

CURRENT SITUATIONS AND FUTURE DEVELOPMENT
OF THE THAI ECONOMY

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NARONGCHAI AKRASANEE

REPORT PREPARED FOR
THE JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

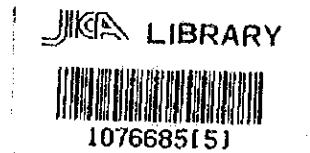
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INTRODUCTION

1. This report is a product of the joint research of Kobe University and Thammasat University. The joint research is appropriately supported by JICA's International Research Cooperation Program. For undertaking the joint research, the members of the Kobe Team consisting of Professor Hikoji Katano, Research Institute for Economics and Business Administration, and Professor Kiyoshi Ikemoto, Faculty of Economics, visited Bangkok and held the meeting with the members of the Thammasat Team which included Dr. Narongchai Akrasanee, Dr. Somsak Tambunlertchai, and Dr. Supote Chunanantatham, all of the Faculty of Economics. The meeting was held from 6th to 20th November 1978. Many experts in several fields were invited to the meeting for briefing the economic situations of Thailand from the view-points of their own specific fields. They came from universities, governmental organizations, international organizations and private enterprises. (See Appendices I and II). After the briefings, the Team members discussed about the current situations and the future development of the Thai economy, and produced their individual papers that have been bound together into this report.

2. This report is more of a collected papers rather than a consolidated report. Thai economists may have a comparative advantage in the knowledge base of the Thai economy, while Japanese economists may have a method to analyse Thai economic situations from the view-point of a developed country. This is the main reason that this joint research was organized. However, there is a little difference among their individual assessments on the development process of the Thai economy, even though there is no difference in their general consideration of the current situations and the future prospects of the Thai economy. This

little difference might be adjusted through discussions. But we have considered that this should be left as it is so as to be able to recognize each individual thinking of either Thai or Japanese economists. Thus this report has been left as a volume of collected papers.

3. This report contains six independent papers. In Chapter 1, Katano describes a rather schematic review on the development process of the Thai economy from the view-point of a balance of production and effective demand. A more realistic description of current development and future prospects of the Thai economy is examined in Chapter 2 by Narongchai. A deeper analysis is given in Chapter 3 on industrialization by Somsak, in Chapter 4 on industrialization and export expansion by Ikemoto, and in Chapter 5 on foreign trade and balance of payments by Supote. Lastly, in Chapter 6, Narongchai gives a direction of alternative development strategies for Thailand for the 1980's.

December 1978

Hikoji Katano

Narongchai Akrasanee

CHAPTER 1

REPRODUCTION STRUCTURE AND ECONOMIC DEVELOPMENT

Hikoji Katano

A. INTRODUCTION

1.01 This is a general description of new directions of Thai economic development strategies. The new directions come from an examination of the past performances and the current situations of the economy. So, here in this chapter, the new directions have to be suggested through the examinations about the Thai economy.

1.02 Thai economy has traditionally depended on agricultural production. However, in an agro-monocultural economy, a high productivity and a high income level of the economy can not be expected; this is obvious in relation to the high productivity and the high income level of the advanced industrial economies. And also the agricultural production is very unstable in itself due to the character that it may be easily affected by changes in natural conditions. So the strategies of development of the Thai economy have been concentrated in :

a. increasing the productivity and the income level of the economy through industrialization, and

b. stabilizing the growth process of the economy by the industrialization.

Industrialization makes it possible to increase productivity of an economy as a whole through an expansion of roundabout production or an expansion of social division of labour. And the increase in productivity makes possible the increase

In income level of the economy. On the other hand, the decreasing weight of agricultural production and the increasing weight of industrial production, when the industrialization goes on, make it possible to stabilize the growth process of the economy, because an industrial production may be more stable than an agricultural production so long as an effective demand for industrial products is guaranteed. Thus industrialization has been the most effective strategy to realize the needs of the Thai economy.

1.03 However, the Thai economy has to be co-existing with the developed economies in the framework of the world economy.

The developed economies have,

- a. a large financing capacity to establish production facilities,
- b. an advanced technology to manage production, and
- c. a world-wide market to sell every kind of commodities, covering the developing economies as well as the developed economies.

On the other hand, at the early stage of industrialization in the Thai economy,

- a. there might not be a big stimulation to invest for establishing industrial facilities among the local capital,
- b. the local capital had no advanced technology to manage production that is essentially needed for promoting industrialization, and
- c. the local capital had no ability to develop new market, even in the Thai domestic economy.

Thus, when the Thai economy promotes industrialization, the crucial problem might be how to overcome these difficulties. And the Thai economy has chosen the way to utilize a foreign assistance in (1) financial resources, (2) technology, and

(3) market in the developed economies.

1.04 Then, at first, the Thai economy has selected some industries to promote, the products of that have been previously imported from the developed economies, and the development of these industries might be considered easier than of the other industries. At the same time, the Thai economy has raised the rates of import duties for the products. Stimulated by this policy, the enterprises of the developed economies, so far exported the products to Thailand, have changed their strategies from "domestic production in the developed economies and export to Thailand" to "local production and local distribution in Thailand". Otherwise, they might lose their existing markets in Thailand. Because (1) the import prices of the products in Thailand might be higher than the prices of domestic products in the country due to the high rates of import duties, and (2) even if an enterprise in the developed economies did not change the strategy, there might be a large possibility to make the other enterprises in those economies change their strategies.

Along with this trade policy, the Thai economy has given some cordial policies to the enterprises that have invested in the promoted industries. These policies have also stimulated the foreign enterprises to change their strategies and to directly invest in the promoted industries in Thailand. Thus the industrialization in Thailand has started. This is the so-called "import-substituting industrialization".

1.05 So the foreign enterprises have begun to directly invest in Thailand for establishing their production facilities in this country. The direct investment has usually established a joint-venture in Thailand with the Thai local capital; this is also subject to the guideline of public administration in this country.

As the joint-ventures have shown their profitability in industrial production, and also as they have introduced an advanced technology to manage industrial production into Thailand and this technology has been diffused over the country, the intention of the local capital to invest for industrial production has been intensified. In some of the promoted industries, for example textile industry, an activity of the local capital has been boomed over the 1960's.

1.06 After the performances of industrialization in Thailand over the 1960's and upto the cease-fire in Vietnam, the Thai economy has been faced with a turning point. The import-substituting industrialization, so far promoted, has ended its first stage. This sort of industrialization should be developed to transform the promoted industries into the exporting industries. Otherwise, the real objective of industrialization may not be achieved. However, the existing domestic market has been almost captured by domestic products, while a scale-merit in production in the promoted industries has never been fully utilized for the level of production at that time. So an unit cost of production of Thai domestic products has never been minimized. Thus, an export competitiveness of the Thai products might be still inferior to the export competitiveness of the same kinds of commodities produced in the other countries; even in relation to that of the advanced developing countries in Asia like Korea, Taiwan and Hong Kong.

Then, in order to further promote industrialization, the Thai economy needs more effective demand for the domestic products, either in domestic market or in external market. However, the inferior export competitiveness of the domestic products may not make possible to further expand the external market for the products. More effective demands should be created in the domestic market. And, if more effective demands can be created, it may stimulate higher level of production. The higher level of production will lead to more utilization of the

scale-merit in production. This makes it possible, in turn, to decrease the unit cost of production of the domestic products, and to improve the export competitiveness of Thai products. Then the exports of Thai products may be expanded. And effective demands for the products may be increased even in the external market. Thus, industrialization in Thailand should be further developed.

1.07 So far, industrialization in Thailand has been promoted mainly in industries that could produce an import-substitutable type of consumption goods. However hard the Thai economy may try to further develop industrialization, the relative shortage of effective demand for the products has made the further development difficult. Then, at present, in order to increase effective demands for Thai domestic products, it should be seriously considered to increase a purchasing power of consumers in Thailand.

The level of effective demand as a whole of the economy depends not only on income level but also on the pattern of income distribution. Even if the growth of GNP may increase the income level, the expansion of effective demand depends on the pattern of income distribution. The expansion of consumption demand may be very sensitive to the pattern of income distribution. The more equalized distribution of income may generate higher level of consumption. In the current situation of Thailand, there is very severe disparity of income levels between the urban area and the rural area; high income level in the urban area and low in the rural area. On the other hand, there is a relative shortage of consumption demand for the domestic products in relation to production. Thus, in order to further develop industrialization in Thailand, rural development has to be directed as a new strategy of the economic development. Rural development may increase income level in the rural area and helps to equalize income distribution between the urban and the rural areas in Thailand. On this line of

considerations, a development of agro-based industries, located over the rural area, has to be suggested.

1.08 As described above, in order to improve the export competitiveness of Thai industrial products at the current situation, a full utilization of scale-merit in production is required so as to decrease an unit cost of production. So far, for decreasing the unit cost of production and improving the export competitiveness of Thai domestic products, a transfer of technology has been seriously required. Technology means the whole system of production and business administration; production control, schedule control, quality control, market development, etc. are covered by the broad sense of technology. At present, the importance of technology transfer is well recognized. But, in the current situation in Thailand, the full utilization of scale-merit in production has become more important than the transfer of technology. Because, the technology that can be used at the present scale of production has already been transferred and introduced, the decrease in unit cost of production has not been realized mainly by the incomplete utilization of scale-merit in production.

To fully utilize the scale-merit in production, the industries have to realize higher level of production than ever before. This requires, on the other hand, more effective demand for Thai industrial products. As mentioned above, most of the Thai industrial products are consumer goods. So it is necessary to increase demand for consumer goods. For this purpose, also mentioned above, the more equalized income distribution between the urban and the rural areas through the rural development is necessary.

1.09 Currently, the economic development of Thailand is not the problem just peculiar to this country. This problem should also be considered in

the framework of the world economy as a whole. An international cooperation between this country and the developed countries has to be positively considered for the benefit of both sides.

Since the so-called "oil-crisis", the economies of the developed countries have suffered from severe depression, that might be caused by relative shortage of their effective demands for their own products in relation to the production. We consider that the expansion of their external markets towards the economies of the developing countries should be one of the very effective ways for the developed economies to relieve from the current depressive situation. However, at present, the developed economies can not expect to follow the same way as they did in the expansion of their external market in their old days : the imperialistic invasion to the developing economies. The way that the developed economies can follow today, is to create the required effective demand through a reorganization of international system of division of labour in the framework of the world economy as a whole. The developed economies have some industries that are becoming rather inferior in their comparative advantages. Then the developed economies have

- a. to positively adjust those industries and consolidate their own industrial structures,
- b. to transfer those industries to the developing economies and to assist in the promotion of industrialization in the developing economies, and
- c. to open the existing markets for the products of the developed economies to the developing economies so that they can more easily expand their market.

This process will make it possible to further promote economic development of the developing countries as a whole. This makes, in turn, possible to increase the imports of the developing economies from the developed economies. The increase of imports increases the effective demands for the products of the developed economies, and helps the developed economies to relieve from the current depressive situations.

However, this sort of benefit for the developing economies has to be indifferently given to developing economies. Whether the Thai economy can take the benefit or not may depend on its own self-reliance. For this purpose, the Thai economy should have more export competitiveness of its own products. Otherwise, it can not expect to expand the market in the external world. Then, again, we have to suggest the same strategies as a new direction of Thai economic development that are summarized by the rural development in Thailand.

1.10 These considerations finally conclude that, for further development of industrialization in Thailand, the economy is suggested to intensively take the strategy of rural development. The rural development creates more effective demands for the domestic industrial products. This, in turn, stimulates the higher level of production, that makes possible to fully utilize the scale-merit in production so as to decrease the unit cost of production and to improve the export competitiveness of Thai industrial products. Then the effective demands for Thai industrial products may be increased more than ever before. As effective demands continue to increase, industrialization can be further developed.

And, as these strategies are effectively performed, the Thai economy can get more benefit from the reorganization of international system of division

of labour that the developed economies have to perform by their own sake as well as for their international cooperations with the developing economies.

1.11 This is the brief summary of descriptions in this chapter. And, in the following sections, we develop rather detailed descriptions of these problems. In Section B, we explain basic characters of the Thai economy, especially at the early stage of industrialization in Thailand. In Section C, the past performances of industrialization are described. Section D concentrates itself on examining current situations of the Thai economy, especially in relation to the relative shortage of effective demands for the domestic industrial products and to suggest a new direction of economic development in Thailand. And Section E concerns the possible international cooperations of Thailand with the developed economies. At last, in Section F, we add the important points, suggested in this chapter, as a concluding remarks.

B. BASIC CHARACTERS OF THE THAI ECONOMY

Topographical Characters

1.12 Thailand is located in Asia's tropical monsoon zone. This means that the Thai economy has an abundant endowment in natural productivity of land. Total area of Thailand is 514,000 sq km, of which about one third is an agricultural land. Annual rain fall on the average is at most 1,400 mm in the rice cultivation area of Central Thailand. This is rather short of the required rain fall per year for rice cultivation. About 1,600 mm of rain fall per year is the minimum requirement for rice cultivation in the tropical zone, when an irrigation system is not completed. In Thailand, the irrigation system is not completely established. However, flood over the rice cultivation area after the rain has provided a fertile soil over the area. Thus the rice cultivation area could annually maintain the land in very productive condition.

This does not mean that an establishment of irrigation system is not necessary in Thailand. Even though the flood may provide fertile soil to an exhausted land, it causes many other troubles to people who live in the area. For escaping from this situation, the establishment of irrigation system should be completed. And this also makes it possible to increase agricultural productivity along with intensive use of fertilizer.

1.13 Depending on this natural condition, the Thai economy has traditionally concentrated its production largely on agriculture, and supported its population with the products.

The share of agricultural production in Total GDP was 41.4% at 1960, as shown in Table 1.1. This means the large dependence of the Thai economy on

agricultural production. On the process of industrialization since 1960, the share of agricultural production has been steadily declining along with the relative increase in industrial production. And, at 1977, the shares of both agricultural and industrial productions became nearly the same, at about 27%. This is due to the rapid progress in industrialization in relation to agricultural development. The real growth rate of agricultural production is about 5.0% per annum for the period of 1967-77, while the real growth rate of industrial production is about 10.0% per annum for the same period. However, anyhow, the share of agricultural production has never lost its superior position to the share of industrial production.

Table 1.1 : Share of Agricultural Production

(as % of Gross Domestic Product)

	Agriculture	Industry ^{*)}	Service
1960	41.4	17.8	40.8
1965	36.9	19.6	43.5
1970	32.7	22.6	44.7
1975	30.4	23.6	46.0
1977	27.2	27.0	45.8

*) Industry includes mining, manufacturing and construction.

Source : NESDB, National Income of Thailand.

The growth rate of population of Thailand was about 2.5% per annum for the period 1960-77. On the other hand, as shown above, the real growth rate of agricultural production is about 5.0% for the same period, of which the real growth rate of paddy production is 4.8% for the period. So agricultural production of Thailand might be enough to support the population. Moreover, the Thai

economy might have an excess supply of agricultural products over the domestic demand.

Thailand has an excess capacity in supply of agricultural products. So Thailand is potentially an exporting country of agricultural products. Actually, the large part of Thai exports is composed of primary commodities, as shown in Table 1.2. And the imports of primary commodities are very little. Most of primary commodities are agricultural products for the Thai exports. Thus agricultural production in Thailand has contributed to economic development through foreign exchange earning.

Table 1.2 : Export and Import of Primary Commodities *)

(Millions of Baht)

	Exports			Imports		
	Total	Primary Commodities	(%)	Total	Primary Commodities	(%)
1960	8,614	8,240	95.7	9,622	1,035	10.8
1965	12,941	11,809	91.3	15,433	1,547	10.0
1970	14,772	11,425	77.3	27,009	2,794	10.3
1975	45,007	33,982	75.5	66,835	6,764	10.1
1977	71,198	52,152	73.2	94,177	10,957	11.6

*) SITC 0-2 are included here.

Sources : Department of Customs.

Basic Needs of the Thai Economy

1.14 As shown in Table 1.3, the income level of Thailand is relatively low among the countries of the world. For example, at 1975, the income level of Japan is about 11 times of Thai income level, and the income of the USA is

about 18 times of Thai. More generally, the income level of Thailand at 1975 is nearly equal to the average income level of the developing countries (excluding the oil producing countries), while it is about one fifteenth of the average income level of the developed countries. And, in relation to the world average, the Thai income level is about 30% of the average. These are the facets of the actual features of the income gap between the North and the South. This sort of severe income disparity needs to be corrected. This is the so-called "North-South problem". At present, this problem is being considered through international cooperations between the developed and the developing countries. However, what is more important is the self-reliant endeavour of each individual developing country to increase its income level through economic development. International cooperation between the developed and the developing countries or the economic assistance of the developed countries to the developing countries is considered, in principle, to be indifferently provided for every developing countries. The share of the benefit for a developing country, through international cooperation or economic assistance, should be expanded according to the developing country's self-reliant endeavour.

Table 1.3 : Income Levels of Selected Countries, 1975

		(US\$)	
World	1,604		
Developed Countries	5,176	Developing Countries	350
U.S.A.	6,236	Singapore	2,403
Japan	3,842	Malaysia	568
		Thailand	354
		Philippines	325
		Indonesia	130

Source : United Nations, Statistical Yearbook.

1.15 As described above, the income level of Thailand is relatively low. One of the reasons may be pointed out by insufficient development of the rural area in Thailand. About 90% of total population of Thailand has made their living in the rural area. And their income level is very low in relation to the income level of the people who live in the urban area. As shown in Table 1.4, the income level of the urban area is about three times of the income level in the rural area. When rural development is effectively realized, the income level in the rural area should be further increased. Then the income level of the economy as a whole should be improved much better than ever before.

Productivity of an economy that largely depends on agricultural production is, as a rule, lower than productivity of an industrialized economy. Income level of the economy as a whole is closely related to the productivity of the economy as a whole. So industrialization is one of the necessary conditions to increase the income level of the economy as a whole.

1.16 In addition to this sort of fundamental principle of economic development, the following considerations should be taken.

The agricultural production is, as usual, easily affected by changes in natural conditions like a bad weather. So a stability of the economic growth process, which largely depends on agricultural production, is very sensitive to the changes in natural conditions. This sort of situation is not desirable for the economy; the more stable growth process of the economy, the more desirable for a smooth development of the economy.

As shown in Table 1.5, in the Thai economy that largely depends on agricultural production, the growth rate of GDP is very closely correlated to

Table 1.5 : Income Disparity between Rural and Urban Areas
(at 1972 prices)

	Urban Area ¹⁾			Rural Area ²⁾			Whole Economy		
	Gross Regional Product (Mil.B.)	Population (1,000)	Income Level (Baht)	Gross Regional Product (Mil.B.)	Population (1,000)	Income Level (Baht)	Gross Domestic Product (Mil.B.)	Population (1,000)	Income Level (Baht)
1960	-	-	-	-	-	-	68,248	26,300	2,595
1965	-	-	-	-	-	-	96,789	30,900	3,132
1968	34,944	3,247	10,762	89,984	30,305	2,969	124,928	33,552	3,723
1970	42,389	3,517	12,053	103,598	32,033	3,234	145,987	35,550	4,106
1975	54,391	4,178	13,018	149,360	37,691	3,963	203,751	41,869	4,866
1977	65,500	4,531	14,456	168,623	39,508	4,268	234,123	44,039	5,316

1) Bangkok Metropolitan Area is considered as Urban Area of Thailand.

2) Rural Area consisted of 4 regions (North, South, Northeast and Central), excluding Bangkok Metropolitan Area.

Source : NESDB, Division of Population Planning.
NESDB, National Income of Thailand.

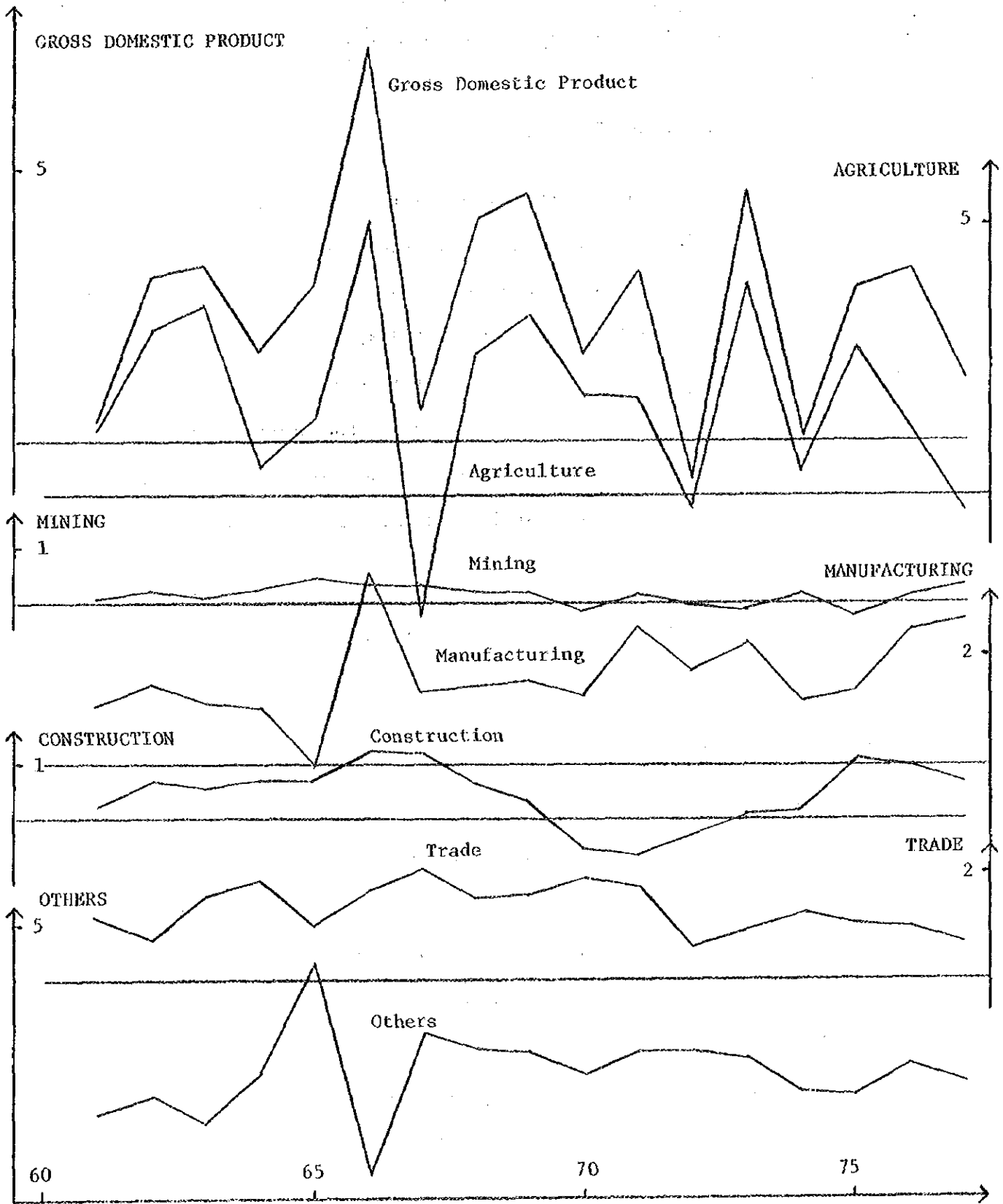
Table 1.5 : Structure of Sectoral Growth, 1966-77

	Sectoral Growth Rate	Sectoral Weight in GDP	Sectoral Contribution to GDP Growth Rate	Correlation Coefficient of Sectoral Growth Rate to GDP Growth Rate	Stability ^{*)} of Sectoral Growth Rate
	(%)	(%)	(%)		
Total	7.5	100.0	7.5	1.000	0.255
Agriculture	4.9	33.3	1.6	0.851	0.997
Mining	7.7	1.7	0.1	0.077	1.322
Manufacturing	11.1	15.4	1.7	0.565	0.513
Construction	8.1	5.3	0.4	0.288	1.198
Commerce	7.7	17.4	1.3	0.180	0.344
Others	8.6	26.9	2.4	-0.252	3.968

*) Stability of sectoral growth rate is defined as a ratio of standard deviation in time series of sectoral growth rate to average growth rate. Here the smaller ratio means the more stable growth of the sectoral production.

the growth rate of agricultural production; the correlation coefficient is 0.851 for the period 1960-77. On the other hand, the correlation coefficients of the GDP growth rate to the growth rates of the other production sectors are much lower than that. This is mainly because of the fact that the weight of agricultural production in total GDP is so large that it shares about one-third of total GDP. The instability of growth rate of agricultural production is very high (0.997) in relation to that of manufacturing production (0.513). So the stability of GDP growth rate may be largely affected by the instability of the growth rate of agricultural production, even though the public expenditures for construction and other purposes may alleviate the instability so as to realize the stable growth of GDP. Actually, the stability of GDP growth rate is 0.255 for

Chart 1.1 : Growth Rates of Sectoral Production (%)



Source : NESDB and the Bank of Thailand

the period 1960-77, that means very stable growth of GDP over the period. This might be realized through an irregular expenditures in a part of construction and public administration, that is reflected by very unstable growths of construction (1.198) and others (3.968).

For stabilizing the growth process of the economy as a whole, the economy has to promote industrialization so as to decrease the weight of agricultural production in the total production of the economy as a whole. The stability of growth of manufacturing production is 0.513, that is rather high in relation to the stability of growth of agricultural production (0.997). Then, as the weight of agricultural production decreases and the weight of manufacturing production increases, the growth of total GDP may become more stable than ever before, so far as a balance between production and effective demand is, more or less, maintained.

Thus, industrialization should be considered as one of the most important strategies for the economic development.

International Cooperation

1.17 What is more important condition for the Thai economic development is that the development process has been closely related to the economies of the advanced industrial countries. Historically, the Thai economy, as well as the other developing economies, has to be co-existing with the developed economies in the framework of the world economy. So far the Thai economy has been an agro-monocultural economy for a long time, supported by the abundant endowment in natural productivity of land. It has started the development through industrialization for the last few decades. On the other hand, the advanced

industrial economies have their histories of economic development over a hundred years. In such a situation, there would be a big development gap between the developing and the developed economies that has been accumulated over the long period.

1.18 The development gap has emerged in three facets of capital, technology and market. On the development process, the developed economies have accumulated (1) a large financing capacity to establish production facilities, (2) an advanced technology to manage production, and (3) a world-wide market to sell their products. On the other hand, at the early stage of industrialization in the Thai economy, (1) there might not be a big stimulation to invest for establishing industrial facilities among the local capital, (2) the local capital had no advanced technology to manage production that is essentially needed for promoting industrialization, and (3) the local capital had limited ability to develop new market by itself.

Most of the Thai local capital has been controlled by the Overseas Chinese that have an ability to finance a large amount of capital. However, so far they have concentrated their interest to invest their capital mainly to commercial transactions, because their interest has been confined to the very short-term profitability. Profit from investment in industrial activity may be realized after a rather long time. Under the unstable socio-economic conditions in the developing countries like Thailand, a profitability after a long time can not always be the objective for investment.

The insufficient investment intention for industrial activity in Thailand has been also caused by an insufficient investment climates. In addition to the unstable socio-economic conditions, a rare accumulation of social capital

has caused the insufficient investment intention. Under the situation of insufficient transportation and communication system and low level of skill of the labour force, a smooth progress of industrial activity may become very difficult. This might also make the Thai local capital owners reluctant in investing their capital to industrial activity.

In the developed economies, the technology has been developed and advanced along with their progress of industrialization. Currently, they have the advanced technology to manage their production for the entire system. When the developing economies start their industrialization, these economies need the current advanced technology to manage the production system. With the old-type of technology, an effective progress of industrialization may not be expected even in the developing economies. The final objective of industrialization is to make the promoted industries possible to be the exporting industries. Then the products should have the export competitiveness in the world market. Even if the industrialization starts with the old-type of technology, the promoted industries have to be equipped with the advanced technology on the process of progress in the industrialization. Otherwise, they can not expect to have the export competitiveness in the world market.

As described above, the Thai local capital has intensified their activities in the commercial transaction. As concerned with their activities, they have had their own market; especially of the primary commodities. However, as for the industrial products, the world market has been controlled by the big capital of the developed countries, even the market in the developing economies has been controlled as their export market. Whenever the local capital would develop a new market for industrial products, the severe competition with the

big capital of the developed economies has to be expected. In order to get an advantage over the competitors of the developed economies, the local capital has to gain the advantages in both price and non-price aspects. This needs the advanced technology to develop market as well as to manage production. However, at present, the local capital has to utilize the imported technology from the developed economies. The local capital does not have its own technology to develop a new market.

1.19 If the Thai economy would intend to develop itself on a basis of complete self-sustenance, excluding any influence from abroad, a sort of autarkic development of the economy could be performed. However, in this case, the growth rate of the economy may be so low that the income gap between the Thai economy and the developed economies should become more severe. And it may be expected that the Thai economy should have many difficulties whenever the economy would enter and cooperate with the world economy in the future. So the Thai economy has chosen a way to develop itself by introducing

- a. financial resources for development,
- b. advanced technology for developing industrialization, and
- c. market for absorbing products,

through an international cooperation with the developed economies or an economic assistance from the developed countries.

