U.S.$180/ton for this plant. It appears that this plant loses about $40 million per year if it is forced to ship its product at a price of U.S.$100/ton. In the late 1980s, a plan was prepared for the construction of a government operated urea fertilizer plant in country T (to produce about 670,000 tons/year of urea fertilizer), but the country's National Fertilizer Corporation, which was the body in charge of the project, doubted the feasibility study performed by an international aid organization and asked a university professor , who was neutral regarding the project, for a reassessment. This aroused public concern with the planned project, which was eventually canceled. Country B completed three urea fertilizer plants that use domestically produced natural gas as their raw material (each with production capacity of about 500,000 tons/year of urea fertilizer) in the late 1980s. These three plants, whose production costs are estimated at U.S.$ 115/ton appear to

have suffered a loss of more than $20 million per year when forced to ship their product at, for example, U.S.$100/ton.

4) The construction of a capital-intensive urea fertilizer plant is possible only by the injection of a large amount of foreign capital. It is essential to consider not only agricultural policies and the use of natural gas, but to also forecast future international supply and demand and make sure that the plant will be cost-competitive enough to survive fluctuations in the international market.

A. Cost Structure of Urea Fertilizer Plants

This report summarizes the urea fertilizer industry as it applies to the construction of a urea fertilizer plant now under study in Viet Nam. When it starts up by 2000, it will produce about 500,000 tons/year of urea fertilizer, the equivalent of 330,000 tons/year of ammonia from associated gas from the Bakuho oil field. A study of the earnings structure of a urea fertilizer plant shows that production costs are determined by three basic variables: [1] cost of raw materials, [2] plant construction costs, and [3] operating rate. Naphtha and natural gas are direct raw materials used to synthesize ammonia, and account for most of the variable costs. Depending on market conditions, it is possible to procure these raw materials from the international marketplace, but it is important to guarantee a stable long-term supply that corresponds to the plant's depreciation period. Cost stability can be attained by finding domestic sources of raw materials, constructing a plant of suitable size equipped with technology that provides good input efficiency, and by maintaining a high operating rate. The important factors influencing sales are domestic agricultural policy in the country where the plant is constructed and international market conditions. In developing countries, fertilizer has significance for problems of starvation, poverty, and food security. Its price, subsidies, and distribution mechanisms are strongly influenced by the agricultural policies of each country. At the same time, urea fertilizer is a classic international market commodity whose trade price reflects the world supply and demand balance and fluctuations in the prices of its principal raw materials: naphtha and natural gas.

B. Outlook for World Supply and Demand for Urea Fertilizer

a. World Supply and Demand and Price Fluctuation for Urea Fertilizer

World demand for urea fertilizer increased an average of 5 percent a year for 20 years from 32 million tons in the early 1970s to 80 million tons at the end of the 1980s. During this period, aggressive efforts to expand supply capacity resulted in the excess capacity in the early 1980s, which has continued up to the present time .

Since 1990, the use of fertilizers has continually declined because of chaos accompanying systemic reform in Eastern Europe and the former Soviet Union. Supply capacity is now declining because the developing countries were reluctant to invest in fertilizer plant in the late 1980s and fertilizer factories in the former Soviet Union were shut down in recent years.

b. Outlook for World Supply and Demand for Urea Fertilizer

According to a supply and demand forecast prepared as a joint project by the World

Bank/FAO/UNIDO and the fertilizer industry, and announced in July 1994, worldwide demand for urea fertilizer is expected to recover slowly at a rate of 1.4 percent per year for the five year period from 1993/94 to 1998/99, while growth in supply capacity will be slower at 1.2 percent annually. (See Table III-27).

The excess capacity of the former Soviet Union countries is estimated at approximately 8 million tons for 1995, which is more than 10 percent of the total world supply capacity of 75 million tons. The movement of FSU countries can create rapid changes in the world supply and demand balance for urea fertilizer, and it is foreseen that wide fluctuations will disrupt the international market for coming years.

c. Some Examples of Other Countries

During the 1980s, the worldwide excess capacity accompanied by a rapid fall in the price of naphtha caused a slump in the international market for urea fertilizer, with annual market fluctuations of about $60/ton. (See Figure III-34). Fertilizer plants which did not have a production cost advantage over those in nearby countries were forced to operate at a loss every time the international market slumped.

A urea fertilizer plant which started up in country M in the mid-1980s production capacity of about 500,000 tons/year of urea fertilizer, the equivalent of 330,000 tons/year of ammonia had total construction costs in excess of $500 million and used domestically produced natural gas as its raw material. This plant made country M, formerly dependent on imports for 100 percent of its urea fertilizer, self-sufficient in this product by the late 1980s. However, it appears that this plant, whose urea fertilizer production costs are estimated to be U.S.$180/ton, loses about $40 million per year when it is forced to ship its product at, for example, U.S.$100/ton.

In the late 1980s, a plan was prepared for the construction of a government operated urea fertilizer plant in country T (to produce about 670,000 tons/year of urea fertilizer), but the country's National Fertilizer Corporation, which was the body in charge of the project, doubted the conclusions of the feasibility study performed by an international aid organization and asked a university professor, who was neutral regarding the project, for a reassessment. This aroused public concern with the planned project, which was eventually canceled. The report on the reassessment was more than just a financial analysis of the future profitability of the fertilizer plant and of the repayment plan for international aid. It included analysis of the effects of the project on the agricultural sector, inflow and outflow of foreign currency, and on the domestic direct financial market, along with its potential contribution to the creation of employment opportunities and to the transfer of technology. The report pointed out that fertilizer prices, the factor with the greatest impact on the profitability of a fertilizer plant, were difficult to predict as a consequence of the severe fluctuations characteristic of the international fertilizer market. The final conclusion was that with the current market price fluctuations of $60/ton annually, the construction of a fertilizer plant would be extremely risky, not only for project profitability, but for he national economy as well. For this reason, the project was canceled.

In the late 1980s, country B completed, at a cost of just under $ 1.5 billion, three urea fertilizer plants that use domestically produced natural gas as their raw material (each with

production capacity of about 500,000 tons/year of urea fertilizer, the equivalent of 330,000 tons/year of ammonia). This 1.5 million ton increase in supply capacity not only provided country B with self-sufficiency in this product, but also let it become an exporting nation. These three plants, whose production costs are estimated at U.S.$ 115/ton appear to have suffered a loss of more than $20 million per year when forced to ship their product at, for example, U.S.$100/ton, for example.

The construction of a capital-intensive urea fertilizer plant is possible only by the injection of a large amount of foreign capital. It is essential to consider not only agricultural policies and the use of natural gas, but to also forecast future international supply and demand and to make sure that the plant will be cost-competitive enough to survive fluctuations in the international market.

Table III-27

Nitrogen Fertilizer: World Supply & Demand

(Unit:1,000Nt,%)

		70/71	71/72	72/73	73/74	74/75	75/76	76/77	77/78	78/79	79/80	80/81	81/82	82/83	83/84	84/85
a	Production	32,967	34,885	37,789	40,498	42,514	43,847	46,225	49,611	55,907	59,729	62,602	62,035	63,430	67,810	74,505
b	Available World Supply	32,227	33,519	35,851	38,816	40,610	42,200	44,380	47,880	53,700	57,600	60,700	60,200	66,900	67,230	71,240
c	Consumption	31,824	33,324	35,771	38,657	38,596	43,140	45,115	47,768	53,762	57,257	60,600	60,443	61,040	67,119	70,514
d b-c	Buffer	403	195	80	159	2,014	-940	-735	112	-62	343	100	-243	5,860	111	726
e d / b	Buffer ratio	1.3%	0.6%	0.2%	0.4%	5.0%	-2.2%	-1.7%	0.2%	-0.1%	0.6%	0.2%	-0.4%	8.8%	0.2%	1.0%
f	Imports	6,763	6,834	7,850	7,955	7,952	8,119	8,777	10,029	11,854	12,642	13,163	12,461	12,871	15,098	16,376
g f / c	Trade ratio	21.3%	20.5%	21.9%	20.6%	20.6%	18.8%	19.5%	21.0%	22.0%	22.1%	21.7%	20.6%	21.1%	22.5%	23.2%

		85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	93/94e	94/95e	95/96e	96/97e	97/98e	98/99e
a	Production	73,386	77,427	82,264	85,482	84,717	81,900	80,606	80,540	79,471						
b	Available World Supply	69,970	72,580	76,720	80,370	80,140	77,398	76,001	76,233	75,129	74,699	75,138	76,156	77,406	78,497	79,240
c	Consumption	69,984	71,479	75,596	79,659	79,078	77,245	75,491	74,520	72,761	72,424	72,720	73,800	75,010	76,150	77,500
d b-c	Buffer	-14	1,101	1,124	711	1,062	153	510	1,713	2,368	2,275	2,418	2,356	2,396	2,347	1,740
e d / b	Buffer ratio	0.0%	1.5%	1.5%	0.9%	1.3%	0.2%	0.7%	2.2%	3.2%	3.0%	3.2%	3.1%	3.1%	3.0%	2.2%
f	Imports	16,343	16,960	18,347	19,765	20,216	19,930	20,458	21,716	21,361						
g f / c	Trade ratio	23.4%	23.7%	24.3%	24.8%	25.6%	25.8%	27.1%	29.1%	29.4%						

Source: FAO Fertilizer Yearbook

World Bank, World and Regional Supply & Demand Balances for Nitrogen

Table III-28

Nitrogen Fertilizer: Supply & Demand in Asia

(Unit:1,000Nt,%)

		82/83	83/84	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94
a	Production	20,252	21,572	24,118	23,965	25,891	28,274	30,213	31,401	31,970	32,280	34,013	33,910
b	Available World Supply												
c	Consumption	23,044	26,166	28,005	27,069	27,748	25,623	34,940	35,910	37,187	37,908	39,802	37,527
d a-c	Buffer	-2,792	-4,594	-3,887	-3,104	-1,857	2,651	-4,727	-4,509	-5,217	-5,628	-5,789	-3,617
e d/a	Buffer ratio	-13.8%	-21.3%	-16.1%	-13.0%	-7.2%	9.4%	-15.6%	-14.4%	-16.3%	-17.4%	-17.0%	-10.7%
f	Imports	4,375	5,433	7,111	6,060	5,698	6,624	7,917	8,303	8,290	8,718	9,345	7,955
g f/c	Trade ratio	19.0%	20.8%	25.4%	22.4%	20.5%	25.9%	22.7%	23.1%	22.3%	23.0%	23.5%	21.2%
h	Share in World	38.1%	42.9%	41.7%	38.4%	39.6%	35.8%	46.2%	45.1%	47.0%	49.1%	52.7%	50.4%