C. PAST PERFORMANCE OF INDUSTRIALIZATION

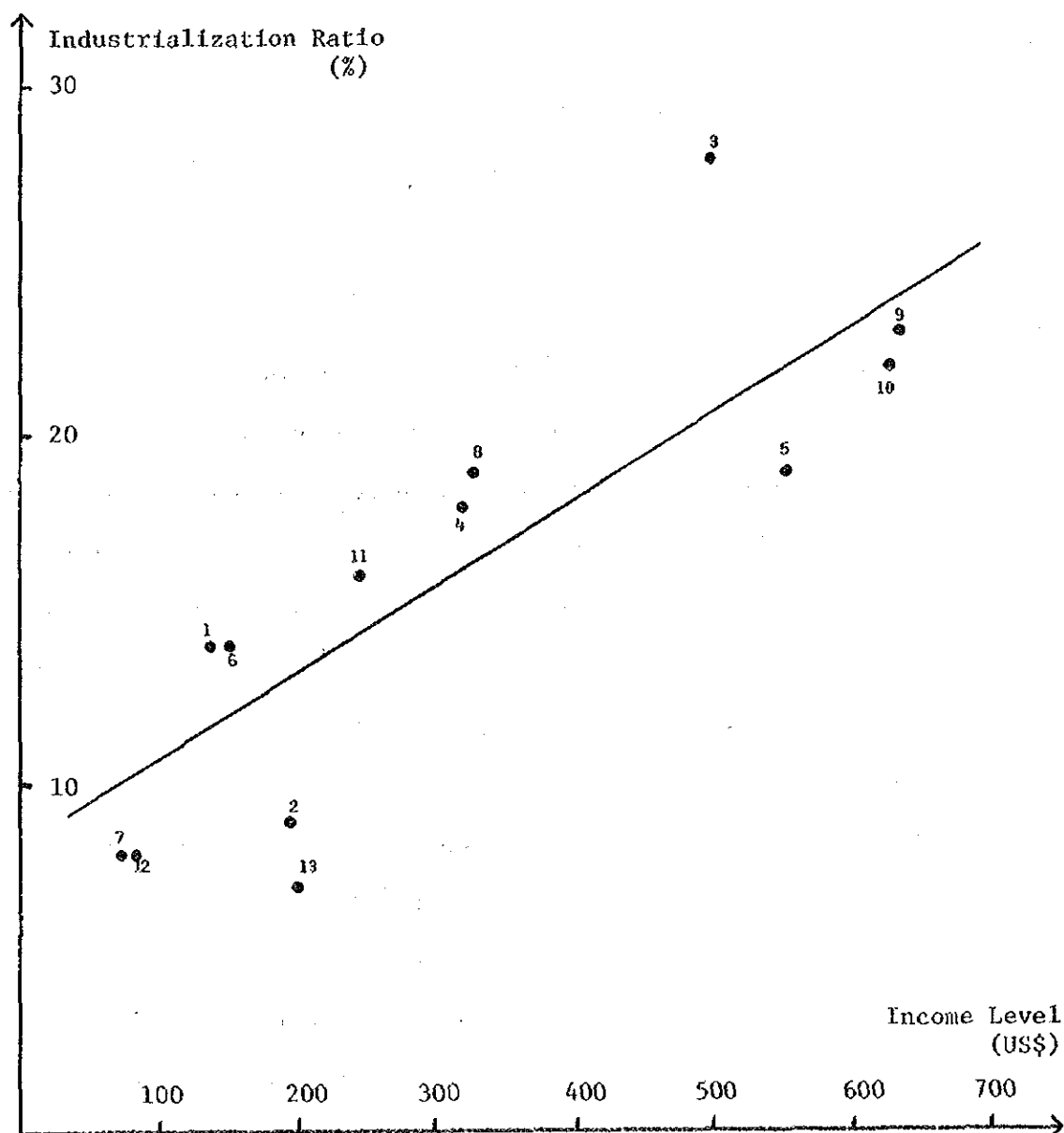
Economic Development and Industrialization

1.20 Stages of economic development are usually classified by income levels of the economies. Income level is only one facet of the measures of economic development, but one of the most solid measures. So we have to use this measure to show a degree of development of an economy.

On the other hand, we have a measure to show a degree of industrialization of an economy, that is the so-called "industrialization ratio" of which the definition is a ratio of manufacturing production to total GDP.

As for these two measures defined in the aggregate level of economy, we have an empirical rule that the income level increases as the industrialization ratio increases. Chart 1.2 shows the rule by making use of the empirical results of 13 developing countries, as of 1975, where the solid line is the least-square line. Even though the position of each individual country is diverted from the line due to the socio-economic conditions of the country, the higher income level is, as a rule, supported by the larger industrialization ratio. However, this rule may be applied only for the developing countries with the income levels below a certain level. As for the other countries that have income levels over the certain level, this rule may not be applied. Because, in these countries, change in industrial structure has to be progressed from the secondary industry to the tertiary industry. Thus this empirical rule may be applied for the developing countries that their industrial structure is going to transform from the primary industry to the secondary industry. Anyhow, this rule suggests that economic development of the developing country may be improved

Chart 1.2 : Income Level and Industrialization



1. India, 2. Indonesia, 3. Korea, 4. Thailand, 5. Turkey,
 6. Pakistan, 7. Burma, 8. Philippines, 9. Mexico,
 10. Chile, 11. Egypt, 12. Ethiopia, 13. Nigeria.

Source : United Nations, Statistical Yearbook, 1977.

as the industrialization is promoted.

However, this empirical rule shows only the correlation between industrialization and economic development. This does not suggest the effective way to promote industrialization. When we consider a strategy of economic development, a certain function of industrialization should be examined. What type and process of industrialization is the most effective for economic development is to be examined. Otherwise, we can not make an effective guideline for economic development.

1.21 Effective strategy of industrialization is to make use of a reasonable expansion of a social division of labour. The social division of labour can be expanded through a diversification of producers subject to their comparative advantages in production. Practically, this process of expansion may be realized through an extension of a core industry towards the closely linked industries, either forward or backward. In the economy like the Thai economy that largely depends on agricultural production, the main core industry is naturally the agriculture. So the closely linked industries with agricultural production have to be promoted as a reasonable first step of the industrialization. These are the industries that use agricultural products as their raw materials for production. For example, a food-processing industry, a textile industry based on natural fibre, etc. may be considered here. These industries can produce additional value-added in the economy. This is the fundamental base for economic development.

1.22 Establishment of this sort of industries requires

a. a stable supply of large quantity of raw materials for their effective operations of production so as to make possible to realize a scale-

merit in production, and

b. a stable effective demand for the products for their continuous and expanding operations of production.

These industries have operated at large scale of production. This means that the industries may not expect to enjoy a full utilization of scale-merit in production or to minimize an unit cost of production unless the level of production increases upto a certain high level. This is needed especially for expanding market abroad. Thus, in order to keep smooth and effective operations of production, these industries require the stable supply of a large quantity of raw materials so as to make it possible to realize a large scale of production and to enjoy a scale-merit in production. On the other hand, the industries need so sufficient effective demand for the products that the effective demand may absorb all of the products. Otherwise, these industries would stop to expand their production or even to continue the production, because an increase in unsold stock may decrease profitability of these industries. Then, the effective demand for the products should be kept at large for the large scale of production. Anyway, industrialization has to be promoted on the base of "large scale of production and large scale of effective demand".

1.23 The industries, concerned in this context, mainly produce consumption goods; the agro-based industries, that use the agricultural products as raw materials for production, produce, for example, processed food and textile products based on natural fibre, etc.. So smooth operation of these industries needs a large scale of consumption demand for the products, either in domestic market or in external market.

The level of consumption demand depends on both income level and the pattern of income distribution of the economy. Increase in the income level comes from a progress of industrialization, while the more equalized income distribution may create the more consumption demand for a constant income level. The more consumption demand needs the more production. Thus the equalization of income distribution may be an accelerating factor to promote industrialization.

Ability to expand demand abroad depends on an export competitiveness of the products, either in price factors or in non-price factors. The export competitiveness may be improved by a decrease in the unit cost of production through a full utilization of scale-merit in production as well as a full introduction of proper technology for production. In this respect, the technology transfer should be very important. And the full utilization of scale-merit in production should be realized.

1.24 Location of the agro-based industries may be selected even in the rural area as well as in the urban area, because the collection centers of the agricultural products, which are raw materials for the production of the industries, are located in the rural area. It is one of the favourable conditions to select the location of industry that the collection centers of raw materials are close to the factories.

The establishment of the industries in the rural area has to contribute :

- a. to the increase in employment opportunity in the rural area, and
- b. to the increase in income level of this area.

In this respect, this sort of industrialization will contribute to rural development. The industrialization, promoted in the rural area, makes it possible to equalize income distribution for the economy as a whole as compared with a case that industrialization is developed exclusively in the urban area. Thus industrialization, in cooperation with rural development, makes it possible to create more effective demand for the products of the industries than in the other type of industrialization.

1.25 Requirement to stabilize agricultural production and to increase agricultural productivity is crucial for the stable supply of a large quantity of agricultural products to the industries that demand the products as raw materials for their large scale of production. For the purposes, a consolidation of social capital (irrigation system, road network, etc.) in the rural area and increase of capital input (intensive use of fertilizers and agricultural machineries) in agricultural production should be promoted. Satisfaction of these requirements also contribute to the progress of rural development.

As described above, an economic growth process of agro-monocultural economy is very unstable, because the agricultural production is very sensitive to changes in natural conditions. So the industrialization becomes desirable for stabilizing the growth process through a transfer of share in industrial structure from the primary industry to the secondary industry. However, as mentioned here, industrialization has to contribute to the stabilization of agricultural production in itself through a control of natural conditions (establishment of irrigation system) and an improvement of natural productivity by capital productivity (intensive use of fertilizers and agricultural machineries).

1.26 Cooperation in the establishment of these conditions is the fundamental base for smoothly developing industrialization in the economy that largely depends on agricultural production.

Past Performances of Industrialization in Thailand

1.27 So far, the Thai economy has largely depended on agricultural production. The agricultural production may easily be affected by changes in natural conditions, and the prices of agricultural products may be very unstable in the market. Moreover, an income elasticity of the primary commodities like agricultural products is rather low in relation to that of the industrial products, and the terms of trade of the primary commodities to the industrial products has been intending to change toward in favour of the industrial products. So the Thai economy had to promote industrialization for its own development.

1.28 In addition to the large dependence on agricultural production, the Thai economy has kept the close relations to the developed economies; it has exported the agricultural products to these economies and imported necessary commodities, such as durable consumption goods and capital goods from them. See Table 1.6.

Table 1.6 : Exports and Imports of Thailand.

(Millions of Baht, %)

	Total	Food	Raw Materials	Industrial Goods	Others	(Re-Exports) ^{*)} (Gold)
(Export)						
1960	8,614 (100.0)	3,937 (45.7)	4,305 (50.0)	119 (1.4)	61 (0.7)	192 (2.2)
1965	12,941 (100.0)	6,867 (53.1)	4,989 (38.6)	651 (5.0)	134 (1.0)	300 (2.3)
1970	14,772 (100.0)	7,163 (48.5)	4,321 (29.3)	2,295 (15.5)	471 (3.2)	522 (3.5)
1975	45,007 (100.0)	27,178 (60.4)	7,096 (15.8)	8,817 (19.6)	983 (2.2)	933 (2.0)
1977	71,198 (100.0)	41,194 (57.9)	11,004 (15.5)	16,708 (23.5)	1,492 (2.1)	800 (1.0)
(Import)						
1960	9,622 (100.0)	892 (9.3)	1,188 (12.3)	7,175 (74.6)	306 (3.2)	61 (0.6)
1965	15,433 (100.0)	1,070 (6.9)	1,863 (12.1)	12,014 (77.8)	350 (2.3)	136 (0.9)
1970	27,009 (100.0)	1,394 (5.2)	3,764 (13.9)	20,849 (77.2)	894 (3.3)	108 (0.4)
1975	64,044 (100.0)	2,488 (3.9)	16,971 (26.5)	43,852 (68.5)	733 (1.1)	- (-)
1977	94,177 (100.0)	3,551 (3.8)	28,474 (30.2)	60,630 (64.4)	1,465 (1.5)	57 (0.1)

*) Re-export in Export, and Gold in Import.

Source : Department of Customs.

1.29 We consider that the Thai economy has to promote the industrialization properly along the guideline through development of agro-based industries, as described above. So industrialization has to start in establishing some industries that used agricultural products as their raw materials of production. The establishment of industrial plants might be realized by using capital goods and other necessary equipment that could be imported either in return of the export earnings of agricultural products or by foreign aid for development from the developed countries.

However, unfortunately, at the early stage of economic development in Thailand, there were some problems that made it difficult to develop industries along the line described above.

Almost all the processing industries of agricultural products in Thailand are under strong influence of the foreign capital. Even though there is a small scale rice-mill industry managed by Thai local capital, many of the industries of sugar refinery, natural rubber processing, fruit-canning, etc. are controlled by the foreign capital, irrelevant to whether the processing is operated either in this country or abroad. Even though these industries are strongly controlled, either in production or in market, by the foreign capital, if Thai local capital had

a. a large amount of financial resources for establishing their industrial plants of these industries, and

b. a strong competitiveness for expanding their own market for their expected products,

the industrialization might be developed in direction of the agro-based industries in Thailand by the Thai local capital. However, at that time, the Thai

local capital had, unfortunately, no big financial resources as well as strong competitiveness.

So far, the Thai local capital has shown their interests mainly in commercial transactions but not so much in industrial activities. Even though a few of the Thai local capital has an interest to invest in industrial activities, the ability to finance the funds has been limited. And also a long-term profitability through investment to industrial activities has never been acquired among the Thai local capital. The reason is usually explained by the unstable socio-economic conditions in Thailand. But we have to consider that the behavior of Thai local capital is rather conservative without a long range of vision. Actually, at the beginning of the 1960's, the long-term profitability of industries for Thai local capital might not be very promising. Thus the Thai local capital has always welcome foreign capital in these industries.

Thus, at the early stage of economic development in Thailand, it was not the time to promote and develop the industrialization along the line that may be considered as the most reasonable way for the economic development of Thailand.

1.30 In this situation, the Thai economy has been directed to start industrialization that might be performed in cooperation with the foreign capital; an import-substituting industrialization.

The import-substituting industrialization in Thailand has been pulled mainly by the joint-ventures of Thai local capital and foreign capital. Promotion of industrialization through this sort of way has some merits for the economic development. As described above, at the early stage of economic development, the Thai economy had not sufficient capital, technology and market

that were needed for promoting the industrialization. However, the joint-ventures could provide

- (a) a large part of financial resources, when the joint-ventures are established and the production operations are continued,
- (b) advanced technology that are required for production and management, and
- (c) markets for selling out the products.

Introduction of joint-ventures with the foreign capital into the Thai economy was one of the most feasible and effective ways that might make use of those lacking elements for promoting economic development.

So far, the Thai economy has imported many kinds of industrial products from the developed economies. Thailand was a very good market for export suppliers of these industrial products of the developed economies. Then, against this situation, Thailand could raise the rate of tariff for the imports so as to give the foreign export suppliers an incentive to change their strategies. Due to the increase in rate of import tariff, the import price in Thai domestic market might be higher than the possible price of domestic products. Then the domestic products may have an advantage over the imported commodities in the domestic market. In anticipation of this situation, when a producer of the developed economies starts a local production and local distribution, the other producers of the developed economies that have exported their products to Thailand so far, should lose their export market in Thailand. So they had to change their strategies from "domestic production in the developed economies and export to Thailand" to "local production and local distribution in Thailand". Subject

to this forced incentive, and also according to the promotion policies taken by the Thai government, the enterprises in the developed economies that had exported their products concerned with the policy of import-substituting industrialization in Thailand, had to change their strategies and to start an establishment of their joint-ventures with Thai local capital in Thailand. At the same time, the Thai government had given some cordial treatments to foreign direct investment that contributed to establish the joint-ventures in cooperation with Thai local capital. The treatments had also accelerated an introduction of the foreign direct investment to Thailand. Thus the import-substituting industrialization could start in Thailand.

1.31 The import-substituting industrialization in Thailand had started with an intention of the foreign enterprises to change their strategies and to establish their industrial plants in Thailand, even though this intention was stimulated by the Thai government's policy to promote the economic development in the most feasible way. However, as far as the intention of the foreign enterprises is concerned, the import-substituting industrialization shall be completed and ended, when a local demand in Thailand for their products is satisfied enough by the domestic products of the newly developed industries on the industrialization process. Because they have interest only to keep their existing market in Thailand. Moreover, they have their industrial facilities in their own countries. Then they would not like to develop the newly promoted industries in Thailand into the exporting industries of Thailand. Whenever the promoted industries in Thailand could develop themselves into the exporting industries, the enterprises in the developed economies should suffer from a sort of "boomerang-effect". However, for the Thai economy, the industrialization should expect to realize the situation that the import-substituting industries could be developed and

transformed into an exporting industries. Otherwise, industrialization may cease to contribute to economic development.

1.32 There are certain conditions for making it possible to successfully develop an import-substituting industry into an export industry.

a. Through a development process of industrialization, price of a domestic product should be decreased below the existing level of the world market price of the same kind of product. This may be realized by

i. technology transfer for making it possible to use the advanced technology to control and manage the production, and

ii. a rapid expansion of domestic market for the domestic product so as to fully utilize a scale-merit in production and to decrease the unit cost of production.

b. Changes in economic conditions in the developed economies, if any, can give the import-substituting industry in the developing economy more comparative advantages in the world market than ever before. The most influential cases have to come from a rapid increase in wage rate in the developed economies in relation to that in the developing economies, changes in exchange rates in favour of the developing economies, etc..

Without these conditions, especially the first condition, any developing economy may not expect to develop the import-substituting industry into the export industry.

In the advanced developing countries in Asia, like Korea, Taiwan and Hong Kong, the conditions have already completed. So some of the promoted

industries in these countries could be developed into the export industries. On the other hand, the conditions in Thailand have not yet completely been attained. Many of the promoted industries have been left just in the import-substituting industries, and not developed into the exporting industries. Only a few of them could become a marginal suppliers in the world market. The most representative one is the textile industry.

1.33 Industrialization in Thailand has progressed along the line of import substitution. Wide range of industries have been developed on the process of industrialization. As shown in Table 1.7, the share of manufacturing production in GDP has increased from 11.4% at 1960 to 20.1% at 1977, while the share of agricultural production has decreased from 41.4% to 27.7% for the same period. As of the other industrial sectors, the shares have remained, more or less, constant. This means that the share in industrial structure of Thailand has shifted from agriculture to manufacturing sector. The growth rate of manufacturing production has been on the average, 11.1% per annum for the period 1960-77, that is the highest among the growth rates of individual sectors, while the growth rate of GDP has been 7.5% per annum for the same period. This means that the industrialization in Thailand has smoothly progressed so far.

As shown in Table 1.8, in the gross domestic product originating from manufacturing sector, the share of food products has been the largest for the whole period of 1960-77. But the growth rate over the period 1960-77 has been rather low, 7.2% per annum, and the weight in the total value-added in manufacturing sector has decreased from 34.2% at 1960 to 18.5% at 1977. Moreover, the products of this sector may be largely consumed in this country. The exports of these products should be expectable. However, this industry has not yet sufficiently developed so as to promote itself into exporting industry. Among the

Table 1.7 : Gross Domestic Product by Industrial Origin
(in Millions of Baht at 1972 Market Prices)

	Total	Agri- culture	Mining	Manufac- turing	Construc- tion	Commerce	Others
1960	68,248 (100.0)	28,241 (41.4)	961 (1.4)	7,814 (11.4)	3,376 (4.9)	11,205 (16.4)	16,651 (24.4)
1961	71,915 (100.0)	29,070 (40.4)	1,036 (1.4)	8,557 (11.9)	3,545 (4.9)	11,993 (16.7)	17,714 (24.6)
1962	77,702 (100.0)	31,252 (40.2)	1,191 (1.5)	9,602 (12.4)	4,047 (5.2)	12,545 (16.1)	19,065 (24.5)
1963	84,152 (100.0)	34,022 (40.4)	1,272 (1.5)	10,470 (12.4)	4,473 (5.3)	13,780 (16.4)	20,135 (23.9)
1964	89,744 (100.0)	34,446 (38.4)	1,482 (1.7)	11,367 (12.7)	5,074 (5.7)	15,315 (17.1)	22,060 (24.6)
1965	96,789 (100.0)	35,702 (36.9)	1,878 (1.9)	11,375 (11.8)	5,710 (5.9)	16,259 (16.8)	25,865 (26.7)
1966	108,655 (100.0)	40,621 (37.4)	2,232 (2.1)	14,720 (13.5)	6,940 (6.4)	17,893 (16.5)	26,249 (24.2)
1967	114,644 (100.0)	38,199 (33.3)	2,567 (2.2)	16,172 (14.1)	8,253 (7.2)	20,119 (17.5)	29,334 (25.6)
1968	124,928 (100.0)	41,023 (32.8)	2,801 (2.2)	17,800 (14.2)	8,996 (7.2)	21,852 (17.5)	32,456 (26.0)
1969	136,911 (100.0)	45,152 (33.0)	3,012 (2.2)	19,697 (14.4)	9,402 (6.9)	23,847 (17.4)	35,801 (26.1)
1970	145,987 (100.0)	47,699 (32.7)	2,821 (1.9)	21,449 (14.7)	8,687 (6.0)	26,432 (18.1)	38,899 (26.6)
1971	157,868 (100.0)	50,353 (31.9)	2,957 (1.9)	25,134 (15.9)	7,688 (4.9)	28,931 (18.3)	42,805 (27.1)
1972	164,626 (100.0)	49,919 (30.3)	2,886 (1.8)	27,864 (16.9)	7,168 (4.4)	29,881 (18.2)	46,908 (28.5)
1973	180,146 (100.0)	56,237 (31.2)	2,683 (1.5)	31,523 (17.5)	7,221 (4.0)	31,396 (17.4)	51,086 (28.4)
1974	189,191 (100.0)	56,961 (30.1)	2,918 (1.5)	33,566 (17.7)	7,459 (3.9)	33,677 (17.8)	54,610 (28.9)
1975	203,751 (100.0)	61,864 (30.4)	2,485 (1.2)	36,162 (17.7)	9,362 (4.6)	35,718 (17.5)	58,160 (28.5)
1976	220,450 (100.0)	64,377 (29.2)	2,691 (1.2)	41,245 (18.7)	11,286 (5.1)	37,727 (17.1)	63,124 (28.6)
1977	234,123 (100.0)	63,742 (27.2)	3,365 (1.4)	47,082 (20.1)	12,733 (5.4)	39,383 (16.8)	67,818 (29.0)

Source : NESDB, National Income of Thailand.

Table 1.8 : Gross Domestic Product Originating from Manufacturing
(in Millions of Baht at 1972 Market Prices)

	1960	1965	1970	1975	1977
Total Value-Added	7,814 (100.0)	11,375 (100.0)	21,449 (100.0)	36,162 (100.0)	47,082 (100.0)
Food	2,672 (34.2)	3,344 (29.4)	5,191 (24.2)	6,594 (18.2)	8,700 (18.5)
Beverages	672 (8.6)	990 (8.7)	2,102 (9.8)	3,653 (10.1)	5,667 (12.0)
Tobacco	1,133 (14.5)	1,138 (10.0)	1,759 (8.2)	3,453 (9.5)	4,084 (8.7)
Textiles	367 (4.7)	774 (6.8)	1,716 (8.0)	5,056 (14.0)	6,216 (13.2)
Textile Products	617 (7.9)	637 (5.6)	965 (4.5)	2,293 (6.3)	3,035 (6.4)
Wood and Cork	305 (3.9)	501 (4.4)	579 (2.7)	943 (2.6)	1,067 (2.3)
Furniture and Fixture	109 (1.4)	148 (1.3)	279 (1.3)	271 (0.7)	334 (0.7)
Paper and Paper Products	23 (0.3)	46 (0.4)	129 (0.6)	143 (0.4)	180 (0.4)
Printing and Publishing	305 (3.9)	387 (3.4)	515 (2.4)	1,026 (2.8)	1,484 (3.2)
Leather and Leather Products	39 (0.5)	34 (0.3)	107 (0.5)	299 (0.8)	304 (0.6)
Rubber and Rubber Products	63 (0.8)	114 (1.0)	579 (2.7)	790 (2.2)	937 (2.0)
Chemicals and Chemical Products	570 (7.3)	717 (6.3)	1,416 (6.6)	1,969 (5.4)	2,881 (6.1)
Petroleum Refining	5 (0.1)	715 (6.3)	1,759 (8.2)	2,782 (7.7)	3,532 (7.5)
Non-Metallic Mineral Products	312 (4.0)	591 (5.2)	1,459 (6.8)	2,062 (5.7)	2,486 (5.3)
Basic Metal Industries	31 (0.4)	46 (0.4)	279 (1.3)	394 (1.1)	477 (1.0)
Metal Products	62 (0.8)	137 (1.2)	729 (3.4)	536 (1.5)	637 (1.3)
Machineries	39 (0.5)	125 (1.1)	386 (1.8)	603 (1.7)	1,073 (2.3)
Electrical Machineries	47 (0.6)	91 (0.8)	214 (1.0)	533 (1.5)	681 (1.4)
Transport Equipments	382 (4.9)	705 (6.2)	794 (3.7)	2,314 (6.4)	2,780 (5.9)
Miscellaneous n.e.c.	78 (1.0)	137 (1.2)	450 (2.1)	488 (1.2)	527 (1.1)

Source : NESDB, National Income of Thailand.

other industries, the textile industry may be one of the most possible industries that may be developed into the export industries. And this industry is expected to become one of the major industries that may gain a large part of export earnings for Thailand in the future. However, this industry's current position in the world market is only a marginal supplier. So this industry should improve its own position before developing into the proper exporting industry. Among the other industries, there are some industries that may not be expected to become an exporting industries for the time being, that have been survived only within a trade barrier. Automobile industry, metal industry, etc. are the cases.

1.34 Wide range of industries have been developed on the process of industrialization in Thailand. These industries have been located mainly in the urban area (Bangkok Metropolitan Area). Because the urban area has been rather sufficiently equipped with social capital in relation to the rural area; transportation system, communication system, and other social facilities. So the enterprises have selected the locations of their industrial plants in the urban area, while they have no needs to locate their industrial plants in the rural area in any sense.

This has just contributed to the progress of economic development in the urban area that is very limited in this country. While the development of the rural area has been left behind the development of the urban area. Thus a gap in income level between the urban and the rural areas has been left in large. As shown in Table 1.4, the income level in the urban area about three times of the income level of the rural area. These situations have, in turn, obstructed a rapid expansion of domestic market for the products of the industries that have been developed on the process of industrialization. If rural development could be realized, the income level in the rural area might be largely increased

as well as in the urban area. Then the Thai economy could expect more domestic market as a whole than ever before.

Anyway, the Thai economy has performed a sort of unbalanced regional development between the urban and the rural areas. This has resulted in an insufficient expansion of the domestic market, and, in turn, made it impossible to fully utilize the scale-merit in production of the industries that have been developed on the process of industrialization. Then the prices of domestic products of the promoted industries could not always be decreased below the international standard. Almost all of the domestic products could not expect to have an export competitiveness in the world market.

1.35 Even in the situation with the insufficient domestic market, there is not altogether no way to develop an import-substituting industry into an export industry. As represented by the Korean case, if the government takes a policy to keep lower export price of product of an industry than domestic price of the product so as to be able to maintain the export competitiveness of the product in the world market, the export expansion of the product may be promoted. As the export increases, the production level may increase and the scale-merit in production may become fully utilized. The economy may maintain the proper export market and expect even further expansion. So far as industrialization is concerned, this sort of process may be worthy of special consideration.

However, in this dual price system, the balance between the mark-down export price and the domestic price has been covered by either (1) the government's administrative expenditures like subsidies or (2) the countervailing increase in the domestic price. This may cause an inflation and the other difficulties to the economy. Even when the administrative expenditures or the

countervailing increase in the domestic price become not necessary after the export competitiveness of the product in the world market is established through the full utilization of scale-merit in production, the consequence shall be left behind. And the economy should suffer from them for some time to come.

The economic development strategies of Thailand have never selected this sort of the dual price system, because the first priority of the strategies has been to stabilize the domestic economy.

1.36 Among the industries promoted in Thailand along the line of import substitution, the most successfully developed industry is the textile industry. Utilizing the advanced technology transferred from the developed countries, the productivity and the export competitiveness have dramatically increased. However, these are still rather inferior in relation to those of the advanced developing countries in Asia like Korea, Taiwan and Hong Kong. At present, the textile industry of Thailand has been exporting the products; since 1976 the export has considerably increased. But the position in the world market is still a marginal supplier due to the rather inferior competitiveness in relation to that of those advanced developing countries, even though the textile producers' endeavours to expand the export of textile products could be worthy of praise. Currently, due to the high value of the Japanese Yen, Japanese textile producers have lost their competitiveness in the world market. According to this change in the world market situations, the textile producers in Thailand have been enjoying a transient prosperity. But this is just transient effect given by the situation that the production capacity of the advanced developing countries with superior competitiveness has become relatively short of the world demand for textile products. Unless the Thai textile producers can improve their export competitiveness in the world market so as to maintain the proper export

market for Thai textile products before the advanced developing countries increase their production capacities, the Thai textile producers may lose their current market. To change from the position of marginal supplier in the world market, the textile industry of Thailand has to improve the export competitiveness as soon as possible.

One way, for the purpose, is to utilize the current situation of the relative shortage in supply of textile products by the countries that have the superior export competitiveness in relation to that of Thailand. While the current situation continues, the production level should be increased for the current production facilities, and a new establishment of production facilities should be frozen. Currently the Thai textile industry has a potential capacity to increase the production level by a very small change in production equipments. This sort of effect may be expected especially in the upper-stream section of production in textile industry (fibre-producing section). After realization of the full utilization of scale-merit in production, the new establishment of production facilities may be expanded in relation to an increase in demand for the products.

However, the most essential strategy to be considered here is to expand the domestic market for the products. The expansion of domestic market should be good not only for the textile industry but also for the other industries that have been promoted on the process of industrialization. This may be realized by increase in the income level of the Thai economy as a whole. And, at present, the increase in income level can be expected by the equalization of income distribution through rural development as well as a rapid growth of the economy.

D. REPRODUCTION AND ECONOMIC DEVELOPMENT

Condition for Economic Reproduction

1.37 Even though a level of production in a developing economy could be rapidly increased through a promotion of industrialization, if an effective demand for the products is not enough to absorb all of them, the process of economic development should be frustrated. This means that a balance between production and effective demand has to be maintained on the process of economic development. This is one of the most essential conditions for maintaining a smooth process of an economic reproduction or a circular flow of economic system.

The Thai economy is one of the developing economies that are located in the area of free market economies. Producers in the economies are almost all in a private capitalistic sector. They behave in an economically reasonable pattern of the free market system. So far as their products can be sold out at their warranted prices, they will continue their productions. Otherwise, they will stop their operations. Then the process of economic development may also be stopped. This means that the balance between production and effective demand should be, more or less, maintained on the process of economic development.

1.38 To maintain the balance between production and effective demand, and to promote industrialization, should be one of the fundamental guidelines of economic development. However, so far, the Thai economy has mainly concentrated its efforts to accumulate and increase production capacity. Naturally this has resulted in a large increase in industrial production. On the other hand, although a creation of effective demand for the products has never been neglected in the Thai economy, but it has not been considered as important that the planning authority of the Thai economy has to concentrate its considerations on this

matter. Actually, any severe gap between production and effective demand has never been experienced on the process of Thai economic development since the beginning of industrialization. The planning authority might consider that the effective demand could be created in balance when the production could be increased on the process of industrialization of the economy. No one suspects the fact that there may be a possibility to generate severe difficulties caused by the unbalance between production and effective demand on the process of industrialization.