Source: FAO Fertilizer Yearbook

Figure III-32

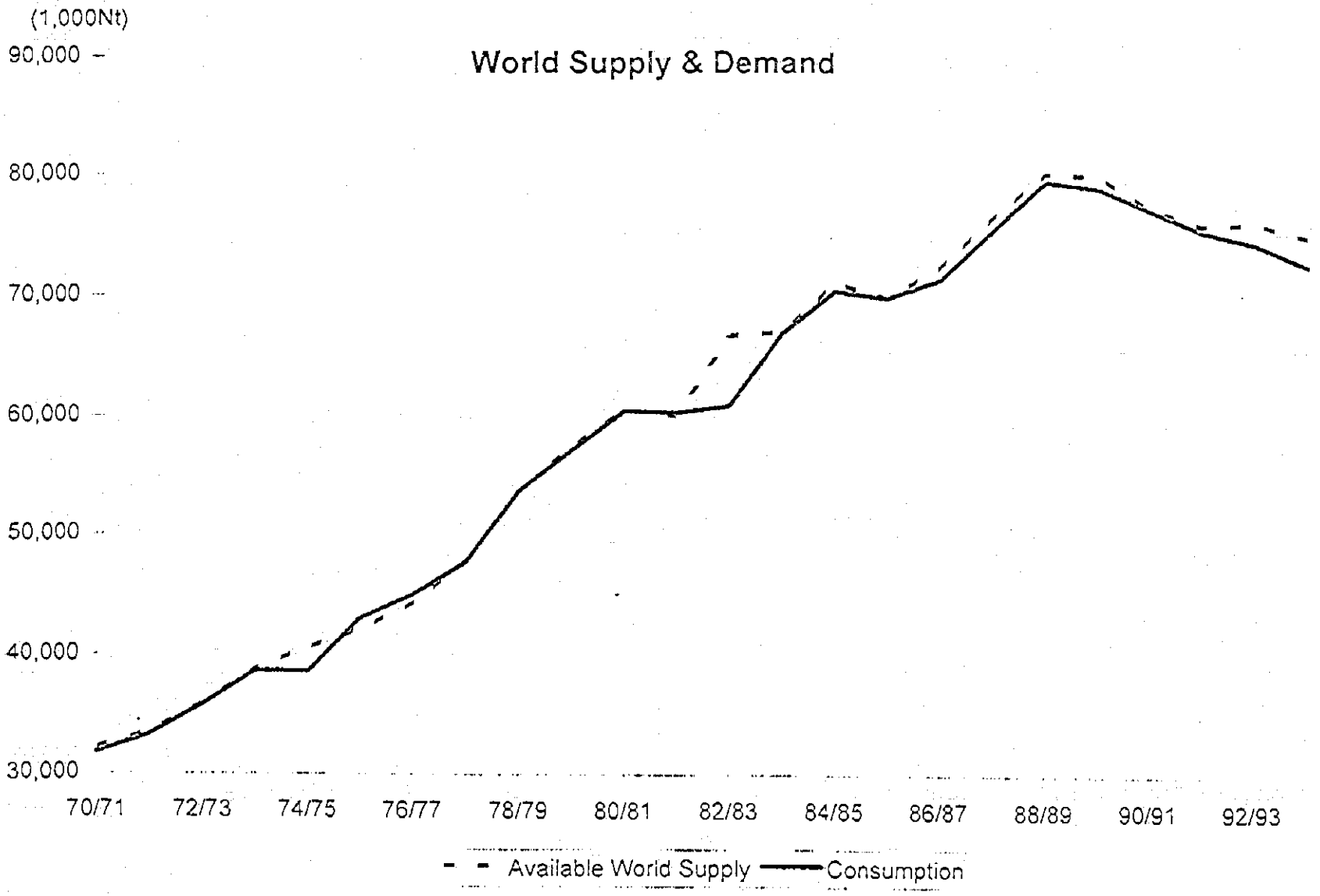


Figure III-33

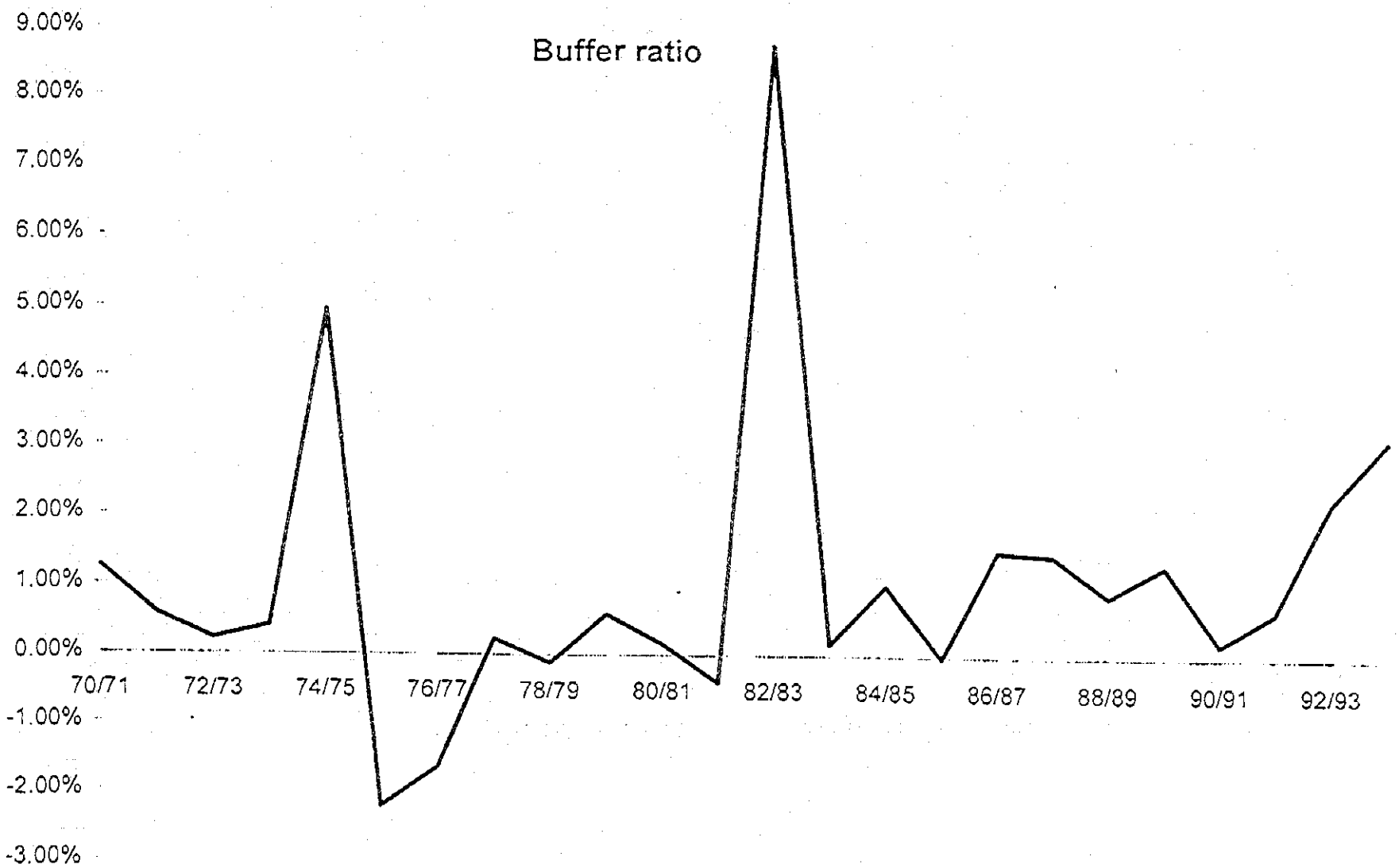


Figure III-34

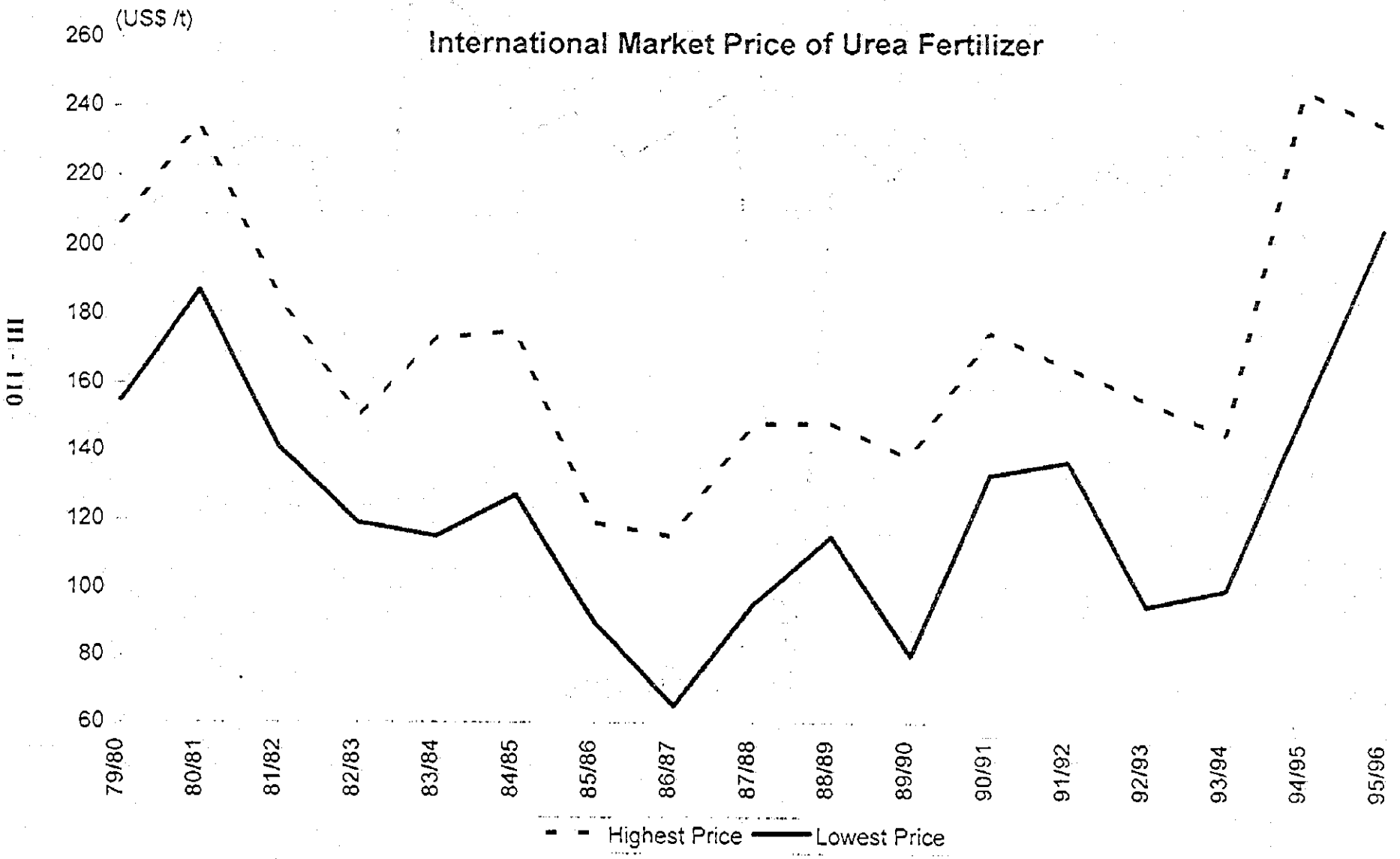
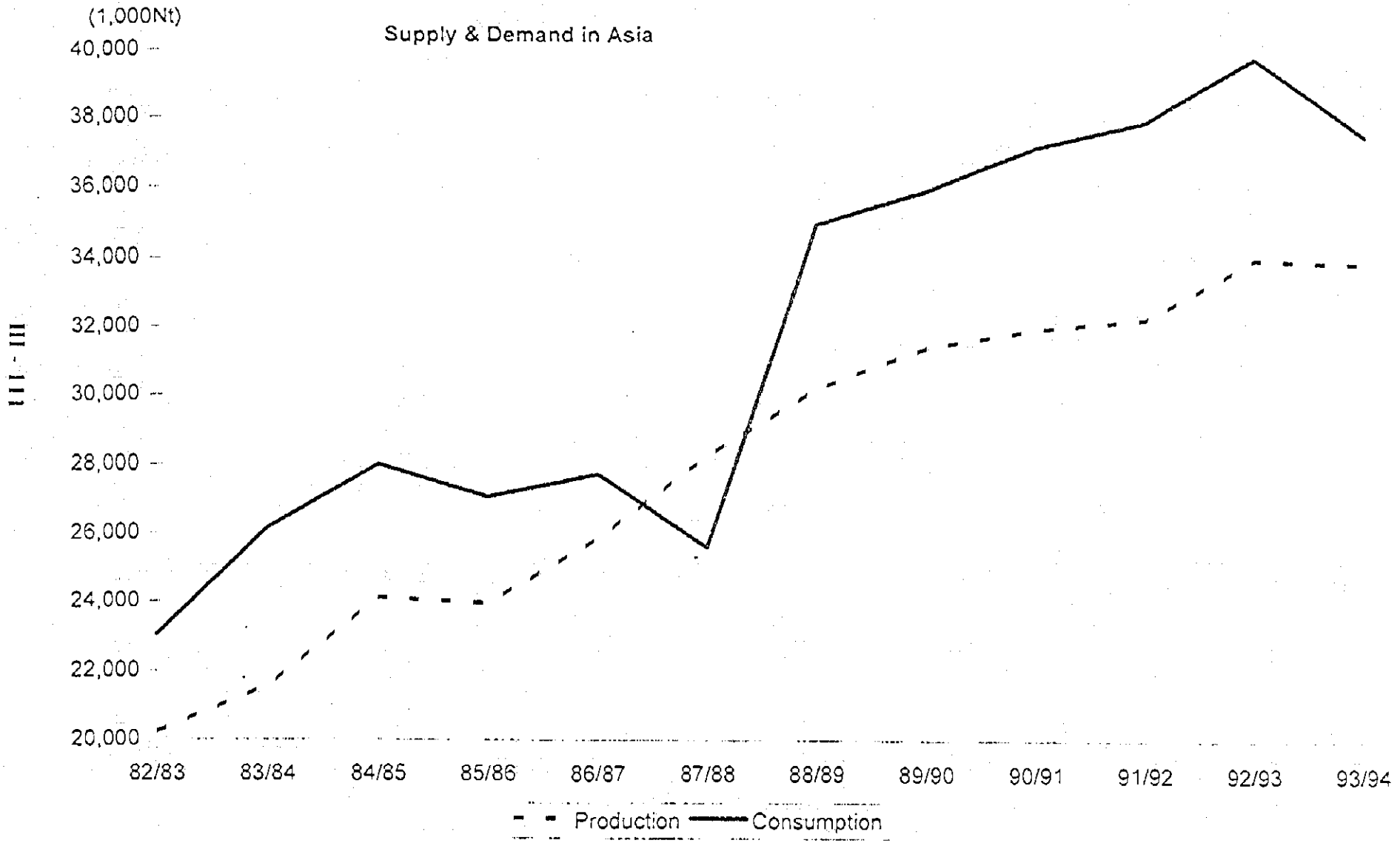


Figure III-35



3-5 Hindering Factors for Foreign Direct Investment

(1) Review of Foreign Direct Investment Statistics

In Vietnamese FDI statistics, the size of investment projects is usually measured by "Licensed Capital," which includes the Vietnamese partner's contribution to joint venture projects. After starting construction of plants or facilities, corporations have to report to the MPI their "Implemented Capital," which includes the Vietnamese partner's contribution.

1,343 FDI projects are in operation as of December 1995, and licensed capital amounts to about US$ 18 billion. Investment is 44% in manufacturing, 35% in Hotel, Tourism. These two sectors account for almost 80% of FDI projects.

Table III-29 Sectoral Distribution of Foreign Investment
Projects in Operation (as of Dec. 27, 1995)

Sector	# of Projects	Licensed Capital (million US$)	Share (%)	Avg. Size (mil$/prj)
Manufacturing	784	8,057	44	10.3
Hotel, Tourism	238	6,331	35	26.6
Oil, Gas	21	1,125	6	53.6
Transportation, Communication, Post	45	1,066	6	23.7
Other	255	1,549	9	6.1
Total	1,343	18,128	100	13.5

Note: Capital of canceled projects is excluded.
Source: MPI

Foreign Direct Investment in Viet Nam is concentrated in a few regions. Ho Chi Minh City has 35% of total investment is in, Hanoi 21%, Dong Nai 13%. These three regions account for almost 70% of FDI projects, and the other 30% are scattered throughout the other 50 provinces.

Eighteen percent of investment comes from Taiwan, 10% each from Japan, Hong Kong and Singapore, and 8% from South Korea. These five Asian countries share more than half of the FDI projects.

In 1995, 394 projects (excluding Oil and Gas) were licensed for US$ 6.6 billion, which is 62% more than in 1994. This impressive increase is mainly due to the growth in the manufacturing sector. Implemented capital increased 33% and reached US$ 2 billion.

(2) Decreasing Implementation Rate

In contrast to the rapid increase in licensed capital, implementation or actual investment is not growing as fast as license approval. The growth rate of implemented capital declined to 33% in 1995 from 40% in 1994. As a result, the accumulated implementation rate declined to 39%. Here are some factors that may have caused this decline of the implementation rate. The weight of manufacturing projects, which require several years to implement, is increasing.

Foreign investors face many difficulties such as complicated procedures with many authorities or time consuming land acquisition.

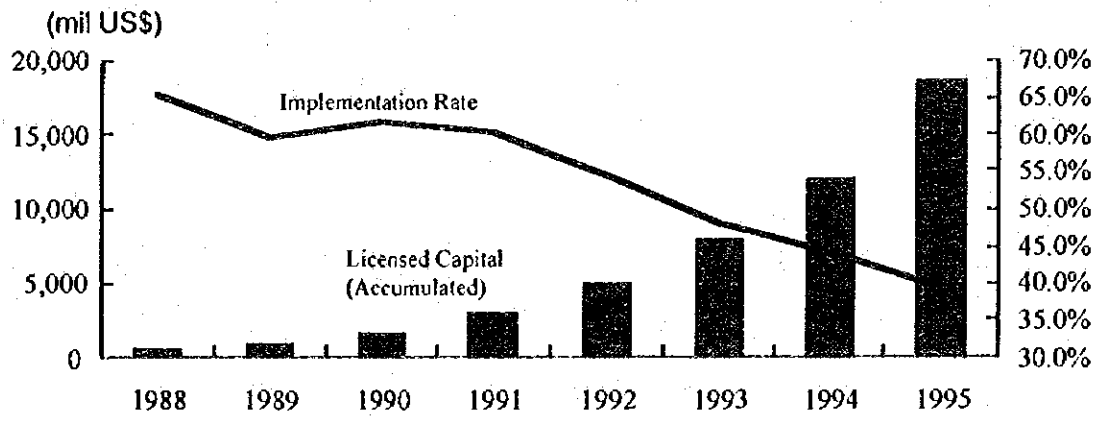
TableIII-30: Licensed and Implemented Capital of FDI Projects

(Million US$)

	a	b			c			d=c/b
Year	# of Projects	Licensed Capital			Implemented Capital			Implementation Rate
	Yr.	Yr.	Growth	Acm	Yr.	Growth	Acm	Acm
1988	37	366		366	240		240	65.6%
1989	70	539	47.3%	905	298	24.2%	538	59.4%
1990	111	596	10.6%	1,501	384	28.9%	922	61.4%
1991	155	1,388	132.9%	2,889	823	114.3%	1,745	60.4%
1992	193	2,117	52.5%	5,006	982	19.3%	2,727	54.5%
1993	272	2,887	36.4%	7,893	1,065	8.5%	3,792	48.0%
1994	362	4,071	41.0%	11,964	1,500	40.8%	5,292	44.2%
1995	394	6,600	62.1%	18,564	2,000	33.3%	7,292	39.3%

Note: Excluding Oil and Gas
Source: MPI

Figure III-36: Accumulated Licensed Capital and Implementation Rate



Source: MPI

(3) Flow of FDI -- from Foreign Investor's View Point --

Before starting business operations in Viet Nam, foreign investors must go through many procedures, formalities, and negotiations with many concerned agencies. A standard procedure has not been established and foreign investors have to cope with situations case by case. In order to analyze this "many door" environment of FDI, we divided the flow of investment activity into three stages from the foreign investor's view point.

First stage: Getting investment license

Second stage: Construction of plant

Third stage: Business operation

Based on this three stage flow, we interviewed 19 enterprises (including nine in the Ho Chi Minh area, five in the Hanoi area, and five in the Hai Phong area) which have already been approved investment licenses. These interviews were conducted by the MPI. Japanese consultants did supplementary research to analyze the interviews from a foreign investor's view point. The typical flow path for foreign investment is shown in Figure III-36.

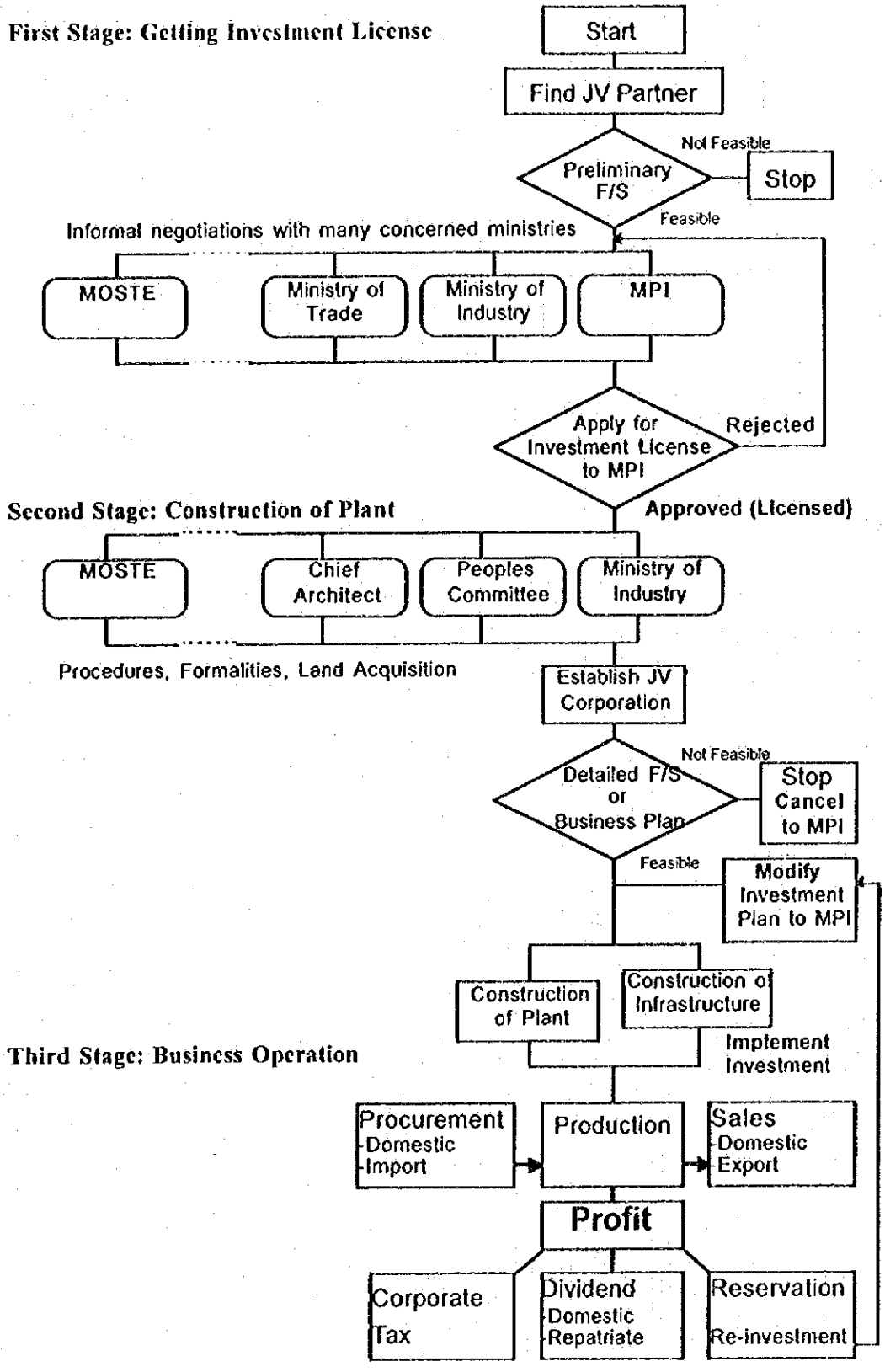
First stage: Getting investment license

In the first stage, the foreign investor starts looking for a Joint Venture (JV) partner. A preliminary feasibility study is conducted jointly with the JV partner. Before submitting the investment application to the MPI, informal discussions are held with many concerned ministries to confirm Vietnamese government policy. MPI is now trying to shorten the period between receiving the application and approving the license. "Licensed Capital" in Vietnamese FDI statistics is on this base.

Second stage: Construction of plant

After getting the investment license, foreign investors have to pass many procedures and formalities before setting up their corporation. These are to get permits such as the construction license, the land use permit, and licenses for water supply, power supply, the communication network as well as permit for loans. Once the JV corporation has been established, its first task is to conduct a detailed feasibility study. If the JV corporation is located outside the Industrial Zone (IZ) or the Export Processing Zone (EPZ), its has to acquire land (by paying compensation for resident's forced removal) and construct infrastructure not only within the corporate property but also outside, as the infrastructure provided by the government does not reach the corporation's fence. When the corporation starts construction of plant or facilities, it has to report to the MPI "Implemented Capital," which includes the Vietnamese partner's contribution.

Figure III-37 Flow of FDI



Third stage: Business operation

After the actual business operation starts, the corporation has to cope with many regulations and formalities. It takes time and effort to apply for import licenses for production input materials from the Ministry of Commerce or to get a production quota from the Ministry of Industry. Accessibility to financial sources such as domestic banks is limited.

(4) Factors which hinder Foreign Direct Investment

The results of the 19 interviews are tabulated in Table III-31. Factors which hinder Foreign Direct Investment and the investor's reaction are categorized in the following manner.

Factors

☺ Investor has to go through procedure, however it is smooth and does not take time.

😐 The procedure is complicated and has to knock on "many doors."

☹ The procedure or regulation is harmful for the profitability of business.

Investor's reaction

- Investor perceives that the business environment is favorable and wants to expand investment.
- Investor perceives that the business environment is unfavorable and wants to shrink investment or delay the implementation of an approved project.
- Investor perceives that business is not feasible in the current Vietnamese business environment.

In this interview, the number of samples is limited and this table does not necessarily represent the current business environment in Viet Nam for foreign investor. Samples are extracted from the second or the third stage, and two important points should be noticed in analyzing the results of this interview. First, foreign investors who conducted preliminary feasibility studies and decided not to invest are excluded. Second, interviews are conducted by a person of the MPI and the interviewee may not give true information. So, Japanese consultants did supplementary research to analyze the interviews from a foreign investor's view point.

Foreign investment law was promulgated in December 1987, and Viet Nam started FDI in 1988. For a large manufacturing project, it usually takes three or four years to start business. Most large manufacturing projects are in the second stage, so recent discussion on hindering factors for FDI is concentrated on the first or second stage. However, this interview reveals that the real bottle neck is in the third stage: the business environment itself.

Table III-31 Hindering Factors from Foreign Investors View Point

	1	2	3	4	5	6	7	8	9	10
General										
Area	Hanoi	Hanoi	Hanoi	Hanoi	Hanoi	Hai Phong	Hai Phong	Hai Phong	Hai Phong	Hai Phong
Type of Business	Automobile Assembly	Electronic Parts	Automobile Assembly	Electronic Fans	Electronic Parts	Hotel Casino	Import & Sales LPG	Industrial Estate	Shopping Center Hotel	Steel Rolling Mill
Capital (Million US$)	33	178	33 -- 55	3.5	8.7	25		120-100	9.7	56
Licensed Capital										
Implemented Capital										
Viet Nam / Foreign Capital	35 / 65	30 / 70	30 / 70	0 / 100	35 / 65	20 / 80	30 / 70	30 / 70		50 / 50
# of Employees	150		750	260	475	500	50			220
Interviewee	VN side	VN side	VN side	VN side	VN side	VN side	Foreign side	Foreign side	VN side	Foreign side
First Stage										
Searching JV Partner	⊖ 9 t									⊖ Jan 92
Informal Negotiation		⊖12 mn+	⊖ 2 mn+				⊖ 5 mn			⊖
Application for Inv. License	⊖ 24 mn	⊖ 1 mn	⊖ 4 mn	⊖12 mn+	⊖ 6mn	⊖ 6mn	⊖ 3 mn		⊖ 8mn	⊖ 3mn
Inv. License Approved	Dec-93	Jan-93	Apr-91	Jun-90	Jul-94	Aug-92	Nov-94	Dec-94	Aug-91	Jan-94
Total first stage	24 mn +	13 mn +	6 mn +	12 mn +			8 mn+		12 mn +	24 mn
Second Stage										
Getting Land Use Permit	⊖	⊖	No need to construct new plant		No need to construct new plant			⊖	⊖	⊖
Land Acquisition	⊖ 15 mn	⊖ 9 mn						⊖	⊖ 12 mn	⊖
Procedures & Formalities	⊖	⊖				⊖	⊖	⊖	⊖	⊖
Infrastructure Arrangement	⊖ RPW	⊖ RPW			⊖	⊖ Unattractive	⊖ RPW	⊖ RPW	⊖ R	⊖ RPW
Construction of Plant		20 mn								Sep-95
Start Production (Operation)	Middle of 96	Jul-95				Feb-96	Dec-95		Dec-95	
Total Second Stage	30 mn+	30 mn				30 mn+	13 mn +		30 mn	
Total First & Second Stage	54 mn+	42 mn +							42 mn	
Third Stage										
Procurement	⊖ Imp Tax	⊖ TO Tax	⊖ TO Tax		⊖ Imp Tax	⊖ Imp Tax		⊖ Imp Tax		⊖ Imp Tax
Production	⊖ Quota	⊖ Power	⊖ Quota							
Sales	⊖ Small Mkt	⊖ TO Tax	⊖ SO Dealer Forex	⊖ Dom Comp	⊖ Dom Comp Forex	⊖ Regulation		⊖ Exp Tax	⊖ Small Market Forex	⊖ M of Trade Forex, Borrowing
Finance										
Biggest Problem	No IP for Automobile, Poor Infrastructure	Poor Infrastructure	No IP for Automobile	+ 10 yr. inv. tenure is too short	Small Domestic Market	Entertainment regulation		VN govt should learn int'l competition	Almost fc, + Market is too small	

Legend : Factors
- ⊕ Smooth, Quick
- ⊖ Complicated, Takes Time
- ⊖ Harmful for Profitability

Investor's Reaction
- + Expand Investment Plan
- - Shrink Investment Plan
- fc Give up Investment

Abbreviation
- RPW : Road, Power, Water
- TO Tax : Turn-over Tax
- IP : Industrial Policy
- SO : State-owned
- Forex : Foreign Exchange
- Comp : Competition

Hindering Factors from Foreign Investors View Point

	11	12	13	14	15	16	17	18	19
General									
Area	HCM area	HCM area	HCM area	HCM area	HCM area	HCM area	HCM area	HCM area	HCM area
Type of Business	Electronic Parts	Electronic Parts	Pesticide	Plastics	Steel for Construction	Sports Shoes	Printed Circuit Board Assembly	PVC compound	Instant Coffee Mfg & Dst
Capital (Million US$)	1.6		8.1	90	7				
Licensed Capital					7	30	78		24
Implemented Capital					5.7	23	3	3.6	0.3
Viet Nam / Foreign Capital	50 / 50		30 / 70						0 / 100
# of Employees	72		50		40	4,900	28	58	15
Interviewee	Foreign side	Foreign side	VN side	VN side	Foreign side	Foreign side	Foreign side	Foreign side	VN side
First Stage									
Searching JV Partner	☺	☺ HEPZA							☺
Informal Negotiation	☺ DNIZAC	☺ HEPZA			☺ DNIZAC	☺ DNIZAC	☺ DNIZAC	☺ DNIZAC	☺ DNIZAC
Application for Inv. License	☺ 2mn	☺ 1mn	☺ 1mn	☹ 8mn	☺ 2mn	☺ 3mn	☺ 1mn	☺ 1mn	☺ 1mn
Inv. License Approved	Sep-94	Sep-94		Jun-95	May-93	Apr-94	Sep-95	Aug-95	Mar-95
Total first stage									
Second Stage									
Getting Land Use Permit	☹ DNIZAC	☹ HEPZA		☹	☹ DNIZAC	☹ DNIZAC	☹ DNIZAC		
Land Acquisition		☹ HEPZA	☹ Expensive	☹ DNIZAC	☹ DNIZAC	☹ DNIZAC	☹ DNIZAC		
Procedures & Formalities	☹ DNIZAC	☹ HEPZA	☹	☹	☹ DNIZAC	☹ DNIZAC	☹ DNIZAC		☹ M of Trade
Infrastructure Arrangement		☹ HEPZA					☹ Sea/airport		
Construction of Plant							☹ No Used Eqp		
Start Production (Operation)									
Total Second Stage									
Total First & Second Stage									
Third Stage									
Procurement		☹ HEPZA	☹ Imp Tax					☹ Imp Tax	☹ Imp Tax
Production					☹		☹ Prd Req		
Sales	☹ Small Mkt	☹ HEPZA		☹ 30% Exp Req	☹ M of Trade			☹ Exp Tax	☹ Trade Mark
Finance				Forex					Forex
Biggest Problem				Export duty	Arbitrary change of law and regulations	Arbitrary change of law and regulations	Arbitrary change of law and regulations	Irrational Imp-Exp tax rate and procedures	Arbitrary change of law and regulations

Legend : Factors

☺ Smooth, Quick

☹ Complicated, Takes Time

☹ Harmful for Profitability

Investor's Reaction

Expand Investment Plan

Shrink Investment Plan

Give up Investment

Abbreviation

Eqp : Equipment

Prd Req : Production Requirement

First stage: Getting investment license

In the first stage, the foreign investor has to look for a Joint Venture (JV) partner, because land use permits are hard to get for 100% FDI projects unless they are located in the industrial zone (IZ) or the export processing zone (EPZ). Before submitting the investment application to the MPI, informal discussions are held with many concerned ministries to confirm the Vietnamese government policy. If the investment project is new or big for the Vietnamese government, it takes time for this informal negotiation. There are some cases where the foreign investor was forced to modify the investment plan through informal negotiations, because the plan could have undermined the business of an existing State Owned Enterprise (SOE).