1.39 The difficulties have come from both explicit and implicit aspects. Explicitly, the difficulties for the Thai economy have appeared rather by accident, when the Vietnam War has ceased and the so-called "oil-crisis" has shocked the developed economies. So far, the border trade of Thailand with the neighbouring countries (Laos, Cambodia, Vietnam and Burma) has been rather freely performed; the border trade has been considered rather as a part of domestic trade than as an external trade. Production facilities in Thailand have been established in anticipation of this condition. About one third of the textile products of Thailand has been estimated to be absorbed in this border trade. After the Vietnam War was ended, the border control has become so severe that the border trade could not be continued. Then the effective demand for Thai products has been suddenly reduced. In addition to this difficulty, the developed economies have been severely deflated after the oil-crisis has happened. This has caused, in turn, to depress the export possibility of the Thai economy to the developed economies. Thus a part of the production facilities in Thailand had to stop operations.

However, at that time, if the Thai products had enough export competitiveness in the world market and could expand exports to the other external

markets than the neighbouring countries, the Thai economy should not have experienced the severe situations. For example, the Korean economy could expand exports to the developed economies even during the depression period after the oil-crisis, because the economy has very strong export competitiveness in the world market. But, unfortunately, the Thai economy had not enough export competitiveness so as to be able to expand the export market among other countries.

1.40 Export competitiveness of an economy in the world market may be improved by (1) an introduction of the advanced technology to control and manage production, and (2) a full utilization of scale-merit in production, that make possible to decrease an unit cost of production.

So far, in Thailand, the transfer of technology has been seriously considered so as to decrease an unit cost of production and to improve the export competitiveness of the Thai products in the world market. At present, the importance of the technology transfer has never disappeared. Even in the textile industry that has successfully introduced the advanced technology so far, the garment producing section needs to introduce more modernized technology, because the technology standard of this section has not yet attained the international standard. However, generally in the current situation, the full utilization of scale-merit in production has become more important than the transfer of technology. Because, while the technology that can be introduced at the present situations has already been transferred from the developed countries, the decrease in the unit cost of production should be expected mainly through the full utilization of scale-merit in production.

Full utilization of scale-merit in production needs to realize a certain level of production per unit of production. The level of production depends

on an anticipated level of effective demand for the products. Currently, the Thai economy has needed to increase the level of effective demand for the products so as to realize the production level required for full utilization of scale-merit in production. Relative shortage of effective demand to production has come from relative over-capacity of production facilities. So the Thai economy needs to take some policies to increase the effective demand as well as to adjust a new establishment of production facilities. This is requested not only for the textile industry but also for the automobile industry and the other industries.

Anyway, the implicit element, that makes it difficult to smoothly operate the Thai economic reproduction, has also come from unsatisfactory balance between production and effective demand.

Reconsideration of Fundamental Equation of Economic Growth

1.41 As the fundamental equation of economic growth, we have the Harrod-Domar type of relation,

$$\frac{\Delta V}{V} = \frac{I}{V} \frac{\Delta V}{I}$$

$\frac{\Delta V}{V}$: growth rate of GDP,

$\frac{I}{V}$: investment ratio, and

$\frac{\Delta V}{I}$: investment productivity.

Here, the investment ratio is a ratio of investment to GDP, and the investment productivity is defined as units of GDP increment in relation to a unit of investment that is usually considered as an inverse of a marginal capital

coefficient. Traditional development theory has assumed rather stable investment productivity, because it has considered the investment productivity to be determined mainly by a national level of technology of the economy that may take a certain constant value for a certain stage of economic development. So the theory has proposed that the higher growth rate of the economy requires to increase the investment ratio.

1.42 The Thai economy has performed the process of economic growth, as shown by Tables 1.9 and 1.10. Here the investment productivity is not so stable as the traditional theory has assumed. As shown in Chart 1.3, the investment productivity easily fluctuates, while the investment ratio is rather stable in relation to the investment productivity on the process of economic growth in Thailand. What is more important, the growth rate of GDP moves almost in close relation to the movement of the investment productivity. This suggests that we have to examine the characters of investment productivity in more detail than the traditional theory has done.

1.43 As easily seen in Chart 1.3, the growth rate of GDP has increased for the period 1960-66, and shown rather the decreasing tendency after that. On the other hand, the investment ratio has increased for the period 1960-69, and been maintained rather constant after that. So we classify the whole period 1960-77 into three sub-period; 1960-66, 1966-69 and 1969-77.

a. In the first period, both the growth rate of GDP and the investment ratio have increased,

b. In the second period, the investment ratio has continuously increased, but the growth rate of GDP has turned to decrease, and

Table 1.9 : Expenditure on Gross Domestic Product
(in Millions of Baht at 1972 Market Prices)

	V	C	I	E	M	ε	V*
1960	63,891	54,520	10,772	9,087	10,488	4,357	68,248
1961	67,609	57,324	10,429	10,966	11,110	4,306	71,915
1962	71,305	61,140	12,448	10,914	13,197	6,397	77,702
1963	76,468	65,461	14,409	11,424	14,826	7,684	84,152
1964	84,640	69,720	17,266	14,253	16,599	5,104	89,744
1965	92,395	74,900	19,979	15,418	17,902	4,394	96,789
1966	105,155	81,404	26,832	18,815	21,896	3,500	108,655
1967	111,011	88,099	28,500	20,978	26,566	3,633	114,644
1968	120,032	96,678	33,106	21,235	30,987	4,896	124,928
1969	130,037	104,925	37,535	21,108	33,531	6,874	136,911
1970	138,610	112,933	35,467	22,783	32,573	7,377	145,987
1971	152,440	120,700	36,943	26,196	31,399	5,428	157,868
1972	159,844	128,139	33,679	31,866	33,840	4,782	164,626
1973	170,042	139,213	43,217	27,088	39,476	10,104	180,146
1974	182,058	145,538	46,141	26,591	36,212	7,133	189,191
1975	200,231	154,822	51,356	27,833	33,780	3,520	203,751
1976	218,781	168,997	50,869	37,282	38,367	1,669	220,450
1977	231,358	179,729	55,854	41,666	45,891	2,765	234,123

Notes : V = Expenditure on Gross Domestic Product.
 C = Private and Government Consumption Expenditures.
 I = Private and Government Gross Fixed Capital Formations and
 Change in Stock.
 E = Exports of Goods and Services.
 M = Imports of Goods and Services.
 ε = Statistical Discrepancy.
 V* = Gross Domestic Product.

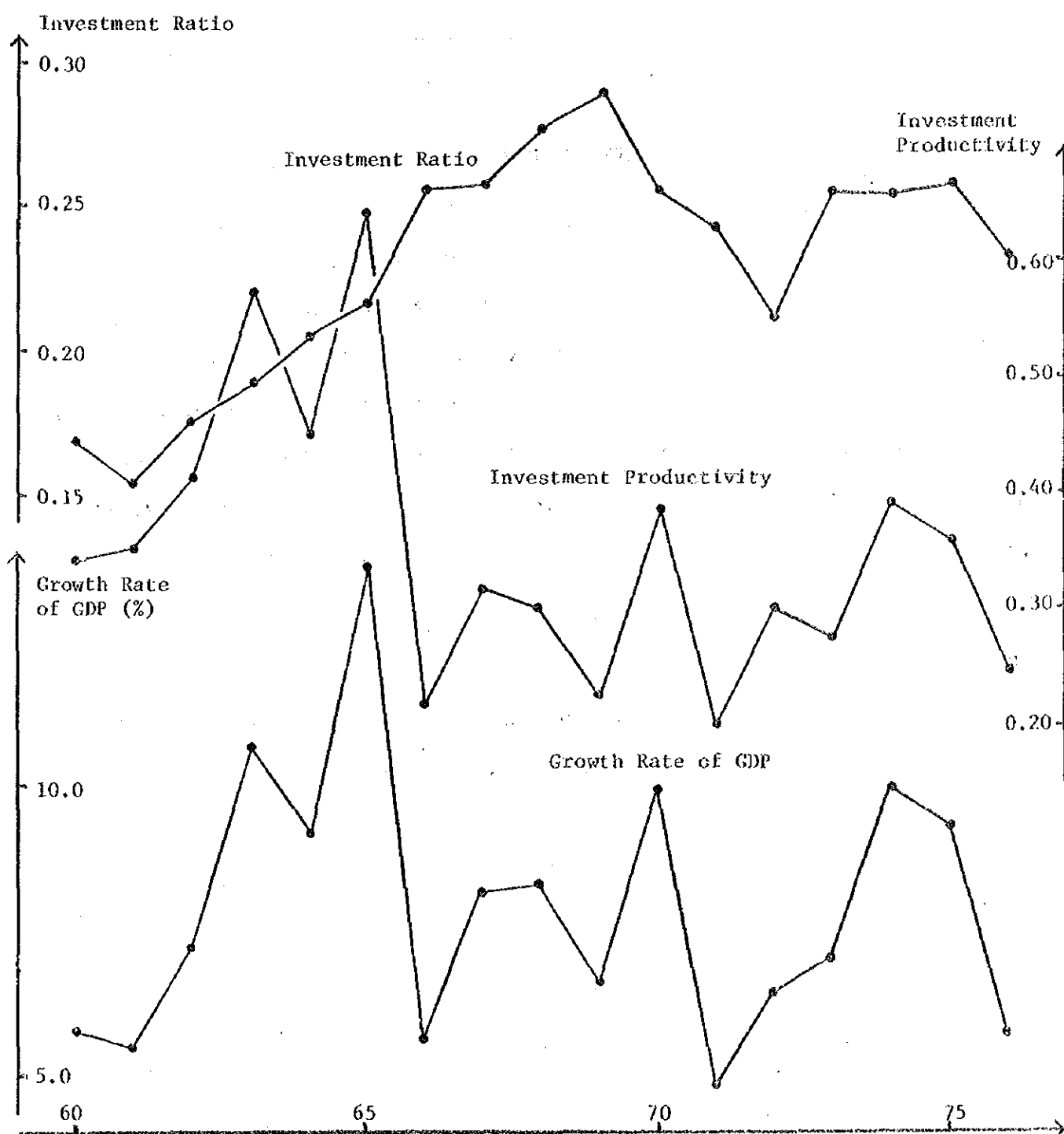
Source : NESDB, National Income of Thailand
 Original series has been modified according to suggestions of
 the staffs of NESDB.

Table 1.10 : Elements to Determine Growth Rate of GDP

$$\frac{\Delta V}{V} = \frac{I}{V} \cdot \frac{\Delta I}{I} \left(1 + \frac{\Delta C}{I} + \frac{\Delta(E-M)}{I} \right) = \frac{I}{V} \cdot \frac{\Delta V}{I}$$

	$\frac{\Delta V}{V}$	$\frac{I}{V}$	$\frac{\Delta I}{I}$	1	$\frac{\Delta C}{I}$	$\frac{\Delta(E-M)}{I}$	$\frac{\Delta V}{I}$
	(%)		(%)				(%)
1960	5.819	0.169	-3.184	1.000	-8.175	-3.665	34.515
1961	5.467	0.154	19.359	1.000	1.890	-1.059	35.446
1962	7.241	0.175	15.754	1.000	2.203	-0.571	41.465
1963	10.687	0.188	19.828	1.000	1.491	0.370	56.728
1964	9.162	0.204	15.713	1.000	1.909	-0.051	44.908
1965	13.810	0.216	34.301	1.000	0.949	-0.087	63.868
1966	5.569	0.255	6.216	1.000	4.014	-1.503	21.824
1967	8.126	0.257	16.161	1.000	1.863	-0.904	31.659
1968	8.335	0.276	13.378	1.000	1.862	-0.603	30.221
1969	6.593	0.289	-5.510	1.000	-3.872	-1.273	22.839
1970	9.978	0.256	14.162	1.000	5.262	3.108	38.998
1971	4.857	0.242	-8.835	1.000	-2.279	-0.989	20.038
1972	6.380	0.211	28.320	1.000	1.161	-1.092	30.274
1973	7.066	0.254	6.766	1.000	2.163	0.946	27.801
1974	9.982	0.253	11.302	1.000	1.780	0.705	39.387
1975	9.264	0.257	-0.948	1.000	-29.107	-9.984	36.110
1976	5.749	0.233	9.800	1.000	2.153	-0.630	24.725
1960-66	8.659	0.207	16.429	1.000	1.674	-0.105	41.763
1966-69	7.336	0.267	11.839	1.000	2.197	-0.873	27.514
1969-77	7.468	0.265	5.094	1.000	4.083	0.448	28.175

Chart 1.3 : Growth Rate, Investment Ratio and Investment Productivity, Thailand



Source : Modified Statistics of NESDB : National Income of Thailand

c. In the third period, the investment ratio has been maintained rather constant at higher level, and the growth rate of GDP has been also kept rather constant at lower level.

On the other hand, as described above, the investment productivity has moved in close relation to the movement of the growth rate of GDP.

The investment productivity has been decreased after the increasing tendency in the first period. The average investment productivity in the first period was 0.417, while it became 0.275 in the second period and 0.282 in the third period. On the other hand, the average investment ratio in the first period was 0.207. Then the average growth rate over the same period was 8.7% per annum. The average investment productivity has been decreased in the second and the third periods. However, the average growth rates for these periods could be maintained at rather high level, 7.3% and 7.5% per annum respectively, supported by the increased investment ratio, 0.267 and 0.265 respectively.

Over the whole period 1960-77, the average growth rate of GDP was 7.9% per annum. But the average growth rates for these three periods have decreased from the first period to the second and the third periods. Even though the decrease in the growth rate has been rather moderated by the increased investment ratios, the influence of the decreased investment productivity has never been hidden. So we have to consider the characters of the investment productivity in more detail.

Multi-Polarization in Sources of Effective Demand

1.44 The investment productivity is defined as a ratio of GDP increment to investment. This means that the investment productivity is the units of

GDP increment generated by an unit of investment. So far, many traditional economists have considered that the investment productivity or the marginal capital coefficient may be determined by a national technology level as a whole of an economy.

It is unquestionable that the investment productivity has to be influenced by the national technology level. However, actually, the investment productivity has to be mainly affected by a working of investment in the economy. On this view-point, the above mentioned definition of the investment productivity can be reformulated as

$$\frac{\Delta V}{I} = \frac{\Delta I}{I} \left(1 + \frac{\Delta C}{\Delta I} + \frac{\Delta(E-M)}{\Delta I} \right),$$

$\frac{\Delta I}{I}$: growth rate of investment,

$\frac{\Delta C}{\Delta I}$: marginal creation of consumption, and

$\frac{\Delta(E-M)}{\Delta I}$: marginal improvement of trade balance.

Thus the investment productivity depends on

- (1) a rate that investment grows, and
- (2) an efficiency in working of investment increment
 - (a) to create an increment of consumption, and
 - (b) to improve a trade balance.

The first element concerns a creation of investment demand of the economy, and the second element relates a working of the investment increment to create an additional consumption and to improve a trade balance.

1.45 These elements may interact with each other on the process of economic development.

a. At the early stage of development, the developing economy has to concentrate its whole financial resources to accumulate capital in the economy, either in expanding production capacities or in making rich of social capitals. In this stage, the developing economy has to utilize every possibility to mobilize its financial resources out of either domestic savings or capital inflows from abroad. Thus the growth rate of investment may become very high. Nevertheless, the growth rate of investment may be limited by an investment absorptive capacity, that depends on a degree of consolidation of social capital in the economy.

In the Thai economy, the growth rate of investment has been kept at 16.4% for the first period, and at 11.8% for the second period. Considering the level of the growth rates of GDP, 8.7% and 7.3% for the respective periods, the level of the growth rates of investment was very high.

b. On the process of economic development, when the growth rate of investment is larger than the growth rate of GDP, the investment ratio goes to increase. However, the investment ratio may not be unlimitedly increased. The investment ratio should have a certain ceiling. The higher investment ratio may support the higher growth rate of GDP, while it may sacrifice the consumption, unless either the investment or the consumption may not be supported by a deficit of trade balance. Here is a dilemma between growth and consumption. After the ceiling of investment ratio is attained, the investment may not grow at higher rate than the growth rate of GDP; otherwise, the investment ratio may still continue to increase. The growth rate of investment should become lower than

ever before, and be kept, at most, at the same level of the growth rate of GDP.

After the high growth rate of investment (16.4% per annum) has been performed in the first period, the investment ratio has increased from 0.21 of the first period to 0.27 of the second period. The similar level of the investment ratio has been continued in the third period. In the Thai economy, this level of the investment ratio has been continued over ten years in the past. So we consider that around 0.27 level of the investment ratio may be the ceiling. In relation to these changes in the investment ratio, the consumption ratio has been decreased from 0.84 during the first period to 0.79 during the second and the third periods. The growth rate of investment in the second period has been kept rather higher level than the growth rate of GDP in the same period. But this might be maintained by big push of foreign capital inflow rather than mobilization of domestic savings. So the severe influences have never affected the consumption ratio. In the third period, the growth rate of investment has become rather lower level than the growth rate of GDP. However, there might not be big inflow of foreign capital in this period, so the consumption ratio has been kept at the similar level as in the second period.

c. In the developing economy that can not produce capital goods and intermediate goods by itself and depends on the supply of these goods through imports from the developed economies, the higher growth rate of investment may cause the larger imports of capital goods and intermediate goods. Whenever the economy can not expand its exports of the domestic products, the trade balance may become more unfavourable to the economy than ever before. Expansion of exports should be one of the most desirable strategies of the economy.

For the whole period 1960-77, the trade balance of Thailand has been continuously unfavourable to the economy. Meanwhile, in the first period, the exports and the imports have been rather balanced with each other. And the growth rates of exports and imports have also been balanced at around 13.0% per annum. However, in the second period, the growth rate of exports has been rather stagnant (3.9% per annum), while the growth rate of imports has been very high due to the big inflows of foreign capital that have contributed to establish the modern industries in Thailand. As shown in Table 1.6, the composition ratio of capital goods and intermediate goods in the total imports has been around 90% through the whole period. Then the establishment and operation of new industries through the big inflow of foreign capital has caused to increase the growth rate of imports in this period. Afterthat, in the third period, the growth rate of exports has been recovered on the average upto around 9.0% per annum, while the growth rate of imports has been rather decreased. In this period, the investment climate in Thailand has become rather worse. So the capital inflow from the developed economies has decreased. Thus the growth rate of imports has become lower than ever before.

Changes in these situations can be shown by dividing the marginal improvement of trade balance into two parts; export component and import component.

	$\frac{\Delta E}{\Delta I}$	$\frac{\Delta M}{\Delta I}$
	Marginal Creation of Export	Marginal Creation of Import
1960-66	0.606	0.711
1966-69	0.214	1.087
1969-77	1.122	0.674

In the first period, both the marginal creations of export and import have been rather balanced. Even if the marginal improvement of trade balance has taken the negative value (-0.105), it has not influenced the investment productivity very much. But, in the second period, the marginal creation of export has been very small, while the marginal creation of import has been very large. The marginal improvement of trade balance has taken large negative value (-0.873). This might severely affect the investment productivity to decrease largely. On the other hand, in the third period, the marginal creation of export has realized large value, while the marginal creation of import has been rather small. Then the investment productivity could get positive effect through the positive value (0.448) of the marginal improvement of trade balance. (Refer Chart 1.3 and Chart 1.4).

d. Even though a part of the financial resources for investment may be provided by capital inflows from the developed economies that make it possible to import the development materials like capital goods and intermediate goods, the most part should be intensively mobilized by the domestic savings. This may limit the increase in the level of consumption. Thus the higher growth rate of investment may cause the relatively low level of consumption, and, in turn, the relatively low value of the marginal creation of consumption. And the decrease in the growth rate of investment may increase the value of the marginal creation of consumption.

In the first period, the growth rate of investment has been 16.4% per annum, while the marginal creation of consumption has been 1.674. The growth rate of investment has been decreased from the first period to the second period and to the third period; 11.8% for the second period and 5.1% for the third period respectively. Corresponding to these decreases in the growth rate of

Chart 1.4 : Marginal Creations of Export and Import

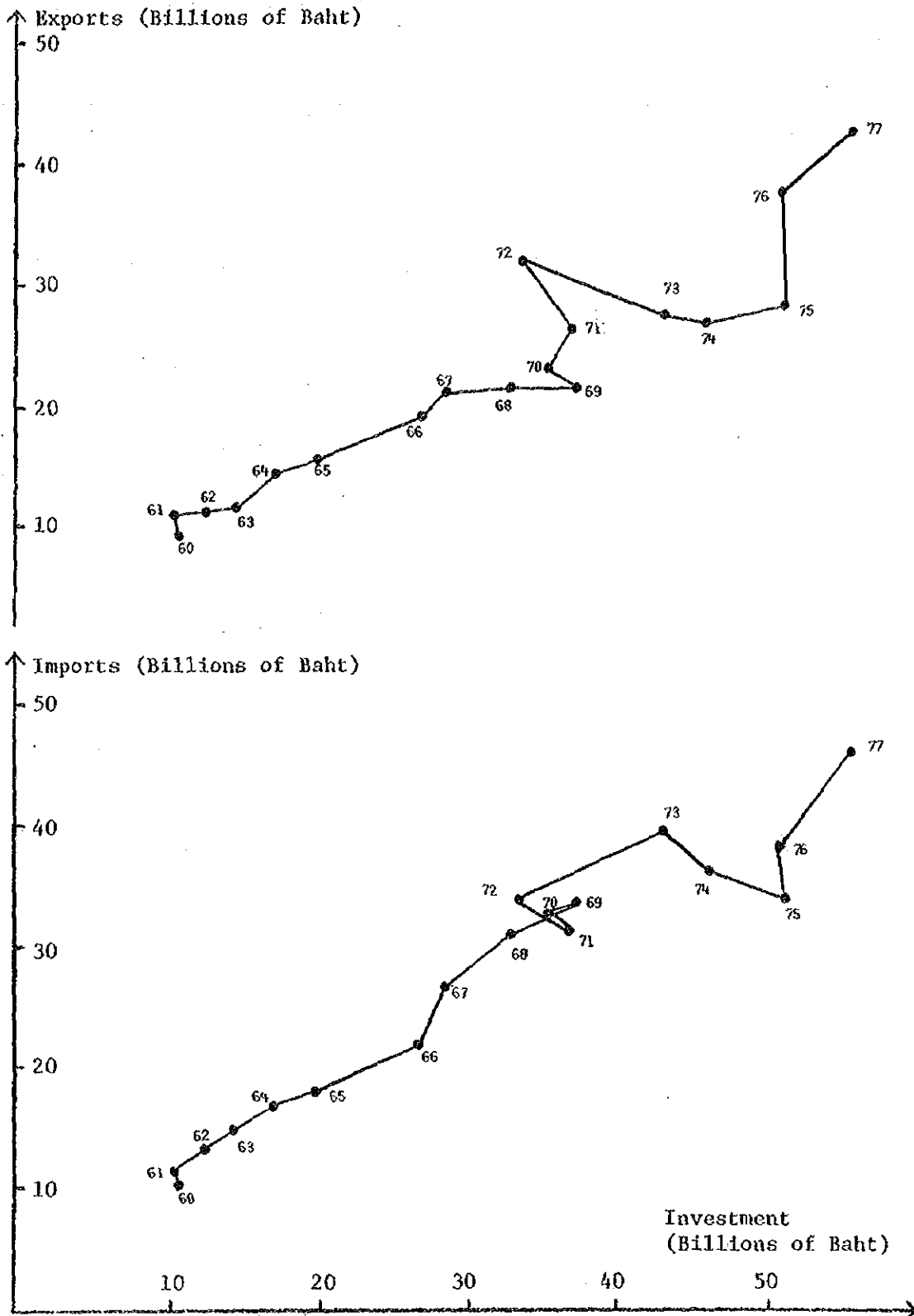
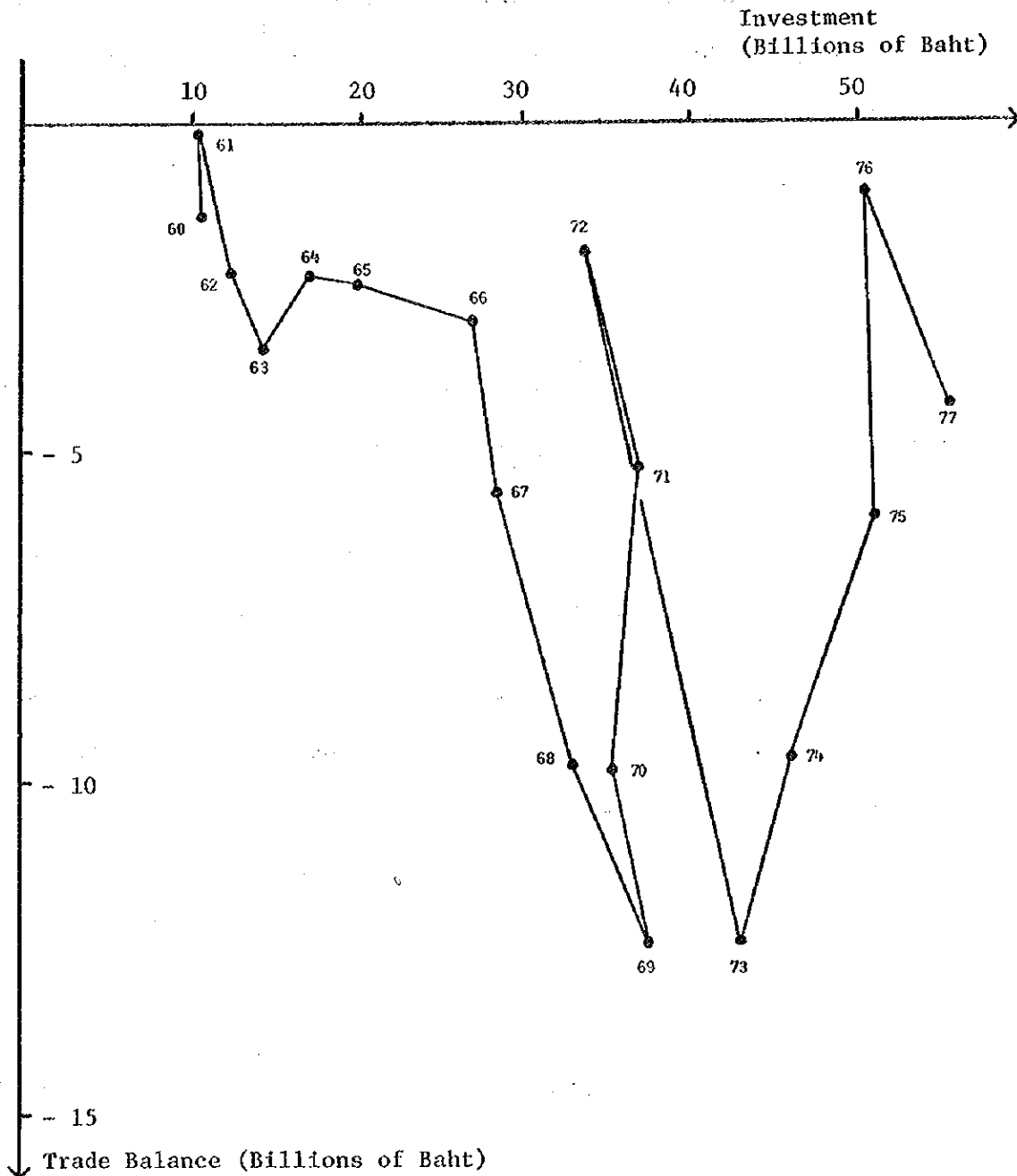


Chart 1.5 : Marginal Improvement of Trade Balance



investment, the marginal creation of consumption has been increased to 2.197 in the second period and to 4.083 in the third period. (Refer Chart 1.5).

What is more important is that the marginal creation of consumption has a larger influence on the investment productivity than the marginal improvement of the trade balance has.

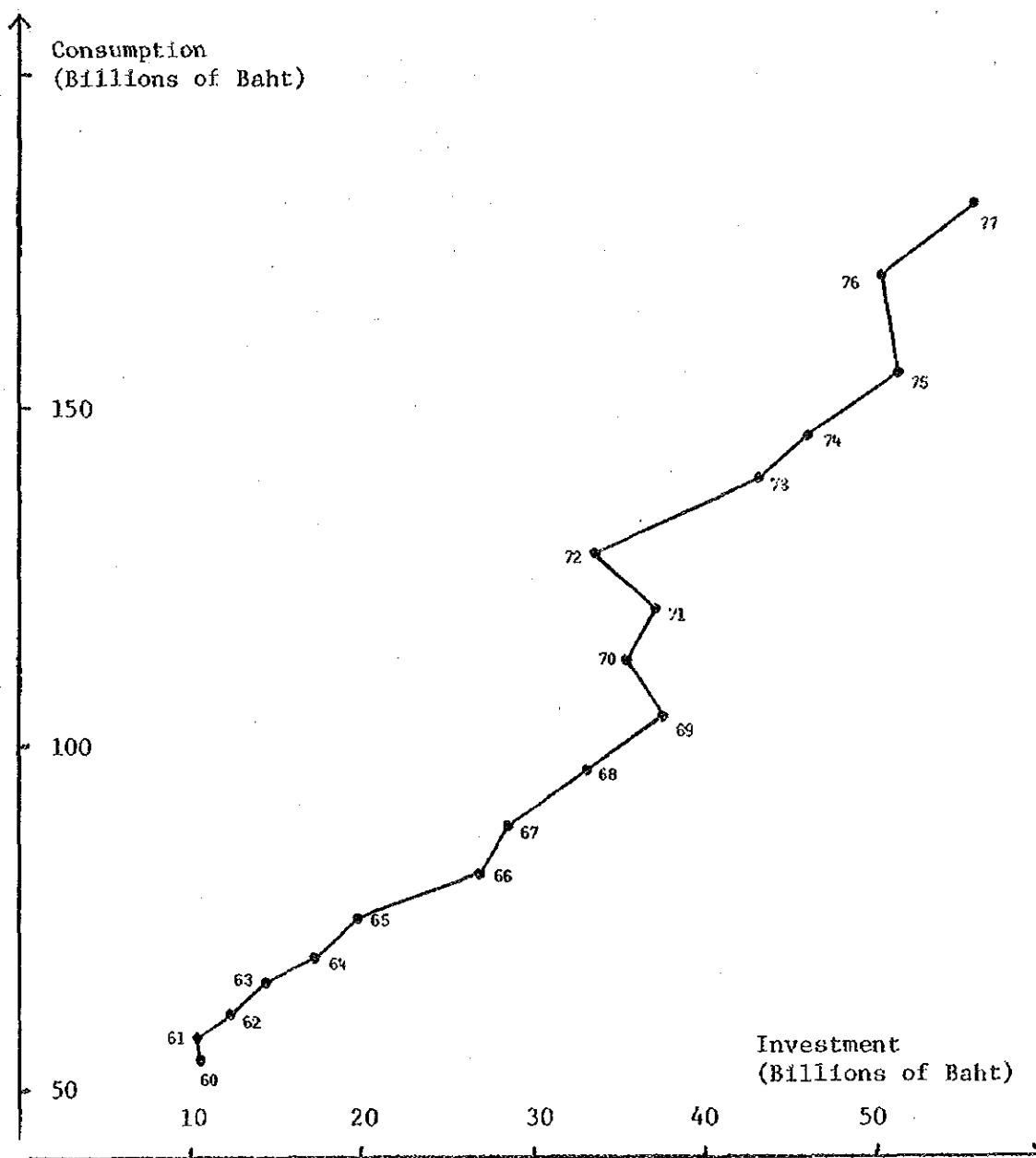
1.46 As a whole, the elements to determine the growth rate of GDP are summarized in Table 1.10.

The growth rate of GDP has decreased from 8.7% per annum in the first period to 7.4% per annum in the second and the third periods. The 8.7% of the growth rate of GDP in the first period has been supported by both 0.21 of the investment ratio and 0.42 of the investment productivity, while the 7.4% of the growth rate of GDP in the second and the third periods has been supported by both 0.27 of the investment ratio and 0.28 of the investment productivity.

Both the investment ratio and the investment productivity have taken almost the same value in the second and the third periods. However, the investment productivity has rather different components in these two periods. In the second period, the growth rate of investment has been kept at rather high level, while the marginal creation of consumption and the marginal improvement of trade balance have been at rather low levels. On the other hand, in the third period, the growth rate of investment has severely decreased. But the marginal creation of consumption and the marginal improvement of trade balance have been largely improved.

The higher growth rate of GDP in the first period has been mainly supported by the very high growth rate of investment. In the first period, the

Chart 1.6 : Marginal Creation of Consumption



investment ratio has been rather low. But the high level of the investment productivity that has been supported by the very high level of the growth rate of investment, has realized the higher level of the growth rate of GDP. On the other hand, in the third period, even though the investment ratio has become large, the investment productivity has been largely decreased mainly due to the severe decrease in the growth rate of investment. Then the growth rate of GDP has become rather low in relation to that in the first period. Here, even though the growth rate of investment has become severely low, the increases in both the marginal creation of consumption and the marginal improvement of trade balance have contributed to keep the investment productivity at the moderate level. This means that there may be a tendency of multi-polarization in elements to determine the growth rate of GDP. In the first period, the major element to keep the growth rate of GDP at the higher level has been the very high level of the growth rate of investment. However, as the development progresses, the growth rate of investment has become unable to keep itself at the very high level after the ceiling of the investment ratio has been attained. Then the growth rate of investment may be kept, at most, at the same level of the growth rate of GDP. In this stage, the investment ratio may be rather higher level than ever before. However, both the marginal creation of consumption and the marginal improvement of trade balance should be increased for compensating the rather low level of the growth rate of investment.

In summary, we have to suggest that

(1) at the early stage of development, the growth rate of GDP may be maintained at high level by the very high level of the growth rate of investment, and

(2) after the ceiling of the investment ratio is attained, the growth rate of GDP should be maintained at high level by working investment so as to either increase consumption or improve trade balance.

Anyhow, these findings show that a pattern of the economic growth of Thailand has changed itself from the investment oriented growth to the consumption and/or export oriented growth.

Increase of Consumption

1.47 Now we can return to the same consideration as mentioned in Section C. The Thai economy now suffers from the relative shortage of effective demand, especially consumption demand, in relation to production. Either for expanding domestic market or for promoting exports, this is required for reducing an unit cost of production through a full utilization of scale-merit in production. For the purpose, it is suggested to intensively take the strategy of rural development. The rural development may create the more effective demand for the domestic products. This, in turn, stimulates the higher level of production, that makes it possible to fully utilize the scale-merit in production so as to decrease the unit cost of production and to improve the export competitiveness of Thai products.

1.48 We have to examine the possibilities of rural development that makes it possible to increase consumption level.

As shown in Table 1.4, we have a basic data for an experiment that we are now doing :

Table 1.10 : Regional Income Level at 1977

(at 1972 prices)

	Urban Area	Rural Area	Whole Economy
Gross Regional Product (Mil. B.)	65,500	168,623	234,123
Population (1,000 persons)	4,531	39,508	44,039
Income Level (Baht)	14,456	4,268	5,316

Source : Table 1.4.

We consider that an appropriate operations of investment to promote rural development could be realized to double the income level in the rural area in the year 1977. Then the components of Table 1.10 can be modified as :

Table 1.11 : Regional Income Level, modified

(at 1972 prices)

	Urban Area	Rural Area	Whole Economy
Gross Regional Product (Mil. B.)	65,500	337,240	402,740
Population (1,000 persons)	4,531	39,508	44,039
Income Level (Baht)	14,456	8,536	9,145

The experiment is to examine an effect of this change in income level to the change in consumption level in ceteris paribus condition.

1.49 We have estimated the private consumption functions, based on the time series data for the period 1960-77. These equations are the logarithmic linear type.

$$A_1 = 2.62559 + 0.05723 C_1 + 0.24047 D + 1.82148 E \quad R^2 = 0.99870$$

(1.60591) (1.45383) (7.55194)

$$A_2 = 3.66959 + 0.10864 C_2 - 0.09371 D + 2.05167 E \quad R^2 = 0.99545$$

(1.81896) (-0.32751) (4.95531)

$$\begin{aligned}
 A_3 &= -1.95289 - 0.14722 C_3 + 0.53913 D + 2.01312 E & R^2 &= 0.99806 \\
 &\quad (-3.46511) \quad (2.32052) \quad (5.79951) \\
 A_4 &= 2.05567 - 0.16947 C_4 - 0.01626 D + 2.30263 E & R^2 &= 0.99546 \\
 &\quad (-2.81919) \quad (-0.05758) \quad (5.49050) \\
 A_5 &= -2.26744 + 0.07728 C_5 + 0.94276 D + 1.15323 E & R^2 &= 0.99660 \\
 &\quad (1.01596) \quad (2.95612) \quad (2.49158)
 \end{aligned}$$

A_1 : Total private consumption,

A_2 : Private food consumption,

A_3 : Private cloth consumption,

A_4 : Private dwellings,

A_5 : Other private consumption,

C_1 : Implicit deflator of total private consumption,

C_2 : Implicit deflator of private food consumption,

C_3 : Implicit deflator of private cloth consumption,

C_4 : Implicit deflator of private dwellings,

C_5 : Implicit deflator of other private consumption,

D : Income level,

E : Population.

1.50 Now we can estimate the increases of private consumptions caused by rural development, when the income level in the rural area is doubled by intensive input of investment to the rural development. The estimated results are shown in Table 1.12.

Table 1.12 : Estimations of Increase in Consumption Level through Rural Development.

(in Millions of Baht at 1972 Market Prices)

	Actual	Estimates: I	Estimates: II
Total Private Consumption	151,980	151,361	174,395
Private Food Consumption	78,197	78,300	74,094
Private Cloth Consumption	14,676	14,666	20,149
Private Dwellings	19,279	19,075	18,893
Other Private Consumption	39,828	38,965	67,899

Notes : Estimates : I are the estimates that are based on the actual data at 1977.

Estimates : II are the estimates that are based on the modified data at 1977.

The results show that when the income level is doubled due to the intensive rural development for constant price levels and constant population,

- a. total private consumption may be increased by about 23.0 billions Baht, that means about 15% increase in itself and about 10% increase of GDP,
- b. food consumption may decrease more than before,
- c. cloth consumption may be increased about 5.5 billions Baht; that means about 37% expansion of domestic market for textile products,
- d. expenditures on private dwellings may be decreased, and
- e. the increase in income level will result in richer living standard that causes a diversification in private consumption expenditures; this may cause the decreases in private food consumption and private dwellings and the sharp increase in other private consumption (household operations, personal care and health expenses, transportation and communication, recreation and entertainment, and the other miscellaneous services).

However, these are only the results of an experiment. The more feasible effects of rural development to increase the consumption level should be estimated by making use of the more detailed model. Nevertheless, these results suggest that the big effects may be created in consumption level through rural development.

1.51 What is the most important is to give a direction to effectively promote rural development.

Table 1.13 : Population and Employment, 1975

(in 1,000 persons)

	Rural Area	Urban Area	Total
Population	37,691	4,178	41,869
Employment	13,055.1	1,583.8	14,638.9
in Agriculture	7,043.1	94.5	7,137.5

Source : National Statistical Office, Office of the Prime Minister, 1975 Labour Utilization Survey.

As shown in Table 1.13, about 90% of total population of Thailand has been concentrated in the rural area. About one-third of the rural population has been employed, of which about 55% of the employment is working in agricultural activities. Earnings of workers in the other industries, for example Mining, Manufacturing, Construction, etc., has been guaranteed by the minimum wage act. So the strategy of rural development should be directed to increase the income level of the people working in agriculture. As shown in Table 1.14, the labor working in agriculture is most inadequately utilized in income level.

As shown in Table 1.15, the share of agricultural employment in total employment has been decreasing over the past two decades. However, the share is still the largest among industries. Thus the increase in income level of employment in agriculture should be the most effective strategy to create the more

Table 1.14 : Utilization of Labour by Industry and Area, 1975
in 1,000 persons for Employment
in percentage for Utilization Ratio

Industry Divisions	Total	Bangkok Metropolis	Municipal Area outside Bangkok	Non-Municipal Area outside Bangkok
Agriculture	7,137.5	94.5	60.6	6,982.5
Adequately Utilized	60.9	6.1	51.5	61.8
Inadequately Utilized	39.1	93.9	48.5	38.2
by Hour of Work	1.3	.3	.0	1.4
Income	37.6	93.6	48.5	36.7
Mismatch	.1	.0	.0	.1
Mining	75.0	.3	4.8	69.9
Adequately Utilized	73.7	100.0	35.0	76.2
Inadequately Utilized	26.3	.0	65.0	23.8
by Hour of Work	1.7	.0	26.0	.0
Income	24.7	.0	39.0	23.8
Mismatch	.0	.0	.0	.0
Manufacturing	2,453.2	378.5	140.1	1,934.7
Adequately Utilized	71.9	36.6	76.2	78.5
Inadequately Utilized	28.1	63.4	23.8	21.5
by Hour of Work	1.7	1.8	1.7	1.7
Income	26.3	61.4	21.8	19.8
Mismatch	.1	.2	.3	.0
Construction	593.6	63.2	23.9	506.4
Adequately Utilized	70.7	58.1	80.1	71.9
Inadequately Utilized	29.3	41.9	19.9	28.1
by Hour of Work	2.9	2.4	2.8	3.0
Income	26.3	38.5	17.0	25.2
Mismatch	.1	1.0	.0	.0
Electricity, etc.	48.1	23.2	6.5	18.4
Adequately Utilized	87.8	74.8	100.0	100.0
Inadequately Utilized	12.2	25.2	.0	.0
by Hour of Work	.0	.0	.0	.0
Income	12.2	25.2	.0	.0
Mismatch	.0	.0	.0	.0
Commerce	1,905.9	410.6	323.0	1,172.3
Adequately Utilized	76.8	59.2	80.4	82.1
Inadequately Utilized	23.2	40.8	19.6	17.9
by Hour of Work	2.3	1.0	2.1	2.8
Income	20.9	39.6	17.5	15.2
Mismatch	.0	.2	.0	.0

Table 1.14 (continued)

Industry Divisions	Total	Bangkok Metropolis	Municipal Area outside Bangkok	Non-Municipal Area outside Bangkok
Transport	575.8	114.7	73.4	387.7
Adequately Utilized	82.2	57.8	87.7	88.4
Inadequately Utilized	17.8	42.2	12.3	11.6
by Hour of Work	3.5	1.3	.9	4.7
Income	14.1	40.1	11.4	6.9
Mismatch	.2	.8	.0	.0
Services	1,847.3	496.4	307.2	1,043.7
Adequately Utilized	76.3	45.2	83.8	88.9
Inadequately Utilized	23.7	54.8	16.2	11.1
by Hour of Work	2.0	1.6	1.0	2.5
Income	21.2	52.9	15.1	7.8
Mismatch	.5	.2	.1	.7
n.e.c.	2.4	2.4	-	-
Adequately Utilized	.0	.0	.0	.0
Inadequately Utilized	100.0	100.0	.0	.0
by Hour of Work	.0	.0	.0	.0
Income	100.0	100.0	.0	.0
Mismatch	.0	.0	.0	.0
Total	14,638.9	1,583.8	939.5	12,115.6
Adequately Utilized	68.2	46.2	79.5	70.1
Inadequately Utilized	31.8	53.8	20.5	29.9
by Hour of Work	1.8	1.4	1.6	1.8
Income	29.9	52.1	18.8	27.9
Mismatch	.2	.3	.1	.1

Source : National Statistical Office, Office of the Prime Minister,
1975 Labour Utilization Survey.

Table 1.15 : Employment by Industry Divisions
(in 1,000 persons)

Industry Divisions	1954 ¹⁾	1960 ²⁾	1966 ³⁾	1971 ³⁾	1975 ⁴⁾
Agriculture	8,971.6	10,341.9	11,618.8	12,675.5	7,137.5
Mining	19.2	28.4	41.5	51.3	75.0
Manufacturing	212.5	454.8	639.1	982.1	2,453.2
Construction	28.4	68.3	110.7	164.2	593.6
Electricity, etc.	4.7	15.5	33.2	57.5	48.1
Commerce	463.2	744.4	1,027.6	1,368.8	1,905.9
Transport	84.5	164.1	228.9	324.8	575.8
Services	393.1	643.6	804.3	1,139.8	1,847.3
n.e.c.	23.4	220.3	-	-	2.4
Total	10,200.7	12,681.3	14,554.1	16,764.2	14,638.9

Notes : 1) 1954 Demographic and Economic Survey.

2) 1960 Population Census.

3) Estimates of Manpower Planning Division, NESDB.

The above estimates (1) - (3) are related to persons aged 15 years and over.

4) The estimates are related to persons aged 11 years and over.

Sources : For (1) - (3), Fact Book on Manpower in Thailand, Manpower Planning Division, NESDB, 1967.

For (4), National Statistical Office, Office of the Prime Minister, 1975 Labour Utilization Survey.

effective demand, that may be matched with rural development.

When the agricultural labour force is fully utilized, the increase in their income level should be created through the increase in agricultural productivity. However, at present, the agricultural labour force has never been fully utilized. This may be one of the main causes of low income level in the rural area. As shown in Tables 1.16 and 1.17 and by Chart 1.6, the agricultural employment has been seasonally fluctuated; the utilization ratio is about 80% at the best, while it is about 40% at the worst. Then the strategy of rural development has to be directed to fully utilize the part of unemployment.

The strategy of rural development has to be directed

a to absorb about 20% of the agricultural employment into the newly developed industries as full time workers, that have to be located in the rural area, and

b. to give the other about 40% of the agricultural employment a part-time job in the same industries.

Agricultural production has used to employ about 80% of the agricultural employment at the seeding and the harvesting periods, while to employ about 40% of them at the intermediate periods. So the above-mentioned directions suggest that (1) the full time jobs have to be provided to the fully unemployed workers in the agricultural activities, and (2) the part-time jobs have to be provided to the partly unemployed workers in the same activities. When these strategies are smoothly promoted, the income level of the rural area will be effectively increased.

Table 1.16 : Seasonal Fluctuations of Rural Employment,
Northeast Region : 1967-68
(Employment during Survey Year in Man-Month)

	Full Time		Part Time		No Work		Total	
	No.	%	No.	%	No.	%	No.	%
1. In Purely Agricultural Activities								
June	1,396	72.03	272	14.04	270	13.93	1,938	100.0
July	1,520	78.43	223	11.51	195	10.06	1,938	100.0
August	1,506	77.71	246	12.69	186	9.06	1,938	100.0
September	1,329	68.58	228	14.86	321	16.56	1,938	100.0
October	1,114	57.48	325	16.77	499	25.75	1,938	100.0
November	1,402	72.34	247	12.75	289	14.91	1,938	100.0
December	1,568	80.91	201	10.37	169	8.72	1,938	100.0
January	1,361	70.23	275	14.19	302	15.58	1,938	100.0
February	801	41.33	396	20.43	741	36.24	1,938	100.0
March	699	36.07	303	15.63	936	48.30	1,938	100.0
April	702	36.22	316	16.31	920	47.47	1,938	100.0
May	1,511	77.97	247	12.74	180	9.29	1,938	100.0
Total	14,909	64.11	3,339	14.36	5,008	21.53	23,256	100.0
2. In Non-Agricultural Activities								
June	67	87.01	6	7.79	4	5.20	77	100.0
July	66	85.71	9	11.69	2	2.60	77	100.0
August	61	79.22	8	10.39	8	10.39	77	100.0
September	69	89.61	6	7.79	2	2.60	77	100.0
October	70	90.91	5	6.49	2	2.60	77	100.0
November	69	89.61	5	6.49	3	3.90	77	100.0
December	61	79.22	10	12.99	6	7.79	77	100.0
January	70	90.91	5	6.49	2	2.60	77	100.0
February	70	90.91	4	5.19	3	3.90	77	100.0
March	63	81.82	8	10.39	6	7.79	77	100.0
April	74	74.02	4	5.20	16	20.78	77	100.0
May	67	87.01	6	7.79	4	5.20	77	100.0
Total	790	85.50	76	8.22	58	6.28	924	100.0
3. In Agricultural and Non-Agricultural Activities								
June	89	66.42	27	20.15	18	13.43	134	100.0
July	98	73.13	22	16.42	14	10.45	134	100.0
August	101	75.37	21	15.67	12	8.96	134	100.0
September	95	70.90	28	20.89	11	8.21	134	100.0
October	83	61.94	22	16.42	29	21.64	134	100.0
November	93	69.40	18	13.43	23	17.17	134	100.0
December	106	79.10	19	14.18	9	6.72	134	100.0
January	105	78.36	24	17.91	5	3.73	134	100.0
February	83	61.94	31	23.13	20	14.93	134	100.0
March	84	62.68	25	18.66	25	18.66	134	100.0
April	82	61.19	27	20.15	25	18.66	134	100.0
May	102	76.12	30	22.39	2	1.49	134	100.0
Total	1,121	69.71	294	18.29	193	12.00	1,608	100.0

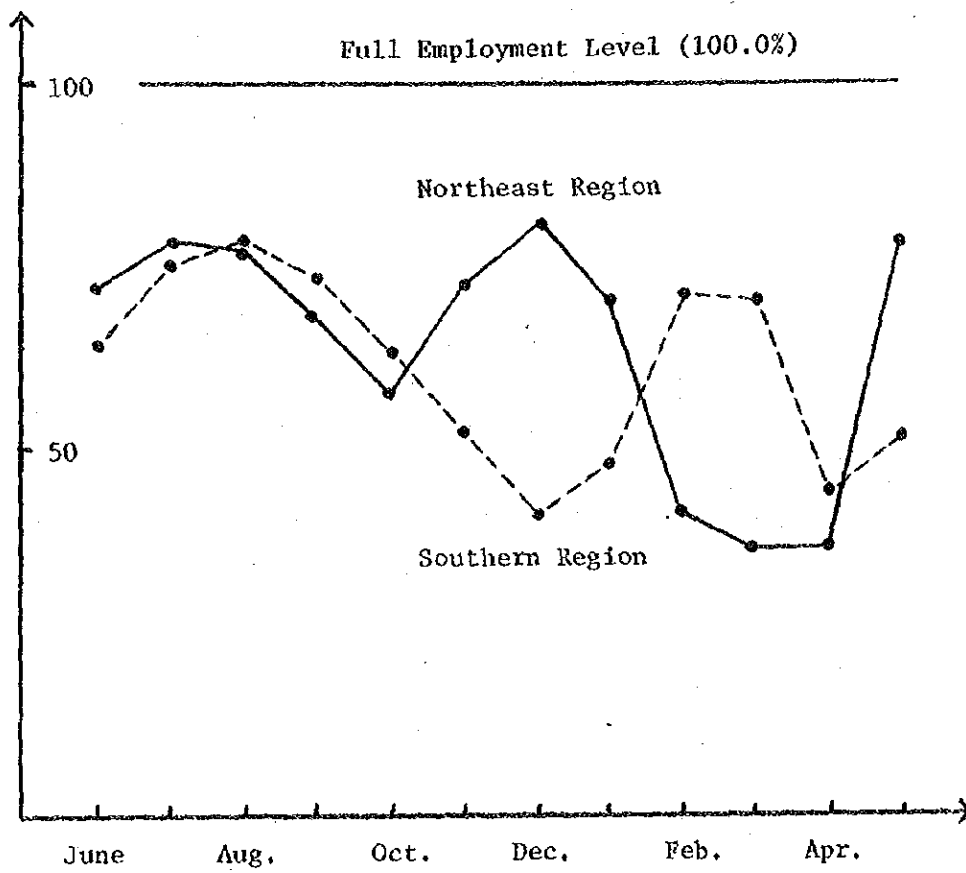
Source : Report on Rural Employment Survey, Northeast Region, 1967-1968,
Department of Labour, Ministry of Interior.

Table 1.17 : Seasonal Fluctuations of Rural Employment,
Southern Region : 1969-70
(Employment during Survey Year in Man-Month)

	Full Time		Part Time		No Work		Total	
	No.	%	No.	%	No.	%	No.	%
1. In Purely Agricultural Activities								
June	2,216	64.36	949	27.56	278	8.08	3,443	100.0
July	2,631	76.42	625	18.15	187	5.43	3,443	100.0
August	2,687	78.04	576	16.73	180	5.23	3,443	100.0
September	2,537	73.69	762	22.13	144	4.18	3,443	100.0
October	2,170	63.03	1,026	29.80	247	7.17	3,443	100.0
November	1,890	52.57	1,053	30.58	580	16.85	3,443	100.0
December	1,414	41.07	1,269	36.86	760	22.07	3,443	100.0
January	1,658	48.16	1,184	34.39	601	17.45	3,443	100.0
February	2,458	71.39	720	20.91	265	7.70	3,443	100.0
March	2,438	70.81	842	24.46	163	4.70	3,443	100.0
April	1,513	43.95	1,356	39.38	574	16.67	3,443	100.0
May	1,766	51.29	1,343	38.01	334	9.70	3,443	100.0
Total	25,298	61.23	11,705	28.33	4,313	10.04	41,316	100.0
2. In Non-Agricultural Activities								
June	287	84.91	41	12.13	10	2.96	338	100.0
July	287	84.91	38	17.24	13	3.85	338	100.0
August	262	77.52	65	19.23	11	3.25	338	100.0
September	251	74.26	73	21.60	14	4.14	338	100.0
October	241	71.30	63	18.64	34	10.06	338	100.0
November	244	72.19	43	12.72	51	15.09	338	100.0
December	250	73.96	60	17.75	28	8.29	338	100.0
January	262	77.52	60	17.75	16	4.73	338	100.0
February	269	79.59	57	16.86	12	3.55	338	100.0
March	249	73.67	72	21.30	17	5.03	338	100.0
April	259	76.63	50	14.79	29	8.58	338	100.0
May	290	85.80	41	12.13	7	2.07	338	100.0
Total	3,151	77.69	663	16.34	247	5.97	4,056	100.0
3. In Agriculture and Non-Agriculture Activities								
June	390	70.78	148	26.86	13	2.36	551	100.0
July	426	77.31	115	20.87	10	1.82	551	100.0
August	451	81.85	92	16.70	8	1.45	551	100.0
September	458	83.12	79	14.34	14	2.54	551	100.0
October	416	75.50	108	19.60	27	4.90	551	100.0
November	365	66.24	111	20.15	75	13.61	551	100.0
December	318	57.71	145	26.32	88	15.97	551	100.0
January	349	63.34	170	30.85	32	5.81	551	100.0
February	440	79.85	100	18.15	11	2.00	551	100.0
March	445	80.76	91	16.52	15	2.72	551	100.0
April	348	63.16	170	30.85	33	5.99	551	100.0
May	348	63.16	182	33.03	21	3.81	551	100.0
Total	4,754	71.90	1,511	22.85	347	5.25	6,612	100.0

Source : Report on Rural Employment Survey, Southern Region, 1969-1970,
Department of Labour, Ministry of Interior.

Chart 1.7 : Seasonal Fluctuations of Agricultural Employment
(in percentage fluctuation)



The same sort of strategy should be considered for the employment in the non-agricultural activities in the rural area.

Nevertheless, the increase in income level of the rural area should be realized through the increase in the agricultural productivity.

E. ECONOMIC DEVELOPMENT AND INTERNATIONAL COOPERATION

Contributions of Foreign Assistance to Economic Development

1.52 Over the past several decades, the economic development of Thailand has benefited from foreign assistance, even though it is insufficient in itself for the development. The foreign assistance has been provided by the developed countries in forms of financial resources, technology transfers and market expansions.

1.53 The financial assistance has been provided through three channels: (1) an assistance of the international organizations, (2) a bilateral official development assistance and (3) a private direct investment.

Table 1.18 : Financial Assistance to Thailand from the Developed Countries and the International Organizations

(in Millions of US\$)

1960	50.98
1961	38.84
1962	52.69
1963	42.10
1964	33.11
1965	46.82
1966	53.64
1967	61.41
1968	70.50
1969	99.60
1970	96.90
1971	51.90

Source : OECD, Geographical Distribution of Financial Flows to Less Developed Countries, 1973.

Table 1.19 : Dependence of Investment on Foreign Assistance

(in Millions of Baht at 1972 Market Prices)

	Investment	Foreign Assistance	Dependence Ratio
1960	10,772	1,020	
1961	10,429	922	
1962	12,448	1,224	
1963	14,409	972	6.6%
1964	17,266	781	
1965	19,979	1,089	
1966	26,832	1,197	
1967	28,500	1,360	
1968	33,106	1,553	5.1%
1969	37,535	2,189	
1970	35,467	2,034	
1971	36,943	1,098	

Source : NESDB, National Income of Thailand, and Table 1.18.

Both the assistance of the international organizations and the bilateral official development assistance have contributed mainly to social capital in Thailand. Highways through the country, bridges over the Mae Nam Chaophaya, tele-communication system, educational facilities in universities and colleges, etc. have been established by the financial assistance of these channels. However, at present, there may be still short of the social capital of many aspects in this country. Anyhow, an accumulation of social capital can not be expected to be realized through private investment. This may be too big a task to be undertaken by the private investment. Private enterprises may increase their own production facilities and the related production climates. Education and training of their workers on the job, adjustment of transportation route to carry their own production materials and products, supplies of electricity and water for their own production operations, etc. have to be considered at the minimum by the private enterprises. However, the social capital should be not only for a single private enterprise but spread all over the whole country. The private

enterprises do not want to contribute their financial resources to do that, and also that is too big a project to be completed by the private enterprises. This sort of project should be undertaken by the government. Unfortunately, the government revenue is not so large that the administrative expenditure can not manage sufficient accumulation of social capital. And the economic development needs exclusively to accumulate the social capital so as to progress the development. Then the foreign assistance should be needed for accumulating the social capital of Thailand for the time being.

On the other hand, the intensively promoted industries in Thailand over the 1960's have been promoted mainly by the foreign private direct investment. Even though industrialization has been directed by the guideline provided by the planning authority of the Thai government and progressed through the industrial promotion policies of the government, the actual establishment of the central core groups of the promoted industries have been realized by the foreign private direct investment. Most of the enterprises in this group have been established by the joint-ventures of Thai local capital with foreign capital. And the operations of production have been controlled by using an imported technology from the developed countries accompanied with the foreign private direct investments. Control of the technology has been managed by the foreign capital. And, as a profitability of investment to the promoted industries has been going to be recognized among the local capitals and the imported technology has been diffused over the country so as to increase the national level of technology, the promoted industries have been expanded among the local capitals more than ever before.

Table 1.18 shows the financial assistance to Thailand from the developed countries and the international organizations over the 1960's. And, as shown in Table 1.19, the financial assistance has shared only 5.0-6.5% of total

investment, even if the total amount of the financial assistance has been used for capital formation, either production facilities or social capital. However, as described above, the contribution of the foreign financial assistance has been very important for the development.

1.54 Technology transfers from the developed countries to Thailand have been promoted by the official development assistance and the private direct investment. The official development assistance has contributed to bringing up an educated or trained persons through establishing educational facilities or training local persons. While the private direct investment has introduced the advanced technology to control and manage the whole system of production. These might be very important elements that have contributed to the economic development of Thailand.

1.55 Since the earlier stage of the economic development of Thailand, the expansion of export market for primary commodities of Thailand has been continuously desired. Even now, a large part of exports from Thailand is composed of the primary commodities, mainly of agricultural products. So many considerations have been taken for stabilizing and maintaining the export earnings of the primary commodities. Because this is the main source of funds for importing the development materials such as capital goods and intermediate goods.

However, in the context of the feasible development of the Thai economy, what is more important is to expand the external market for the industrial products of this country. As described above, the industrialization should be crucially inevitable for the development of a developing economy like the Thai economy. But the foreign capital, invested in Thailand, had the policy of "local production and local distribution" of the products in Thailand. The

establishment of production facilities in Thailand might be related to the size of the domestic market of this country. Then further expansion of the industries by the local capital might cause the relative shortage of domestic market. Nevertheless, if the export competitiveness of Thailand industrial products is superior to that of the other countries, the industrial products can be exported to the external market. And the Thai economy will not suffer from the shortage of market for the products. However, unfortunately, the export competitiveness of Thai industrial products has been inferior to even that of the advanced developing countries, like Korea, Taiwan and Hong Kong. Then the expansion of the external market for Thai industrial products has been very difficult to be realized. For improving the export competitiveness, the Thai industrial products need more effective demand for themselves in the domestic market so as to increase the production levels, to fully utilize the scale-merit in production and to decrease the unit cost of production.

1.56 So far, the higher priority among the foreign assistances has been given to an introduction of the financial resources and the advanced technology. Certainly, the importance of these items for the development of the Thai economy has never disappeared. These are still now needed to improve social capital, for expanding production facilities and for making use of the proper technologies for production.

But the higher priority is now shifting its weight from these two items to the third items; the expansion of market for Thai industrial products. The expansion of market has to be performed either in domestic market or in external market. However, the expansion of domestic market is rather limited under the current situations, because the expansion may not be realized in the short time period mainly due to the unsatisfactory distribution of income in the country.

So what is more important in relation to the foreign assistance for the development of the Thai economy is to expand the external market for the Thai industrial products.