After receiving the investment application, the MPI formally starts discussion with other concerned ministries and after they come to an agreement, the investment license is approved. The Vietnamese government is now trying to shorten the period between receiving the application and approving the license by creating a "one stop service agency" or by setting a time limit for approval. These kinds of measures are effective in simplifying procedure. However, protective policy for SOEs may discourage foreign investors from investing in big manufacturing projects.

Second stage: Construction of plant

After getting an investment license, foreign investors have to pass through many procedures and formalities to set up their corporations. Most of them complain that they have to knock on "many doors" to get the permits such as construction licenses, land use permits, and licenses for water supply, a power supply, communication network as well as permits for loans. This situation is created because many concerned agencies' staff do not have good understanding of investment law, and they do not have enough management experience, while the Vietnamese government has not issued clear orientations on foreign direct investment in Viet Nam.

If the JV corporation is located outside an IZ or EPZ, its has to acquire land (by paying compensation for the resident's forced removal). Infrastructure must be constructed not only within the corporation's property but also outside, as the infrastructure provided by the government does not reach the corporation's fence. The above mentioned factors in this stage cause the delay of construction schedules, and the increase in construction costs as they fluctuate with building material and land prices.

In the southern part of the country, the HEPZA (Ho Chi Minh city Export Processing Zone Authority) and the DNIZAC (Dong Nai Industrial Zones Administration Committee) serve as reliable consultants for foreign investors wanting to rid themselves of complex formalities.

Third stage: Business operation

Most big manufacturing projects are in the second stage, so recent discussion on hindering factors for FDI has been concentrated on the first or second stage. The issues in the first and second stage are mainly problems of procedure. However, the real impediment is in the third stage. Many foreign investors perceive that the current business environment in Viet Nam is unattractive.

After actual business operations start, the corporation has to cope with many regulations and formalities. It takes time and effort to apply for import licenses for production from the Ministry of Commerce and concerned ministries input materials. Moreover, foreign exchange and unreasonable import-export tax policy have also created more obstacles for foreign affiliated companies. As a result, this could lead to an increase in the price of products and reduce their competitiveness. Among interviewed companies, some claim that the import-export tax policy can not protect the industries which produce replacements for imports. On the contrary, the policy even encourages import activities. Many companies claim that they are producing products to replace imports, but they have no tax policy privileges.

Even though the growth rate is very high, the domestic market is relatively small for foreign investors who operate globally. In some manufacturing concerns such as the automobile or electronics industries, investors have to face difficulties in getting quotas for importing materials for production. Domestic accessibility to financial sources are limited.

A foreign investor in Viet Nam is surrounded by many concerned ministries and has to cope with many procedures. Each ministry deals with both informal discussion and application from foreign investors, basically case by case. A yardstick of one ministry sometimes contradicts the measure of another. As a result, foreign investors perceive that there is no one consistent policy for FDI. The Vietnamese government should work out a clear strategy for industrial development., One that the MPI can utilize when it grants licenses to investors, without having to wait for agreement of other ministries.

The current Vietnamese government's way of handling FDI projects is not transparent ,and allows arbitrary measures. This kind of approach to FDI is efficient for regulating investment activity in Viet Nam, however, foreign investors may perceive that Viet Nam is not so attractive as other Asian countries. The Vietnamese government should provide a stable legal and accounting environment for FDI activities in Viet Nam.

Chapter 4 Bottleneck to Development of Small and Medium Enterprises and Rural Industries

4-1 Industrial Policy in East Asia and Review of Small and Medium Enterprises and Rural Industry

(1) Taiwan

The development process of Taiwan's economy is said to be a role model for Asian NIEs because of the fairly equal distribution of wealth (shown by the income level per capita), balanced development between urban and rural areas and rise of the middle class through the growth of small businesses. Its macroeconomic performance has far exceeded that of South Korea because of the absence of either an accumulated foreign debt or inflation. Since 1960, the growth of Taiwan's export industries has mainly been supported by many comparatively small businesses. The process of industrialization has been the pursuit of maximum employment rather than seeking economy of scale of maximization of profits through integration.

In 1981, small private businesses in Taiwan accounted for 99% of all manufacturing businesses in terms of numerical strength, 62% in terms of employment and 41% in terms of the added value amount. The average number of employees per small business was 24. Already in the late 1960s through early 1970s, these small businesses were selecting those business activities which they could easily commence by importing standard technologies which had reached the stage of maturity, and standard machinery and equipment from advanced countries which they could combine with inexpensive labor to create new export industries. The end result was the emergence of labor-intensive industries producing miscellaneous goods although the local production practice was predominantly subcontracted work for importers, particularly leading retailers of advanced countries (mainly Japan and the US). The surge of these miscellaneous industries in Taiwan led to the apt description of Taiwan as one of the world's key factories for miscellaneous goods.

While there are many factors behind the development of these small private businesses, they can basically be classified into endogenous factors, exogenous factors and policy factors. The roots of the endogenous factors are in the development of the commodity economy and three subfactors can be pointed out.

1) Historical and social accumulation

For the last 100 years or so, Taiwan has enjoyed a fairly high standard of agriculture and sustainable export growth of processed agricultural products. It is also true to say that a certain degree of the development of modern industries (relating to rice, sugar and camphor) was achieved under the Japanese colonial rule before the Second World War. The historical capital accumulation based on such industrial development, albeit limited, constitutes a viable endogenous factor for the development of local small businesses.

2) Existence of the development basis for the domestic market as well as for industries in general, including commerce and finance.

The development of agriculture over a long period of time has played a positive role in the supply of industrial raw materials, development of commerce and expansion of the domestic market size. The manufacturing industry has developed through linkage effects between the different industries.

3) Existence of capable manpower

The firmly rooted tradition of emphasizing education and educational careers has produced a modern workforce. Interacting this with the historic and social development of the commodity economy has made it easy for entrepreneurs to emerge in large numbers.

Secondly, the root cause of the exogenous factors, which illustrate the international economic environment, is the expansion of the international division of labor on a global scale. The post-war world economy entered a period of expansion in the 1960s. Multinationals moved into some developing countries and incorporated those countries' local economies in their global business strategies. At the same time, the promotion of free trade began to open up the markets of advanced countries for those developing countries. Under the strong impact of this new global economy, Taiwan allowed itself to ride the current to materialize the opportunity for economic development.

Although the exogenous factors are not unique to Taiwan, Taiwan successfully used the global current to achieve economic development with the support of the above-mentioned endogenous factors as well as the policy factors described next.

There are two important policy factors which explain the economic development of Taiwan.

1) The concrete economic and industrial policies introduced at each stage of economic development have generally proved appropriate and effective.

2) Taiwan's economic growth has been led by the supreme politico-economic system described as developmental dictatorship or development-oriented authoritarianism. The priority distribution of resources to certain areas through political intervention in the economic mechanism has resulted in some positive developmental effects.

In short, the economic and industrial policies in Taiwan have been mixed with protection and laissez-faire, facilitating the rapid growth of private businesses (mainly small businesses).

Meanwhile, the development process of Taiwan's economy still has some unsolved issues, the most significant of which is the problem of agriculture. The foundations of Taiwan's agriculture, which greatly contributed to industrialization by means of preserving a low rice price and low wages, were greatly shaken in the second half of the 1960s. Local agriculture faced a period of transition from the late 1960s to the early 1970s as it showed conspicuous signs of stagnation due to exhaustion caused by its support of rapid industrialization. The central government acknowledged the impoverished state of agriculture and has introduced a series of support measures since the late 1960s. The main goal of these measures is the modernization of agriculture by expanding farm management size and mechanization. When discussing Taiwan's economy today, it must be noted that this target has not yet been completely achieved.

(2) South Korea

South Korea's industrial development process, which resulted in economic development up to the late 1960s, was predominantly supported by the huge input of money and technologies by Japan and the US. For example, the Ulsan Petrochemical Complex which supplied basic industrial materials was constructed with US technologies while the Pohang Steel Works was constructed with Japanese technologies. The overwhelming influence of Japan and the US is also evident in the electronic and automobile industries, both of which grew to be strong export industries.

The 1960s was also a period in which the basic framework for the South Korean industrial policy was established. Although an export promotion policy was one of the basic policies of the first National Plan formulated by the Pak administration, its prominence was proclaimed in the second National Plan which stressed export-oriented industrialization.

The land value-based bonds issued as part of the agrarian reform in the midst of the Korean War facilitated the industrial capitalization process of former landowners. Export-oriented industrialization was launched in the form of assembly-type labor-intensive industries where South Korea had a comparative advantage due to its relatively cheap labor. The special feature of the South Korean economic development at that time, however, was the simultaneous promotion of the development of heavy and chemical industries, underlining the so-called dual-track industrialization policy. During this historical process of development, the adoption of a foreign currency quota system based on export performance further facilitated industrialization, resulting in high growth of the South Korean economy. Meanwhile, a monopolistic or oligopolistic economy system was established and the trend towards monopolies or oligopolies progressed with the passing of time.

The initial policy emphasis on export-oriented industrialization (from the late 1950s to the end of the 1960s) encouraged exports. What mattered for South Korean businesses was the total export value of their products as the provision of a low-interest loan by the central government depended on the value of their exports. Such an arrangement compelled South Korean businesses to keenly adopt the most efficient management practices, to increase their production scale and to strengthen the international competitiveness of their products in order to increase the export sale level. The most rational way of increasing the export value was through the import of high-performance capital goods and high-quality parts to be combined with the relatively cheap and high-quality local labor, an advantage of the South Korean economy at that time. As a result of this import drive, the import of capital goods and intermediate products became part of the structural arrangement of the South Korean economy, leading to a chronic trade deficit, particularly a structural trade deficit with Japan.

The dependence on the foreign supply of capital goods and intermediate products hindered the sound growth of local small businesses which formed the backbone of the domestic economy. The absence of small businesses, in turn, intensified the dependence of domestic businesses on foreign suppliers. The only way for local businesses to reduce the dependence on foreign suppliers was to produce the necessary goods either in-house or within a group of companies. This choice inevitably strengthened the monopolistic or oligopolistic feature of South Korean industries.

Even at the next stage of industrialization which commenced in the late 1960s, small

businesses commanded relatively low status compared to large businesses in the manufacturing sector. The industrial census in 1983 showed that small businesses accounted for 98.7% of all manufacturing businesses in terms of number but only 51% and 30.6% in terms of the number of employees and produced added value respectively.

These figures clearly indicate the predominance of large businesses in South Korean industrial activities and illustrate South Korea's different development pattern to that of Japan and Taiwan.

The negative side of South Korea's industrialization process was first recognized in the 1980s and the Chunn administration decided on the fostering of small businesses as a key ingredient of the development strategy design to set a new process of economic growth in motion in South Korea. The concrete measures pursued were (i) the localization of the hitherto imported, huge quantity of parts which was the main cause of the chronic trade deficit with Japan, (ii) the development of the middle class to reduce the income gap which had prevented the stabilization of society and (iii) industrialization in rural areas to increase employment opportunities in rural areas. At the heart of these three components of the new industrial policy lay the promotion of small businesses as the trump card to improve the socioeconomic structure of South Korea.

(3) ASEAN

ASEAN countries are attempting to develop domestic businesses by means of encouraging inward investment with a view to the further expansion of exports. One noticeable difference of their developmental attempts from those of NIEs is the policy emphasis on the utilization of domestically available material resources; an approach which is difficult for NIEs to emulate because of the lack of such domestic resources.

One example of these attempts is seen in Thailand, the industrialization emphasis of which is placed on processing industries to improve the added value of domestic agricultural products. In short, Thailand is attempting to become a NAIC (newly agro-industrialising country). The development of labor-intensive industries for agricultural products increases the employment absorption capacity of a country and leads to both the expansion and diversification of agricultural production. For a developing country where agriculture occupies a central position in the industrial structure, this type of industrial policy should prove effective.

In advanced countries like Japan and NIEs, an income increase has been accompanied by lifestyle diversification and a subsequent increase of the demand for processed agricultural products. Because of the rise of the domestic wage level, these countries have become increasingly dependent on the overseas production or supply of such products, opening a window of opportunity for developing countries to meet the demand.

Although ASEAN countries have been pursuing export-oriented industrialization, successful industries vindicate the selection of subject industries for development based on the domestically available resources. Plywood, aluminum and rattan furniture in Indonesia, and food processing centering on fruit and coconut oil refining in the Philippines are exemplary cases in point.

The development examples shown by ASEAN countries, which are now placing

emphasis on export-oriented industrialization, actually underline the importance of focusing development efforts on the fostering of industries and businesses to make the best use of an individual country's domestic resources. Such efforts have proven successful in overcoming the constraints on development. The stronger a country is marked by small economic size, rapid increase of productive power and severe competition between businesses at home and abroad, the faster a pattern of price changes of productive factors, followed by the substitution of such factors, industrial structure changes and productivity improvement emerges in the said country. NIEs are currently facing this situation.

ASEAN countries are endowed with richer productive factors than NIEs, but not as rich as China. If their rapid growth recorded in the late 1980s and 1990s continues, they will face a situation similar to that currently faced by NIEs. To ensure continual growth while avoiding this situation, it will be necessary to not only rely on foreign capital but also to ensure the development of local businesses and the establishment of endogenous technologies. The development of NIEs exactly follows the path described above.

In short, ASEAN countries have been experiencing rapid growth as the constraints on development have been overcome by a rapid increase of the inflow of foreign capital since the 1980s. Their policy task at present is to ensure the further growth of local businesses so that the departure of foreign capital does not mean regeneration of the constraints on development.

(4) China

The worsening of the Sino-Soviet relationship in the second half of the 1950s forced China to opt for the path of self-reliant development and the fostering of heavy industries to strengthen its military power. As the development of heavy industries demanded capital accumulation, there was only one path to take, i.e. squeezing of the agricultural sector.

One of the problems of the early industrialization in China was the lack of a system to supply the industrial sector with surplus labor from rural areas despite the absorption of capital from the agricultural sector. By enforcing strict family registration in both urban and rural areas, the Chinese government blocked the movement of farmers to urban areas. This restriction on labor movement, in fact, suppressed the development of urban industries. As a business in a socialist economy is required to provide a certain number of employment opportunities, ignoring the economic principle of determining the number of employees from the viewpoint of maximizing profits, it tends to employ surplus labor. The policy of promoting heavy industries under this situation intensified the forcible transfer of accumulated capital from the agricultural sector and the dependence on capital rather than labor.

Immobility of labor and increased dependence on capital means a decline of the productivity of capital. Needless to say, technological innovation can improve the productivity to solve the situation. The technical development capability of China at this stage of development was still weak and the closed economy meant limited scope for the import of foreign technologies. The concentration of investment in the industrial sector to increase its capital stock failed to arrest the trend of a gradual decline of productivity growth.

Labor movement restraint generally disturbs the efficient use of economic resources. To solve this problem, China adopted a unique method, i.e. the creation of village and town enterprises in rural villages and towns to establish modern industries separate from those in

urban areas to absorb the surplus labor. The predecessors of the village and town enterprises were commune- and brigade-run enterprises which were formed in the 1950s but which had failed to have a strong impact on the Chinese economy despite their survival through the years. Following major economic reform in 1978, they were given new life with significant consequences from the viewpoint of China's development strategy. In addition to the conventional dual structure of rural and urban areas, a new dual structure was born within rural areas, resulting in a new development mechanism based on the two-layered dual structure.

Economic reform in China historically began in the agricultural sector, followed by strengthening of the autonomy of the industrial sector. In the agricultural sector, peoples communes were dissolved and were replaced by private farming. This provided a big incentive for farmers and boosted food production from 300 million tons in 1978 to 400 million tons in 1984. This rapid growth enabled the agricultural sector to produce a new surplus which then contributed to not only improving the income of farmers but also to the establishment and expansion of village and town enterprises.

While this two-layered dual industrial development strategy in China provided the opportunity to change the conventional, right urban-rural dual structure, only the first half of this strategy has so far materialized. The second half objective of using the vitalization of the rural economy as leverage to remove the traditional constraint on labor movement between rural and urban areas and to put the ordinary development mechanism of a dual economy into action has not been fulfilled.

Presently unsolved problems have been identified following the development of village and town enterprises. Although the constraint on labor movement between rural and urban areas has been eroded in some areas without official sanction, it is still operating in most areas. The current problems also include the slow progress of the management rationalization and surplus labor of state enterprises in urban areas. In the case of some village and town enterprises, the slow down of the equipment modernization process has resulted in inefficient management.

An important issue for the Chinese economy in the future is the establishment of a comprehensive development mechanism as an industrial policy tool for all fields of the two-layered, dual-structured economy beyond the hitherto development framework largely confined to the dual structure in rural areas. Apart from efforts to eliminate the inefficiency of village and town enterprises, the further reform of village and town enterprises operating in urban areas will prove crucial in meeting this challenge of establishing a comprehensive development mechanism. Spread of this new mechanism will demand improvement in the division of labor between rural and urban industries. At present, the production system of state enterprises has not wiped out the tradition of self-sufficiency where each enterprise operates as a complete production unit, producing all tools, parts and intermediate products, etc. inhouse. Conversion to a more rationalized management system should be encouraged as part of the overall industrial reform. For example, a subcontracting agreement with a village or town enterprise will provide a new approach to bridging the gap between rural and urban industries. The improvement in the division of labor will enable the reciprocal arrangement of sharing or exchanging productive factors. The development of capital and technical cooperation will gradually achieve the freedom of labor movement.

One thing which will help to facilitate the above process is strengthening of the economic

information network encompassing rural and urban areas. There are many measures to assist this process, including (i) the establishment of a neutral, public institution capable of analyzing data on individual state enterprises as well as village and town enterprises to find feasible areas for cooperation and to provide assistance and guidance for these enterprises, (ii) the establishment of a system designed to provide managerial guidance and financial assistance for small businesses, (iii) the establishment of job centers in cities and villages and (iv) further consolidation of the socioeconomic infrastructure in not only cities but also in emerging quasi-cities in rural areas.

4-2 Small and Medium Enterprises in Process of Japanese Economic Development

Following defeat in the Second World War in 1945, Japan made conscious efforts to develop its economy in order to achieve post-war rehabilitation and a self-reliant economy and, towards the end of the 1950's, it restored a market economy. The introduction of the General Planning Principles for Trade and Foreign Exchange Liberalization in 1960 marked the beginning of a shift towards an open market economy and the National Income Doubling Program announced in the same year underlined the strong commitment to high economic growth. The basic components of the external industrial policy adopted to achieve such high growth were trade liberalization (increase of the liberalization ratio from 41% in 1960 to 93% in 1964 and abolition of the foreign currency allocation system for import purposes), tariff reduction (reduction of the gross tariff rate from 7.1% in 1968 to 2.7% in 1974) and capital liberalization, all of which were designed to bring about a gradual shift towards an open market economy. Internally, emphasis was placed on heavy and chemical industries as these were believed to be capable of achieving faster economic growth in the face of severe international competition. To be more precise, economy of scale was sought in heavy and chemical industries through government intervention in terms of adjustment of the investment in plant and equipment while industrial circles actively attempted to achieve industrial reorganization by means of merger or cooperation, etc. At that time, there was an understanding that assistance for the modernization of small and medium size businesses was essential to strengthen their international competitiveness and, therefore, wide-ranging measures to promote small and medium size businesses were introduced, including measures designed to improve the operational efficiency through the joint operation and grouping of factories, preferential financing and taxation measures, business guidance and diagnosis and manpower development. The prosperity of Japanese small and medium size businesses today and their great contribution to Japan's industrial activities through the provision of a reliable basis would not have been possible without these measures.

(1) Status of Small and Medium Enterprises

The current status of Japanese small and medium size businesses is shown below in terms of the number of businesses, number of employees, output value and added value.

Table III-32 Number of Businesses and Employees of SMEs in Japan

	Small and medium Size Businesses		Large Businesses		Total	
Number of Businesses	816,881	(99.4)	4,549	(0.5)	821,430	(100)
Number of Employees	8,878,531	(66.7)	4,429,548	(33.3)	13,308,079	(100)

Notes

1. Manufacturing businesses only.
2. Figures in brackets are percentages.

Source: Management and Coordination Agency

Table III-33 Share of SMEs in Japan

Item	Share of Small and medium Size Businesses		
	1987	1990	1993
Output Value	52.6%	51.8%	51.7%
Added Value	48.7%	47.4%	51.6%

Note: In the Japanese manufacturing sector, a small and medium size business is defined as an enterprise with less than 300 employees.

Source: MITI

As the above tables clearly show, Japanese small and medium size businesses still play an important role in the Japanese economy and it can be duly said that the existence of vast number of supporting businesses maintains the presence of high flying Japanese large businesses in the global economy and that Japanese small and medium size businesses raise the level of added value attached to Japanese industries as a whole.

(2) Characteristics of Japanese Small and Medium Enterprises

In addition to constituting the very basis for Japanese industries, Japanese small and medium size businesses are characterized by the advanced state of the subcontracting relationship or affiliation with large businesses as the table in the next page shows.

Table III-34 SMEs Operating as Subcontractors in Japan

	Number of Small and medium Size Businesses (A)	Number of Small and medium Size Businesses Operating as Subcontractors (B)	(B)/(A)
Manufacturing Industry	816,881	456,636	55.9%
Electrical Equipment Industry	36,326	28,321	78.0%
Transport Machinery Industry	18,923	15,426	81.5%

Source: Management and Coordination Agency

In the case of such assembly industries as the electrical equipment industry and transport machinery industry, the prevailing structure is that domestic small subcontractors produce almost all parts/components and half-finished products while large manufacturers assemble the final products. In other words, the strong presence of small and medium size businesses has created an industrial structure where the production value of final goods roughly corresponds to the added value of the industry in question. This picture in Japan provides a sharp contrast to that of NIEs where the production of final goods has been rapidly been increasing to almost catch up with Japan, particularly in Korea where the automobile industry and electrical equipment industry, etc. must rely on the overseas supply of parts/components, half-finished products and capital goods, etc. due to the weakness of domestic supporting industries comprised of small and medium size businesses.

Given signs of the emergence of the electrical equipment industry and transport machinery industry in Viet Nam, the fostering of supporting industries, mainly comprised of small and medium size businesses, will become an important policy issue.

(3) Development State of Small and Medium Enterprises in Automobile Parts Industry

1) Small and medium enterprises producing automobile (and motorbike) parts in Japan have been achieving phenomenal growth following the rapid increase of both the domestic and overseas demand for Japanese automobiles (and motorbikes). The gross production value of the parts industry multiplied 11.9 times from 360 billion yen in fiscal 1964 to 4.3 trillion yen in fiscal 1990. Accordingly, the number of business facilities producing automobiles and its parts which employ 100 or more workers increased from 694 to 1,076 in the 20 year period from 1970 to 1990, underlining the trend of small and medium size businesses growing to become the mainstay of Japan's industrial activities.

2) The automobile parts industry in Japan can be characterized by the following 4 points.

A. Multi-Layered Production Structure

The automobile parts industry in fact consists of primary parts manufacturers who have a direct trade relationship with automobile manufacturers (large businesses) and their sub-contractors as well as sub-subcontractors or even sub-sub-subcontractors. In short, every large automobile manufacturer is supported by a chain of a huge number of subcontractors.

B. Business Affiliation

All small and medium size businesses are integrated into a line of business affiliation to one automobile manufacturer or another as subcontractors, ranging from primary subcontractors to those at the bottom of the subcontracting chain.

C. Strong Dependence of Automobile Manufacturers on Parts Manufacturers

In the US, the ratio of externally supplied parts/components is approximately 50% with bodies and engines, etc. comprising the major items while the corresponding ratio in Japan is 70 - 75%.

D. Most parts manufacturers are rather small and specialize in certain parts/components.

3) Three Underlying Factors of Development

A. Increased demand at home and overseas (global motorisation) → establishment of mass production system by the parts industry (cost-down) → improved parts quality (technological innovation) → improved competitiveness → sales increase of automobiles (export growth)

B. Government policy to encourage the growth of parts manufacturers (small and medium size businesses), facilitating technology import from more advanced countries

C. Conscious efforts of automobile manufacturers (large parent companies) to develop their affiliated parts manufacturers: active assistance in terms of technology, finance and manpower has been provided by automobile manufacturers for their affiliated parts manufacturers because of the vital importance of high quality parts and cost-down to survive the severe competition.

(4) Measures Designed to Foster Small and Medium Enterprises in Japan

In 1963, the Japanese government enacted the Small and Medium Enterprises Basic Law as the center of the government drive to foster small and medium size businesses in Japan on the grounds that the modernization of such businesses was essential to strengthen the international competitiveness of the Japanese economy which had adopted an open market economy regime in 1960 as described earlier.

Pursuant to the purport of the said Law, a new policy implementation agency (Small and Medium Enterprises Agency) was established to actively implement a series of various measures designed to foster small and medium size businesses (relating to financing, preferential taxation, manpower development, technical guidance and export promotion, etc.) in cooperation with the regional bureaus of the MITI as well as local governing bodies.

1) Underlying Principles of Small and Medium Enterprises Policies

The following purport is described in the preamble of the Small and Medium Enterprises Basic Law. "Small and medium enterprises in Japan have played an important role in the growth of the national economy in all areas and have contributed to the stability of national life. The growth of small and medium enterprises is essential to achieve balanced growth of the national economy through upgrading of the industrial structure and improvement of the international competitiveness of industries in the future."

The grounds for enactment of the Small and Medium Enterprises Basic Law is indicated here and the doctrine of small and medium enterprises policies is clarified as follows. "To correct the incompleteness of small and medium enterprises due to economic and social obstacles in conformity with the growth of the national economy, to foster the self-help efforts of small and medium enterprises and to assist the growth of small and medium enterprises with improvement of the productivity and business conditions of small and medium enterprises with the objective of correcting the gap in productivity, etc. between enterprises and to contribute to improving the economic and social positions of the employees of small and medium enterprises." (Article 1)

The following two points are important here. Firstly, small and medium enterprises policies aim at supporting the self-help efforts of small and medium enterprises. Secondly, as expressed as "in coordination with the growth and development of the national economy", small and medium enterprise policies in themselves do not constitute a unique policy revolution but aim at "improving the economic and social positions of the employees of small and medium enterprises". In other words, in the implementation of small and medium enterprise policies, it is a condition that protective policies should not be readily introduced and that no inconsistencies occur between growth of the national economy and improvement of the national life.

2) Structure of Small and Medium Enterprise Policies

The following 8 items are indicated in Article 3 of the Small and Medium Enterprises Basic Law as government measures to achieve the targets of "improvement of productivity and business conditions" and "correction of disadvantages". (The emphasis on these items has, however, been changing in accordance with time.)

A Modernization of equipment

B Improvement of technologies

C Rationalization of management

D Upgrading of small and medium enterprises structure

E Correction of disadvantages vis-a-vis business activities

F Promotion of exports and demand for products of small and medium enterprises

G Ensuring of fair opportunities for business activities

H Proper relationship between labor and management, improvement of employee welfare and security of labor force

Article 23 stipulates measures for small enterprises in particular in view of the facts that small enterprises comprise the overwhelming majority of small and medium enterprises, that they have a weak business foundation and little benefit from measures regarding industrial structural changes (adaptive policy), such as modernization. The policy planning of more delicate measures is, therefore, required for small businesses.

3) Small and Medium Enterprises Policy Implementation Organizations

Article 24 and Article 25 of the Small and Medium Enterprises Basic Law refer to the financial and taxation systems, etc. involved in the concrete implementation of small and medium enterprise policies. This reflects the fact that the growth of small and medium enterprises was restricted at the time of the enactment of the Small and Medium Enterprises Basic Law due to weak fund raising capability and shortage of the capital required for management rationalization and also indicates that this issue is still a principal issue for small and medium enterprises.

Article 4 and Article 6 indicate the relationship between the government and local governing bodies while Article 27 indicates the significance of organizations for small and medium enterprises. Article 4 species that the implementation of measures for small and

medium enterprises by local governing bodies should correspond to government measures. In addition, Article 26 stipulates that the government and local governing bodies cooperate in the implementation of measures and consolidate their organizations. Article 27 advocates the implementation of the necessary measures to promote and consolidate those organizations which aim at improving the position of small and medium enterprises with their cooperation.

Many organizations implementing small and medium enterprises policies currently exist and the Small and Medium Enterprise Agency of the MITI plays a central role. In addition, regional bureaus of the MITI, the Small Business Corporation (a special corporation), financial organizations related to small and medium enterprises, local governing bodies, chambers of commerce and industry, boards of commerce and industry and foundations of the Small Business Association, etc. are operating based on the spirit of the Small and Medium Enterprises Basic Law.

What is most noteworthy is the role of local governing bodies. The scope of the business activities of small and medium enterprises is narrow compared to that of large enterprises and their activities are closely related to the regional economy. The implementation of unique measures by local governing bodies is, therefore, not rare. Such measures include the "System of Credit Guarantee for Small and Medium Enterprises" and the "Law Concerning the Promotion of Development of New Business Areas through Diffusion of the Knowledge of Small and Medium Enterprises in Different Industries", adopted as part of the small and medium enterprises policies of the government. It is believed that the role of local governing bodies will expand in the future as the significance of the progress of small and medium enterprises policies based on a regional viewpoint is currently increasing. This point will be further described later.

Article 28 through Article 31 stipulate the establishment of the Small and Medium Enterprises Policy-Making Council and its roles. The Small and Medium Enterprises Policy-Making Council is an advisory organization to promote small and medium enterprises policies and is composed of 20 people with the necessary experience and academic standing. Needless to say, the reports presented by the Small and Medium Enterprises Policy-Making Council have constituted the basis for small and medium enterprises policies at each stage of Japan's economic growth.

4-3 Current Conditions of Small and Medium Enterprises and Rural Industries in Viet Nam

(1) Small and Medium Enterprises

Many private small and medium enterprises(SMEs) in Viet Nam, traditionally important components of domestic material industries , were privatized between the second half of the 1980's and early 1990's. During the pre-unification period (1954 - 1974), these businesses operated under a different economic regime but their production activities were integrated into the centralized socialist economic regime after unification. In 1986, however, the official introduction of the Doi Moi policy put an end to the centralized economic management which was replaced by more open economic management based on such principles of a market

economy as independent decision-making by businesses and market competition, etc. It is apparent that the Doi Moi policy was intended to encourage production activities of all-sized enterprises in the non-public sector and was adopted because of government recognition of the important role to be played by private businesses in the process of the industrialization of the Vietnamese economy. This market-oriented economic management by the Vietnamese government has noticeably stimulated the growth of SMEs, particularly private businesses which are very sensitive to market requirements and which have been increasingly playing a leading role in not only the domestic market but also in the export market.

1) Definition of SMEs

At present, no exact definition of a SMEs appears to exist in Viet Nam. However, one MPI(Ministry of Planning and Investment) research paper defines a medium enterprise as a business with paid capital of 5 - 10 billion Vietnamese Dong(VND) and 501 - 1,000 employees and a small enterprise as a business with paid capital of up to 5 billion VND and up to 500 employees.

The Bank for Industry and Commerce of Viet Nam (VIETCOMBANK) adopted regulations to classify as SMEs, those enterprises who have their value of fixed capital under 10 billion VND, working capital under 8 billion VND, staff under 500 persons, and annual turnover under 20 billion VND.

The administration of Hochiminh City identifies medium enterprises on the basis of 3 criteria as follow: legal capital registered above 1 billion VND, labor force above 100 persons, and annual turnover above 10 billion VND; enterprises with 3 respective figures under the above levels belong to the category of small enterprises.

On the other hand, the specialists in economics and the policy makers and managers proposed strongly different criteria of identifying SMEs: within the range from 50 to 100 for staff, and from 300 million to under 1 billion VND for capital.

2) Overview of SMEs

Although official statistic data on SMEs is unavailable, the number of all-sized licensed enterprises in Viet Nam at the end of 1994 is 26,282 with the following types of ownership from the Statistical Yearbook 1994, published by the General Statistical Office(GSO).

State enterprises	:	6,042
Private enterprises	:	13,772
Others(Cooperatives)	:	6,468

These figures include large enterprises, but almost all of non-state enterprises seem to be included in the category of SMEs. Industry Department of GSO also laid out an estimation that the small enterprises in Viet Nam had accounted for 98%, while medium and large enterprises for 2%.(See statistical data of Viet Nam 1989-1993, Industry Department, GSO, Hanoi 1994). Therefore we would like to make a brief analysis on enterprises in Viet Nam in order to get some implication on SMEs in Viet Nam using these GSO's data.

The latest statistics published by the GSO in the 1994 Statistical Yearbook reveal that in general, the average capital of re-licensed enterprises accounts only for about 2.1 billion VND.

(see Table III-35) The respective figure for the processing industry is 2.06 billion VND. In 4 big cities Hanoi, Haiphong, Danang and Hochiminh City, this indicator is higher than the national average - 2.35 billion VND per enterprise, of which the highest figure is recorded in Hochiminh city - 2.7 billion VND per enterprise, the lowest figure in Haiphong - 1.4 billion VND per enterprise. If only the industrial enterprises are taken into consideration, and if they are examined by 4 criteria: labor force, turnover, total value of production and capital engaged for production - then their scale would appear even smaller (see Table III-35.).

For the whole industrial branch, the average staff accounts only for 5-6 persons per enterprise.(see Table III-36) Among them, by this criterion, the state-owned enterprises (SOEs) can be generally considered as medium-size (294 workers per enterprise), while non-public enterprises as small -size (below 50 workers per enterprise), of which cooperative - 36 workers; private enterprises -42.5; and individual household economic units in handicrafts and small industry - 3 persons per unit. The average staff of enterprises in 4 big cities is higher by about 1.5 - 2 times in comparison to the national average of whole industrial branch. Up to 27% of total labor (546,126 over 2,051,267) engaged in enterprises over the whole country, are concentrated in these big cities. If the criterion of "having staff under 100 persons" is used to identify small-size enterprises, then almost all non-public enterprise can be taken as small-size ones. This judgment also coincides with the sample survey results, obtained by the research group in 4 big cities.

As far as the turnover is concerned, generally for whole branch, the SOEs have also a clear advantage - 16,416 million VND per enterprise, in comparison to a figure of 209 million per cooperative; 1,332 million per private enterprise; and 28 million per unit engaged in handicrafts and small industry.(see Table III-36) Hochiminh City has the indicator of "turnover per enterprise" higher than the national average. Particularly, the average turnover of households engaged in handicrafts and small industry in Hochiminh City is by 5.5 times higher than the respective general average, by 13.2 times higher than that in Hanoi; 14.7 times - compared to Haiphong; and 9.7 times - to Danang. For Haiphong and Danang, this indicator is lower, accounting only for about 1/2 of the general average. Meanwhile, the private enterprises in Hanoi have their average turnover by nearly 2 times higher than the average.

Concerning the total value of production, the trend of SOE's advantage is also evidently recorded - 5,634 million VND per state-owned enterprise; 90 million VND per cooperative; 461 million per private enterprise; and 11.7 million per unit engaged in handicrafts and small industry. The above-given trend is also reflected through the indicator "total production value per enterprise" in 4 big cities, where up to 36.7% (i.e.6,650,323 over 18,116,895) of the total production value, generated by all industrial enterprises in the whole country, are concentrated, of which Hochiminh City alone assumes up to 27% (i.e. 4,953,757 over 18,116,895).

The evident excess by the SOEs in the above criteria can be justified through different reasons. The most important of such reasons, besides certain advantages resulting from the macro-economic state management policies in favor of the SOEs, applied in the recent period (e.g. They have a trained labor force, a convenient location for production and business deployment, etc.), should comprise the fact that the capital resources of SOEs are by much higher. The Table III-36 shows that, on average, the SOEs gave their available capital (9,042 million VND) by 98 times higher than that of cooperatives (92 million VND), by 13 times higher than that of private enterprises (713 million VND), and by 800 times higher compared to

that of individual households (11.3 mil. VND).

By regions, enterprises in Hochiminh City are better-off than those in other cities. More precisely, their respective figure is by 2.5 times higher than that of Haiphong, and by 11.5 times higher in comparison to that of Danang. It is noticeable that the capital resources of individual households engaged in handicrafts and small industry in Hochiminh City are the best(71.8 million VND per production unit), by 16.7 times higher than the respective figure of Hanoi, by 11 times higher than that of Haiphong, and by 12 times higher than that of Danang. In case of private enterprises, this indicator is comparable in 3 cities Hochiminh City, Hanoi and Haiphong (about 1.0-1.1 billion VND).

By production branch, the SMEs are mainly involved in the following domains: building materials; wood and forestry products processing; ceramics, porcelain and glass; food processing; leather. The Table III-37 presents the proportion of total production value, the non-public enterprises assume in the above-described production branches. It reveals that the small enterprises generate a great majority of production in food processing (i.e. 82%), wood and forestry products processing (77%), and then in the domain of ceramics, porcelain, glass and leather (53 - 55%).

3) Trends of Main Sectors

A. Textile and Sewing Sector

This sector has a long history and the Vietnamese government fostered this sector long before unification as an export industry, based mainly in Hanoi, aiming particularly at the Soviet, East German and Czechoslovakian markets. In the 12 year period from 1975, the year of unification, to 1987, the sewing sector in Viet Nam enjoyed a great boom during which 58 million products were made for both the domestic and overseas markets. With this sound background, the textile and sewing sector has made steady progress in its adaptation to a market economy and has ensured it success as a growing sector. Garments currently made in Viet Nam are exported to 46 countries, led by the EU, Japan, Taiwan, Korea and the US. The export value has rapidly increased, from 143 million dollars in 1991 to 180 million dollars in 1992, 360 million dollars in 1993 and 550 million dollars in 1994, with a staggering annual growth rate of more than 50%.

B. Food Processing Sector

The highest growing businesses in the food processing sector are beer and soft drink businesses. However, the production scale of these products does not fall into the category of small and medium enterprises. Those products of which quick production growth is expected are also beyond the reach of the production capability of SMEs. Likely products for SMEs this sector are those using farm products or marine products. To be more precise, cooking oil and processed dried fish or shellfish are the most promising products and their export volumes have been gradually increasing in recent years.

C. Chemical Products Sector

The products of SMEs in this sector are such household products as soap, detergent,

paint and rubber tires. The factories producing these items tend to use simple facilities operated in a labor-intensive manner. The demand for these products is certainly increasing. A growing number of businesses wish to establish joint ventures with foreign businesses to improve their technology and to achieve the overall modernization of their operation to meet the changing life-style in Viet Nam under foreign influence and the increasing export demand. Another promising area with an increasing demand is plastics although only injection molding is currently conducted by a small number of businesses.

(2) Rural Industries

State and other publicly-owned farms and cooperatives which once played a central role in agricultural production under the centrally planned economy in the past have been undergoing profound changes due to the reform policies under a market economy, including the enforcement of the new Land Act which designates individual farming households as basic production units and allows the individual ownership and management of farmland to a great extent.

To be more precise, the farming of state and other publicly-owned farms is now based on the principle of contracted production by farm workers, acknowledging the farming rights of individual works, and the main functions of farms are the collection and shipping of products, post-harvest aspects of agricultural production and farming guidance. Farms are run on a self-accounting basis and still play a key role in the distribution, processing and export/import of farm products.

In the case of cooperatives, while their transformation to more modern cooperatives is hoped for, many have either lost their function or remained as production control organizations to achieve production targets. Therefore, their modernization is regarded as a pending issue.