Then, if the developed countries could transfer a part of their own market for their own industrial products to the same sort of commodities produced in the developing countries, the Thai industrial products may also expect to expand the market, even though the export competitiveness is rather inferior to that of the advanced developing countries like Korea, Taiwan and Hong Kong. This may, in turn, increase the export competitiveness of the Thai industrial products through more effective demands in the external market to make use of more effective utilization of scale-merit in production.

Changing Conditions in the World Economy

1.57 Since the so-called "oil-crisis", the developed economies have been suffered from severe depression, that might be caused by relative shortage of their own effective demands for their own products in relation to the production. According to their efforts to improve the situations, the economies are now in a state of lull; this is not a sound situation. Anyhow, the developed economies need more effective demands for their products. And we consider that the expansion of their external market should be one of the most effective ways for the economies to relieve from this situation. This may be considered from the historical experiences that the economies have performed in the past several hundred years.

1.58 However, at present, the developed economies can not expect to take the same way as they did for expansion of their external market in their old days. The imperialistic invasion to the developing economies is not allowed

today. Then the feasible way for the developed economies is to create the required effective demand through a reorganization of international system of a division of labour in the framework of the world economy as a whole.

The developed economies have some industries that are becoming rather inferior in their comparative advantages in the world market. Then the developed economies have

a. to positively adjust these industries and consolidate their own industrial structures so as to remove the inferior industries out of the industrial structures and to intensify the industrial structures with industries that have superior comparative advantages in the world market,

b. to transfer the adjusted industries to the developing economies and to assist a consolidation of the industrial structures, and at the same time,

c. to transfer a part of the existing market for the products of the adjusted industries to the developing economies so that the developing economies can more easily expand their external market.

This sort of process makes it possible to further promote the industrialization of the developing economies, and to increase their income levels. This makes it, in turn, possible to increase the import demands of the developing economies from the developed economies. Then the effective demands for the products of the developed economies should be increased.

The Thai Economy in the Changing World Economic Situations

1.59 The reorganization of international system of the division of labour may increase a potential to promote industrialization and to expand

external market for the developing economies. However, this sort of benefit shall be provided to the whole of the developing economies without any discrimination. If a developing economy, like the Thai economy, would expect to realize even a part of the benefit, the economy should make effort to promote its own industrialization and to increase the export competitiveness in the world market by itself. The more progressed industrialization and the more superior competitiveness guarantee the more benefit.

1.60 For making possible to realize the benefit, the Thai economy in itself needs its own self-reliance

a. in promoting the industrialization in which the production and the effective demand are kept in balance, and

b. in increasing the export competitiveness of the products through the full utilization of scale-merit in production.

From this point of view, the Thai economy should consider the strategies to create more effective demand for the industrial products in the domestic market so as to be able to increase the production level for fully utilizing the scale-merit in production and to decrease the unit cost of production for effectively increase the export competitiveness. In this respect, we consider the most feasible strategy is to promote rural development in Thailand.

F. CONCLUSION

1.61 As conclusion, on the line of considerations mentioned above, we may suggest the following points :

a. So far, the development strategies in Thailand have been concentrated their efforts to the industrialization of the economy. On this sort of development process, the economic growth has been rather an investment oriented so as to rapidly increase the production facilities.

b. However, at present, the characters of the development strategies have to be changed so as to adapt themselves to the new situation. The new situation has come from the relative shortage of effective demand for the industrial products in relation to the productions. So the new directions of development strategies are suggested to create more effective demand for the industrial products.

c. Properly, the creation of effective demand should be realized in the domestic market. The expansion of external market may be rather difficult mainly due to rather inferior export competitiveness of the Thai industrial products.

d. In order to create more effective demand for the industrial products in the domestic market, rural development has to be directed so as to increase the income level in the rural area, to equalize the income distribution as a whole of the economy and to increase income level as a whole of the economy.

e. In addition to this new strategies, the international cooperation has also to be considered as a way to create more effective demand for the industrial products of Thailand in the world market. When the developed economies

transfer a part of their own market for their products to the developing economies through a reorganization of international system of the division of labour, exports of industrial products from the developing economies may be increased. This needs the close international cooperations between the developed and the developing countries. And, at present, this sort of international cooperations should be desirable for the developed economies as well as the developing economies.

f. However, in order to make it possible to share the benefit from this sort of international cooperations, the Thai economy should make effort to increase its own export competitiveness through the consolidation of the domestic economy.

CHAPTER 2

CURRENT DEVELOPMENT OF THE THAI ECONOMY AND FUTURE PROSPECTS

Narongchai Akrasanee

2.01 The Thai economy has been growing rapidly and has gone through several changes during the last two decades. The annual rate of growth in real term has been about 6-7 percent. The economy has become more industrialized, with more value added generated from and more people engaged in manufacturing production. Except for a brief period during 1973-75 the country had experienced the lowest rate of inflation compared with most countries. Foreign trade has been expanding, and the economy has become more and more dependent on the external sector.

2.02 While it is undeniable that economic growth has contributed to a better living standard in the country, many social objectives are still far from being fulfilled. The gap in income distribution remains wide, and about 25 percent of the people still live in poverty. Unemployment in urban area and ungainful employment in rural areas remain high. The rate of population growth until very recently was more than 3 percent a year, resulting in a swelling labor force. The migration of people into Bangkok, together with a poor city planning, is turning Bangkok into one of the most congested cities in the world.

2.03 The Fourth Economic and Social Development Plan, which was launched in 1977, gave highest priority to the fulfillment of social objectives. After two years of its implementation it is becoming obvious that social objectives are much harder to fulfill than the construction of physical infrastructure. Perhaps the most difficult aspect is the recognition of social objectives as

the most important development objectives by the country's leaders.

2.04 In the meantime other economic problems are fast emerging as Thailand is entering the 1980s. Energy requirement and the depletion of natural resources are perhaps heading the list of problems. Among other serious problems are the high growth in the labor force; investment requirements; widening deficit in the balance of trade and payments; the high cost of modern technology; the possibility in the disappearance of surplus rice; the inefficiency of the bureaucracy; and the attitude of the people towards development problems.

2.05 This paper attempts to assess economic and social changes which have taken place in Thailand basically since 1960, one year before the First National Economic and Social Development Plan was implemented, up to the present time. Part I analyses the performance of the Thai economy in terms of structural changes and sectoral development. An assessment of the development in terms of social objectives is made in Part II. Part III presents the current economic policies as outlined in the Fourth Plan and as stated periodically by the government. The last Part identifies present and future problems and prospects of the Thai economy.

A. PAST PERFORMANCE OF THE THAI ECONOMY

2.06 A background to the understanding of an economy is to look at its past performance in terms of growth and structural changes and sectoral development, which includes development in the production sector, the problem of the price level, and the external sector.

Growth and Structural Changes of the Thai Economy

2.07 The Thai economy has been growing at the annual rate of about 7 percent in real term. This rate of growth was higher in the 1960s than in the period from 1972 to 1977, but the difference was rather small. In 1977 per capita GNP was U.S.\$ 410, which placed Thailand among the more prosperous developing countries. The rapid growth of the last 18 years was due in considerable part to a relatively high rate of capital formation, which had increased as a percentage of GDP from 14.9 in 1960 to 21.0 in 1972 and 26.1 in 1977.

2.08 The economy depends very much on the primary sector (agriculture, mining, and quarrying), which accounted for 30.4 percent of gross domestic product in 1977. (Table 1) The manufacturing sector, however, has been growing rapidly, and its share in gross domestic product was measured at 19.2 percent in 1977 compared with 13.1 in 1960 and 17.0 percent in 1972. Foreign trade is very important to the Thai economy, as exports and imports together averaged about 42 percent of GDP during 1972-77. The foreign trade of Thailand has the classic structure of a developing and fast-growing country well endowed with natural resources. In the first half of the 1970s about 85 percent of exports consisted of primary commodities (SITC 0-4), some in raw and some in semi-processed forms. The most important commodity exports are rice, maize, rubber,

Table 1. Some Salient Features of the Thai Economy

	1960	1972	1977
Population (million)	27.1	28.6	44.1
Annual growth rate (percent)		3.0	2.7
GNP per capita (baht, current prices)	2,056	4,257	8,200
GDP (million of bahts, current prices)	55,816	164,626	370,400
GDP (million of bahts, 1962 prices)	59,400	135,169	185,700
Annual growth rate (percent)	7.1	6.6	
Gross fixed capital formation as percent of GDP	14.9	21.0	26.1
Agricultural value added as percent of GDP	40.0	30.3	28.5
Manufacturing value added as percent of GDP (ISIC3)	13.1	17.0	19.2
Utilities, construction, services, etc., as percent of GDP	46.7	50.9	50.4
Imports as percent of GDP	17.2	18.8	28.0
Mfg. imports (SITC 5-8) as percent of total imports	74.6	74.2	64.4
Exports as percent of GDP	15.4	13.7	22.2
Mfg. exports (SITC 5-8 less tin ^{2/} metal) as percent of total exports	1.4	10.1	17.3
Mfg. exports (ISIC3) as percent ^{2/} of total exports	n.a.	28.0	36.5 ^{1/}
Mfg. employment as percent of total employment	3.4	n.a.	5.9 ^{1/}
Share of mfg. output in the ^{3/} Central Region	73.2	73.9	82.7 ^{1/}

Note : ^{1/} Data are for 1976.

^{2/} The difference between manufacturing classified according to SITC 5 to 8 and ISIC 3 is that the former excludes, while the latter includes, processed food, beverages and tobacco manufactures.

^{3/} There are four regions in the country : Central, North, South and Northeast. Bangkok Metropolis is in the Central Region.

tin, tapioca products, and sugar. In contrast, about three quarters of imports were manufactured goods, with machinery and equipment (SITC 7), and chemicals (SITC 5) together accounting for more than 50 percent.^{1/}

2.09 The significance of manufactured imports has not changed very much in recent years, except that their share in the total value of imports declined from 74.2 percent in 1972 to 64.2 percent due to the higher price of crude oil. The basic structure of exports has, however, undergone important changes. Based on ISIC (which treats processed food and beverages and tobacco manufactures as manufactured goods) the proportion of manufactured exports increased from 28 percent in 1972 to 36.5 percent in 1976.^{2/}

2.10 Clearly, then, the manufacturing sector has been growing in importance in terms both of value added and of exports. Furthermore, it is a source of employment, as it accounted for 5.9 percent of employment in Thailand in 1976. Although this means the employment of 1.1 million^{3/} persons, it must be noted that most of this employment is in the Greater Bangkok area, where about 80 percent of manufacturing activities are located (see Table 1). It is in this area where unemployment in 1976 was 9.7 percent, while the unemployment rate in rural area was 4.9 percent.^{4/}

^{1/} Bank of Thailand, Monthly Bulletin, various issues, Bangkok.

^{2/} Classifying manufactured imports according to ISIC will not affect its share because imports of processed food and beverages and tobacco manufactures were small.

^{3/} The total number of employed persons in 1976 was 18.2 million. See Bank of Thailand, Annual Report, 1976, Bangkok.

^{4/} Bank of Thailand, *ibid.* p. 66.

Agricultural and Industrial Development

a. Agriculture

2.11 The agricultural sector has continued to be the most important single sector in the Thai economy, both in terms of value added, employment, and foreign exchange earner. In 1977, the contribution to value added was 28.5 percent, which was about the same as in the early 1970s. Within the sector value added from crops has been the largest, averaging about 22 percent since 1970. (Table 2).

2.12 It is well known that paddy is the most important crop of Thailand. While paddy remains the most important crop, there are several other crops which have been expanding very rapidly in terms of area planted and production. In 1960 area planted of paddy was 37 million rai, and only three other crops had area planted above 1 million rai i.e. rubber, maize and coconut (Table 3). By 1975, area planted of paddy had increased to 53 million rai, but there were 10 other crops which had area planted above 1 million rai. The next largest area now belongs to maize, which has increased about six fold since 1960. Other crops which have had a very significant increase in area planted are cassava, sugar cane, mung beans, soybeans, groundnuts, kenaf, coconut, and rubber.

2.13 A very similar picture of crop expansion is seen in terms of production increases. This implies that the increase in production has been largely due to the increase in area planted, which is confirmed by the statistics of yield per rai shown in Table 3. It is clear that, except for sugar cane, average yields per hectare has either been stable or on the decline.

Table 2. The Agricultural Sector

	1970	1972	1974	1976	1977
1. Percentage of value added in total GDP	28.3	30.3	31.6	30.8	28.5
Crops	19.7	21.8	23.5	22.5	20.1
Livestock	3.6	3.6	3.8	3.7	3.7
Fisheries	3.0	3.2	2.8	3.0	2.9
Forestry	2.0	1.7	1.5	1.7	1.7
2. Value of exports as percent of total exports	72.1	67.5	68.9	69.3	n.a.
3. Employment as percent of total employment	79.3	69.4	59.3	62.5*	n.a.

Note : * First quarter (Jan. - Mar.) only.

Source : NESDB

Bank of Thailand

Department of Labour

Table 3. Area Planted, Yield and Production of Major Crops, 1959-76, Whole Kingdom

	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	
Area Planted (1,000 rai)																			
Paddy	37,906	37,013	38,619	41,168	41,229	40,872	40,961	46,454	41,612	45,173	47,400	46,840	47,043	44,620	49,736	47,821	53,244	50,859	
Rubber	2,931	3,006	3,081	3,450	3,400	3,625	3,675	3,638	3,844	3,844	3,844	5,075	5,769	5,844	6,125	6,206	6,206	6,206	
Maize	1,249	1,785	1,916	2,050	2,612	3,449	3,605	4,084	4,651	4,793	4,824	4,799	4,640	6,819	7,527	7,927	10,176		
Sorghum	-	-	-	-	-	13	196	359	415	200	225	254	523	559	555	1,262	1,452		
Kenaf	278	877	1,720	712	875	1,365	2,401	3,314	2,468	1,585	1,931	2,777	1,314	2,893	3,635	2,364	2,363		
Cassava	391	447	621	767	875	656	637	814	881	1,067	1,042	1,010	1,314	1,923	3,235	3,899	4,657		
Sugarcane	925	986	776	636	932	1,014	883	778	936	1,137	877	917	1,035	1,311	1,878	2,080	2,995		
Tobacco (Virginia)	113	113	100	94	94	106	100	106	125	138	138	156	200	206	263	288	294		
Cocunut	838	1,031	1,156	1,325	1,400	1,400	1,550	1,544	1,700	1,788	1,856	1,969	2,025	2,113	2,206	2,300	2,406		
Cotton	300	347	358	371	456	419	471	523	703	1,000	726	496	583	830	264	281	248		
Groundnuts	624	736	521	544	520	546	621	983	673	741	826	797	818	918	1,021	1,072			
Soybeans	137	139	149	174	210	213	117	285	393	329	450	467	724	985	1,136	1,102	1,365		
Mung beans	289	327	229	310	630	632	753	840	830	1,250	1,297	1,543	1,471	1,907	1,687	1,933	1,617		
Castor beans	176	197	229	289	282	242	225	271	157	240	186	148	135	129	159	210	231		
Yield (kg/rai)																			
Paddy	223	256	256	267	281	254	268	257	231	229	283	290	292	262	276	260	265	269	
Rubber	55	57	60	57	58	58	59	60	57	67	61	57	55	58	60	62	56		
Maize	254	305	312	325	328	271	283	275	261	280	303	289	300	382	275	266	288		
Sorghum	-	-	-	-	-	586	376	317	331	284	276	183	278	283	252	198	214		
Kenaf	181	207	197	188	221	222	220	200	200	200	211	211	197	206	189	185	192		
Cassava	2,773	2,734	2,780	2,708	2,433	2,375	2,384	2,323	2,343	2,449	2,374	2,409	2,796	2,307	2,402	2,437	2,500		
Sugarcane	5,417	5,457	5,134	4,959	5,079	5,003	5,071	4,921	4,832	5,169	5,363	6,129	5,719	6,647	7,547	7,605	7,430		
Tobacco (Virginia)	71	80	90	117	128	123	120	132	136	116	145	141	130	117	118	128	146		
Cocunut (fruits per bearing tree)	51	48	46	43	40	37	34	31	29	26	23	23	23	23	23	23	23		
Cotton	126	131	107	111	107	117	127	170	115	156	174	114	168	100	95	148	190		
Groundnuts	198	207	207	206	217	220	210	224	196	213	221	218	221	207	228	201	213		
Soybeans	215	184	162	173	157	151	164	133	132	136	154	175	217	153	145	172	178		
Mung beans	159	185	178	173	184	174	166	157	148	147	131	149	155	141	134	123	112		
Castor beans	194	218	143	151	188	161	141	154	130	161	166	166	198	150	163	149	166		
Production (1,000 tons)																			
Paddy	8,454	9,475	9,886	10,992	11,585	10,362	10,978	11,947	9,625	10,348	13,410	13,570	13,744	11,669	13,748	12,447	14,092	13,677	
Rubber	161	172	186	195	198	211	217	218	219	258	282	287	316	337	368	382	349		
Maize	317	544	598	665	858	935	1,021	1,122	1,212	1,331	1,454	1,393	1,995	1,239	2,066	2,105	2,928		
Sorghum	-	-	-	-	-	7	73	114	137	57	62	46	146	102	140	250	310		
Kenaf	50	181	339	134	212	303	529	661	492	317	407	586	441	595	686	549	454		
Cassava	1,083	1,222	1,726	2,077	2,111	1,557	1,475	1,892	2,063	2,611	2,474	2,432	3,673	4,436	7,770	9,503	11,641		
Sugarcane	5,012	5,382	3,984	3,155	4,733	5,074	4,480	3,829	4,526	5,878	4,876	5,618	5,920	8,712	14,173	15,818	22,253		
Tobacco (Virginia)	8	9	9	11	12	13	12	14	17	16	20	22	26	24	31	37	43		
Cocunut (milk fruits)	724	808	816	838	816	760	713	656	637	580	577	574	571	568	565	562	560		
Cotton	38	45	38	41	49	49	60	89	81	156	126	56	98	83	25	41	47		
Groundnuts	124	152	108	112	113	120	131	220	132	158	183	174	181	190	230	205	228		
Soybeans	29	26	24	30	33	32	19	38	53	65	69	82	157	150	164	190	243		
Mung beans	46	60	41	54	116	110	125	132	123	184	170	229	228	269	225	237	181		
Castor beans	34	43	93	44	58	39	32	42	20	39	31	24	27	19	26	31	38		

Source : Department of Agricultural Extension, Ministry of Agriculture and Cooperatives.

2.14 In terms of regional development the Northeastern and Northern regions have had drastic changes in crop pattern. The area planted for paddy had almost double during 1960-1975. The Northeast has also significantly increased the area planted and production of cassava, maize and kenaf. In the North, three crops have dominated the scene, i.e., maize, mung beans and soy beans. The Southern region has an increase in area planted for rubber, which had doubled during 1960-1975.

2.15 Much of the development in the agricultural sector has been due to the external demand. As may be seen from Table 4, in the early 1960s rice used to account for about 30 percent of the total value of exports. By mid 1970s, the significance of rice export has very much declined in relative terms. In addition to rice and rubber, other crops which have become major foreign exchange earners are maize, cassava (tapioca products), sugar, mung beans, tobacco leaves, sorghum, kapok fibre, and castor seeds.

b. Industry

2.16 A broad definition of the industrial sector includes mining and quarrying, manufacturing, construction, electricity and water supply. Within the sector, manufacturing has been the most dynamic, and its contribution to gross domestic product increased from 13.1 percent in 1960 to 19.2 percent in 1977. Its annual growth rate in current prices during the period 1972-77 was 21.2 percent, second only to the annual growth rate of the banking, insurance and real estate sector. During this period its contribution to the increase in GDP was 19.7 percent, again the second highest after agriculture.

2.17 Within manufacturing, the structure as measured by the composition of

Table 4. Agricultural Commodity Exports of Thailand

Year	Rice		Maize		Cassava Products		Sugar		Others		Total	
	Value	Percent	Value	Percent	Value	Percent	Value	Percent	Value	Percent	Value	Percent
1960	2,570	29.8	551	6.4	288	3.3	8	0.1	5,197	60.3	8,614	100.0
1961	3,598	36.0	599	6.0	446	4.5	3	0	5,351	53.5	9,997	100.0
1962	3,240	34.0	516	5.4	423	4.4	46	0.5	5,304	55.7	9,529	100.0
1963	3,424	35.4	857	8.9	439	4.5	122	1.3	4,834	50.0	9,676	100.0
1964	4,389	35.6	1,388	11.2	653	5.3	211	1.7	5,698	46.2	12,339	100.0
1965	4,334	33.5	1,004	7.8	676	5.2	100	0.8	6,827	52.8	12,941	100.0
1966	4,001	28.4	1,577	11.3	644	4.6	82	0.6	7,795	55.3	14,099	100.0
1967	4,653	32.8	1,431	10.1	726	5.1	37	0.3	7,319	51.7	14,166	100.0
1968	3,775	27.6	1,647	12.0	772	5.6	-	0	7,485	54.7	13,679	100.0
1969	2,945	20.0	1,767	12.0	876	6.0	47	0.3	9,087	61.7	14,722	100.0
1970	2,517	17.0	1,969	13.3	1,223	8.3	94	0.6	8,969	60.7	14,772	100.0
1971	2,909	16.8	2,286	13.2	1,240	7.2	382	2.2	10,464	60.6	17,281	100.0
1972	4,437	19.7	2,085	9.3	1,547	6.9	1,264	5.6	13,158	58.5	22,491	100.0
1973	3,594	11.2	2,969	9.2	2,537	7.9	1,116	3.5	22,010	68.3	32,226	100.0
1974	9,778	19.4	6,078	12.1	3,836	7.6	3,757	7.5	26,876	53.4	50,325	100.0
1975	5,851	12.9	5,703	12.7	4,600	10.2	5,696	12.7	23,177	51.5	45,027	100.0
1976	8,603	14.2	5,676	9.3	7,517	12.4	6,843	11.3	32,158	52.9	60,797	100.0
1977	13,449	18.3	3,346	4.6	7,700	10.5	7,405	10.1	41,487	56.57	3,387	100.0

Source : Bank of Thailand.

value added has also been changing overtime (Table 5). In the early 1960s industrial production was concentrated in processed food, beverages and tobacco products, non-durable consumer goods, and construction materials. Relative significance of these groups of industries declined at the end of the 1960s. Rising in significance were petroleum products, intermediate products chiefly for consumer goods, and transport equipment. In the early 1970s the structure of manufacturing production became more evenly distributed among several groups of industries consisting of processed food, beverages and tobacco, intermediate products for consumer goods and for capital goods, and non-durable consumer goods. These five groups of industries accounted for about 85 percent of manufacturing value added during the period 1972-1977, leaving the remaining 15 percent shared by construction materials, durable consumer goods, machinery and transport equipment. The structure had been quite stable during this recent period, indicating a more balanced growth of value added at different stages of manufacturing industries. The stability is in terms of sub-sectoral balances only. Within a sub-sector, as will be shown below, the composition of value added continued to change.

2.18 At a more disaggregated level the most important industries in 1972 according to value added were beverages, tobacco products, petroleum products, textiles, clothing, food products, cereal products, motor vehicles, and textile articles (Table 6). In 1977, those industries just mentioned remained the most important, with several other industries having value added more than one billion baht. Industries which have been expanding very rapidly are textiles and related products, food processing (animal feeds and fruit canning), sugar, pharmaceuticals, and engineering industries (agricultural machinery, motor vehicles, electrical goods, metal products, etc.).

Table 5. Value Added of Manufacturing Output by Sub-sectors

Industry	Value Added (1,000 baht)					Proportion of Industrial V.A. to Total V.A.					Annual rate of Growth (1972-1977)	Contribution to Total V.A. increase (1972-1977)		
	1972	1973	1974	1975	1976	1977	1972	1973	1974	1975			1976	1977
Processed food	5,027	6,654	9,374	11,215	14,492	16,204	18.4	18.7	20.8	21.9	24.0	22.7	23.4	25.4
Beverage and tobacco	5,109	6,056	7,730	7,962	10,112	12,682	18.7	17.0	17.1	15.5	16.7	17.8	18.2	17.2
Construction materials	1,306	1,625	2,079	2,168	2,539	3,040	4.8	4.6	4.6	4.2	4.2	4.3	16.8	3.9
Intermediate products I	3,704	4,638	6,647	7,547	8,117	9,816	13.6	13.0	14.7	14.7	13.4	13.8	19.5	13.9
Intermediate products II	4,933	6,637	7,762	7,666	9,679	11,137	18.1	18.6	17.2	14.9	16.0	15.6	16.5	14.1
Consumer nondurables	5,136	6,179	6,384	9,023	8,920	10,433	18.8	17.3	14.2	17.6	14.7	14.6	14.2	12.0
Consumer durables & machinery	2,042	3,822	5,082	5,772	6,626	7,973	7.6	10.8	11.4	11.2	11.0	11.2	27.2	13.5
Total	27,257	35,611	45,058	51,353	60,485	71,285	100.0	100.0	100.0	100.0	100.0	100.0	19.2	100.0

Note : Year 1977 figures were estimates.

Source : NESDB

Table 6. Value Added by Industry, 1972 - 1977

(Millions of Baht)

Industry	1972	1973	1974	1975	1976	1977
I. Processed Food	5,027	6,654	9,374	11,215	14,492	16,204
1. Meat and meat products	839	700	2,036	2,840	2,876	3,209
2. Sugar and confectionary	652	970	2,344	2,388	4,116	4,749
3. Dairy product	405	495	622	705	952	1,069
4. Cereal product	1,493	2,514	2,973	3,218	3,791	4,231
5. Food product	1,638	1,975	1,399	2,064	2,784	2,946
II. Beverages and Tobacco	5,109	6,056	7,730	7,962	10,112	12,682
6. Beverages	2,488	3,135	3,903	4,033	5,146	6,832
7. Tobacco	2,621	2,921	3,827	3,929	4,966	5,850
III. Construction Material	1,306	1,625	2,079	2,168	2,539	3,040
IV. Intermediate Products I	3,704	4,638	6,647	7,547	8,117	9,816
9. Oil and fats			(include in 5)			
10. Lumber and plywood	661	885	1,482	1,632	1,531	2,046
11. Leathers	219	264	249	214	283	294
12. Thread and yarn			(include in 18)			
13. Fuel and petroleum	2,403	2,965	4,224	4,930	5,279	6,178
14. Glass and glass product	225	280	359	395	419	506
15. Chemical material	151	192	264	300	514	646
16. Iron and steel	45	52	69	76	91	146
17. Non-ferrous metal basic ind.			(include in 21)			
V. Intermediate Products II	4,933	6,637	7,762	7,666	9,679	11,137
18. Textile	2,124	2,945	3,366	3,439	4,664	5,039
19. Paper and paper product	226	215	270	238	254	299
20. Rubber and rubber product	545	643	774	875	1,209	1,403
21. Metal product	1,162	1,848	2,126	1,940	2,288	2,802
22. Chemical product	808	898	1,119	1,055	1,140	1,428
23. Wood product	68	88	107	119	124	166
VI. Consumer non-durable	5,136	6,179	6,384	9,023	8,920	10,433
24. Clothing	1,727	2,376	2,994	3,478	4,255	5,026
25. Textile articles	1,268	1,117	1,247	1,182	544	585
26. Shoes	61	75	92	99	11	12
27. Printing and publishing	718	956	1,450	1,983	1,578	1,732
28. Leather goods			(include in 11)			
29. Pharmaceuticals	796	926	1,138	1,388	1,828	2,293
30. Miscellaneous	566	729	773	893	704	785
VII. Consumer durables & machinery	2,042	3,822	5,082	5,772	6,626	7,973
31. Furniture	301	372	535	577	585	717
32. Motorcycles, bicycles assembly & parts			(include in 36)			
33. Consumer electrical goods	264	310	359	400	430	495
34. Machinery, agricultural & non-electrical	559	705	893	942	1,056	1,403
35. Electrical machinery	136	165	243	263	288	331
36. Transport equipment (Motor Vehicle)	1,384	2,270	3,052	3,585	4,267	5,027
Total	27,257	35,611	45,058	51,353	60,485	71,285

Source : NESDB

Note : Year 1977 figures were estimates.

2.19 On the development of major industries, there were many important events in 1978. There was for the first time a serious shortage of cement in the country, due to the long delay in expansion of capacity. The decision to expand cement production was finally made by the major cement producers, which would increase capacity from 5 million tons to 11 million tons in 1982. Textile industry made a dramatic come back. It is now estimated that the total value of textile export would increase by more than 50 percent in 1978. Food processing saw the biggest expansion in animal feeds and planned expansion in fruit canning. Finally the country began to feel the shortage of refined petroleum products, and a major expansion is expected soon.

2.20 Manufacturing growth has concentrated mostly in the Bangkok Metropolis and the Central Region. In fact a few years ago most manufacturing activities were in Bangkok and the four nearby provinces. Recent expansion of the sugar industry and food processing, including animal feeds and fruit canning, has extended manufacturing activities to rural areas but still within the Central Region. This concentration of manufacturing activities is considered to be one of the major problems of industrial development.

2.21 The development of the manufacturing sector has been conditioned by both market forces (internal and external) and government policies.^{1/} This is to be expected because of the free enterprise nature of the economy. Interferences from the government have shaped the pattern of growth of some industries,

^{1/} An investigation into sources of growth of manufacturing output clearly shows that growth was due mostly to the increase in domestic demand in the 1960s and early 1970s, with exports playing an increasingly more important role in the mid 1970s. See Akrasanee (1977).

notably cement and oil refinery. Other government policies especially tariff and promotion policies have affected choice of industries, of technology and of location.

Money and the Price Level

2.22 Inflation has become a major problem of the Thai economy. After a slow-down in the rate of price increase in 1974/75, following the period of a very high price increase in 1972/73 and 1973/74, the rate of inflation has begun to pick up since 1976. For 1978 the estimated percentage price increase in terms of consumer price index was about 10 for the whole Kingdom. The largest increase was in the category of food. And Bangkok was hardest hit by inflation, with the consumer price index expected to have increased by more than 13 percent.

2.23 An attempt to explain price changes in Thailand during the period 1972 to 1976 was made by Ammar Siamwalla (1978), and the major conclusion was that the 1972 to 1974 inflation was caused by external factors. The author reached this conclusion by showing that neither the Keynesian nor the monetary explanation of inflation was acceptable. For the former, inflation was supposed to have been caused by excess aggregate demand, which was not the case during that period. As for the monetarist explanation, the movement in money supply has been found to be positively correlated with the movement in prices. But the expansion of money supply was due largely to the surplus in the balance of payments, thus cannot be considered inflationary. Hence during the period of inflation there was no excess demand and no pressure on real resources. Inflation must therefore, have originated from the increase in export and import prices, both of which are considered to be external sources.