Table III-35 The Number of Enterprises, Licensed as of the End of 1994 in 4 Big Cities

	Number of enter-prises	Regis-tered capital (billion VND)	Capital / enterprise (billion VND)	Of which:					
				State-Owned Enterprises			Private Enterprises		
				No. of enter-prises	Regis-tered capital	Capital / enterprise (bil. VND)	No. of enter-prises	Regis-tered capital	Capital / enterprise (bil. VND)
1	2	3	4=3/2	5	6	7=6/5	8	9	10
Whole country	26282	56330.7	2.143319	6042	48713.3	8.062446	13772	2000.2	0.145237
HaNoi	2740	5478.2	1.999343	980	4543.6	4.636327	424	46.5	0.10967
HaiPhong	649	918.5	1.415254	244	1731.7	7.097131	139	25.5	0.183453
Q.Nam-D.Nang	854	1823.2	2.134895	222	1646.8	7.418018	394	35.3	0.089594
HoChiMinh City	5003	13510.9	2.70056	855	10510.5	12.29298	1554	282.6	0.181853
4 Cities	9246	21730.6	2.350292	2301	18432.6	8.010691	2511	389.9	0.155277

Source: Calculated based on the Statistical Yearbook 1994, published by the General Statistical Office, Hanoi 1995.

Table III-36 Quantity, Labor force, Turnover, Total Production Value and Capital of Industrial Enterprises in 4 Big Cities in 1992

	Number of Enter-prises	Number of Labor force	Labor force/ Enter-prise	Turnover (million VND)	Turnover /Enterp. (million dong)	Production value (mil. VND)	Prod. value/ Enterp. (mil. VND)	Capital for Production (million VND)	Capital per Enterp. (mil. VND)
1	2	3	4=3/2	5	6=5/2	7	8=7/2	9	10=9/2
Total	377114	2051267	5.4	50027161	132.7	18116895	48.	25993946	68.9
SOE	2268	667551	294.3	37230694	16415.6	12778912	5634.4	20506928	9041.9
Cooperatives	5732	207168	36.1	1196916	208.8	514794	89.8	525492	91.7
Private Enterp.	1114	47373	42.5	1483676	1331.8	513305	460.8	794322	713.
Individual households	368000	1129175	3.1	10115875	27.5	4309884	11.7	4167267	11.3
Hanoi	12482	139683	11.2	2951581	236.5	1077931	86.4	1345065	107.8
SOE	253	94311	372.8	2640784	10437.9	910244	3597.8	1163496	4598.8
Cooperatives	1031	16589	16.1	105840	102.7	73514	71.3	96186	93.3
Private Enterp.	37	1841	49.8	76583	2069.8	13595	367.4	37452	1012.2
Invidual households	11161	26942	2.4	128374	11.5	80578	7.2	47931	4.3
Haiphong	6443	62888	9.8	860046	133.5	312473	48.5	488262	75.8
SOE	101	33704	333.7	743058	7357.	250713	2482.3	357441	3539.
Cooperatives	283	9911	35.	40143	141.8	21665	76.6	34849	123.1
Private Enterp	49	3473	70.9	14656	299.1	12330	251.6	56974	1162.7
Invidual households	6010	15800	2.6	62192	10.3	27765	4.6	38998	6.5
Q. Nam - Danang	8645	62162	7.2	630750	73.	306162	35.4	200380	23.2
SOE	52	18457	354.9	395608	7607.8	142238	2735.3	112739	2168.1
Cooperatives	461	11394	24.7	95033	206.1	65521	142.1	31063	67.4
Private Enterp	40	1841	46.	13678	342.	8850	221.3	9215	230.4
Invidual households	8092	30470	3.8	126431	15.6	89553	11.11	47363	5.9
HCMinh City	24800	281393	11.3	16463540	663.9	4953757	199.7	6605170	266.3
SOE	389	140402	360.9	11388422	29276.1	3390829	8716.8	4390195	11285.8
Cooperatives	710	21183	9.8	406009	571.8	125034	176.1	142845	201.2
Private Enterp	333	23545	70.7	1116525	3352.9	343844	1032.6	394078	1183.4
Invidual households	23368	96263	4.1	3552584	152.	1094050	46.8	1678052	71.8

Source: General Statistical Office

Table III-37 Total Production Value of Non-Public Enterprises in Selected Domains of Industrial Production in 1994 (at 1989 Constant Prices)

Unit: million VND

Production domain	Whole production branch	Of which:				
		Non-Public Enterprises	of which			% of whole branch
			Collective units	Private enter-prises	Individual households	
1	2	3=4+5+6	4	5	6	7=3/2
Building materials	1383456	481064	64835	28374	387855	0.3477263
Wood and forestry products processing	610949	470135	46129	59227	364779	0.7695159
Ceramics, porcelain, glass	205013	109336	15878	12699	80759	0.5333125
Food processing	561959	463838	10602	11662	441574	0.8253947
Leather	78435	42942	5646	1005	36291	0.5474852

Source: General Statistical Office.

Under the new farming practice, a farming household or group of workers enters into a contract with a state or other publicly-owned farm to receive farmland which the farmer or group in question is entitled to farm for a specified period of time. Part of the harvest is paid to the farm as rent for the land and the sales receipt for the remaining harvest becomes the farmer's or group's income. Even though the products are often sold to the farm, there is no compulsory obligation for a farmer or group to do so. The farm may purchase not only the products produced on its farmland but also those produced by neighboring independent farmers for processing and marketing purposes. State or other publicly-owned farms play a major role in the production and processing of such export products as coffee, tea and rubber as well as some traditional craftwork using farm products and, therefore, they are an important feature of rural industries in Viet Nam.

Meanwhile, cooperatives have been struggling to find a new role since the introduction of the Doi Moi policy in 1988 to replace their old role as production control organizations. They are expected to assume the new role of providing market information, promoting technology extension, providing farming equipment and materials and providing managerial advice, etc. with a view to assisting their member farmers position as a vital part of the development of rural industries. Their transformation so far suggests that they have failed to meet these expectations in a satisfactory manner. Some 27,000 cooperatives were said to exist across the country in 1992. The sharp decline to the presently estimated 2,000 cooperatives since then must reflect their failure to change to meet the challenges of a new economic climate.

At present, visible industrial activities in rural areas are largely confined to the processing of some farm products and the manufacture of traditional craftwork by state and other publicly-owned farms as described earlier and small-scale rice mills operating throughout the country. The promotion of rural industries poses an urgent challenge to the Vietnamese government because of its absolute necessity to absorb the excess population in rural areas.

4-4 Bottlenecks to Development of SMEs and Rural Industries in Viet Nam

(1) Small and Medium Enterprises

As already pointed out, SMEs in Viet Nam have traditionally been components of the national economy and have greatly contributed to the country's material production. However, their production activities and status within the industrial structure have been far from stable in the recent period of upheaval, characterized by a series of wars and changes of the social system.

Under the present market economy system prompted by the introduction of the Doi Moi policy, SMEs are expected to not only stabilize and consolidate their status as components of the national industrial structure as soon as possible but also to increase their production capacity in view of the fact that the Vietnamese economy now needs to build industries to absorb the ever increasing labor force with a view to not only meeting the domestic demand but also stimulating the country's export activities. SMEs are expected to play an important role in the achievement of these objectives.

Under these circumstances, the Government of Viet Nam is showing a growing

awareness of the importance of introducing measures designed to strengthen and foster SMEs so that they can play a greater role in the accelerated economic development of the country. However, the actual progress of the adoption of such measures has been slow up to now.

An interview survey was conducted as part of the Study by MPI staff on 15 representative SMEs in 4 major cities in Viet Nam (5 in Hanoi, 3 in Haiphong, 5 in Ho Chi Minh and 2 in Da Nang), mainly on the question of the present and future bottlenecks of business management. Although the small number of samples, necessitated by the time constraint, demands careful handling of the survey findings, the existence of the bottlenecks described below is clearly indicated based on the table of the survey findings and the MPI report on the same survey findings (see Table III-38).

1) Capital Shortage and Limited Capital Increase Prospects

The average paid capital of the SMEs surveyed is approximately 1,100 million VND (US$ 100,000) which is larger than the average paid capital of approximately 713 million VND (US$ 70,000) for all private businesses in Viet Nam in 1992 but is stated by the owners of 12 of the 15 surveyed businesses to be too small to ensure efficient business management in the urban business environment. This inadequate level of capital is said by these owners to be the cause of the limited production capacity and the difficulty of introducing new technologies.

Even if these businesses plan to raise additional capital to solve the situation, they find it difficult to do so under the financing system of the present government and must, therefore, raise capital either through profit accumulation or personal connections.

The suggested lack of a financial system which is capable of assisting SMEs(particularly private businesses) operating in markets offering opportunities for business expansion poses an important task to be earnestly dealt with within the framework of the Vietnamese economy.

The concrete bottlenecks faced by SMEs in connection with the current financial system include the following.

A. The high interest rate (the minimum rate can be said to be 10% per annum although the interest rate policy is under review) and maximum repayment period of one year make the use of loans for plant and equipment investment impossible.
B. The strict conditions attached to loans, requiring safe collateral, and complicated loan procedure make it impossible for SMEs to obtain loans given their financial and managerial strength.
C. There is hardly any linkage between banks and businesses.

2) Limited Scope for Introduction of New Technologies

Most of the currently operating SMEs in Viet Nam conduct their production activities with antiquated equipment/machinery which is almost from the age of handicrafts and/or is well beyond their period of depreciation. Two-thirds of the businesses surveyed expressed a desire to increase their production capacity through the introduction of modern equipment/machinery. This survey finding is shared by the joint survey conducted by the German SMEs Association and the Technonet Asia Organization on 86 Vietnamese SMEs(36 in Hanoi and 50 in Ho Chi Minh) in December, 1994.

Table III-38 Bottlenecks Faced by SMEs in 4 Areas of Viet Nam

Area	1 Hanoi	2 Hanoi	3 Hanoi	4 Hanoi	5 Hanoi	6 Hai Phong	7 Hai Phong	8 Hai Phong	9 QN-DN	10 QN-DN	11 HCMC	12 HCMC	13 HCMC	14 HCMC	15 HCMC
Type of Business	wooden products	domestic products	bark with amply	industrial electronic equipment	noodle	TV,cassette, video	garment for export and domestic market	weighing machine and metal product	cotton package	fertilizer,package,a ssmt,construction material	plastic products	jacket,shirt,sp orts wear	rubber processing machines	cotton package	jacket
Type of enterprise	state-owned	state-owned	non-state	state-owned	non-state	state-owned	non-state	non-state	non-state	state-owned	non-state	non-state	state-owned	non-state	non-state
Date of establishment	1972	1966	34,394.00	February,1989	Apr-03	April, 1979	Apr-89	Mar-55	September, 1993	October, 1973	1989	Jun-91	Jun-95	1994	1991
Capital	500,000$	80,000$	40,000$	90,000$	30	1.2mil$	45,000$	12,500$	10,000$	810,000$	179,000$	20$	590,000$	99,000$	300,000$
# of Employees	170	140	50.00	35	40$	132	60	30	37	260	36	85	158	30	300
Average Income per month	45$	37.5$	45$			40$	24-25$	25$	40-50$			50-60$	69$	40$	45$
Annual Sales	163,200$	58,700$	10,000$	100,000$	60,000$	2.8mil$	10,500$	20,000$	37,000$	800,000$		120,000$	1.27mil$	110,000$	156,000$
capital		⊖ high interest rate discourage borrowing	⊖ quite difficult to borrow money	⊖ difficult to borrow money for technology, high interest rate(1.95%/M)	⊖ borrowing money is up to 50,000US$,so difficult to invest in new equipment	⊖ lack of capital to import materials,but easy to borrow money from bank	⊖ can't borrow money from bank because of no property	⊖ can't borrow money from bank because of no property	⊖ state bank require houses as collateral,so they borrow money from private bank at bad conditions(2.55% /M)		⊖ quite difficult to raise capital	⊖ private enterprises allowed to borrow money up to 20,000$ on a year if having collateral	⊖ quite difficult to borrow money,interes t rate is quite high(1.75%/ M)	⊖ can't afford new equipment in spite of increasing demand	⊖ when borrowing money from bank property is required,int erest rate is quite high
technology	⊖ equipment are old	⊖ no money to produce nice package		⊖ same as above	⊖ same as above			⊖ technology is backward	⊖ equipment are old		⊖ equipment becoming old		⊖ machines are old to enhance exports	⊖ equipment becoming old	
market		⊖ great demand but lack of production ability	⊖	⊖ hasn't known how to contact with the market	⊖ price of products is decreasing	⊖ price of products is decreasing because of competitions		⊖ lack of information on the market		⊖ competition with imported products	⊖ due to old equipment selling mainly in domestic market		⊖ have to be competitive with many companies in other province		
training								⊖ need to retrain all staff and workers							
land			⊖ lack of land to improve production	⊖	⊖ lack of land to expand business		⊖ Government doesn't allow to use an open space in the factory		⊖ Lack of land to expand business						⊖ leasing land from another company,bu t District wants to pick up the land
infrastructure	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
problems and recommendations		company has to pay tax once a month before having money from selling	8% gross sales tax and 35% profit tax are very high	gross sales tax is too high(4%)	gross sales tax is too high(6%)	8% gross sales tax and 15% import tax for materials are too high	Government has to help SMEs on capital matters	Government should take care of cooperatives	Government should apply value-added tax to create classes for domestic production(instead of sales tax)	Government should decrease gross sales tax to improve competitiveness		Although no gross sales tax in garment, 40% profit tax is too high	hope to borrow money at low rate from government, improve tax system	hope to have assistance from government on borrowing money to expand production	hope to borrow money from government, hope to have assistance from government on land problem

Legend : ⊖ bottlenecks for business development
nonstate owned company

The survey findings suggest that although the shortage of funds described earlier is the main reason for the failure of SMEs to achieve their strong desire for modern equipment/machinery, the lack of information on the availability of new technologies is also said to play a part in such failure.

The questionable quality of the products made using antiquated, poor equipment/machinery is said to have frequently hampered new business opportunities.

Most managers of SMEs would like to see the implementation of appropriate government measures and to obtain the vital information required to solve the current situation and the survey finding that some businesses are considering the establishment of business links with foreign businesses underlines the eagerness to improve their business performance among SMEs in Viet Nam.

3) Shortage of Marketing Information and Competition with Illegally Imported Products

The development of SMEs in Viet Nam has been obstructed by the insufficient provision of marketing information which is manifest in the form of the difficulty of conducting production planning due to a shortage of market-related information, in turn caused by the immaturity of industrial associations to support SMEs, and also the difficulty of forecasting the required production level to meet the demand and the required standard quality, in turn caused by the difficulty of establishing the consumption demand, in both the quantitative and qualitative aspects. What has made the situation worse is the confusion in the domestic market caused by the huge inflow of illegally imported products which has caused strong concern in recent years. Unless the government urgently tackles this problem in an appropriate manner, the economic activities of SMEs, which must be encouraged, will greatly suffer.

4) Taxation System and Tariff System, etc. Designed to Foster Small-to-Medium Size Businesses

Many managers of SMEs have expressed the opinion that the current systems, including the taxation and tariff systems, have unfair elements in their dealing with private businesses compared to their treatment of state-run businesses. (This point requires elaboration in a further study as the details of such unfair treatment have not been sufficiently clarified by the present Study).

In any case, there are grounds to call for a review of the present legal and other systems and the introduction of new measures to encourage SMEs(particularly private businesses).

5) Lack of Technical Expertise

The school attendance rate and general educational standard in Viet Nam suggest that the proportion of skilled workers is approximately 40% of the entire workforce. SMEs(particularly private businesses) in Viet Nam are not in a position to employ such skilled workers, however, mainly because their poor financial strength necessitates a low wage base. The fact that small and medium enterprise find it difficult to have access to the vocational training opportunities provided by the government or industrial associations also contributes to

their difficulty of breaking the present situation in which they cannot foster high grade engineers and administrative staff of their own.

6) Constraints on Business Expansion Programs

In addition to the constraints posed by the low wage base described above, there is also a physical constraint in urban areas in that it is difficult to obtain land for business expansion and this is increasingly becoming a major constraint with the advancement of urbanization. The situation has become so critical that there is now a strong call by public bodies for the establishment of suburban industrial parks for SMEs. (Here again, the opinion that private businesses are at a disadvantage in obtaining land compared to state-run businesses is voiced.)

7) Lack of Infrastructure

Another problem is that the lack of infrastructure in urban areas obstructs business activities. The study findings have revealed various problems in both the production and distribution fields, including qualitative and quantitative problems of the water supply facilities, an unstable power supply (especially in southern Viet Nam) and serious traffic congestion due to the inadequate road network. One example of the adverse effects of the infrastructure shortage is the report that an electrical manufacturer in Haiphong has missed a JV opportunity with an overseas manufacturer because of the lack of infrastructure.

The above analysis results illustrate the qualitative side of the bottlenecks to the development of SMEs found by the present Study. It is hoped that a follow-up study will be conducted to establish further details of these bottlenecks as the limited number of samples examined by the present Study due to the time factor did not allow elaboration of the initial findings on the bottlenecks.

(2) Rural Industries

Almost 80% of the country's total population live in rural communities which are also a key component of Vietnamese society due to food production for not only domestic consumption but also for export, mainly rice, as an important national revenue source.

Since the introduction of the Doi Moi policy in 1988, the Government has been implementing a comprehensive agricultural development strategy which aims at achieving the increased production of not only food products but also agricultural products for industrial use with a view to facilitating the combined development of agriculture and the manufacturing industry. Moreover, stock raising is also considered part of this strategy to achieve the all-round development of rural communities.

Despite active efforts made by the government, the achievements of this strategy are not yet very noticeable due to the limited farming area per household (estimated national average of 0.77 ha) and other unfavorable conditions. Under the present circumstances, farming households cannot be expected to save and the envisaged combined development of agriculture with other industries appears to be still far from becoming a reality.

The ultimate objective of socioeconomic development in Viet Nam seems to be the establishment of a diversified economic structure in which farmers and other people conducting

agriculture-related activities enjoy a high income and good living standard in an affluent rural environment. In this sense, the development of rural industries is an important policy issue for the government.

For the present Study, MPI staff conducted an interview survey on the perceived bottlenecks for the development of typical rural industries in provinces near 4 major cities in Viet Nam (Hanoi, Haiphong, Da Nang and Ho Chi Minh). Although the limited number of samples and the geographical bias involved in this survey make it difficult to clarify the national picture, the findings are still deemed useful to shed light on such bottlenecks as described next. (It is hoped that a more detailed and comprehensive survey will be conducted in the near future.)

1) Lack of Business Capital

Rural businesses, possibly classified in the category of such cottage industries as family-run rice polishing mills and agricultural tool repair shops, etc., are currently found in many rural areas but the lack of capital accumulation by these businesses and the lack of a financial system to provide them with starting capital have prevented their further growth.

In addition to some 7,000 agricultural credit unions, the Agricultural Development Bank of Viet Nam has a branch network throughout the country, providing loans for the agricultural, forestry and fisheries sectors, state farms and cooperatives, etc. The limited nature of the total funds available for loans and the preferential treatment of state enterprises and state farms mean that only 10% of the total loan amount went to individual farming households in 1993, underlining the ineffectiveness of these loan facilities to promote rural industries. In more recent years (since 1994), the southern provinces around Ho Chi Minh are said to be seeing an increase of stock raising-related rural industries as many joint ventures established through direct investment by foreign companies have sought local subcontractors. This linkage with foreign companies moving into Viet Nam through direct investment can be regarded as a viable strategy to promote rural industries. Unfortunately, however, this strategy has the inherent limitation that it is only feasible in areas near a large city and with relatively developed basic infrastructure (described later). For the nationwide promotion of rural industries, the likely way forward is the diversification of agricultural products, followed by encouragement of industries to process diverse products.

2) Absence of Basic Infrastructure (Particularly Roads)

It is probably no exaggeration to say that the largest bottleneck which has kept rural communities in Viet Nam out of the process of modernization and the market economy is the lack of access to markets due to the absence of a reliable road network. The key ingredient of the strategy to break up the monoculture-dominated economic structure and to diversify the rural economy is the creation of distribution, information exchange and human exchange networks to facilitate access to markets and to disseminate market information. In short, the development of local roads to link rural areas to consumption areas is a precondition for the development of rural industries.

3) Shortage of Manpower in Traditional Craftwork Sector

Rural areas in Viet Nam have long boasted the tradition of high quality handicrafts (stone-crafts, pottery and rattan work, etc.) and it is not unusual for an entire village to be involved in craftwork in one way or another to form local industries. The gradual decline of craftwork under the previous centrally planned socialist economic system and the shortage of people willing to learn craftwork skills under the present market economy system have made it essential to foster new manpower to preserve the traditional craftwork sector. In addition, a distribution system for handicrafts in the domestic market and for export must be properly established.

Having identified the qualitative bottlenecks described above, it is hoped that a further study will be conducted to establish a more detailed picture of the bottlenecks given the importance of promoting rural industries for the development of rural communities in Viet Nam.

4-5 Necessity to Promote SMEs and Rural Industries in Viet Nam

The findings of the careful examination of the development processes of NIEs and ASEAN countries clearly suggest that the Government of Viet Nam must promote the development of SMEs and rural industries as a key issue to achieve the goal of import-substitution industrialization and to facilitate the growth of export-oriented industrialization in the ongoing process of Viet Nam's economic development under a market economy regime. Policies designed to assist the development of SMEs and rural industries will generate the following positive effects.