2.24 The explanation of inflation given above does not seem to fit the period of price movement in 1976 to 1978 (see Table 7). The surplus in the balance of payments was very low in 1976, after which it turned to a very large deficit in 1977 and 1978. The increase in money supply was higher than 10 percent per annum throughout the period, due largely to the large increase in claims on central government. Furthermore, prices of exports and imports did not change very much. Thus the cause of a rather high inflation rate in 1977-78 must be the pressure on real resources especially during the period of negative growth of agricultural production.

Foreign Trade and the Balance of Payments

2.25 The significance of the external sector to the Thai economy is well known. As mentioned above, the total value of exports and imports became higher than 50 percent of GNP in 1977, and they have continued to grow rapidly. Foreign capital has been a major source of capital formation, contributing about 7 percent to the total fixed capital formation during the period 1972 to 1977.

2.26 Imports into Thailand are almost entirely manufactured goods from developed countries, about 40 percent of which are imported from Japan. Exports of manufactured goods, on the other hand, account for about 20 percent of total exports, with developed countries being the major customers. The current account in the balance of payments has been in the deficit for the last two decades. But with a favorable service account, the deficit in the current account has been small, and has not worried policy makers too much, especially when the balance of payments has been in the surplus in most years (Table 8). Since 1976, however, the surplus in the service account started to fall, and with a big deficit in the commodity account in 1977, due to a sharp rise in imports, the balance of payments ended up with a very large deficit. The deficit in the balance of payments

Table 7. Summary Statistics on Inflation and Its Possible Causes

	1970	1971	1972	1973	1974	1975	1976	1977	1978 ^{P/}
Consumer price indices (1964/65 = 100)	113.5	114.0	119.6	138.1	171.7	180.8	188.4	201.9	220.1
Balance of payments (millions of baht)	-2,652.0	-335.2	3,991.4	864.2	8,012.0	-2,858.0	-82.8	-7,537.9	-12,000.0
Money supply (M ₁) (billions of baht)	19.4	21.4	24.8	29.9	33.2	35.0	40.6	44.3	n.a.
Price indices of imports (1958 = 100)	93.1	97.9	103.4	120.7	195.3	217.8	215.1	227.0	n.a.
Price indices of exports (1958 = 100)	104.7	100.9	105.0	164.8	243.7	215.1	200.6	203.9	n.a.
GDP growth rate	6.5	8.1	4.3	10.3	4.6	5.5	6.3	6.2	n.a.
Agriculture	2.6	5.4	-0.8	10.6	2.1	4.5	3.1	-0.9	n.a.
Manufacturing	6.8	17.3	10.8	13.8	4.2	6.9	7.6	14.0	n.a.

P = Preliminary

Sources : Bank of Thailand and NESDB

Table 8. Summary Balance of Payments

	1970	1971	1972	1973	1974	1975	1976	1977
								Provisional
Merchandise exports, f.o.b.	14,269.7	16,692.1	21,750.2	31,252.5	49,002.4	44,382.4	60,361.2	70,600.0
Merchandise imports, c.i.f.	26,406.7	26,606.4	30,634.8	42,054.9	53,304.6	64,527.0	71,446.1	96,099.2
Nonmonetary gold imports a/	107.8	26.6	-	-	-	-	-	39.5
Trade balance	-12,244.8	-9,940.9	-8,884.6	-10,802.4	-14,302.2	-20,144.6	-11,084.9	-25,538.7
Service receipts	10,094.8	9,899.6	11,322.7	12,723.1	15,634.2	16,551.6	13,993.3	14,622.5
Service payments	4,058.6	4,495.5	4,739.7	5,886.7	8,033.5	10,390.8	12,350.8	12,100.6
Net service	6,036.2	5,404.1	6,583.0	6,836.4	7,600.7	6,160.8	1,642.5	2,521.9
Transfer (net)	1,011.7	904.1	1,238.8	2,968.8	4,916.9	1,632.1	464.5	613.0
Private	(57.4)	(131.1)	(630.7)	(2,398.9)	(4,375.6)	(1,134.5)	(100.8)	(246.6)
Government	(954.3)	(773.0)	(608.1)	(569.9)	(541.3)	(497.6)	(363.7)	(366.4)
Current account balance	-5,196.9	-3,632.7	-1,062.8	-997.2	-1,784.6	-12,351.7	-8,977.9	-22,403.8
Capital inflow (net)	2,478.8	1,733.1	3,643.2	2,937.6	9,054.7	7,754.7	9,263.6	14,089.4
Private sector	2,326.0	1,463.1	3,406.6	1,910.1	7,801.0	5,696.3	5,060.4	8,504.9
Direct investment	(890.5)	(808.4)	(1,427.1)	(1,604.9)	(3,836.3)	(1,744.8)	(1,614.1)	(2,144.5)
Medium- and long-term loans and credits	(1,007.7)	(397.0)	(1,392.5)	(-1,199.0)	(2,637.1)	(1,316.7)	(689.3)	(1,000.3)
Other	(427.8)	(257.7)	(587.0)	(1,504.2)	(1,327.6)	(2,634.8)	(2,757.0)	(5,360.1)
Public sector	152.8	270.0	236.6	1,027.5	1,253.7	2,038.4	4,203.2	5,584.5
Loans to the Central Government	(445.1)	(306.3)	(214.7)	(387.2)	(126.4)	(-105.0)	(2,157.2)	(749.3)
Loans and credits to state enterprises	(90.7)	(60.2)	(338.3)	(372.7)	(1,173.9)	(2,203.0)	(1,839.3)	(4,767.3)
Other Central and Local Government	(-383.0)	(-96.5)	(-316.4)	(267.6)	(-46.6)	(=39.6)	(206.7)	(67.9)
Errors and omissions	66.1	1,266.2	1,090.3	-1,076.2	741.9	1,739.0	-368.5	776.5
Change in reserves (increase = -)	2,652.0	633.4a/	-3,670.7a/	-864.2a/	-8,012.0b/	2,858.0b/	82.8	7,537.9

a/ Including timing adjustments and official gold imports for the minting of commemorative coins

b/ Excluding SDR allocations of \$14.3 million (B 298.2 million) in 1971 and \$15.4 million (B 320.7 million) in 1972, and reserve valuation adjustments.

Source : Bank of Thailand.

has been predicted to be even larger in 1978 and 1979.

2.27 The events described above have happened despite the fact that exports have been growing very rapidly. An explanation given is that the Thai economy is very much dependent upon imports. Growth of domestic production always leads to higher demand for imports, including the production for exports, while exports are subject to more fluctuation. A closer look would reveal this structural problem of the foreign trade of Thailand. As Table 9 shows, exports have indeed been expanding very rapidly since 1970; their value index passed that of imports in 1976. But this is not a continuous trend, whereas it is in the case of imports. For example export value could drop below a preceding year, just as it did in 1975. And from 1976 to 1977 export value increased by 16% and import value rose by 35%. This growth performance of exports is considered to be a structural problem in the sense that the concentration of exports in primary commodities explained much of the fluctuation in export earnings. In the case of imports, the rising price of crude oil which has been followed by a one-or two-year lag in the price of machinery and capital goods imports, would lead to a continuously rising value of imports. This conclusion is also based on the observation that imports have an elastic income elasticity of demand, and a rather inelastic price elasticity.

2.28 It seems therefore the trade deficit can be expected to remain. In the past the service account was relied upon to help reduce the deficit in the current account. But since 1976 the surplus in the service account has been relatively small because of the reduction of American military expenditures and the fast growth of Thais travelling abroad. The deficit in the current account was therefore very large in 1977 and 1978, which was the major factor

Table 9. Trade Volume and Price Indices

(1970 = 100)

	1971	1972	1973	1974	1975	1976	1977
Export volume	121.3	151.9	138.6	144.8	148.3	214.9	248.4
Import volume	94.5	102.9	120.5	113.0	105.8	116.8	142.7
Export price index	96.4	100.3	157.4	232.8	205.4	191.6	194.2
Import price index	105.2	111.1	129.6	209.8	233.9	231.0	244.0
Terms of trade	91.7	90.3	121.4	111.0	87.8	82.9	79.6

Source : Bank of Thailand Monthly Bulletin,

causing a sizable balance of payments deficit. This was so because the deficit occurred even with a substantial gain in the net capital inflow.

B. SOCIAL OBJECTIVES OF DEVELOPMENT

2.29 Economic development needs to be evaluated also in terms of social objectives, which are several in number. In this Section we will discuss only the aspects of income and employment.

Income Distribution and Poverty

2.30 Income distribution is a problem in most countries, and Thailand is no exception. The discrepancy has been found to be widest between income in rural and urban areas, and among regions. But serious as it is, the discrepancy in income distribution does not reveal the true problem in rural areas. For this purpose, an indicator of poverty is more revealing. In Thailand, despite the high growth rate, there was still about 25 percent of the people who lived below the poverty line in 1975/76. Table 10 shows in more detail the incidence of poverty during the period 1962/63 to 1975/76. The incidence of poverty is very high in all regions except the Central and Bangkok. But even in the Central Region and Bangkok, there was very little improvement from 1968/69 to 1975/76. For the Kingdom as a whole the percentage of the population living in poverty has been declining, but the remaining 25 percent is still considered very high. When the distribution of the poor is considered, about 50 percent of them live in the rural Northeast. And 91 percent of the poor live in rural areas. (Table 11). It should also be noted that this poverty line is based on arbitrarily chosen monthly income of 200 Baht (US\$10) per person in urban areas and 150 Baht in rural areas in 1975/76 prices. This is really a line of absolute poverty.

Table 10. Incidence of Poverty^(a) by Region and Location, 1972-76

	% of population		
	1962/63	1968/69	1975/76
<u>Northeast</u>			
Urban	36	13	13
Rural	75	60	38
Total	<u>72</u>	<u>58</u>	<u>36</u>
<u>North</u>			
Urban	45	14	13
Rural	60	31	28
Total	<u>58</u>	<u>30</u>	<u>27</u>
<u>Center</u>			
Urban	28	11	10
Rural	35	13	12
Total	<u>34</u>	<u>13</u>	<u>12</u>
<u>South</u>			
Urban	23	12	13
Rural	41	31	26
Total	<u>38</u>	<u>29</u>	<u>25</u>
<u>Bangkok</u>	<u>20</u>	<u>9</u>	<u>9</u>
<u>Kingdom</u>			
Urban	28	11	11
Rural	57	37	28
Total	<u>52</u>	<u>34</u>	<u>25</u>

(a) Poverty line is defined to be $\text{฿ } 150/\text{month/person}$ in rural areas and $\text{฿ } 200/\text{month/person}$ in urban areas, in 1975/76 prices.

Source : N.S.O. Household Income and Expenditure Survey, 1962/63, and Socio-Economic Surveys, 1968/69 and 1975/76,

Table 11. Distribution of the Poor by Region and Location

	As % of total poverty group			% of total population
	1962/63	1968/69	1975/76	1976
Northeast				
Urban	2	1	1	1
Rural	46	58	50	33
Total	<u>48</u>	<u>59</u>	<u>51</u>	<u>34</u>
North				
Urban	3	-	1	2
Rural	22	20	22	19
Total	<u>25</u>	<u>20</u>	<u>23</u>	<u>21</u>
Center				
Urban	2	1	1	2
Rural	14	7	8	20
Total	<u>16</u>	<u>8</u>	<u>9</u>	<u>22</u>
South				
Urban	1	-	1	1
Rural	8	11	11	11
Total	<u>9</u>	<u>11</u>	<u>12</u>	<u>12</u>
Bangkok				
	<u>2</u>	<u>2</u>	<u>5</u>	<u>11</u>
Kingdom				
Urban	10	4	9	17
Rural	90	96	91	83
Total	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>

Source : N.S.O. Household Income and Expenditure Survey, 1962/63, and Socio-Economic Surveys, 1968/69 and 1975/76.

2.31 With this poverty and income distribution situation, one would expect that people at lower income scale should receive more from public services. As Table 12 clearly shows, this has not been the case in Thailand. In fact the lower the income, the less services are available. It is not a coincidence that the further the people are away from Bangkok, the lower is their income.

Employment

2.32 Employment is considered to be a social objective of development in the sense that it provides income and a meaning to life. It is difficult to interpret statistics on employment. The existing information suggests that employment is a serious problem in Thailand. An indication of employment problem may be seen in the statistics on labor force participation rate (LFP rate), which is available by age group for the years 1960 and 1970. From these statistics, shown in Table 13, the labor force participation rate was about 80 percent in 1970 compared with 85 percent in 1960. The decline was in all age groups, except for the lower than 15 age group, and was highest in the age groups of 50-59 and 60 and above. This may partly be due to the early retirement. Separation of the LFP rates into male and female groups shows that the decline in the rates was much stronger in the case of female labor force. The factor which might be at work here was the increasing difficulty of finding employment. Under such a situation woman would tend to stay out of formal employment.^{1/}

2.33 With this falling LFP rate and a higher than 3 percent annual growth rate

^{1/} An explanation of higher degree of industrialization is unlikely here because there is a very high proportion of female labor force in the manufacturing sector, in fact higher than male. See Akrasanee and Chutikul (1977).

Table 12. Socio-Economic Indicators for Provinces Classified by Per Capita Income

	Gross Provincial Product per Capita, 1976 (Baht)					Bangkok
	4,000	4,000- 5,999	6,000- 7,999	8,000- 9,999	10,000 ^(a)	
% of total population	34	19	24	7	6	10
GPP per capita	3,119	4,869	6,741	8,587	22,073	19,154
GPP per capita growth rate p.a., 1970-76 (%) (constant prices)	2	3	2	4	6	1
Government expenditure per capita (1974/75)	334	442	532	780	621	5,050
% of population 6-29 in school (1970)	27.6	31.3	33.6	33.0	35.0	45.9
Rural upper primary enrollment ratio (1975)	29	31	36	41	42	-
Population per hospital bed (1970)	2,075	2,071	1,162	943	358	861
Rural population per health center (1973)	8,416	6,871	6,631	5,631	6,968	-
% houses with piped water (1970)	4	6	7	8	16	79
% villages with electricity (1976)	9	15	29	31	30	-
Road distance from Bangkok (km.)	626	621	478	306	378	-

(a) Excluding Bangkok.

Source : World Bank, "Thailand : Towards a Development Strategy of Full Participation", A Basic Economic Report, Table 2.13, P. 26, Washington, D.C., September, 1978.

Table 13. Labor Participation Rate by Five-year Age Group
and Sex, 1960 - 1970

Age (years)	Labor Force Participation Rate ^{a/}					
	Males		Females		M&F combined	
	1960	1970	1960	1970	1960	1970
Less than 15	8.5	10.1	10.6	11.7	9.5	10.9
15 - 19	76.9	77.4	84.7	77.2	80.7	77.3
20 - 24	88.2	89.2	86.6	79.0	87.4	84.0
25 - 29	96.0	95.4	85.0	78.4	90.4	86.8
30 - 49	97.6	96.4	86.5	79.6	92.1	88.0
50 - 59	94.5	91.6	80.9	70.3	87.7	80.8
60 and above	64.4	56.4	40.0	30.5	51.2	42.3
15 and above	89.5	87.7	81.3	73.5	85.4	80.6

^{a/} Indicate the economically active population of any age group as percent of total population of age group.

Source : National Statistical Office, Census of Population, 1960 and 1970.

of the labor force at present, due to the high population growth rate in the 1960s, unemployment will continue to be a serious problem.

2.34 The reasons for jobs not being created faster than they should be are several. Perhaps the most important reason is the slow growth in employment opportunity in the agricultural sector as mentioned earlier. Furthermore in the industrial sector, there has been a tendency for capital intensive industries, and for the industries to use capital intensive technique, because of the industrial promotion policy (Akraanee, 1979). Thus although employment opportunity in the service sector has been expanding very rapidly, it is still not enough to absorb the growing labor force.

C. THE CURRENT DEVELOPMENT PLANS AND POLICIES

2.35 Thailand is now (1978-79) within the period of the Fourth Five-Year National Economic and Social Development Plan (1977-1981) (NESDB, 1977). The Plan is supposed to be the document providing statements of official policies on economic and social development. But, as will be shown below, for Thailand the Plan provides only a guideline to current policies.

2.36 To understand the essence of the Fourth Plan it is necessary to briefly review the preceding three plans and the events surrounding them. The First Plan was launched in 1961; and it was a six-year plan (1961-1966). It was basically a plan to build necessary infrastructure and to widen production base. The Second Plan (1967-1971) was essentially a continuation of the First Plan in terms of its objectives and work programmes. Partly as a result of better economic management through planning, and partly due to the development of the world economy, the Thai economy was growing very rapidly during the

first two-plans period. GDP at constant 1962 prices was growing at 8 percent annually. Both capital formation and saving rate were growing impressively, contributing to further economic growth.

2.37 The rapid growth of the economy brought with it certain problems such as the widening gap in income and the concentration of industry and commerce in Bangkok. Other problems mentioned were the linkage of industry to agriculture and lack of benefits to the majority from the built-up infrastructure. The Third Plan (1972-1976) was thus drafted with the intention of correcting these problems. But basically the Third Plan continued to be the programme of infrastructure spending and still followed the sectoral approach, with additional targets such as population growth, irrigation and road network. Other objectives for industrial development, i.e. exports, employment, and rural industrialization were also added.

2.38 Changing events during the Third Plan made the Plan irrelevant as a statement of policies. Soon after the Plan was launched there was a commodity and grain crisis, resulting in the beginning of hyperinflation, with a rice crisis in the country. The major political change in 1973, not unrelated to the rice crisis, and the ensuing political development, made the concept of economic planning in the traditional sense completely irrelevant. Little attention was paid to the Third Plan by the successive governments. Thus in 1975 and 1976 when preparations for the drafting of the Fourth Plan (1977-1981) were underway a decision was made to change the nature of planning in Thailand. By assuming in 1975 that the democratic form of government would prevail, and each elected government having life shorter than the Plan, the "indicative" approach to planning was adopted instead of the "allocative" approach used

previously. Moreover the emphasis was changed from growth orientation to social awareness. Thus the 8 important issues of development were identified, and remedies suggested. These 8 issues are:

- (1) The development and conservation of major economic resources and environment;
- (2) The diversification and increase in efficiency of production in rural areas;
- (3) The development of industry;
- (4) Exports, imports and the promotion of tourism;
- (5) The development of principal cities and the improvement of Bangkok;
- (6) The dispersion of basic services;
- (7) The dispersion of social services;
- (8) Social development.

2.39 Judging from the eight important issues identified and the suggested allocation of funds thereof, it would seem that policy at present is to improve social welfare especially of the country's poorer majority. For, as shown in Table 14, the issue of the dispersion of social services and social development would receive 41.1 percent of the total fund allocation for the 8 issues during the Plan period. But reading of events since 1977 has not confirmed this expectation. In fact the policy has been first to revive economic growth, and second to reorganize certain economic institutions with the objective of creating an environment for a better economic development.

Table 14. Fund Allocation for Programmes under the 8 Issues

Issues	Annual budget		Foreign loans		Foreign grants		Income from state enterprises and local administration		Total	
	Projects carried over	New projects	Projects carried over	New projects	Projects carried over	New projects	Projects carried over	New projects		
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1. The development and conservation of major economic resources and environment	14,755	1,800	-	335	75	125	150	-	17,240	6.8
2. The diversification and increase in efficiency of production in rural areas	21,520	8,240	435	3,980	265	285	300	-	35,025	14.0
3. The development of industry	695	1,600	-	455	25	15	215	-	3,005	1.2
4. Export, import and the promotion of tourism	1,065	195	-	250	-	30	-	-	1,540	0.6
5. The development of principal cities and the improvement of Bangkok	10,930	505	-	1,320	-	20	11,460	-	24,235	9.6
6. The dispersion of basic services	23,190	10,020	-	21,420	85	165	7,555	-	62,435	24.7
7. The dispersion of social services and social development	83,075	19,245	-	440	310	545	70	-	103,685	41.1
8. Reserves	-	3,565	-	1,165	-	555	-	-	5,285	2.0
Total	155,230	45,070	435	29,365	760	1,740	19,750	-	252,450	100.0

Source : NESDB

2.40 The priority of reviving economic growth may be seen in a number of actions taken since 1977. First the new investment promotion law was promulgated in April, 1977, which gave much more authority to the Board of Investment in terms of decision and investment incentives available (BOI, 1977). Then there was the export promotion drive in 1978, even though actions taken might not have been successful. The decisions to go ahead with several very big projects were also made because of the belief that they would provide an impetus for economic growth. These big projects include the natural gas project, the deep sea port, and the expansion of the international airport. Concern for social development has been expressed by the government, but there has been no major concrete action apart from declaring 1979 "Year of the Farmers" and an announcement indicating a big expenditures for that policy. The other decision which shows concern for welfare of the majority is the new commercial bank bill. In effect the bill makes it a rule that there be more lending to the rural sector. As for other areas, the policy is basically to maintain the status quo, or making piecemeal corrections on certain issues rather than having major changes in policies.

D. PROBLEMS AND PROSPECTS

2.41 Based on the foregoing discussion several problems may be identified to be the major problems of Thailand in the 1980s. Below are attempts to present some of these problems and the prospect for solving them, not necessarily in order of seriousness.

Energy and Other Resources

2.42 Although energy is a worldwide problem, it is perhaps more serious in

Thailand than in many countries. This is because of the degree of dependence on imported oil and petroleum products, which is about 80 percent of the energy need. The cost of petroleum import was quite manageable before 1974, when it represented about 15 percent of total export earning (Table 15). Now Thailand is spending about 30 percent of export earning on oil alone. The only relief in sight is that when the natural gas project comes on stream in full in 1983/84 it may substitute about 20 percent of the oil need.^{1/} Assuming that the demand for oil may be equivalent to 40 percent of export earning by that time, the use of natural gas would reduce it to 32 percent. This is still a very large percentage, and also the natural gas project itself will have foreign exchange cost which is to come out of export earning. Thus if there is no other major substitute for oil, which is most likely, Thailand will definitely have to cut down its oil consumption.

2.43 Other resources have also been found to be dwindling rapidly. The latest survey of the country indicates that there is only about 30 percent of forest area left. This means that it will not be possible to expand the cultivation area, and the increase in agricultural production will have to come only from an increase in agricultural productivity. Other resources such as marine, minerals are also known to be in low supply. Fishermen have to go further and further away, often as far away as India and Indonesia for their catches. And the unorganized exploitation of tin deposit in Pang-nga province has practically destroyed a very large potential area of tin deposit. So far there has been no major discovery of other minerals in Thailand, although there have been

^{1/} Information from the National Gas Organization of Thailand.

Table 15. Thailand : Imports of Petroleum Products

Year	(Million of baht)				As percent of total imports	As percent of total exports
	Crude oil	Diesel & Fuel oil	Others	Total		
1972	2,432	347	336	3,115	10.09	14,41
1973	3,572	677	412	4,661	11.05	14,97
1974	10,382	1,532	657	12,571	19.63	25,57
1975	12,076	1,478	679	14,233	21.30	29.96
1976	13,857	2,116	722	16,695	22.91	27,74
1977	16,448	3,415	914	20,777	22.08	29,16

Source : Customs Department, Bangkok.

reports of potential deposit in many areas.

Population Trend and Demographic Structure

2.44 With resources being rapidly depleted one consolation is that the population growth has been brought down significantly from more than 3 percent in the 1960s to about 2.5 percent, and still falling, in 1977. But this will only show its economic effect after the 1990s, because those who were born in the 1960s and early 1970s will be the ones that contribute to unemployment problems in the 1980s. As shown in Table 16, the growth rate of population of the working age group (15-59) will remain higher than 3 percent almost throughout the 1980s. The problem will be how to increase gainful employment fast enough to absorb these people. Since agriculture has the largest employment base, it is inevitable that the country will have to fall on growth of the agricultural sector as the main source of new employment creation. But, as pointed out earlier, with limited new land, the only way to increase employment potential is to make use of the existing land more intensively. This is not an impossible proposition, for it is known that the same land can be used for more crops if proper incentives are available.

Agricultural Productivity and Rural Poverty

2.45 Following the problem mentioned above is the issue of agricultural productivity. It is well known that the main cause of rural poverty is agricultural productivity being too low, which in turn is due to lack of necessary productive inputs. This factor is also believed to be the cause of migration into Bangkok, and of low unskilled wages, hence urban poverty. The lack of necessary inputs is due to the high price of fertilizer relative to crop prices, and the unavailability of water in certain areas. The results have

Table 16. Population by Age Group, 1960-1990

	1960	1970	1975	1980	1990
	----- (in millions) -----				
<u>Age groups</u>					
Under 15	11.3	16.3	18.3	19.9	22.0
15 - 59	13.7	18.0	21.5	25.4	34.3
60 and above	1.2	1.8	2.0	2.4	3.5
<u>Total</u>	<u>26.3</u>	<u>36.1</u>	<u>41.9</u>	<u>47.7</u>	<u>59.8</u>
	1960-70	1971-75	1976-80	1981-85	1986-90
	-- (Average annual growth rate over period) --				
Under 15	3.7	2.3	1.7	1.1	1.0
15 - 59	2.8	3.6	3.3	3.2	2.9
60 and above	3.9	2.9	3.4	3.8	3.7
<u>Total</u>	<u>3.2</u>	<u>3.0</u>	<u>2.6</u>	<u>2.4</u>	<u>2.1</u>

Source : World Bank, "Thailand : Towards a Development Strategy for Full Participation", op. cit., Table 4.1, P. 68.

been low intensity in land utilization and improper choices of crops. An obvious recommendation is to correct the relative price of fertilizer to prices of other crops especially rice. And with an improved irrigation network, there is a good prospect that agricultural productivity can be increased.

2.46 Another recommendation which has been made is for farmers to grow other crops instead of rice in the Central Plains. In the past farmers have been very quick in responding to better income from other crops, as evident from the growing land area under maize, tapioca, and sugar cane. But the crops referred to above were meant to be vegetables, which would yield higher income per hectare. The problem in this case is in the marketing of these vegetables.

Industrial Development

2.47 There is an excellent prospect for industrial growth. The years 1977 and 1978 clearly demonstrated the dynamism of the manufacturing sector in Thailand, with an average annual growth rate of about 14 percent in real terms. But there are problems associated with industrial development which require immediate attention and corrective as well as preventive measures. These problems may be grouped under production, marketing, finance, ownership, and roles of the government.

2.48 The first production problem is concerned with the difficulty in producing intermediate products at a lower level of fabrication. As markets for finished products and intermediate products at a higher level of fabrication are being filled, given a certain rate of growth of income, consideration has been given to the production of basic industries such as iron and steel, certain types of chemical industrial raw materials, fertilizer, paper, etc.

The production of these industries usually requires a large scale, and is often justifiable only on a regional basis. The locational problem has been mentioned earlier. For obvious reason, industries do not find it attractive to locate their factories in areas far away from Bangkok. And there are no effective government policy measures which encourage them to do so. With respect to technique of production it has been found that there are incentives to use machinery instead of labor (Akrasanee, 1977). This is why the expansion in industrial output has not been creating employment as much as it could have been.

2.49 Market so far has not been a serious constraint on the overall industrial development. The domestic market has been expanding with the growth of income. In the 1970s manufactured exports became a reality, and have been expanding ever since. There has been discussion about protectionism in industrialized countries against manufactured imports from developing countries. But so far Thailand, being a marginal exporter, does not seem to have suffered from it. Of course in the long run if protectionism prevails on a general basis, then the growth of Thai manufactured exports will be affected by it.

2.50 Other problems associated with industrial development are the lack of investment fund in certain sectors, especially small scale industries, and concentration of ownership is also predominant in certain sectors notably petroleum refinery, auto assembly, metal industries, and even in food processing. Finally the lack of well co-ordinated policies of the government itself, especially in the areas of taxation and various controls (on prices, production, exports and imports) has often led to difficult situation in certain industries.

2.51 In recent years there has been efforts by the government to establish

institutional and physical infrastructure for industrial development, with a varying degree of success. The development in the financial side is perhaps more impressive than others. The new commercial bank law is very much development oriented. The Industrial Finance Corporation of Thailand has been expanding its activity very rapidly, and is becoming a much needed full-fledged industrial development bank. For small-scale industries, a financial institution catering especially to their development is to be set up in the very near future. On the trading side, Thai trading companies are being promoted. And the revised commercial maritime act is believed to yield more benefits to Thailand. Areas in which the government has not been successful, or has not done much are ownership and control, investment promotion, and location of industries. The stock market has not been an effective means of encouraging public participation in ownership in industry. Foreign investment is still left to its own liberty. There are no sufficient criteria for industrial promotion. And finally, the development of industrial estate has been long delayed.

The External Sector

2.52 The significance of the external sector to the Thai economy has been elaborated upon earlier. Thus when the balance of payments is in trouble, which is the case at present, it is considered to have a serious effect on the Thai economy.

2.53 The balance of payments has been in the deficit since 1975, and does not show a sign of reversal in the near future. The preliminary figure for 1978 shows a deficit of 12 billion baht, which would bring down the total net reserve (public + private) to below US\$1 billion for the first time since

1973. The forecast by most public agencies dealing with the economy shows a continuation of the deficit, the financing of which would require a growing amount of foreign loans. A recent estimate by the World Bank, based on certain development strategy (basically of accelerating manufactured exports) gives the following picture (Table 17).

2.54 The projection shows a large deficit in the current account through the 1980s, which is to be financed by a rising amount of capital inflow, the result of which is an increase in the total debt service ratio from 14 percent in the 1970s to the average of 19 percent in the 1980s. This ratio is considered manageable by international standard. But the estimate has been based on the projected growth rates of exports and imports of 10.8 percent and 7.6 percent at constant prices respectively. The realization of this estimate thus depends very much on how realistic are the projected growth rates.

Based on recent trend, it would seem very difficult for exports, because that would imply a double of growth rate. Growth of imports will also be difficult to slow down, unless some drastic measures are taken to slow down the growth of oil and machinery imports, both of which have serious economic growth implication. Furthermore, recent decision by the government to implement big projects such as the natural gas, expansion of oil refinery, deep-sea port, and cement would require more imports than they would save in terms of foreign exchange at the initial period.