(1) Increased Employment Opportunities

The introduction of a government policy to provide immediate and future employment opportunities to absorb the surplus labor in rural communities in Viet Nam is an urgent socioeconomic task for the government. The development of SMEs and rural industries will be a crucial component of such a policy.

(2) Contribution to Improved Trade Balance

Import-substitution industrialization and the promotion of export industries will obviously improve Viet Nam's international trade balance.

(3) Stronger Industrial Linkage and Increased Dissemination of Technologies through Market Competition

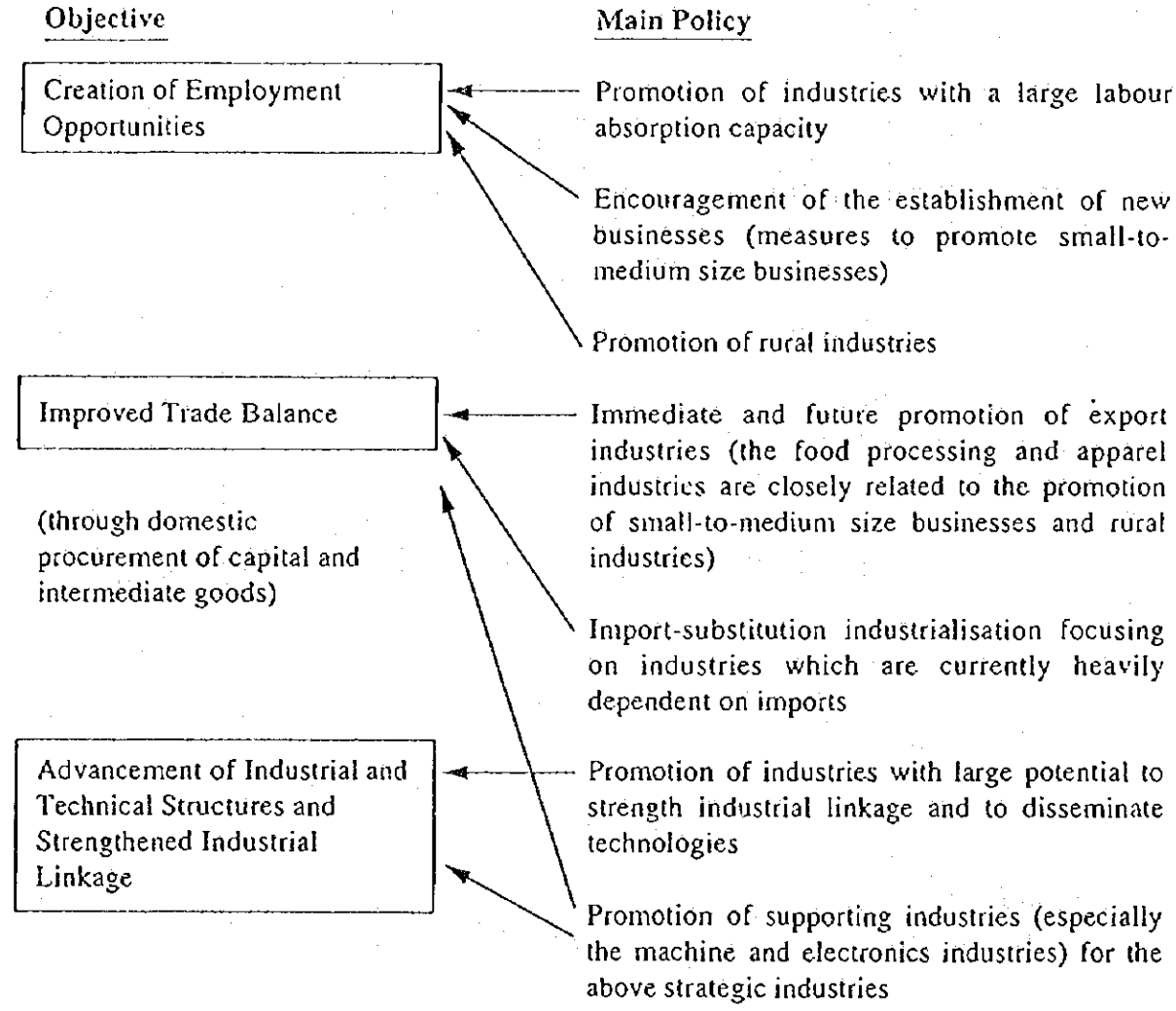
Industrial linkage will be strengthened through the stage of multiple-layered development involving businesses in different sectors while technologies will be further advanced and widely disseminated to produce more added-value. At the same time, the stronger industrial linkage and increased dissemination of technologies will foster industries to support those

industries (particularly the machine and electronics industries) of which the development is a strategic target of the Government of Viet Nam.

The policies designed to encourage SMEs and rural industries described above must be accompanied by other policies aiming at assisting infrastructure development and providing incentives for the well-planned distribution of industries to rectify regional gaps. These additional policies are important to avoid the detrimental effects of development on the environment.

The linkage of the above-mentioned policies is schematically shown in the next page.

Figure III-38 Position of Promotion of Small and Medium Enterprises and Rural Industries in Industrialization Process of Viet Nam



Chapter 5 Affiliation with AFTA and APEC, and its Influence

5-1 The Impact of Participation in AFTA: The Effects of Economic Integration on FDI Inflows

(1) Introduction

During the recent decade, the economic interdependence between countries in the region of East Asia or Pacific Asia--- Japan, Asian NIEs, ASEAN countries, and China, has been significantly deepening while these countries have experienced rapid economic growth and trade expansion. Both the volume of intra-regional trade, together with the share of overall trade, have been increasing in the region. Also, in the latter half of the decade, the intra-regional foreign direct investment (FDI) flows began to expand dramatically.

The role of foreign direct investment (FDI) in the economic development process of developing countries is drawing more attention. Although the possible negative effects of FDI on economic development have been posed, there seems to be no doubt that the massive flows of FDI into ASEAN countries in the late 1980s contributed a great deal to rapid economic growth in these countries. Naturally, the role of FDI in the economic reforms of some Latin American and former socialist countries in Asia and Europe is a great concern.

In the context of economic integration, "government-led" or institutional regional economic integration, such as the EU and NAFTA, is said to place a considerable impact, not only on the flows of international trade, but also on the flows of FDI. Thus, it will be important to examine how and to what extent the FDI inflows to Viet Nam will be influenced by its participation in AFTA.

(2) Background of AFTA: Economic Interdependence in the East Asian Region

1) Intra-Regional Trade

A. During the period of the 1970s and 1980s, the economic growth rates in most East Asian countries were significantly higher than in other regions in the world (Table III-39). During the same period, these countries experienced drastic changes in their export ratios (Table III-40).

B. The trade structure of East Asia changed drastically, with the rapid expansion of overall trade in the region. Both the volume and the share of intra-regional trade increased. The rate of expansion of intra-regional trade in East Asia, since the early 1970s, is two times higher than that of the world (Table III-41). Especially after 1987, intra-regional trade began to increase and to surpass that of North America and as well as to approach the level of the EC (Table III-42). The rate of expansion of intra-regional trade within ASEAN is slightly higher than of the world trade.

C. In general, the degree of East Asia's trade dependence on the U.S. has declined and Japan's and also (the) ANIES's trade with East Asia has expanded tremendously since 1987.

However, considering the trade structure of the region by industry and type of goods (industrial materials, capital and parts, consumer durables, non-durables), the ASEAN countries are still highly dependent on the U.S. and the EC market, for exports, especially of final goods. (Table III-43).

D. As for the structure of intra-regional trade countries, while Japan's import of consumer goods and industrial parts from ASEAN increased and China's export to ASEAN countries expanded rapidly, intra-ASEAN trade did not change substantially (Table III-44,45,46).

E. Comparative advantage and disadvantage specialization within the region is an important factor. The structure of East Asian intra-regional trade can be characterized as a mixture of vertical and horizontal divisions of labor, while the importance of intra-industry trade is emphasized in explaining the intra-regional trade structure of the EC. The unique feature of trade interdependence in East Asia can be attributed to the unilateral trade liberalization and the deregulation toward foreign direct investment in the region, the so-called outward-looking strategy.

2) FDI Flows in the Region

A The countries in the region of East Asia also experienced a significant structural change in capital flows in the 1980s. The degree of their interdependence in capital flows has deepened and the capital market integration has proceeded through out the decade. The changes in capital flows within the region are basically attributable to the changes in the macroeconomic balance of the regional economies during the rapid economic growth of the 1980s. Foreign direct investment (FDI) has become more significant as a new form of international capital transfer in the region.

B The most remarkable feature in the latter half of the 1980s was the growing importance of Asian NIES. ANIEs' share as capital suppliers expanded significantly, especially toward ASEAN countries and China. Japan's role as the supplier of the capital flows was not increasing overall and the relative roles of the US and EC have been reduced steadily. Also, Japan's role as a main supplier of FDI to ASEAN countries has not changed, while the shares of the USA and EC have been declining (Table III-47). The share of intra-regional FDI among the total components of capital flows increased to about 50 percent by the end of 1990.

(3) Experiences of Spain, Portugal and Greece in Participation in the EC

The three Mediterranean countries were late-comers to the EC. Greece entered in 1981, and Spain and Portugal entered in 1986. They had to face two simultaneous challenges of EC integration: to adjust their national external protection to the lower level of the EC; to deregulate and liberalize domestic goods and factor markets in order to meet the requirement of EC-1992.

Portugal and Spain responded positively to both external and internal adjustment challenges. GDP growth rates of Spain (4.5% for the 1986-1990) and Portugal (4.6%) were top among EC members. On the contrary, Greece remained subject to political disturbances and severe macroeconomic imbalances. As a result, Greece always had the lowest GDP growth rate of all EC members during the 1980s.

While EC membership may have helped to attract FDI for Spain and Portugal, Greece

failed to attract investment (Fig.III-39). This suggests that credible and sustained policy reforms are necessary prerequisites to attract investment.

(4) Expected Effects on Trade and FDI

1) Trade and Production

- trade creation effect; trade diversion effect;
- cheaper imported inputs;
- increase of import and reduction in domestic production;
- competition effect on domestic markets;
- income growth effect;
- competition between countries in the region.

2) Regional Liberalization and FDI Inflows

We can expect that the removal of barriers to FDI in the AFTA region will directly cause an increase in FDI inflows from outside the region. Moreover, regional trade liberalization by AFTA will have the following effects on FDI inflows:

- FDI for production of exports to the AFTA region will increase;
- FDI for production for the domestic market will decrease;
- FDI for production of exports to markets other than AFTA will increase.

(5) Factors to Determine the Location of FDI

The host countries which have "location advantages" could attract FDI and utilize their potential comparative advantage.

1) "Location Advantages"

- accessibility to output markets (domestic and foreign)
- accessibility to inputs (intermediate goods and raw materials)
- labor (wage, productivity, skills/education level)
- infrastructure (transportation, communications, utilities)
- tariff, tax and subsidies
- regulations by the host country(import, ownership, local contents)
- stability and credibility of economic conditions and policies

2) Factors to be Possibly Supplemented by FDI: "Knowledge-Based Assets"

- technological knowledge and capability (production and R&D)
- managerial skills and know-how
- marketing skills and know-how (distribution channels)

- availability of key parts
- accessibility to financial markets

(6) Initial Conditions of Viet Nam and AFTA

AFTA member countries except Viet Nam, the former four ASEAN countries, have already experienced rapid economic growth through their efforts of unilateral liberalization and deregulation of FDI. As a result, they have linked closely with the world economy, especially to the East Asian countries.

To enjoy the benefits of AFTA, Viet Nam should respond positively to AFTA requirements, liberalization and deregulation, and enter the competition with other member countries of AFTA in trade and FDI. It is especially desirable to attract FDI and to utilize Viet Nam's potential comparative advantage. However, the starting point for Viet Nam is very different from these other countries in terms of transition period to a market-led economy; a lower stage of economic development; a required larger reduction of tariff; and a larger share of intra-ASEAN trade (20% of export, 40% of import).

Thus, some adjustment of the speed and timing of trade liberalization will be called for. Also, it will be necessary to make efforts to provide favorable conditions for FDI: development of infrastructure, credible and sustained policies, stable economic conditions.

Table III-39

Growth Rates of GDP and Exports

	Real GDP		Exports	
	1965-80	1980-90	1965-80	1980-90
Indonesia	7.0	5.5	9.6	2.8
Philippines	5.7	0.9	4.6	2.5
Thailand	7.3	7.6	8.6	13.2
Malaysia	7.4	5.2	4.6	10.3
Singapore	10.0	6.4	4.7	8.6
Hongkong	8.6	7.1	9.1	6.2
China	6.8	9.5	4.8	11.0
Korea	9.9	9.7	27.2	12.8
Japan	6.4	4.1	11.4	4.2
U.S.A.	2.7	3.4	6.4	3.3
Canada	4.8	3.4	5.4	5.9
Maxico	6.5	1.0	7.7	3.4
U.K.	2.3	3.1	5.1	2.7
France	4.0	2.2	8.5	3.4
Italy	4.3	2.4	7.7	3.5
Germany	3.3	2.1	7.2	4.2
Netherland	3.9	1.9	8.0	4.4
Belgium	3.9	2.0	7.8	4.7
Low-income Economies	4.9	6.1	5.1	5.4
Middle-income Economies	6.3	2.5	3.9	3.8
High-income Economies	3.7	3.1	7.3	4.3
World	4.0	3.2	6.6	4.3

Source: The World Bank, *World Development Report 1992*.

Table III-40

Changes in Export Ratio

(%)

	Export/GDP	
	1965	1990
Indonesia	5	26
Philippines	17	28
Thailand	16	38
Malaysia	42	79
Singapore	123	190
Hongkong	71	137
China	4	18
Korea	9	32
Japan	11	11
U.S.A.	5	10
Canada	19	25
Mexico	8	16
U.K.	19	25
France	13	23
Italy	15	21
Germany	18	32
Netherland	43	57
Belgium	43	74
Argentina	3	14
Venezuela.	26	39
Uruguay	18	27
Brazil	8	7
Chile	14	37

Source: The World Bank, *World Development Report 1992.*

Table III-41

Regional and Inter-regional Trade
(1970,1989)

		Asia					USA	EC12	World
			Japan	NIEs4 *1	ASEAN 4 *2	China			
Asia		25.2	25.6	26.3	16.7	48.3	20.9	22.3	20.3
	Japan	16.8		19.8	11.9	14.9	15.6	20.6	14.2
	NIEs4	50.5	41.4	56.1	28.7	606.5	36.4	33.4	38.8
	ASEAN4	16.0	14.4	17.7	13.2	74.6	17.0	15.2	16.6
	China	38.7	35.9	44.3	14.4			15.4	30.8
U.S.A.		14.1	9.8	25.9	10.2			7.2	8.5
EC12		16.1	16.5	21.7	9.5	15.2	8.8	11.0	9.8
World		18.5	12.3	29.1	17.5	30.8	13.7	10.4	10.3

Source: IDE UN/OECD Trade Data Search System (AIDXT),
IMF, *Direction of Trade*.

Notes: All figuers are defined as X^{89}_{ij}/X^{70}_{ij},
where X_{ij}s mean the value of export from country i to country j for each year of 1970 and 89.

*1: ANIEs4 is composed of Korea, Taiwan, Singapore and Hongkong.

*2: ASEAN4 is composed of Indonesia, Malaysia, the Philippines and Thailand.

Table III-42

Trade Matrix in Share for Total Trade (Unit: %)

From \ To		EAST ASIA	JAPAN	ANIES	ASEAN	CHINA	AMERICAS	EC12	WORLD
EAST ASIA	1981	35.71	10.11	15.14	7.75	2.55	21.95	13.01	100
	1983	36.71	8.61	15.53	5.52	2.73	21.25	12.50	100
	1985	36.25	8.32	15.05	5.54	5.33	21.92	11.53	100
	1986	33.13	8.29	15.42	4.36	4.35	23.91	13.35	100
	1987	35.47	8.23	17.70	5.04	4.65	26.83	15.43	100
	1988	39.77	8.29	19.19	5.72	5.27	23.39	16.20	100
	1989	41.32	7.55	20.22	5.69	5.05	23.35	15.73	100
	1990	43.57	9.43	21.75	7.33	4.51	20.57	17.07	100
	1991	45.33	8.35	22.24	8.13	5.24	23.33	17.83	100
	1992	45.34	8.43	23.49	7.73	5.67	23.17	15.54	100
JAPAN	1981	24.10		12.57	7.06	1.35	25.35	13.02	100
	1983	21.53		14.15	7.20	2.25	32.35	13.22	100
	1985	21.65		12.79	4.15	7.11	13.83	11.93	100
	1986	22.51		14.35	3.53	4.31	12.95	14.27	100
	1987	21.32		17.15	4.15	2.50	31.33	15.57	100
	1988	27.25		23.73	4.36	3.55	37.13	17.41	100
	1989	23.34		19.13	5.05	3.10	33.24	16.52	100
	1990	23.57		19.70	7.73	2.11	31.31	13.73	100
	1991	32.08		21.25	3.04	2.73	32.13	15.32	100
	1992	33.01		21.33	3.52	3.52	32.55	13.50	100
ANIES	1981	33.51	10.55	19.07	10.43	2.45	31.17	13.74	100
	1983	33.96	7.51	3.39	12.43	2.32	35.27	12.23	100
	1985	33.56	10.55	3.92	7.49	3.93	37.51	10.33	100
	1986	31.73	13.21	3.95	4.44	5.44	39.34	12.47	100
	1987	32.31	11.02	7.55	5.10	5.35	35.34	14.17	100
	1988	33.26	12.63	15.97	5.63	3.83	33.73	14.51	100
	1989	39.36	12.53	14.62	7.56	3.43	32.53	14.03	100
	1990	40.71	12.72	12.72	3.73	7.13	29.46	15.31	100
	1991	42.29	15.41	13.58	3.01	9.65	25.30	15.60	100
	1992	42.75	3.33	14.50	7.31	11.24	25.33	14.33	100
ASEAN	1981	51.33	32.51	17.30	3.55	0.77	15.24	11.64	100
	1983	53.52	30.75	24.04	3.13	0.53	19.74	11.48	100
	1985	55.55	30.35	23.01	4.51	1.36	20.53	12.02	100
	1986	52.52	22.35	19.20	3.76	1.58	21.03	14.84	100
	1987	52.52	25.44	20.53	3.77	2.05	21.12	14.35	100
	1988	51.70	24.55	21.19	3.66	2.29	20.77	15.41	100
	1989	51.05	24.07	29.33	4.03	2.15	21.57	15.05	100
	1990	52.54	24.83	22.04	4.03	2.04	20.55	15.94	100
	1991	52.32	22.34	23.15	4.02	2.23	19.56	15.45	100
	1992	50.52	21.95	22.55	4.10	2.49	21.59	15.15	100
CHINA	1981	55.05	24.43	21.40	3.54		5.53	10.13	100
	1983	57.03	23.32	30.33	2.73		3.53	5.35	100
	1985	53.86	22.22	23.72	2.59		9.41	3.35	100
	1986	57.60	11.57	25.45	2.38		4.37	9.23	100
	1987	58.73	15.21	35.24	2.54		4.50	9.33	100
	1988	61.02	15.55	41.74	2.49		7.12	9.93	100
	1989	51.85	15.35	45.30	2.43		9.25	9.21	100
	1990	55.31	14.51	44.10	2.73		9.24	9.44	100
	1991	59.03	14.57	51.53	2.99		9.70	9.59	100
	1992	61.35	14.52	52.07	2.75		11.57	10.31	100
AMERICAS	1981	15.53	8.84	4.72	1.33	1.47	35.45	20.51	100
	1983	18.35	9.03	5.38	2.17	1.29	34.35	19.44	100
	1985	18.65	8.59	5.45	1.52	1.53	41.54	17.55	100
	1986	18.25	3.13	5.45	1.74	1.38	42.25	17.06	100
	1987	18.93	7.27	4.65	1.75	1.30	44.41	13.70	100
	1988	20.75	10.43	4.43	1.53	1.67	41.65	13.25	100
	1989	24.14	10.53	3.84	1.53	1.44	42.16	17.52	100
	1990	21.32	10.51	7.96	2.21	1.20	44.44	19.29	100
	1991	21.57	9.52	3.47	2.21	1.45	44.36	19.42	100
	1992	21.05	9.32	5.32	2.44	1.50	43.31	15.52	100
EC	1981	3.53	1.04	1.23	0.44	0.35	4.14	53.02	100
	1983	3.71	1.14	1.33	0.47	0.43	8.33	54.71	100
	1985	4.34	1.24	1.54	0.48	0.35	11.54	54.43	100
	1986	4.45	1.42	1.55	0.45	0.54	10.57	57.02	100
	1987	4.74	1.54	1.84	0.53	0.57	9.19	55.74	100
	1988	5.21	1.97	2.02	0.65	0.64	9.15	53.12	100
	1989	5.50	2.74	2.14	0.14	0.44	8.12	57.10	100
	1990	5.51	2.14	2.11	0.50	0.43	8.17	63.12	100
	1991	5.76	1.73	2.30	0.91	0.54	7.44	51.32	100
	1992	5.55	1.42	2.12	1.01	0.53	7.71	54.43	100
WORLD	1981	14.51	6.52	4.31	2.01	0.37	17.47	32.42	100
	1983	16.14	6.54	5.24	2.55	0.93	18.44	33.38	100
	1985	15.57	6.33	5.31	1.44	1.03	22.45	32.32	100
	1986	14.05	5.35	5.42	1.64	1.35	21.94	34.13	100
	1987	14.71	5.57	5.94	1.72	1.55	18.74	34.21	100
	1988	15.81	6.12	5.93	1.95	1.31	18.51	35.34	100
	1989	14.37	5.42	7.23	2.34	1.33	18.12	35.34	100
	1990	17.51	5.35	2.29	2.31	1.15	18.37	35.01	100
	1991	18.13	5.27	3.42	2.42	1.14	19.04	40.51	100
	1992	18.51	5.37	1.47	2.35	2.25	17.37	37.35	100

Table III-43

Intra-Regional Trade Shares

(Unit: %)

Category	Year	EAST ASIA	AMERICAS	EC12	APEC
Food	1981	53.00	15.79	61.19	49.29
	1983	65.12	17.66	65.90	53.46
	1985	67.70	21.23	65.20	58.66
	1986	67.75	23.75	70.09	62.52
	1987	71.43	24.06	71.92	65.31
	1988	75.01	21.53	71.92	66.62
	1989	75.25	23.06	70.55	67.51
	1990	77.45	23.54	71.70	71.14
Industrial Materials	1981	55.39	40.29	57.04	55.61
	1983	61.37	43.13	58.23	69.92
	1985	62.04	45.31	58.93	72.11
	1986	62.27	41.54	60.26	71.32
	1987	63.84	42.25	60.85	72.75
	1988	68.40	40.06	61.28	74.58
	1989	69.24	39.15	61.72	74.24
	1990	71.52	42.43	63.24	75.19
Capital Goods	1981	25.63	35.23	43.20	49.27
	1983	24.60	37.22	45.43	55.44
	1985	25.70	42.61	46.49	61.46
	1986	24.49	39.37	49.44	61.36
	1987	27.64	40.57	52.58	62.77
	1988	31.95	38.37	53.11	63.55
	1989	33.27	37.60	54.09	64.19
	1990	35.97	39.61	54.26	65.05
Consumer Non-Durable Goods	1981	13.70	27.41	58.39	52.28
	1983	12.99	33.85	59.07	61.68
	1985	14.13	39.11	56.40	69.36
	1986	16.35	34.19	59.74	68.81
	1987	19.04	32.25	61.31	67.55
	1988	23.90	30.61	61.51	72.29
	1989	23.97	26.50	60.20	75.20
	1990	31.20	23.11	61.82	73.68
Consumer Durable Goods	1981	13.43	61.31	56.54	59.60
	1983	12.27	74.99	56.85	67.01
	1985	13.96	83.97	52.49	75.43
	1986	10.59	82.40	56.48	73.22
	1987	12.57	76.39	58.39	70.06
	1988	18.95	72.02	60.93	70.53
	1989	21.18	67.10	61.83	70.84
	1990	23.08	66.65	63.77	69.44
Total	1981	35.74	35.46	53.02	51.22
	1983	36.71	38.85	54.71	62.53
	1985	36.25	44.54	54.67	67.63
	1986	33.99	42.25	57.02	67.51
	1987	36.47	43.41	58.74	68.58
	1988	39.77	41.66	59.32	68.82
	1989	41.62	41.15	59.70	69.76
	1990	43.67	41.41	60.72	69.39
	1991	45.93	41.31	61.82	69.37
	1992	46.34	43.31	61.13	70.30

Here, APEC does not include data for Australia and New Zealand.

Table III-44

Changing Export Structure of Japan in Each Destination by Commodity

(Unit: %)

		EAST A.	ANIES	ASEAN	CHINA	AMERICAS	EC12	WORLD
Food	1981	2.03	2.94	1.14	0.14	0.61	0.51	1.16
	1983	1.24	1.63	0.88	0.38	0.76	0.50	0.96
	1985	1.07	1.59	0.97	0.20	0.65	0.39	0.76
	1986	1.13	1.40	1.20	0.25	0.60	0.41	0.71
	1987	1.13	1.31	0.95	0.45	0.51	0.42	0.68
	1988	1.16	1.29	1.32	0.27	0.42	0.32	0.63
	1989	1.11	1.31	0.91	0.30	0.35	0.31	0.60
	1990	1.02	1.23	0.64	0.42	0.33	0.26	0.55
Industrial Materials	1981	40.00	39.17	37.13	49.30	19.05	11.62	25.81
	1983	41.75	38.75	35.01	68.37	13.40	12.21	23.32
	1985	37.21	35.47	37.21	40.35	11.37	12.25	20.43
	1986	37.56	34.39	38.45	46.55	9.12	11.60	18.55
	1987	35.31	32.84	34.72	47.73	9.60	10.89	18.29
	1988	33.54	31.03	32.72	47.31	10.20	10.84	18.48
	1989	33.10	31.33	30.41	49.26	9.93	11.00	18.26
	1990	30.83	30.35	27.37	47.84	10.01	11.58	17.66
Capital Goods	1981	43.69	42.34	46.76	42.76	38.11	52.14	45.11
	1983	43.74	45.09	49.67	25.25	44.24	53.98	47.53
	1985	46.30	48.47	47.98	41.43	43.97	55.83	50.23
	1986	49.39	50.90	47.18	46.47	51.06	54.58	52.13
	1987	51.96	52.92	54.69	44.22	53.16	55.20	53.65
	1988	52.51	53.56	55.53	42.85	53.53	55.06	53.44
	1989	53.03	53.60	57.94	40.41	55.80	56.44	54.84
	1990	54.34	53.31	61.05	39.45	54.34	56.30	54.67
Consumer Non-Durable Goods	1981	0.82	1.12	0.50	0.24	1.23	1.10	1.02
	1983	0.39	1.15	0.54	0.50	1.48	1.06	1.11
	1985	0.32	1.17	0.64	0.31	1.27	1.12	1.05
	1986	0.79	0.91	0.61	0.56	1.12	1.13	0.97
	1987	0.75	0.84	0.47	0.65	1.01	1.03	0.90
	1988	0.76	0.35	0.48	0.63	0.83	0.87	0.78
	1989	0.73	0.91	0.44	0.65	0.74	0.82	0.75
	1990	0.85	1.01	0.39	1.02	0.70	0.84	0.76
Consumer Durable Goods	1981	11.72	12.32	13.32	5.39	39.39	33.27	25.62
	1983	10.41	11.15	12.10	3.66	33.35	31.02	25.17
	1985	12.34	11.27	11.44	16.47	36.58	29.19	26.14
	1986	9.38	10.49	10.64	5.04	39.93	31.05	26.35
	1987	9.30	10.39	7.30	5.30	34.53	31.30	25.19
	1988	10.32	11.45	8.12	7.44	33.42	31.50	25.10
	1989	10.06	10.71	9.08	7.73	31.67	29.72	23.89
	1990	11.01	11.89	9.29	9.16	32.33	29.21	24.54

Notes: The summation of shares of five different goods in each destination does not necessarily become 100% due to the existence of goods which do not belong to any of above categories.

Table III-45

Changing Export Structure of ANIES in Each Destination by Commodity

(Unit: %)

		EAST A.	JAPAN	ANIES	ASEAN	CHINA	AMERICAS	EC12	WORLD
Food	1981	9.43	18.26	5.55	5.90	2.33	2.67	3.36	5.48
	1983	8.68	18.81	4.95	4.55	4.46	2.36	2.45	4.38
	1985	7.79	18.02	4.16	4.20	1.70	1.87	2.48	4.30
	1986	9.55	22.16	4.00	4.75	2.19	2.00	2.75	4.90
	1987	8.80	19.78	3.25	4.11	2.27	1.85	1.83	4.45
	1988	7.36	16.21	3.15	4.18	2.12	1.87	1.73	4.11
	1989	6.29	13.50	3.06	3.53	2.25	1.50	1.41	3.56
	1990	5.81	13.57	2.37	2.92	2.50	1.36	1.19	3.30
Industrial Materials	1981	53.09	46.15	56.75	57.08	50.97	13.11	15.86	32.45
	1983	54.69	46.17	52.70	54.36	46.63	11.13	14.63	29.39
	1985	47.59	43.58	51.60	56.38	39.00	11.56	14.44	28.56
	1986	46.42	34.63	51.02	55.89	49.43	9.78	11.89	25.65
	1987	43.40	31.67	48.04	53.79	47.39	9.05	10.77	24.22
	1988	41.96	32.70	44.00	50.02	46.79	8.90	10.52	24.76
	1989	42.37	31.89	44.42	48.83	49.45	8.94	11.60	25.95
	1990	42.77	30.38	44.08	48.93	50.79	8.99	10.23	26.33
Capital Goods	1981	17.57	10.17	19.23	23.50	17.41	22.19	15.60	13.56
	1983	19.70	10.37	24.92	21.11	26.43	28.43	24.53	24.14
	1985	25.99	14.63	27.95	28.70	36.67	25.65	31.30	26.17
	1986	23.30	12.47	28.95	27.91	23.25	25.71	27.88	24.48
	1987	25.06	13.37	32.52	30.60	29.35	27.52	23.35	25.95
	1988	27.89	14.78	36.34	34.84	30.87	31.05	32.20	29.22
	1989	28.35	17.05	35.75	37.32	28.17	33.33	34.88	30.84
	1990	30.00	20.78	34.87	37.52	27.07	34.32	36.31	32.00
Consumer Non-Durable Goods	1981	6.79	15.05	3.50	2.02	4.61	32.62	34.79	21.12
	1983	5.74	12.54	4.14	1.74	5.79	31.12	30.44	20.23
	1985	6.39	12.91	3.69	2.17	5.01	32.11	26.92	20.10
	1986	8.20	16.91	4.13	2.29	5.33	31.24	29.31	21.63
	1987	9.29	19.56	3.33	2.53	5.53	29.13	28.60	20.86
	1988	9.14	20.06	3.99	2.27	5.02	27.12	25.79	18.89
	1989	9.62	21.39	4.32	2.07	5.43	27.94	23.40	18.36
	1990	8.73	19.09	6.43	2.11	4.92	28.46	22.75	17.54
Consumer Durable Goods	1981	10.23	6.91	12.41	9.29	20.21	26.93	25.00	13.77
	1983	8.24	7.51	9.98	6.65	12.12	25.14	23.51	17.43
	1985	9.47	7.75	10.22	5.96	14.59	26.78	20.12	17.67
	1986	9.39	10.37	9.61	6.37	10.59	29.34	24.25	20.31
	1987	10.54	12.42	10.18	6.43	11.57	30.53	26.92	21.61
	1988	11.31	13.60	10.66	6.58	12.57	29.20	26.77	20.66
	1989	10.76	13.72	10.13	6.63	10.92	26.40	26.41	19.15
	1990	10.47	13.26	9.30	6.88	11.53	24.95	27.25	18.67

Notes: The summation of shares of five different goods in each destination does not necessarily become 100% due to the existence of goods which do not belong to any of above categories.

Table III-46

Changing Export Structure of ASEAN in Each Destination by Commodity

(Unit: %)

		EAST A.	JAPAN	ANIES	ASEAN	CHINA	AMERICAS	EC12	WORLD
Food	1981	10.33	6.01	12.44	30.10	50.97	9.69	25.11	14.03
	1983	8.97	6.60	9.03	22.26	27.35	9.49	24.32	12.63
	1985	9.69	7.04	10.23	18.15	34.37	11.06	22.53	13.36
	1986	13.30	11.43	13.59	19.94	25.93	13.47	30.43	17.31
	1987	12.47	12.21	10.98	16.41	23.43	10.99	26.72	15.52
	1988	13.52	13.37	11.33	17.50	23.75	10.66	23.17	15.30
	1989	13.54	13.18	10.95	21.64	25.52	10.39	19.90	15.41
	1990	11.52	12.24	10.15	16.53	10.33	10.20	17.94	13.45
Industrial Materials	1981	82.25	91.33	72.45	55.34	48.22	65.73	56.82	73.92
	1983	32.56	90.32	75.64	60.58	71.10	58.45	52.07	72.34
	1985	80.05	89.30	70.31	62.63	54.22	51.05	53.76	68.53
	1986	72.40	83.05	60.12	56.02	71.51	39.70	40.55	58.71
	1987	71.09	81.60	59.91	57.53	74.55	37.62	39.63	57.06
	1988	66.66	77.24	55.78	54.91	72.57	31.73	38.29	52.79
	1989	64.34	74.26	52.42	51.47	59.51	25.98	36.54	49.35
	1990	61.66	72.14	47.95	61.65	34.11	21.60	30.51	45.56
Capital Goods	1981	3.65	0.56	8.97	5.97	0.59	9.53	4.51	4.52
	1983	4.28	1.22	8.57	6.03	0.94	15.49	5.11	5.66
	1985	5.99	2.10	12.07	6.92	0.66	16.53	9.91	8.39
	1986	8.96	3.02	17.31	14.05	1.17	20.60	10.84	11.12
	1987	9.71	2.73	18.21	16.24	1.56	21.05	10.09	11.61
	1988	10.86	3.72	18.86	17.75	2.26	24.60	11.80	13.06
	1989	11.85	5.70	20.27	11.59	3.02	26.56	12.51	14.24
	1990	15.33	8.04	24.46	15.38	3.98	27.11	14.16	16.40
Consumer Non-Durable Goods	1981	0.63	0.25	1.29	0.93	0.01	4.59	7.23	2.63
	1983	0.71	0.27	1.33	0.92	0.03	6.47	6.42	3.04
	1985	0.79	0.30	1.44	1.40	0.03	9.70	6.67	4.05
	1986	1.59	0.50	3.11	2.56	0.05	11.37	9.23	5.36
	1987	1.56	0.85	2.43	2.44	0.22	13.15	13.55	7.22
	1988	2.10	1.44	3.11	1.80	0.33	14.23	14.89	8.12
	1989	2.67	2.07	3.38	1.55	0.19	15.61	15.54	9.15
	1990	3.13	2.45	4.50	1.74	0.39	17.36	20.16	10.49
Consumer Durable Goods	1981	0.63	0.23	1.23	0.94	0.03	1.79	2.22	1.12
	1983	0.70	0.25	1.29	1.02	0.03	2.45	3.24	1.45
	1985	0.82	0.27	1.71	0.31	0.03	3.53	3.51	1.85
	1986	1.42	0.43	3.00	0.89	0.10	5.31	5.00	2.94
	1987	1.94	1.00	3.40	1.45	0.24	7.47	5.96	3.96
	1988	3.56	1.96	5.92	2.22	0.95	8.75	7.70	5.43
	1989	4.92	2.93	8.32	2.19	0.74	11.54	10.56	7.30
	1990	5.87	3.44	9.56	3.01	0.88	12.99	13.26	8.69

Notes: The summation of shares of five different goods in each destination does not necessarily become 100% due to the existence of goods which do not belong to any of above categories.

Table III-47 (1)

Direct Investment Flows (% of shares)

From:	To: HONG KONG	SINGAPORE	TAIWAN	KOREA	ANIES
USA					
USA 1982	46.7	32.3	30.3	29.1	32.9
1986	41.2	36.7	29.2	29.5	33.5
1990	30.6	37.4	24.9	28.7	30.3
EC					
1982	14.2	36.7	9.2	13.1	21.9
1986	10.9	30.0	12.9	9.5	17.9
1990	10.9	27.2	15.6	15.5	18.3
JAPAN					
1982	30.1	16.3	20.9	47.1	23.8
1986	20.5	24.0	25.2	52.3	29.5
1990	31.5	28.2	29.3	48.2	33.2
HONG KONG					
1982	0.0	0.0	8.3	0.0	2.7
1986	0.0	0.0	5.8	3.6	2.6
1990	0.0	0.0	4.6	2.3	2.3
SINGAPORE					
1982	1.7	0.0	0.0	0.0	0.2
1986	1.4	0.0	0.0	0.1	0.2
1990	0.0	0.0	1.0	0.7	0.5
TAIWAN					
1982	1.3	0.0	0.0	0.0	0.1
1986	0.0	0.0	0.0	0.0	0.0
1990	0.0	0.0	0.0	0.0	0.0
KOREA					
1982	0.0	0.0	0.0	0.0	0.0
1986	0.0	0.0	0.0	0.0	0.0
1990	0.0	0.0	0.0	0.0	0.0
ANIES					
1982	3.0	0.0	8.3	0.0	3.1
1986	1.4	0.0	5.8	3.7	2.8
1990	0.0	0.0	5.6	3.6	2.8
ASEAN4					
1982	0.0	0.0	0.0	0.0	0.0
1986	0.0	0.0	0.0	0.0	0.0
1990	0.0	0.0	0.0	0.0	0.0
TOTAL					
1982	100.0	100.0	100.0	100.0	100.0
1986	100.0	100.0	100.0	100.0	100.0
1990	100.0	100.0	100.0	100.0	100.0
86/82	2.01	1.43	1.69	2.53	1.73
90/86	1.58	1.80	2.24	2.17	1.98

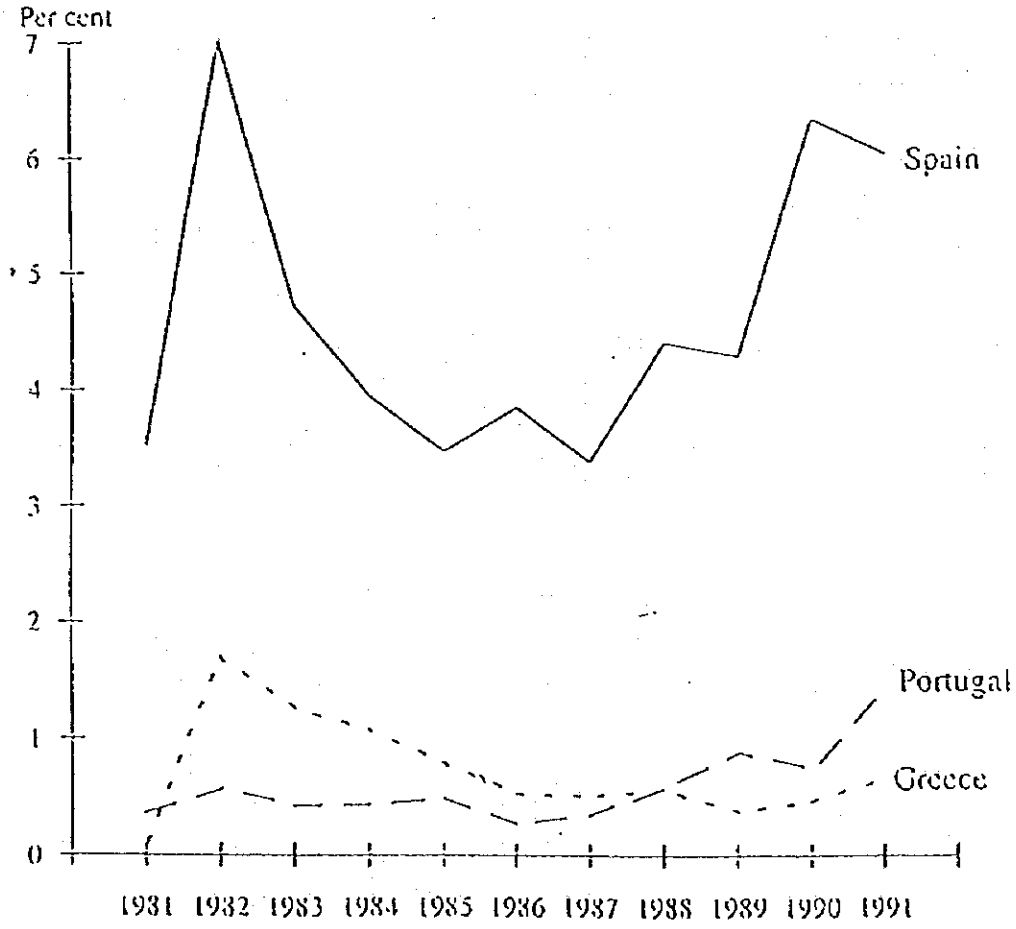
Table III-47 (2)

Direct Investment Flows (% of shares)