2.55 It seems therefore that there is a real need for slowing down imports of oil and machinery. The price of oil will have to be adjusted such that the demand for oil is not to exceed a certain percentage of export earning, say 25 percent. This is considered necessary, for if the country is to have its

Table 17. Trade, Current Accounts, Capital Flows and Debt Service Ratios

	1976-80 Annual average over period	1981-85	1986-90	1976-80 Real growth rate	1980-85	1985-90
Exports & NFS	4,508	9,719	20,019	5.5	11.1	10.5
Imports & NFS	5,733	11,224	21,733	9.1	7.4	7.9
Resource balance	-1,225	-1,505	-1,714	-	-	-
Current account	-1,294	-2,125	-3,100	-	-	-
Current account/GDP (%)	4.8	4.3	3.2	-	-	-
Terms of Trade (1970 = 100)	91.3	90.7	89.2	-	-	-

	1976-80	1981-85	1986-90
Public capital (\$ million)	502	1,202	1,676
Private capital (\$ million)	695	1,011	1,654
Debt service ratio, public (%)	3.6	8.6	8.3
Debt service ratio, total (%)	14.0	19.3	19.1

Source : World Bank, *ibid.*, Tables 5.14 and 5.15, P. 122.

earning for other goods it cannot continue to spend more than 30 percent of its earning on oil alone, on top of the 20 percent spent on paying interest and repayment on debt. The myth about not being able to slow down import of machinery too needs to be cleared up. First, saving may be achieved through alternative sources of imports. And machinery should be made more expensive by increasing taxes on them so that machinery usage may be economized.

2.56 There is perhaps more prospect in the increase in exports. We have mentioned earlier about the impressive growth of manufactured exports. Exports of primary commodities also have a potential for stable growth, if they are properly managed. The organization of primary commodity trade at the global level if successful, would help promote and stabilize Thai exports.

E. CONCLUSIONS

2.57 In this paper we have assessed past performance of the Thai economy and evaluated its present condition and future prospect. Because of the complex nature of the subject, we have been able to touch on only certain aspects considered to be more important than others.

2.58 Past performance has been presented in terms of both sectoral development and the achievement of social objectives. The rate of economic growth during the last two decades, measured in terms of income, was very impressive. This has resulted in drastic structural changes, not only in terms of sectoral balances, but also within each sector. The agricultural sector has diversified to include several crops in addition to the predominating rice and rubber. Industrialization too has seen the establishment of many new and modern industries, with production at a level of sophistication high enough to compete with

imports and to capture overseas market.

2.59 The growth of the monetary sector has been parallel to the real sector, resulting in a much higher degree of monetization and commercialization of economic activities. With this higher degree of being a market economy, changes in economic variables have a far-reaching effect throughout the economy. One such variable is the price level, which has been moving up more rapidly in recent years than in the distant past. It was pointed out that the price movement during the last few years was in response to pressure on resources, especially during the short-run adjustment. Another variable is the balance of payments, the growing deficit of which has prompted great concern among policy makers.

2.60 While economic performance in terms of growth of income and production has been rather favorable, our investigation has shown that the fulfillment of social objectives has been far from satisfactory. The majority has not received a proper share of the development process. This was reflected in the persistence of poverty and the difficulty in obtaining gainful employment both in urban and rural areas.

2.61 We have found it difficult to interpret government's economic policies. The Fourth National Economic and Social Development Plan has given a high priority to social objectives of development. But major decisions of the governments in recent years were directed more towards stimulating economic growth, with relatively lower priorities given to projects that would provide physical and institutional infrastructure for a more equitable sharing in the development process.

2.62 Our analysis has led us to several conclusions regarding problems and

prospects of the Thai economy in the 1980s. The shortage of energy and dwindling resources, especially with a lack of effective management, will make it much more difficult for Thailand to achieve in the 1980s the same kind of growth experiences in the last two decades. This problem is aggravated by the rapid growth of population in the working age group. Problems have been identified in the pattern of agricultural development and, to a less extent, industrial development. Measures to improve agricultural production has not benefited the poorest regions of the country. With the shortage of new land, and if no effective measures are implemented to increase agricultural productivity, the 1980s will see the persistence, if not worsening, of poverty especially in rural areas. Industrial development has been impressive, responding mainly to market forces. Problems that remain are well known, and can be corrected more easily than those problems found in the agricultural sector.

2.63 Our major conclusion is therefore that there are many serious problems lying ahead for Thailand in the 1980s. To summarize, the problem of poverty needs to be solved at the time when constraints acting on the economy are becoming much more severe. Thailand will have to manage its economy better, and to rely more on the external sector, especially foreign borrowing, with an expectation that further growth and better development would reduce some of the constraints towards the end of the 1980s. But the realization of such an expectation requires more than a better management of the economy. In fact the situation now calls for an alternative strategy for development.

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CHAPTER 3

THAILAND'S INDUSTRIALIZATION, PROBLEMS AND PROSPECTS

Somsak Tambunlertchai

INTRODUCTION

3.01 Thailand has experienced a rapid expansion in her national economy in the past two decades. The 1960's, in particular, witnessed a rapid surge in many manufacturing activities. A modern industrial sector came into existence as a result of an increase in private investment in manufacturing industries from both domestic and foreign sources. With almost 20 years of industrial development, the momentum for industrial growth seemed to have slowed down somewhat, and Thailand is now struggling hard to find rooms for further growth of her industrial production in the international market.

3.02 The purpose of this paper is to present a brief discussion on the problems involved in industrial development of the country. The paper will be divided into five sections. In the first section, the data on growth and structural change of the manufacturing sector will be presented. Section two will describe various policy measures affecting industrial development. In section three, the issues of import substitution and development of manufactured exports will be explored. Section four discusses the role of foreign direct investment, and finally in section five, various problems concerning the country's industrial development will be summarized.

GROWTH AND STRUCTURAL CHANGE OF THE INDUSTRIAL SECTOR

3.03 Thailand has traditionally been an agricultural economy. Throughout the past two decades, agriculture accounted for about one-third of the nation's

GDP and employed three-fourth of the total labor force. There has, however, been a noticeable change in the structure of the economy toward a better sectoral balance, particularly during the 1960's, when the share of agriculture in GDP declined and that of other sectors increased significantly. This has been made possible by higher growth rates in other industrial sectors.

3.04 The distributive shares of various economic sectors in GDP, along with their growth rates and contribution to GDP, are shown in Table 1. Manufacturing was among the fastest growing sectors during the past two decades. In the 1970s, it has emerged as the second largest sector next only to agriculture^{1/}. Manufacturing also appears to be the economic sector which contributed most to the GDP growth since 1960, and accounted for about a quarter of the GDP growth during the 16 year period. The average annual growth rate of value added in manufacturing from 1960 to 1976 at constant prices was estimated at 10.9 percent per annum, which compares favorably with the performance of other economic sectors^{2/}. The cumulated growth rates of the manufacturing sector, however, show a declining trend during the three sub-periods under consideration.

3.05 Like most other development countries, the process of industrialization in Thailand has started out with the promotion of import substitution industries. Since 1960, a modern industrial sector concentrated in and around Bangkok has emerged as a result of active industrial investment promotion by the government.

^{1/} This is measured in constant prices. If measured in current prices, the share of wholesale and retail trade exceeds that of manufacturing for 1971-75 (except 1973). It is until 1975 and later when manufacturing have captured a slightly more significant share.

^{2/} The national income statistics of Thailand have often been revised. As each revision covered only a few years and most of the revisions made upward adjustments of the national income figures. The growth rates for the GDP and for various economic sectors could be over estimated.

Table 1. Gross Domestic Product by Industrial Sector, Percentage Share, Growth Rate, and Contribution (at 1962 prices)

Industry	Value (billions of bahts)				Percentage Share				Growth Rate				Contribution to GDP Growth			
	1960	1966	1972	1976	1960	1966	1972	1976	60-66	66-72	72-76	60-76	60-66	66-72	72-76	60-76
Agriculture	22.7	30.8	37.9	48.6	38.2	34.5	28.0	27.2	5.2	3.5	6.5	4.9	27.1	15.3	24.6	21.7
Mining and Quarrying	0.8	1.4	1.8	2.1	1.4	1.6	1.4	1.2	9.2	4.4	3.4	5.9	2.0	0.9	0.6	1.1
Manufacturing	6.9	13.8	26.1	36.2	11.6	15.5	19.3	20.2	12.2	11.2	8.5	10.9	23.2	26.8	23.1	24.5
Construction	2.2	5.6	5.8	8.9	3.8	6.3	4.3	5.0	16.6	0.6	11.5	9.1	11.3	0.4	7.3	5.6
Electricity and water supply	0.2	0.8	3.6	6.4	0.4	0.9	2.6	3.6	22.3	28.0	15.7	22.7	1.9	5.9	6.5	5.2
Transportation and communication	3.9	6.0	8.9	11.3	6.6	6.7	6.6	6.3	7.4	6.7	6.2	6.9	7.1	6.2	5.6	6.2
Wholesale and retail trade	10.6	14.1	23.6	28.3	17.9	15.8	17.5	15.8	4.9	8.9	4.6	6.3	11.8	20.5	10.8	14.7
Banking	1.3	2.6	5.6	7.9	2.2	2.9	4.1	4.4	12.1	13.5	9.1	11.8	4.4	6.9	5.3	5.5
Ownership	2.7	1.9	2.5	2.9	4.5	2.2	1.8	1.6	-5.3	4.2	3.9	0.5	-2.5	1.1	0.9	0.2
Public	2.8	3.5	5.6	7.3	4.7	4.0	4.3	4.1	3.9	8.6	6.8	6.2	2.5	4.9	3.4	3.8
Service	5.2	8.5	13.7	18.9	8.7	9.6	10.1	10.6	8.6	8.2	8.4	8.4	11.2	11.1	11.9	11.5
GDP	59.4	89.2	135.2	178.7	100.0	100.0	100.0	100.0	7.0	7.2	7.2	7.1	100.0	100.0	100.0	100.0

Source : National Economic and Social Development Board, National Income of Thailand, various issues.

The growth performance of the manufacturing sector has been impressive. By late 1960's however, it is believed that for a number of consumer products, import substitution possibilities had reached the stage of exhaustion, and further import substitution on producer goods has been more difficult. Since the beginning of 1970's, the Thai government has made some efforts in promoting manufactured exports. There has been some success on the export promotion schemes, as manufactured exports have increased at impressive rates and the share of manufactures in total exports have risen since the late 1960's. However, the increase in export and production in manufactured exported have not been able to compensate the slowing down of growth in import competing industries and the overall growth of the manufacturing sector has been somewhat declining. The world-wide recession during 1974 and 1975 might have contributed to the reducing growth rate of the manufacturing sector. But the deceleration may also reflect the fact that the "easy" phase of protection - induced import substitution had been over, and the tasks of integrating backward to the production of producer goods and of expanding into the export market has not been achieved far enough to sustain the real growth of the manufacturing sector.

3.06 Manufacturing employment has grown fast in recent years. However, employment in the manufacturing sector remains relatively small as compared with other economic sectors, and the growth of the manufacturing sector has not seemed to generate enough job opportunities for the surplus labor in the agricultural sector. By 1976, manufacturing employment accounted for only 7.5 percent of the country's total labor force, as compared with 72.9 percent in agriculture, 7.6 percent in trade and 8.4 percent in service (See Table 2).

3.07 The pattern of the manufacturing sector in Thailand is similar to that of most other developing countries. Despite the efforts of investment promotion

Table 2. Labor Force Distribution by Industrial Sector

Industrial Sector	1960		1970		1976	
	Workers (thousand)	%	Workers (thousand)	%	Workers (thousand)	%
Agriculture, forestry, hunting and fishing	11,334.4	82.3	13,596.6	79.2	13,270.1	73.1
Mining and quarrying	29.6	0.2	25.2	0.1	28.4	0.2
Manufacturing	471.0	3.4	711.5	4.1	1,355.8	7.5
Construction, repair and demolition	68.6	0.5	151.1	0.9	206.0	1.1
Electricity, water and sanitary services	15.5	0.1	20.1	0.2	41.5	0.2
Commerce	779.9	5.7	1,176.6	6.9	1,337.2	7.6
Transport, storage and communication	165.8	1.2	273.4	1.6	381.3	2.1
Services	656.0	4.8	1,199.6	7.0	1,521.6	8.4
Activities not adequately described or unknown	251.4	1.8	2.9	0.0	-	0.0
Total	13,772.2	100.0	17,157.0	100.0	18,141.9	100.0

Source : Department of Labor, Ministry of Interior.

by the government to promote modern industries with relatively large scale of production, most of the manufacturing establishments in the country are small-scale enterprises. Statistics from the Ministry of Industry reveal that in addition to a multiplicity of home industries, there were a total of 44,135 registered factories in the country by the end of 1975, and over 90 percent of these were small-scale firms with less than 50 workers. It should be noted in addition that the registered manufacturing enterprises are those with 7 or more workers, or those use machinery of 2 horse power or over. In Thailand, there are a large number of very small establishments usually called "cottage undertakings". These are family workshops, mostly with no paid employees, engaged in activities like handicrafts, foundry, spinning of textiles by handlooms, and making wearing apparels. These small family workshops are not qualified as factories and do not appear on the factory list of the Ministry of Industry. Nevertheless, numerically these small establishments comprise a very high percentage of manufacturing establishments in the country^{1/}. Relatively large scale manufacturing enterprises are mostly concentrated in the industries under the government industrial promotion program, with many of them having foreign capital participation. These larger manufacturing enterprises are mostly located in the Bangkok Metropolis and the nearby provinces, while most of the manufacturing factories located outside the central region are small scale, a large proportion of which are rice mills, saw mills and other primary product processing firms.

There are several reasons for the clustering of industrial establishments near Bangkok despite the high cost of land in this area. Among them are the

^{1/} No reliable estimates have been made on the number of establishments that include all the cottage undertakings.

closeness to the biggest consumer market, the availability of facilities for more modern living conditions, and for industries that use mainly imported materials the location near the port of entry in Bangkok can save a great deal of transportation expenses. The high price of land and traffic congestion in the metropolitan area has led to a shifting away of newly established manufacturing firms from Bangkok to nearby provinces in recent years. The government apparently want to see the decentralization of industry into other parts of the country as well. In recent years, attempts have been made to facilitate dispersion of industrial factories into provincial areas, but thus far without much success. According to the data on location of promoted firms, there were 788 factories under promotion by the end of 1977, 488 or 56.9 percent of the firms were located in Bangkok and Samutprakarn (a province adjacent to Bangkok) and another 216 firms or 27.4 percent were located in other provinces in the central area. Only 124 firms or 15.7 of the promoted firms were located in other regions of the country. These were mostly firms which used agricultural or mineral resources as raw materials.

3.08 Besides the impressive growth performance, the manufacturing sector has also undergone substantial structural changes in the past two decades. Data on value added by manufacturing industries for selected years are presented in Table 3. It is seen that food processing occupied the largest share in manufacturing value added. Other sizeable industries are beverage, tobacco, textiles and made-up textile goods, petroleum refining, and transport equipment. In 1960, food, beverage, and tobacco comprised more than one-half of total manufacturing value added. Although these are still leading industries in the 1970's, their shares have been reduced. The food industry includes such activities as rice milling, slaughtering, sugar milling, dairy production and food canning. Although conventional production like rice milling, sugar milling and slaughtering still

Table 3. Gross Domestic Product Originating from Manufacturing Percentage Share, Growth Rate, and Contribution (in current prices)

Industry	Value (millions of bahts)				Percentage Share				Growth Rate				Contribution to Manufacturing Growth			
	1960	1966	1972	1976	1960	1966	1972	1976	60-66	66-72	72-76	60-76	60-66	66-72	72-76	60-76
Food	2,308.9	3,909.3	5,028	14,521	34.2	28.1	18.0	24.0	9.2	4.3	30.4	12.2	22.4	8.0	29.1	22.7
Beverages	583.4	1,264.3	2,488	5,146	8.6	9.1	8.9	8.5	13.8	11.9	19.9	14.6	9.5	8.8	8.1	8.5
Tobacco and snuff	981.1	1,343.1	2,622	4,966	14.5	9.6	9.4	8.2	5.4	11.8	11.2	10.7	5.1	9.2	7.2	7.4
Textiles	318.6	898.0	3,393	5,208	4.7	6.5	12.2	8.6	18.8	24.8	11.3	19.1	8.1	17.9	5.6	9.1
Wearing apparel and made-up textile goods	536.1	846.0	1,789	4,266	7.9	6.0	6.4	7.0	7.9	13.3	24.3	13.8	4.3	6.8	7.6	6.9
Wood and cork	256.7	497.4	729	1,656	3.8	3.6	2.6	2.7	11.7	11.9	22.8	12.4	3.4	1.7	2.8	2.6
Furniture & fixtures	92.2	251.6	301	585	1.4	1.8	1.1	1.0	18.2	3.0	18.1	12.2	2.2	0.4	0.9	0.9
Paper & paper products	18.4	52.3	227	254	0.3	0.4	0.8	0.4	19.0	27.7	2.9	17.8	0.5	1.3	0.1	0.4
Printing, publishing & allied industries	266.1	461.1	719	1,578	3.9	3.3	2.6	2.6	9.6	7.7	21.7	11.8	2.7	1.9	0.1	2.4
Leather & leather products except footwear	31.6	40.8	219	283	0.4	0.3	0.8	0.5	4.4	32.3	6.6	14.7	0.1	1.3	0.2	0.5
Rubber & rubber products	56.0	140.2	545	1,210	0.8	1.0	2.0	2.0	16.5	28.9	22.1	21.2	1.2	2.9	2.4	2.2
Chemical & chemical products	491.1	778.9	1,755	3,483	7.3	5.6	6.3	5.8	7.9	17.2	18.7	13.0	4.0	7.0	10.7	5.6
Petroleum refining and coal	2.5	1,094.4	2,404	5,279	0.1	7.9	8.6	8.7	175.6	14.0	21.7	61.4	15.4	9.4	8.8	9.8
Non-metallic mineral products	268.5	791.1	1,576	3,049	4.0	5.7	5.7	5.0	19.7	12.2	17.9	16.4	8.7	5.6	4.5	5.2
Basic metal ind.	26.5	63.5	434	1,187	0.4	0.5	1.6	2.0	15.7	37.8	28.6	26.8	0.5	2.7	2.4	2.2
Metal product not machinery and transport equipment	51.1	176.1	728	1,102	0.7	1.3	2.6	1.8	22.9	26.7	10.9	21.2	2.5	3.9	1.2	1.9
Repairing of non-electric machinery	36.2	184.3	559	1,056	0.5	1.3	2.0	1.7	31.2	20.3	17.2	23.5	2.1	2.7	1.5	1.9
Electrical machineries and supplies	40.8	126.1	400	718	0.6	0.9	1.4	1.2	20.7	21.2	15.8	19.6	1.2	2.0	1.0	1.3
Transport equipments	328.7	819.8	1,384	4,267	4.8	5.9	5.0	7.1	16.5	9.1	32.5	17.4	6.9	4.1	8.8	7.3
Miscellaneous n.e.c.	64.7	171.7	566	704	1.0	1.2	2.0	1.2	17.7	21.9	5.6	16.1	1.5	2.8	0.4	1.2
TOTAL value added	6,759.2	13,910.0	27,864	60,518	100.0	100.0	100.0	100.0	12.8	12.3	21.4	14.7				

Source : National Economic and Social Development Board, National Income of Thailand, various issues.

occupies important shares, the emergence of other products since the mid-1960's like cassava processing, canned food, animal feed, and dairy products has contributed much to the growth of this industrial group. From Table 3, it is seen that the share of the food industry in total manufacturing value added was reduced from 34.2 percent to 18.0 percent in 1972 but again increased to 24.0 percent in 1976. The reduction in the share of the food industry during the 1960's was the result of a more rapid growth in other industries, while the high growth of food processing during 1972-76 was mainly due to the increase in production and export of a number of food products in this period, particularly sugar, canned food, and tapioca products. The growth of food industry alone contributed 22.7 percent to the total value added growth in the manufacturing sector from 1960 to 1976.

3.09 The industry that grew most since 1960 is petroleum refining. Its share of value added rose from a negligible 0.1 percent in 1960 to 7.8 percent in 1966 and 8.7 percent in 1976. The rapid expansion of the petroleum refining began by the establishment of a refining company in 1964. Since then there have been several more entries. Most of the crude oil has been imported, which accounted for a significant share in the country's merchandise imports.

3.10 The growth in domestic production in many industries include textiles, paper and paper products, rubber products, chemical products, basic metals, machinery, electrical appliances and transport equipment is in part the result of the government investment promotion. Under these industrial groups, many firms were established during the 1960's and numerous products were introduced. Among them are vehicle tires, passenger car and truck, tin and iron smelting, and various kinds of household electrical appliances.

3.11 It is observed in Table 3 that the growth rates of different industrial groups varied much in each subperiod, and that the overall growth of manufacturing value added was highest in sub-period 1972-76. This is mainly due to price rises during this four year period. As we have seen from Table 1 that if calculated in constant prices, the growth of the manufacturing sector have actually been slow down in recent years. However, those industrial groups that appeared to have high growth during the 1972-76 period besides reflecting the price rises, also had increase in production as a result of increase in exports or domestic consumption. Food, wearing apparels, furniture and fixtures are examples of high growth benefited from export expansion, while the expansion of transport equipment industry in recent years was partly due to the set up of firms producing components and parts for automobile assembly as a result of making attempts to increase the domestic content of the industry.

INDUSTRIAL DEVELOPMENT POLICY

3.12 It is evident that most of the manufacturing industries in Thailand grew substantially since 1960. The rapid growth of manufacturing was the result of increase in private investment from both domestic and foreign sources. The increase in investment, in turn, was attributable to the general expansion of the economy which provided increasing demands for manufacturing products, and the efforts made by the government to provide a favorable climate for private investment in the sector. The measures taken by the government include, among other things, the building up of infrastructural facilities, the granting of incentives to private investors through an investment promotion law, and the revision of tariff structure aimed at protecting domestic industries. The strong commitment made by the government to foster the private enterprise system since

late 1950s also has had a positive effect in encouraging both domestic and foreign investment in manufacturing.

3.13 Thailand's industrialization policy in the decade following the end of World War II was characterized by heavy involvement of the government in manufacturing. A number of state enterprises were established. The products of these government enterprises include paper, sugar, tobacco, glass, gunny bag, forestry products and a variety of consumer goods. The government enterprises were relatively large in scale. Private manufacturing activities, on the other hand, were mostly small scale and largely confined to rice milling, weaving, and household handicrafts.

3.14 Because of poor management and wide-spread corruption in the state enterprises, their operations were generally inefficient. A World Bank mission whose main duty was to study and make recommendations to the Thai government on the public investment program in 1957 made a strong recommendation that the government should reduce its scope of industrial participation and alter its role to the provision of the necessary infrastructure to encourage private investment. Following a change in the power structure of the government in the late 1950's, there appeared a sharp change in the emphasis of policy toward industrialization. The government began actively to promote private investment, reduced its involvement in manufacturing production, and concentrated its effort on providing social overhead facilities. An interim law on private investment was enacted in 1958^{1/}, and a Board of Investment was established in 1959 to administer the investment law and to grant investment incentives to domestic and foreign investors. A formal investment promotion law was enacted in October 1959.

^{1/} Thailand's first law to encourage private investment was enacted in 1954 known as "Industrial Investment Act B.E. 2497 (1954). The investment Act was largely ineffective.

The intention of the government to promote private investment through incentives and the policy of not creating new government enterprises in competition with private business was also mentioned in the First Six-Year National Development Plan which started in 1961.

3.15 Besides the favorable attitude exhibited by the government toward foreign investment and the incentive given to private investors in the investment law, the government disbursed a large sum on infrastructure. Particular emphasis has been placed on the development of power and transport. Transport and communication were the largest components of development expenditures in the First (1961-66) and the Second (1967-71) National Economic Development Plans, accounting for more than 30 percent of the total expenditure. The intensive building of highways actually started in the late 1950s, and continued in the 1960s. The rapid expansion of electric power generation was achieved by the construction of several multipurpose dams during the two planning periods. As can be seen from Table 1, electricity and water supply was the sector with the highest growth rates in the 1960s. The massive public investment in the past two decades has thus greatly improved the facilities for industrial investment and should be considered as an important factor contributing to the high growth of manufacturing investment since 1960.

3.16 The investment promotion law has been revised several times since 1960. The revision of the investment law each time tends toward giving more incentives to investors under promotion, and more discretionary power to the Board of Investment. Among the incentives provided to industrial firms under promotion are the exemption of import duties on machinery, component parts, and accessories for use in the promoted activities, and materials for factory construction;

reduction or exemption of import duties on raw materials, and exemption from income tax for a certain length of time. Other incentives include the guarantee of the government not to nationalize private enterprises and not to engage in similar activities to those under promotion. Moreover, if the Board of Investment deems it appropriate, protective measures may be taken to protect certain promoted activities by prohibiting or restricting imports of competitive products. An import surcharge on competing imported goods can also be levied to protect the domestic industries. These measures, together with the high tariff rates levied on most of the promoted industries, gave considerable protection to the firms under promotion.

3.17 The revisions of the investment promotion law to a certain extent reflect the change in industrial policy of the government. In the early 1960's, the aim of the investment promotion was largely import substitution. In the 1962 Investment Promotion Act, a large scale production with capital intensive techniques was given higher priority in the promotion list. The investment law classified activities eligible for promotion into group A, B, and C, according to their "importance". The division of promoted activities into different groups was made to differentiate the industrial activities in obtaining an important privilege given to promoted enterprises; the exemption or reduction of import duties and business taxes on material inputs. Group A activities were fully exempted from import duties and business taxes on raw materials and other intermediate products, group B activities were granted reduction of duties and taxes by one half, and those in group C by one-third. Activities classified under group A were mostly capital intensive industries such as metal smelting, production of machinery, kraft paper, vehicle tires, chemical and electrical products. Activities under group B were probably equally capital intensive. Many of them

comprised the assembly stage of products classified under group A. This included such industries as automobile assembly, sewing machine, paper, electrical appliances, ship-building and assembly of machinery for use in agriculture. Group C included some eighty industries ranging from agricultural processing, textiles, rolling mill to hotel and international air transportation. Activities under promotion may be added, dropped or temporarily suspended from the promotion list as the BoI deems appropriate, and it has in fact been modified several times.

3.18 During the Second Economic Development Plan period (1967-71), more attention was paid to the employment and linkage effects as well as the degree of local capital participation of investment under promotion. It is believed that the different degrees of import duty and business tax exemption tend to encourage assembly industries with high import content and discourage the use of domestic materials. From 1967, the promotional privileges under group A and B were no longer granted to new applicants, and all industrial activities applying for promotional status after that were considered as if they were in group C, and a reduction of only one-third of import duties and business taxes on materials was granted. Later in the 1972 investment promotion law, this incentive was provided only to the export activities. In the latest revision of investment law in 1977, while the incentive for exporting firms has been retained, it is added that the granting of reduction of import duties and business taxes on raw materials and other intermediate inputs (not exceeding 90 percent) to non-exporting activities is left to the discretionary power of the Board of Investment.

3.19 Even though the Thai government has mentioned the promotion of manufactured exports since the beginning of the investment promotion, and the exemption from business taxes on exported products as well as the partial refund of

import duty and business tax on imported inputs used in the production of exports have been granted since early 1960's, the promotion of manufactured exports have not been active until early 1970s. By late 1960s, there were some criticisms on the policy of import substitution under heavy protection, and it is believed that the opportunities for further import substitution were increasingly difficult and attention should be focused on the promotion of exports. The balance of payments deficits from 1969 to 1971 after many years of surplus also caused a great deal of anxiety for the government and the public, and this might have some bearings on the change of emphasis toward export promotion. The government's intention to promote manufactured exports has been mentioned in the Third Economic and Social Development Plan (1972-76). In the 1972 investment promotion law, special rights and benefits were offered to activities engaged in exporting. These include the exemption of both import duties and business taxes on raw and essential materials, exemption of both export duties and business taxes on exported products, and reduction of income tax by deducting the assessable income for payment of income tax equal to 5 percent of increased income over the previous year.

3.20 During the Third Plan period, emphasis was also put on the promotion of industries in provincial areas. In the 1972 investment promotion law, special incentives were also given to promoted firms in special areas which might be designated by the BOI as Investment Promotion Zone. The incentives include reduction of up to 90 percent of business tax on scales of products, extension of income tax holiday and allowance to double the cost of transportation, electricity and water supply and up to 25 percent of the investment cost of installation of infrastructural facilities for reduction from taxable corporate income.

3.21 The latest change in the investment promotion law was made in 1977. An Investment Promotion Act B.E. 2520 was promulgated and replaced the 1972

investment law. The contents of the 1977 Investment Act were not much different from the previous one, except for the import duties and business taxes on machinery, which previously were fully exempted for all promoted firms, has now changed to full exemption or 50 percent reduction. On the other hand, reduction of import duties and business taxes for up to 90 percent on imported materials and components was once again introduced after the dropping of this incentive in the 1972 investment law (except for export activities). The granting of these two major incentives, however, are based on the consideration and approval of the BOI. In the new Investment Act, the power of the BOI was further enhanced. The Board now consists of the Prime Minister as chairman, and the Minister of Industry as vice chairman. In early 1977, an Investment Service Center was established at the office of the BOI to facilitate the investment application procedures.

3.22 It is evident that the incentives given to firms under promotion are considerable. Among the incentives given to promoted firms, the reduction of import duties and business taxes on raw and necessary materials is probably quantitatively the most important one, since material inputs usually comprise of a large portion of the cost of production; the exemption from import duties and business taxes of machinery and equipment serves to reduce the cost of fixed capital; while the income tax holiday was designed to take care of the initial lag of investment and profits. Nevertheless, there are more important devices to protect domestic industries under government promotion. These include the discretionary power of the BOI to prohibit imports and to raise the tariff rate or impose an import surcharge on products of the same type as those being produced or assembled by a promoted firm. According to the investment law, competing imports may be prohibited, or subject to import surcharge (up to 50 percent) as the BOI deems appropriate. It is believed, however, that the raising of tariff

rates on import competing activities provide much more protection to domestic industries than any other promotional measures, since the revision of tariff rates have more frequently been made and covered a wide range of products, while the import control and import surcharge have rarely been imposed. As a matter of fact, foreign trade policy measures in general may have played a more important role in Thailand's industrialization process than the official promotion program which, as we have mentioned, also relies rather heavily on trade policy measures. In addition, it should be realized that the promotional privileges have benefited only the firms under promotion, while other trade policy measures can provide protection to non-promoted firms as well.

3.23 The trade policy measure most frequently used since 1960 is the differentiated tariff levied on imported and exported commodities. Other measures include quantitative restrictions, credit assistance to importers and exporters, and other subsidies on exports. These policy measures have undoubtedly had substantial influence on the structure and growth of domestic industries.