From: \ To:		THAILAND	INDONESIA	PHILIPPINE	ASEAN4	CHINA	TOTAL
USA							
USA	1982	3.5	5.6	48.3	11.1	ｴﾗｰ	18.5
	1986	19.1	7.7	57.0	16.3	16.7	22.5
	1990	11.6	5.7	53.6	10.3	12.1	15.5
EC							
	1982	23.2	11.7	9.8	15.3	ｴﾗｰ	17.5
	1986	15.3	12.0	12.2	13.3	8.0	14.4
	1990	7.4	12.3	11.1	10.4	8.5	12.6
JAPAN							
	1982	23.4	36.9	18.0	30.5	ｴﾗｰ	23.2
	1986	20.5	33.2	13.7	27.1	14.3	26.6
	1990	35.4	24.9	15.2	28.4	13.3	27.6
HONG KONG							
	1982	3.4	10.1	5.9	7.5	ｴﾗｰ	5.9
	1986	3.2	11.9	6.0	8.5	54.0	11.3
	1990	5.9	9.6	6.8	8.1	59.5	13.9
SINGAPORE							
	1982	3.6	0.0	0.0	1.2	ｴﾗｰ	0.8
	1986	2.8	2.0	0.0	2.1	0.4	1.2
	1990	3.7	2.6	0.0	2.9	1.2	1.9
TAIWAN							
	1982	6.8	0.0	0.0	2.2	ｴﾗｰ	1.5
	1986	6.2	0.9	0.0	2.6	0.0	1.4
	1990	7.0	6.0	0.0	6.1	0.0	3.3
KOREA							
	1982	0.2	0.0	0.0	0.1	ｴﾗｰ	0.0
	1986	0.1	1.4	0.0	0.8	0.0	0.4
	1990	0.6	4.8	0.0	3.0	0.0	1.7
ANIES							
	1982	14.0	10.1	5.9	11.0	ｴﾗｰ	8.3
	1986	12.3	16.2	6.0	13.9	54.4	14.3
	1990	17.2	23.0	6.3	20.0	60.7	20.3
ASEAN4							
	1982	2.0	2.5	0.0	2.1	ｴﾗｰ	1.4
	1986	2.3	0.0	0.0	0.8	0.0	0.4
	1990	0.9	0.0	0.0	0.3	0.0	0.2
TOTAL							
	1982	100.0	100.0	100.0	100.0	ｴﾗｰ	100.0
	1986	100.0	100.0	100.0	100.0	100.0	100.0
	1990	100.0	100.0	100.0	100.0	100.0	100.0
	86/82	1.33	1.34	1.22	1.33	ｴﾗｰ	1.64
	90/86	2.83	2.45	1.21	2.45	3.20	2.37

Figure III-39

Total FDI- Inflows of Mediterranean EC Member Countries[a]

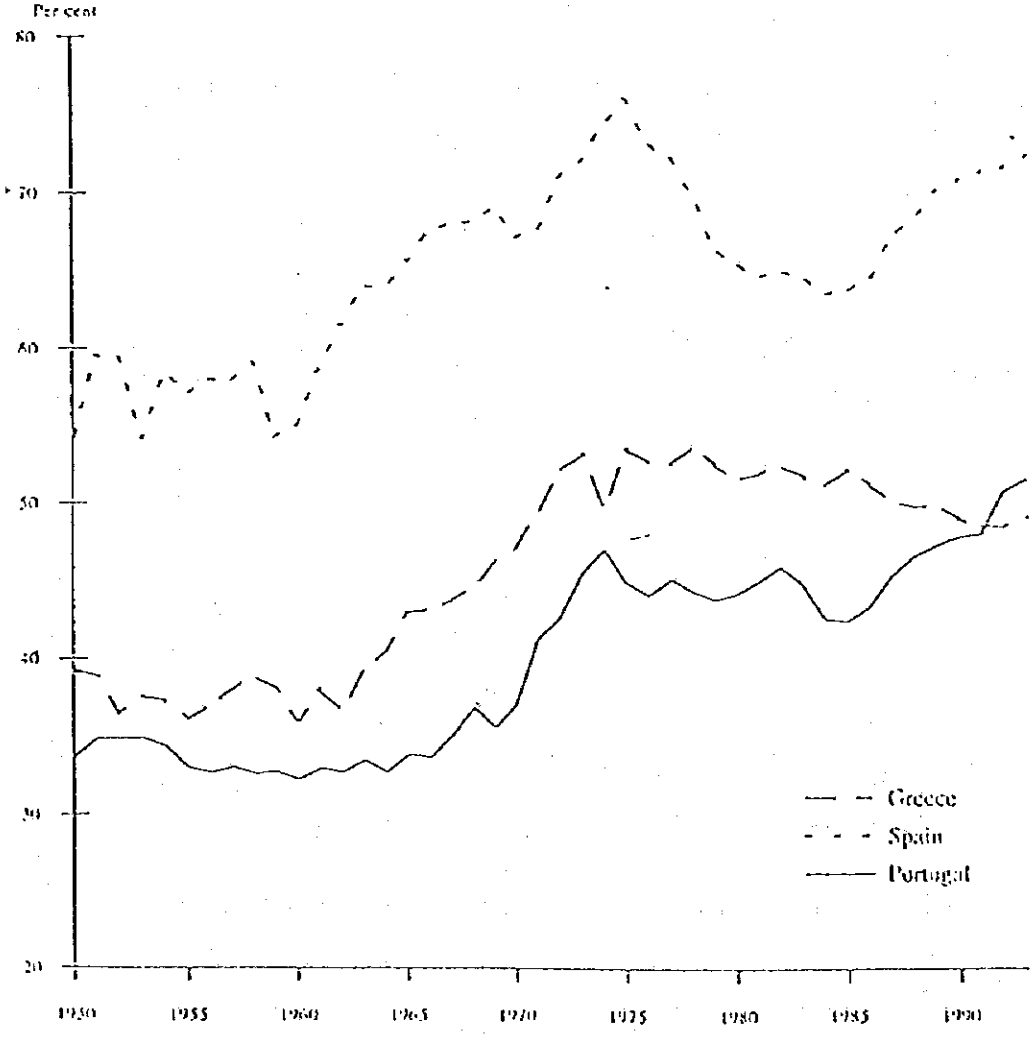


[a] Per cent of total OECD FDI outflows.

Source: OECD [1993b].

Figure III-40

Per Capita Incomes of Southern EC Member Countries, 1950-1993[a,b]



[a]Real GDP per head, measured at purchasing power parities; 1993 estimates. [b]EC core countries (Belgium, France, Germany, Italy, Luxembourg, Netherlands) = 100.

Source: EC Commission (1993); Summers, Heston (1991).

Figure III-41 Network of EC Regional Agreements

1958	
Benelux, France, Germany, Italy	Membership
1961	
Greece	Association Agreement
1963	
Turkey	Association Agreement
ACP countries	Association Agreement (Yaounde)
1970	
Spain	FT Agreement
Malta	Association Agreement
1973	
Denmark, Ireland, UK	Membership
Portugal	FT Agreement
Austria, Finland, Iceland, Norway, Sweden, Switzerland	FT Agreement
Cyprus	Association Agreement
1975	
Israel	FT Agreement
ACP countries	Association Agreement (Lomé)
1976	
Maghreb (Algeria, Morocco, Tunisia)	Cooperation Agreement
1977	
Mashreq (Egypt, Jordan, Lebanon, Syria)	Cooperation Agreement
1980	
Yugoslavia	Cooperation Agreement
1981	
Greece	Membership
1986	
Portugal, Spain	Membership
1992	
Czechoslovakia, Hungary, Poland	Europe Agreement
1993	
Austria, Finland, Iceland, Norway, Sweden, Switzerland	EEA Agreement
Bulgaria, Romania	Europe Agreement

Source: Sapir [1992: 1492].

Figure III-42 An Economic Classification of the Single Market Proposals

Measures	Goods	Services	Persons	Capital
Market access	Abolition of intra-EC frontier controls Approximation of: - technical regulations - VAT rates and excises - food health standards Implications for trade policy (unspecified)	Dismantling trucking quotas Access to inter-regional air travel markets Mutual recognition and "home country control" in financial services	Abolition of intra-EC frontier controls Relaxation of residence requirements Right of establishment for professionals	Abolition of exchange controls Admission of securities listed in other member states Industrial cooperation
Competitive conditions	Liberalisation of public procurement Merger control Review of state aid to industry	Increased competition in air transport Approximation of fiscal and regulatory aspects in services markets	European "vocational training card"	Harmonisation of take-over and holding regulations Fiscal approximation of parent-subsidiary relations
Market functioning	Research programs in telecommunications and information technology Proposals on standards, trade marks, company law, etc.	Approximation of banking and insurance regulations EC system of permits for road haulage EC standard for electronic payments	Approximation of training programs Mutual recognition of diplomas (especially for professionals)	European company statute Harmonisation of intellectual property rights Common bankruptcy provisions
Sectoral policy	Agriculture: elimination of MCAs Steel: reduction in subsidies	Common air transport policy on access, capacity and prices Common rules on mass risks insurance	deferred to European Political Union Treaty	deferred to European Monetary Union Treaty

Source: Pohl, Sorsa, (1992).

5-2 Significance of the APEC Conference in Osaka and Future Prospects - Significance for Viet Nam -

While action on the admission of new members to APEC has been postponed until 1996, it is highly probable that if Viet Nam, now an ASEAN member, submitted a request for admission to APEC in 1997, its request would be approved. But it has been reported that Viet Nam is not eager to obtain APEC membership, because since it joined ASEAN in July 1995, it has had difficulty obtaining the human resources it needs to staff the organization its ASEAN membership requires.

There may be other reasons why Viet Nam is passive about APEC membership. It may, for example, be concerned about the high cost of adjusting to the liberalized trade practices of APEC, an organization whose members include the advanced nations, Japan and the United States. Some observers are concerned enough that they believe it would be best for Viet Nam to postpone its application for APEC membership at this stage.

This report provides an outline of APEC activities, future policy directions of APEC, activities of each of its member countries, and the significance of APEC membership for Viet Nam.

(1) History of APEC

Established in November 1989 with 12 member countries, APEC is the first intergovernmental economic cooperative organization encompassing nations throughout Asia and the Pacific Region. Concerned with a swing to regionalism typified by the European Union and NAFTA, Australia and Japan played leading roles in the formation of APEC, a move undertaken in hopes of sustaining the international system of free trade.

For a short period after its founding, APEC functioned as an amicable consultative group as it established a consensus on four matters: [1] promotion of the Uruguay Round, [2] the removal of obstacles to trade and investment in the region, [3] guaranteeing economic benefits throughout the region and the pursuit of the possibility of policy cooperation, and [4] economic aid for developing countries within the region. APEC has expanded to include 18 member states (1991: China, Hong Kong, Taiwan, 1993: Mexico, Papua New Guinea, 1994 Chile), and it established its secretariat in Singapore in 1993.

APEC passed a major turning point in its history in 1993. In March of that year, President Clinton of the U.S. announced his "New Pacific Community Concept," and stressed the need to strengthen the role of APEC as a way to establish such a community. The president also proposed raising the status of APEC meetings to head-of-state level, and hosted the first unofficial meeting of leaders of the APEC countries in Seattle in November of the same year. It is assumed that the Unites States government has taken these actions so it can use APEC to open Asian markets, strengthening American export industries, and ultimately support its own economic recovery. It constituted a sharp change in direction in American policy towards APEC.

Since this meeting, APEC has tended to emphasize "encouragement of the liberalization of trade and investment within the region," a change which has opened a policy gap between two groups within APEC: on one side, Australia and the United States, two countries whose

goal is to use APEC as a place for negotiations intended to liberalize trade and investment among its members, and on the other side, the ASEAN group and China, which are negative about "liberalization through negotiations," at the same time as they fundamentally approve of liberalization.

At the second unofficial meeting of the leaders of the APEC member nations held in Jakarta in November 1994, the Bogor Declaration was adopted, and through the efforts of the United States, Australia, and Indonesia, the organization established as its goal, "the achievement of liberalized trade and investment in the advanced nations by 2010 and in the developing nations by 2020." But this goal, which was enacted rather forcefully, is somewhat vague, because the APEC members have had difficulty reaching any clear agreement on the specific meaning of "liberalization," the way it is to be achieved, the application of liberalization measures on countries outside the region, and several other important points.

The November 1995 conference in Osaka was an important event; it adopted an "Action Agenda" prepared as a guide to medium-and long-term APEC activities that would be implemented to achieve the goals put forth in the Bogor Declaration. In preparation for this conference, APEC members debated [1] the detailed content of liberalization and the removal of obstacles hindering trade and investment, [2] the liberalization process and schedule, [3] the application of liberalization measures to countries outside the region, and other contentious questions. Although this process was accompanied by a vigorous exchange of conflicting views, with the developing countries of Asia on one side and Australia and the United States on the other, in the end the Action Agenda outlined at the end of this report was adopted.

(2) Attitudes of Major Countries Towards APEC

The member nations of APEC do not necessarily participate in APEC with the same objectives, employ the same strategies in their relations with the organization, nor emphasize the same issues in APEC forums. It is possible to establish the following categorization of the goals various APEC members hope to achieve through their participation in its activities.

1) United States

A A way to prevent the formation of blocks and the adoption of protectionism by the EU.

B Opening of the markets of the countries of Asia (to expand U.S. exports and strengthen the competitiveness of U.S. industry).

2) Australia

A To keep the U.S. in Asia and encourage it to continue helping maintain security in the region at the same time as it participates in the region economically.

B A way to prevent the formation of blocks by the EU and America.

C Open the markets of Asia.

3) Japan

A Boost the economies of the countries of Asia through economic assistance.

B Keep the U.S. in Asia.

C Prevent a swing to protectionism in America and the EU.

4) ASEAN

A Obtain economic assistance and investment from the advanced countries in the region.

B Open the Japanese market and prevent protectionism in America.

C Promote their own liberalization and deregulation.

5) China

A Maintain its most-favored-nation status and promote its membership in the WTO.

B Encourage economic assistance and investment by advanced countries in the region.

C Relax other countries' fear of China.

Recently, member countries other than China have begun to share the view that APEC is a useful tool for the encouragement of the liberalization and internationalization of China.

(3) Significance of the Osaka Conference

1) At this conference, the Action Agenda establishing medium-and long-term APEC policies for action to achieve the goals of the Bogor Declaration was adopted, and APEC moved to the activity stage.

2) The conference succeeded in establishing a unique policy of "cooperative, autonomous liberalization" that recognizes the autonomy of each member instead of a policy of liberalization and removal of hindrances to trade and investment through negotiations. This policy combines joint action with autonomous action by the organization members as the basic way to achieve autonomous liberalization and regulation relaxation measures in Asia and the Pacific Region.

The ASEAN Group and China have taken steps to liberalize and relax regulations autonomously since the late 1980s, a process that has let these countries enjoy the economic benefits of liberalization. Liberalization in Asia has accelerated, and even without a framework for liberalization in the region, the process is likely to continue among the countries of Asia. The governments of the nations of Asia are also willing to permit greater liberalization. But these countries are also wary of the phrase "through negotiations," viewing it as an approach that might let powerful countries force liberalization upon them. And when negotiations are conducted, participating countries will use liberalization measures as negotiating strategies, which means that there is a danger of countries being reluctant to suggest liberalization measures. The countries of Asia have a high opinion of this policy of "cooperative autonomous liberalization," viewing it as a realistic and effective method for APEC with its diverse membership.

(4) Outline of the Action Agenda

The Action Agenda establishes medium-and long-term activity plans for three areas: [1] liberalization of trade and investment, [2] removal of obstacles hindering trade and investment, and [3] economic and technological cooperation. The Agenda was proposed at a cabinet-level meeting, and adopted at a heads-of-state meeting.

The gist of the Action Agenda and the framework for implementation of the Action Plan are shown on an attached document (See annexed documents for the English versions of the entire Action Agenda and the joint declaration from the Cabinet Level Conference).

The following is the content of the general principles and negotiating process that will be applied to the entire process of APEC liberalization and removal of obstacles based on the Action Agenda.

[General Principles]

A. Comprehensives

The liberalization and removal of obstacles hindering trade and investment will deal with all obstructive factors.

- Japan, Korea, and China opposed this principle, insisting that agriculture be treated as a special case, and an agreement was reached on this matter based on the use of Article 8: The Principle of Flexibility.

B. Conformity with the WTO

Liberalization and obstacle removal measures will conform with the WTO.

C. Parity

APEC members will consider the overall level of liberalization and removal of obstacles already achieved by each of the APEC members as they strive to guarantee overall parity of liberalization and unhindered trade and investment.

- The U.S. strongly pressed this point in opposition to the Asian countries, but an agreement was reached on the wording: "shall strive to guarantee parity."

D. Non-discrimination

The organization shall apply or strive to apply the principle of non-discrimination between any two countries and between multiple countries. And the benefits of liberalization in the Asia Pacific Region will actually eliminate barriers between APEC members and non-APEC members.

- The U.S. argued forcibly that it could not accept the principle of non-discrimination because of the Jackson Bank Agreement, but was persuaded to agree to accept the wording, "strive to guarantee" by the Japanese.

E Transparency

The transparency of all laws, regulations, and administrative procedures that effect the flow of products, services, and capital among APEC members shall be guaranteed.

F Standstill

APEC members shall strive to refrain from taking any measures that could increase levels of protection.

G Simultaneous Introduction, Continuing Process, and Differing Time tables

Members shall begin the liberalization, removal of hindrances, and cooperation processes at the same time without delay, and shall make a genuine ongoing contribution to these processes.

H Flexibility

Considering the differing stages of economic development achieved by various APEC members and the diverse circumstances effecting each member, flexibility of the liberalization and obstacle removal processes will be allowed so that each member can deal with the diverse problems each must overcome.

- This article was strongly opposed by Australia, which insists upon the liberalization of agriculture in particular.

I Cooperation

The members shall take positive steps to implement economic and technological cooperation that contributes to liberalization and the removal of obstacles to trade and investment.

(5) Future Problems

The Action Plan that will be proposed in October 1996 is now under study by APEC members. A plan which will be proposed as a medium-term plan covering the next five years, the Action Plan will be a rolling plan subject to annual review. Consultations regarding this plan will be conducted in an APEC forum prior to its proposal at the October Cabinet Level Conference in Manila.

But it is not necessarily an easy task to put together an Action Plan. Domestic groups opposed to liberalization must be persuaded to approve the plan, and this requires strong leadership in each member country. It is undeniable that if the content of the plan which is proposed for evaluation in Manila is limited, the U.S. and Australia, which are both eager to achieve further APEC liberalization, will be disappointed, and there will be a danger that APEC will lose momentum. For this reason, all members are doing all they can to prepare a satisfactory plan.

It is not clear which direction APEC will move in the future; whether its goal will be a free trade treaty or whether it will continue to push ahead with liberalization based on the most-favored-nation principle. The U.S. and Australia will not go as far as a free trade treaty, perhaps because of opposition from the ASEAN group. This is because the adjustment costs of a free trade treaty would be very high. And considering the EU and the world trading system, it would be unreasonable to try and work towards a free trade agreement in the APEC group, whose members provide 53% of the world's GNP. All efforts to achieve free trade in the world trading system should be promoted in a WTO forum incorporating the EU.

(6) Significance for Viet Nam

As this report has shown, APEC is entering a period of activity intended to liberalize trade and investment. But the target year for the achievement of this liberalization by the developing countries is set as 2010, far in the future. And unlike AFTA, other free trade agreements, and the WTO, it is possible for APEC members to autonomously and flexibly implement liberalization measures. So for Viet Nam, the cost of adjustment following APEC membership would, in the short-term at least, not be as high as it would be if it joined AFTA. One reason for this is that Viet Nam would be able to postpone liberalization in those areas where the adjustment cost would be high.

The benefits of APEC membership on the other hand, are extremely great. First, it would bring the benefits of most-favored-nation status from the U.S. It could also be counted on to increase economic assistance and investment by other APEC member nations. This would contribute a great deal to expanding the exports of Viet Namese products throughout the APEC region. It would also help Viet Nam develop its market economy and internationalize other systems within the nation by entitling the country to economic and technological assistance that would support the development of human resources and the improvement of the infrastructure it needs to smooth the operation of systems and regulations: standards and approvals, customs procedures, producing region regulations, dispute mediation, etc.

List of the Osaka Action Agenda

Part One: Liberalization and The Removal of Obstacles

Section A: General Principles

The following general principles shall be applied to the entire liberalization and obstacle removal process of APEC in accordance with the Action Agenda.

1. Comprehensives
2. Conformity with the WTO
3. Parity
4. Non-discrimination
5. Transparency
6. Standstill
7. Simultaneous Introduction, Continuing Process, and Differing Time tables
8. Flexibility
9. Cooperation

Section B: Framework For Liberalization and The Removal of Obstacles

Process of Action

- Consultations concerning the enactment of the Action Plan by each member shall begin immediately after the Osaka Conference.
- Each member shall submit its Action Plan in the Philippines in 1996.
- The implementation of the Action Plan shall begin in January 1997.
- The state of implementation of each member's action plan shall be periodically reviewed.
- Each member's action plan shall be revised.
- Action in individual areas shall be added or improved as necessary.

Diversified Action

Overall Review

Section C: Action in Various Areas

1. Customs tariffs
2. Non-tariff measures
3. Services
4. Investment
5. Standards and compatibility
6. Custom procedures
7. Intellectual property rights

8. Competition measures
9. Governmental procurement
10. Relaxation of regulations
11. Producing region regulations
12. Conflict mediation
13. Movement of business personnel
14. Implementation of the decisions of the Uruguay Round
15. Collection and analysis of information

Part Two: Economic and Technological Assistance

Section A: Essential Elements

1. Common Policy Concept (Purpose, principles, priority areas, etc.)
2. Common Action
3. Policy Dialogues

Section B: Economic and Technological Assistance By Area

(An Action Program providing a framework for the above elements in each of the following 13 fields shall be prepared, the essence on the right shall be incorporated in the Action Agenda, and the Action Plan shall be appended.)

1. Human resources development
2. Production technology
3. Medium and small enterprises
4. Economic infrastructure
5. Energy
6. Transportation
7. Electrical communications and information
8. Tourism
9. Trade and investment data
10. Trade promotion
11. Marine resources preservation
12. Fisheries
13. Agricultural technology

Section C: Further Growth

Note: "Partners for Progress" (PFP) is positioned as a method of promoting economic and technological assistance (including that which contributes to the liberalization and removal of obstacles hindering trade and investment), and is also incorporated into Part two.