3.24 Tariff rates in Thailand have been changed several times since 1960, mostly for protection of domestic industries. Although sometimes the changes in tariff rates were intended to encourage or discourage domestic consumption of particular types of product, and for balance of payments purposes, their effects on domestic industrial protection should not be ignored. Since 1960, the general trend of tariff changes is that tariffs on consumer goods, particularly those deemed luxuries, and those on intermediate goods produced domestically are raised, while tariffs on other intermediate and capital goods have been reduced. The tariff structure thus gives the domestic producers of finished goods a high effective protection. The granting of import duty exemption on capital equipment and

intermediate products for activities under promotion has in addition aggravated the magnitude of protection.

3.25 The first major revision in tariff rates since 1960 was the one made in 1964. The tariff rates were mostly adjusted upward and the results was to make practically all rates multiples of 5 percent, and with an escalated protective tariff structure, favoring the production of import substitute at higher level of fabrication^{1/}. Since then there have been revisions in the tariff schedule almost every year, with substantial revisions made in 1970, 1974, and 1978. Although the major changes in tariff rates sometimes were made in response to balance of payments deficits, such as the ones in 1970 and 1978, the protective effects to domestic industries have been substantial. Several studies by Akrasanee on effective protection reveal that the tariff structure of the Thai economy since mid-1960s was biased in favor of import competing industries and against exporting industries. It also tends to encourage the substitution of imports of final products and certain intermediate industries, while encourage imports of capital goods and intermediate products^{2/}. The structure of tariff protection in favor of import substitution has not been altered during the period of active export promotion, although various incentive schemes devised to promote manufactured exports have some effects on correcting the bias of the protective structure against exporting.

3.26 In addition to tariff protection, import controls have also been used. Generally speaking, import quotas have not often been used in Thailand. There

^{1/} Narongchai Akrasanee, The Structure of Effective Protection in Thailand : A Study of Industrial and Trade Policies in the Early 1970's, 1975, p. 2.

^{2/} For details on changes in tariff structure in Thailand since 1960, see various studies by Narongchai Akrasanee.

does exist a list of goods under import control compiled by the Ministry of Commerce. Besides those items that are controlled for security and political reasons, there are products that are controlled in order to protect domestic industries. The list is subject to change from time to time. To import the items under control, permission must be obtained from the Ministry of Commerce. In general, permission is very difficult, if not impossible to obtain. Sometimes the importation of certain products was totally banned, either for protection of domestic industries, for reducing balance of payments deficit, or for other purposes. The most recent import ban was the one that announced in March 1978, where 18 import competing items including passenger cars, motorcycles, and certain ceramic products were put into the banning list. This was supposedly designed, along with the revision of tariff rates, to alleviate the adverse balance of payments situation. But, domestic industries producing the same products as those on the banning list would surely be benefited from the import control^{1/}.

3.27 As mentioned earlier, promotion of manufactured export has been active since early 1970s. The major incentive for exporting since early 1960's has been the rebate of import duties and business taxes on imported inputs used in the production of export commodities. Before 1970, 7/8 of import duties and business taxes collected on imported materials used in the production of export commodities could be refunded. But the procedures of obtaining the refunds were cumbersome and time consuming. In 1971, the tax refund was increased to nearly the full amount of the taxes paid on imported materials used for production of exports, and the exporters were allowed to pay most of the taxes in the form of bank

^{1/} Recently the import ban on most of the minor imports in the 18 commodities has been dropped, except for motor vehicles and a few ceramic products, which account for a major part in terms of import value, the import ban is continued.

guarantee. And since December 1972, the import duties and business taxes were all paid in the form of bank guarantee and to be returned at the time when the products are exported, thus the tax refund has been made in full.

3.28 Another measure to promote exports which have been used since late 1950s is the rediscount facilities with preferential interest rates at the Bank of Thailand to commercial banks which provide short-term loans to exporters. The rediscount facilities was used initially to promote development of specific industries. In 1974, the scheme was revised so that credit could be provided to unspecified industries based on their contributions to the economy and export oriented industries were given high priority in the provision of credit under the rediscounting scheme.

3.29 The intention of the government to promote exports has also reflected in the setting up of committee in charge of export promotion under various governments since 1972. An Export Service Center was set up in 1975 to provide information to exporters and potential importers of Thai products in foreign countries.

In the Fourth National and Economic Development Plan (1977-81), the intention to promote manufactured exports is once again emphasized. Importance has been placed on the exploration of new export markets, establishment of export processing zones, and encouragement of setting up of large scale export corporation. The establishment of export processing zones has been discussed for quite sometime but progress on this area has been slow. Recently the government has decided to set up the first export processing zone at Lardkrabang in the east of Bangkok and is scheduled to open up for factory building in 1979. On the promotion of export corporation, recently in late 1978, the BOI has extended promotional privileges to trading companies engaged in exporting. The incentives to

trading companies include exemption of import duties and business taxes on raw and necessary materials in case the trading firms produce exported products themselves; exemption from export duties and business taxes for the trading companies and for those producers who export their products through trading companies; reduction of operation expenditures involved in foreign countries for the purposes of setting up foreign branches, advertising and market development from taxable income. In addition, the Bank of Thailand has also extended rediscount facilities to trading companies under BOI promotion through commercial banks at preferential interest rate.

3.30 In assessing official policies on industrial development, the official investment promotion program under the Investment Promotion Act has usually been considered as the most important. There are several reasons for this. Firstly, the investment promotion law has stated the intention of the government to promote private industrial investment explicitly and numerous incentive measures have been extended to the firms under promotion. Secondly, the investment promotion program covers relatively modern and large-scale manufacturing enterprises in which foreign investments are concentrated. Lastly, the BOI which is responsible for the official promotion program consists of high ranking officials from various government departments, it is thus undoubtedly the most influential vehicle in promoting the development of modern industry in the country^{1/}. Despite their relative importance considered by the government and the public, the number of firms covered by the government promotion program has not been large. By the end of 1978, there were only around 1,000 firms under official promotion. The importance of the BOI in promoting industrial development could be interpreted

^{1/} Besides the Board of Investment itself, there is an Office of the Board of Investment in charge of performing day-to-day administrative work.

as the relative neglect of a large number of manufacturing firms, mostly small in scale, which have not been covered under the official promotion program. As a matter of fact, there are other government agencies that are in charge of the promotion of private industrial investment in general. These include various institutions under the Ministry of Industry and Department of Labor, Ministry of Interior. The Ministry of Industry, through its various institutions including the Industrial Service Institute and Industrial Production Center under the Department of Industrial Promotion, renders services mainly to local manufacturing firms. The services range from providing of information on government regulations, information on existing production and market conditions, to providing of management consulting and technical assistance in production, and making loans to small-scale enterprises through a Small Industrial Finance Office (SIFO). The Department of Labor, on the other hand, helps manufacturing firms in the area of training through the National Institute of Skill Development. Considering that a great majority of manufacturing enterprise in Thailand are of small scale and use traditional techniques of management and production, the services provided by these government offices can be vital to the industrial development of the country.

However, because of budgetary limitation and other problem, the scope of operations of those institutes have been very limited. The lending capacity of SIFO, for example, has been much smaller than that of the Industrial Finance Corporation of Thailand (IFCT), a privately owned institution established by the government's initiative in 1959, which provided credit mainly for larger industrial enterprises. Starting from the Fourth Economic and Social Development Plan period, the government seems to have paid more attention to the development of small and medium scale industries. The reorganization of SIFO to expand its

present scope of services has been mentioned explicitly in the Plan. Recently in late 1978 a bill for the reorganization of SIFO is drafted, pending the approval of the Cabinet. This will make the SIFO an independent private corporation similar to the IFCT so that its operations can be more flexible. The lending capacity and the scope of services will also be increased. In view of the large number of small-scale enterprises and their relative inability to obtain credits with reasonable terms elsewhere, the reorganization of the SIFO, if successful, could be an important step in promoting industrial development of the country.

IMPORT SUBSTITUTION AND THE DEVELOPMENT OF EXPORTS

3.31 The industrial development in Thailand has closely been related with the development of foreign trade. Since 1960, the share of consumer goods in total merchandise imports has been reduced, while that of capital goods and intermediate products increased significantly. In the 1970's, there has been a significant increase in manufactured exports. There has also been a limited degree of backward linkage substitution as the country began to substitute domestic production for imports of producer goods. Table 4 shows the import data of the country classified by end-use for selected year. Thailand's merchandise imports have been rising dramatically from 9.4 billion baht in 1960 to 71.4 billion baht in 1976. During the 1960-76 period, the amount of imports of consumer goods increased almost three times. However, as the process of import substitution accelerated, the share of consumer goods in merchandise imports was considerably reduced and that of capital and intermediate goods increased. From Table 4, it is seen that the share of consumer goods imports declined from 35.7 percent in 1960 to 25.9 percent in 1966 and further declined to 18.7 percent in 1972 and 13.2 percent in 1976. For intermediate products and raw materials, the share in

Table 4. Imports by Economic Classification

Type of Imports	Value (millions of bahts)			Percentage Distribution		
	1960	1966	1972	1960	1966	1972
I. Consumer Goods						
A. Non-durable	2,558	3,223	3,291	27.1	17.7	10.7
B. Durable	807	1,491	2,434	8.5	8.2	8.0
Total consumer goods	3,365	4,714	5,725	35.6	25.9	18.7
II. Intermediate Products & Raw Materials						
A. Chiefly for consumer goods	1,030	2,552	5,880	10.9	14.0	19.2
B. Chiefly for capital goods	716	1,389	3,251	7.6	7.7	10.6
Total intermediate products & raw materials	1,746	3,941	9,131	18.5	21.7	29.8
III. Capital Goods						
A. Machinery	1,355	3,277	6,420	14.4	18.0	20.9
B. Others	1,012	2,424	3,363	10.7	13.4	11.0
Total capital goods	2,367	5,701	9,783	25.1	31.4	31.9
IV. Others						
A. Vehicle & parts	755	1,839	2,213	8.0	10.1	7.2
B. Fuel and Lubricants	1,025	1,873	3,115	10.9	10.3	23.7
C. Others	180	104	668	1.9	0.6	2.2
Total of others	1,960	3,816	5,996	20.8	21.0	19.6
Grand Total	9,438	18,172	30,635	100.0	100.0	100.0

Source : Bank of Thailand, Monthly Bulletin, various issues.

total imports increased from 1960 to 1972, but showed a declining trend from 1972 to 1976. The same trend also appears in capital goods imports. The share of "other imports", on the other hand, was reduced slightly from 1960 to 1972, but increased much from 1972 to 1976. This is mainly due to the increase in imports of fuel and lubricants. With the dramatic increase in oil prices since 1973, the share of fuel and lubricants has increased significantly from around 10 percent of total merchandise imports in 1960-72 period to 23.4 percent in 1976.

3.32 In an open economy, changes in domestic production, or industrial structure, are accompanied by structural changes in foreign trade. To attain rapid economic growth, successful import substitution starts with the replacement of imported consumer goods with domestic production. If the import substitution scheme is a successful one, imports of consumer goods will be reduced in the early stage of industrialization, with increases in imports of intermediate and capital goods. At the later stages, the growth of consumer goods industries will be followed by backward linkage import substitution as the country begins to substitute domestic production for imports of producer goods. An existing domestic market for industrial products enables the launching of import substitution industrialization. If the size of the domestic market is limited, growth rates of consumer goods production may be high in the early stage of import substitution, but the rate of growth may soon slow down due to the exhaustion of possibilities for further import substitution. Also, intermediate industries cannot be developed because the market for final goods has not been expanded enough for the economic operation of the input industries. At this stage, the rate of industrial expansion will slow down. If the country is to maintain a high rate of industrial growth, alternative strategy for industrial development, i.e., promotion of industrial export, will be necessary. The share of industrial exports will then

increase if the export promotion scheme can be carried out successfully.

The import statistics in Table 4 reveal the fact that while the Thai economy has experienced the process of import substitution since 1960, the degree of import substitution has not been significant enough to slow down the rate of increase in consumer good imports as income increases. In addition, the development of domestic industries has been highly import dependent, as the amount of intermediate and capital goods and other imports increased significantly with the passage of time. The rising imports could be considered as the composite results of economic expansion together with the industrialization strategy since 1960 which fosters the development of domestic industries dependent on imported inputs. As pointed out earlier, Thailand's industrialization has started out with the promotion of import-substitution industries, mainly by providing tariff protection and other incentive measures. In the early stage of import substitution, it is relatively easy to start with the replacement of imported consumer goods with domestic production, since the capacity to produce capital and intermediate goods was not yet developed, while there existed an adequate market for certain consumer goods and the investment in these industries could be facilitated by protective policy measures. The escalating protective structure with low tariff rates on capital goods and intermediate products and high rates on finished products and certain intermediate products which could be produced locally would naturally encourage industries with high import contents. Dependence on imports of capital and intermediate goods is, however, unavoidable at the initial stage of industrialization. But as industrial development proceeds, the demand for capital and intermediate goods will be built up to a point when domestic production of capital and intermediate goods become feasible and the country's dependence on imported capital and intermediate goods will be reduced.

The problem then is when industrial growth continues, whether the country could move to the further stage of import substitution where intermediate and capital goods imported in the earlier stage can be put into local production. In the case of Thailand, the decrease in the share of intermediate and capital goods in total imports as shown in Table 4 may lead one to conclude that some import substitution of intermediate and capital goods have been taking place during the 1970s. However, as the growth of intermediate and capital goods imports accelerated in the 1972-76 periods, and as the slight decrease in the shares in overall imports of these two categories was matched by a significant increase in "other imports", which comprised mostly intermediate and capital goods (fuel and lubricants, and vehicle and parts), one can hardly conclude that the backward linkage import substitution has started to be realized in Thailand in the 1970s. Experiences in other developing countries tell us that second stage import substitution into intermediate and capital goods, as well as more sophisticated consumer goods, is much more difficult than the first stage of import substitution of simple consumer products, and import substitution of intermediate and capital goods usually proceeds slowly. This seems to be not less true in the case of Thailand.

3.33 The 1970's, however, has witnessed a rapid increase in industrial exports in the Thai economy. In late 1950's, export of primary products comprised over 90 percent of the country's total merchandise exports, and the four traditional primary exports, i.e. rice, rubber, tin, and teak, together accounted for over 70 percent of the total export value. Since then, there have been a structural change in the country's exports, when other types of primary products, particularly maize, cassava, jute and kenaf has increased their share in total export value, and manufactured exports have also started to make some ground in the

export market. The development of manufactured exports has started to gather momentum in late 1960's, and continue on in the 1970s. Table 5 shows the value of manufactured exports and their percentage in total exports according to SITC. "Manufacturing" here is classified as SITC 5-9 minus tin metal. According to this classification, the share of manufacturing in total exports was negligible in the 1960's, and increased to 15.0 percent in 1972 and 18.7 percent in 1976. This type of classification, however, tend to underestimate the contribution of manufacturing exports since various kinds of food products exported are included in SITC 0 and not treated as manufactures. An alternative estimation of manufactured exports may be made by treating the items under ISIC 3 as manufactures. Here again may provoke some controversies, since a number of primary products with little processing such as husked rice, tin ingots, and a number of tapioca

Table 5

Share of Manufactured Exports*

Year	Manufactured Exports	Total Exports	Percent of Manufactural in Total Exports
1960	180	8,614	2.1
1966	417	14,099	3.0
1972	3,371	22,491	15.0
1976	11,357	60,797	18.7

* Manufactured exports are defined as exports for SITC 5-9 less tin metal.

Source : Bank of Thailand, Monthly Bulletin, various issues.

is treated as manufactured products and this may, in some people's view, be an overestimation of the true contribution of manufactures in total exports. In this regard, an appropriate estimation of manufactured exports and their

contribution to total exports may be made in terms of value added. However, the relevant figures are not available. Estimates of manufactured exports according to ISIC 3 have been attempted but show some inconsistencies. According to one estimation manufactured exports at ISIC 3 was 28.3 percent of total exports in 1972, and increased to 36.5 percent in 1976 ^{1/}. With all the discrepancies in the statistics involved in Thailand's manufactured exports, we can say that up until now primary products still accounted for the bulk of the country's exports, and a substantial portion of manufactures exported are based on agricultural or mineral products as raw materials. Rice, tin ingots, rubber, and tapioca pellets are leading exports of the country which involved little processing from their primary form. Other agricultural or mineral based exports which may be more appropriately classified as manufactures are sugar, cement, canned food, animal feed and tapioca flour. Other products with increasing share in manufactured exports are textile and textile products (mostly clothings), precious stones, and electrical components. Thus we may say that Thailand's manufactured exports are either resource based or labor-intensive products, which seem to concur with the nation's comparative advantage.

3.34 The value of exports of 31 industries which grouped into processed food, beverage and tobacco, construction material, intermediate product I, intermediate product II, consumer non-durable and consumer machinery ^{2/} for 1972 and 1976 are presented in Table 6 along with the proportion of exports in each

^{1/} Nārongchai Akrasaneē, "Trade Strategy for Employment Growth in Thailand," Report of the Council for Asian Manpower Studies, Project No. 76-3-06. July 1978, p. 8.

^{2/} This type of classification is in accordance with the one used in Bela Balassa and Associates, The Structure of Protection in Developing Countries, Baltimore : Johns Hopkins Press, 1971, and various other World Bank studies. The stage of fabrication for industrial groups classified under Intermediate Product II is higher than that of the products under Intermediate Product I.

Table 6. The Structure and Growth of Thai Manufactured Exports : 1972 and 1976

Industry	1972		1976		Annual Growth Rate 1972 - 1976
	Exports	Percent to total	Exports	Percent to total	
I. <u>Processed Food</u>	2,691.6	37.22	12,642.3	57.69	47.22
1. Meat and meat product	1.0	0.01	77.0	0.35	196.23
2. Sugar and confectionary	1,355.0	18.74	6,854.9	31.43	49.97
3. Dairy product	0.6	0.01	23.4	0.11	149.90
4. Cereal product	358.0	4.95	941.0	4.31	27.33
5. Food product	977.0	13.51	4,746.0	21.76	48.46
II. <u>Beverage and Tobacco</u>	290.0	4.00	6.8	0.03	-60.87
6. Beverage	4.0	0.05	6.8	0.03	14.19
7. Tobacco	286.0	3.95	-	-	-
III. <u>8. Construction Material</u>	234.0	3.24	488.5	2.24	20.20
IV. <u>Intermediate Products I</u>	673.0	9.31	1,363.2	6.25	19.30
9. Lumber and plywood	208.0	2.88	897.5	4.11	44.13
10. Leathers	68.0	0.94	125.9	0.58	16.65
11. Fuel and Petroleum	284.0	3.43	118.5	0.54	-16.86
12. Glass and glass product	24.0	0.33	52.0	0.24	21.32
13. Chemical product	32.0	0.44	36.8	0.17	3.56
14. Iron and steel	93.0	1.29	132.5	0.61	9.25
V. <u>Intermediate Products II</u>	2,585.0	35.73	4,146.1	19.01	12.54
15. Textile	649.0	8.97	3,109.7	14.26	47.95
16. Paper and paper product	35.0	0.48	71.6	0.33	19.59
17. Rubber and rubber product	27.0	0.37	87.2	0.40	32.29
18. Metal product	1,729.0	23.91	403.8	1.85	-30.48
19. Chemical product	24.0	0.33	72.8	0.33	31.97
20. Wood product	121.0	1.67	401.0	1.84	34.92
VI. <u>Consumer non-durable</u>	733.9	10.15	2,109.0	9.67	30.20
21. Clothing	255.0	3.53	1,646.4	7.55	59.40
22. Textile articles	21.0	0.29	65.5	0.30	32.89
23. Shoes	0.3	0.00	7.7	0.04	125.08
24. Printing and publishing	2.6	0.04	2.1	0.01	-5.20
25. Pharmaceuticals	33.0	0.46	112.5	0.52	35.88
26. Miscellaneous	422.0	5.83	274.8	1.26	-10.17
VII. <u>Consumer durable and machinery</u>	25.0	0.35	1,055.6	4.84	154.91
27. Furniture	3.0	0.04	72.1	0.33	121.41
28. Consumer electrical goods	8.0	0.11	43.3	0.20	52.53
29. Machinery agricultural & non-electrical	2.0	0.03	5.8	0.03	30.50
30. Electrical machinery	7.0	0.10	918.8	4.21	238.48
31. Transport equipment (Motor vehicle)	5.0	0.07	15.6	0.07	32.90
Total	7,232.5	100.00	21,811.5	100.00	31.78

Source : Department of Customs

industrial group to total manufactured exports and their growth rates. It is seen that in broad industrial group, processed food occupied the most significant share in manufactured exports, followed by intermediate products II, consumer non-durable, consumer durable and machinery, construction materials, and with beverage and tobacco accounted for the least export share. As a matter of fact, a large proportion of exports in each broad industrial group was attributable to only a few products, such as sugar and food products (canned food, animal feed, etc.) in processed food, textiles in intermediate product II, and clothings in consumer non-durable. In term of growth rates, consumer durable and machinery showed the highest growth, this is mostly attributable to electrical machinery. The high growth of exports in electrical machinery during 1972-76 was mostly due to the increase in exports of electrical components. Since 1972, a few large foreign firms have come to invest in Thailand utilizing cheap labor available in the country to assemble electrical components exclusively for exporting. The share of electrical goods exports thus increased from a negligible amount of 7 million baht in 1972 to over 900 million baht in 1976. Processed food is the next major group with high growth, with sugar, cereal products and food products contributing to most part of the growth, while meat products and dairy products showed very high growth starting from a very small base.

As seen in Table 6, besides sugar, food products, textiles, and clothing, other product groups are all with less than 5 percent share of total manufactured exports. Yet a number of these products including meat products, dairy products, shoes, and furniture, portrayed very high growth rates during the 4 year period.

An examination of the list of manufactured exports tell us that there have been quite a number of manufactures which started to export at a very small amount, and some of them have shown good potential for further growth. Some of

these products have been produced in the country for quite some time, and entered the list of manufactured exports during the 1970s. The improvement of the quality of the products (including product design and packaging) and the finding of new overseas markets for these products obviously contributed much to the high growth. It usually takes time for the development of new exports. For some industrial products that the efficiency of production increases and the cost of production reduced as the industries grow, and the entrepreneurs in charge are capable enough to find some room in the international market, the previously domestic market oriented products can become a good export earners. In the case of Thailand, however, there are a large number of industrial products remaining to serve the domestic market without any prospect for exporting. These include a substantial portion of products produced by firms under the government promotion since the early 1960's. Most of these are in industries in which firms are motivated to set up their production by protective measures. The high protection tends to invite too many entries in any one industry and hinder the firms to attain efficient scale of production. The protective measures also provide much incentive for the producers to supply their products in the sheltered domestic market rather than in the export market. In this regard, the revision of structure for a less protective and more competitive industrial structure may be helpful for the promotion of industrial exports.

THE ROLE OF FOREIGN DIRECT INVESTMENT

3.35 The promulgation of investment promotion law in late 1950's reflected the desire of the Thai government to build up a modern manufacturing sector in the economy. Attracting foreign investment was undoubtedly an important objective of the investment promotion. The investment law gives foreigners the same

rights and privileges as those enjoyed by the Thai natives. Among the incentives provided specially to attract foreign investors are a guarantee of state against nationalizing private business, permission for promoted foreign firms to own land and to bring in alien skilled workers, and liberal terms set on remission of profits. There has been no strict requirement for local capital participation of a foreign firm, although the government reveals from time to time that investment in the form of joint venture with local businessmen is preferred^{1/}.

3.36 Foreign direct investment in Thailand has increased substantially since early 1960s. From 1955 to 1960, net direct investment inflow was averaged less than six million baht a year. It jumped to 120.9 million baht in 1961 and has since then sustained a trend of rapid increase. From the mid 1960s, direct investment inflow has become an important proportion of the net foreign exchange receipts in the country's capital account.

3.37 Table 7 presents net direct investment inflow by country of origin from 1966 to 1976. The two most important foreign investing countries are Japan and United States, together accounted for 65.4 percent of the net investment inflow in the 11 year period. The American firms spread out over many types of business activities. Besides manufacturing firms, there were trading firms, banks and investment banks, engineering consultant service companies, travel agencies, and other types of service and trading companies. In manufacturing industries, although the American firms appear in many activities, they were

^{1/} According to the Investment Promotion Act, the BOI may require certain conditions on promoted enterprises which include the amount and source of capital, and nationality and number of shareholders. Usually, if a foreign investor enter into the areas which are considered to be desirable, he is allowed to set up a wholly foreign-owned firm. In the case of non-promoted firm, there has been no restriction on the form of ownership and foreign participation.

Table 7. Net Inflow of Direct Investment^{*/} in Thailand

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Total	570.6	894.4	1,239.7	1,057.5	890.5	808.4	1,427.1	1,604.9	2,766.4	1,744.8	1,614.1
Japan	237.2	160.2	181.1	404.3	322.1	263.6	340.8	707.7	749.6	423.6	424.3
U.S.	215.1	509.3	657.9	476.3	351.9	341.1	619.6	307.7	605.0	819.1	445.0
U.K.	28.5	31.2	21.9	26.1	40.7	19.2	130.8	76.0	196.1	109.7	176.6
W. Germany	13.1	20.8	30.3	3.9	10.6	6.7	18.0	20.9	13.3	13.0	82.0
France	-	2.1	- 2.3	4.3	4.4	2.4	12.9	82.0	41.6	112.6	18.6
Netherlands	-	-	-	3.4	4.9	5.7	19.7	120.4	89.1	10.4	- 5.6
Italy	-	-	133.5	38.6	3.9	19.1	29.1	10.2	8.3	20.4	79.0
Switzerland	-	-	-	9.8	19.7	6.4	-14.3	18.6	18.8	148.8	57.8
Canada	-	-	-	5.8	0.5	2.3	46.7	0.6	1.1	- 2.1	19.7
Australia	-	-	-	2.2	7.6	-12.4	25.3	10.9	8.6	34.6	-11.9
Hong Kong	-	-	95.9	47.4	69.0	46.8	87.6	248.7	489.9	59.8	88.2
Singapore	-	-	-	1.4	- 0.7	20.3	16.0	76.7	330.4	53.3	308.9
Malaysia	-	-	-	0.7	- 6.0	11.3	10.0	- 8.3	92.0	- 4.5	-15.3
Philippines	-	-	-	0.5	2.1	4.8	22.7	15.3	20.5	0.2	-
Taiwan	-	-	-	9.4	0.5	9.3	2.6	3.2	-	2.1	- 4.3
Other	76.7	175.0	121.4	23.4	59.3	61.8	59.6	-85.7	102.1	-56.2	-48.9

* / Equity and loans from parent or related companies including capital funds of foreign commercial banks.
Source : Bank of Thailand.

relatively more concentrated in chemicals and pharmaceuticals, metal and mineral products, food and beverage and electrical products. Japanese firms, on the other hand, are more concentrated in manufacturing, particularly in the industries under the official promotion program. The industries with significant Japanese investment are textiles, transport equipment (including passenger car, truck and motorcycle assembly, and firm producing automobile parts and components), chemical products, electrical appliances, and fabricated metal product. Most of the Japanese investment comes in the form of joint venture with local businessmen.

Foreign direct investments have played an important role in promoted industries. By the end of October 1978, there were 1,032 firms under government promotion, of which 770 were already in operation. Nearly half of the promoted firms had varying degree of foreign capital participation. Of the 1,032 firms promoted, 22 firms were totally owned by foreign nationals, 472 firms were joint ventures between Thai and foreign investors and other 538 firms were wholly owned by Thais. In terms of registered capital, foreign share amounted to 3,790.7 million, or 26.8 percent of the total. Japanese, with more than one-third of registered capital from foreign sources, was the most important foreign investing countries in the promoted industries, followed by the United States and Taiwan, with 14.1 and 13.1 percentage share of total foreign registered capital respectively. Foreign investment appeared in almost all major industrial groups under the government promotion, but with more concentration in textiles, transport equipment, chemical products, electrical appliances and metal products. The average size of foreign invested firms was much larger than the wholly-owned Thai firms.

3.38 Foreign direct investment has undoubtedly contributed substantially to the growth of several manufacturing industries in Thailand. Without foreign investment, many industrial activities would not have been established in the

country, since the local intrepeneurs alone either did not possess the technological knowledge needed to enter certain areas of manufacturing or did not have the willingness to undertake the risks involved to produce those products which would have to compete with familiar brand-name imports. But the incoming of foreign direct investment has not been an unmixed blessing for the Thai economy. Quite a number of foreign investors were attracted to set up their business in Thailand since the early 1960's when the government began activity to promote private investment. Most of the foreign investments have been concentrated in industries producing and assembling consumer products which replace imports. These foreign firms were found to rely heavily on imported parts and components, and other intermediate products, which contributed to the heavy import dependence in many industries. The reliance on imported inputs implies that there have been small linkage effects to other industries. The capital intensive nature of production of many foreign invested firms has also hindered them to contribute much to employment creation. Undoubtedly foreign participation helped the start and quickened the process of industrialization in the initial stages, since foreign technology could be acquired and utilized. If we take a longer view on industrial development, however, excessive reliance on foreign technology and imported capital would imply technological dependence, and the development of indigeneous technology which might be more appropriate to local conditions could as a result be retarded. The easy import substitution stage is usually the stage when industrial entrepreneurship must be developed and appropriate technology adapted, so that when the economy moves to a more difficult stage of development for backward integration or for breaking into the international market, efficient operation can be assured. Too much reliance on foreign investment may retard the development of indigeneous entrepreneurship. Fortunately, in the case of Thailand, foreign investment often comes in the form of joint ventures. In this case,

local entrepreneurs may have learned something from the foreign participation. However, scanty empirical evidence on foreign investment often reveals that the pace of learning foreign technology has not been fast enough and foreigners seem to exert strong control over the invested business even if in case they have an overall minority share-holding^{1/}. When the first stage of import substitution has passed, whether foreign participation will be helpful in further industrial development is uncertain.

On the development of manufactured exports, large international firms with their advantages in international marketing can help to develop market channels for exporting. However, since most of the foreign firms invested in Thailand also have the same type of business as that in other countries, unless the firms operated in Thailand have any cost advantages over other subsidiaries, it would not be to the best interest of the foreign investors to try to export the products they produce in Thailand to compete with their own subsidiaries, (or joint ventures with a higher degree of parent company ownership). The same reasoning could also be applied to the establishment of intermediate input industries that it may not be to the foreigners' best interest to replace imported parts and components from the parent companies with domestic production in Thailand. Recently the Thai government has started to require certain level of local contents on a few industries such as automobile and electrical appliances, but the attempts have not been so successful. Lack of supporting industries and inadequate domestic demand for intermediate inputs for efficient scale of production obviously

^{1/} See, for example, Udom Kerdpiul, "Thailand Experience with Multinational corporation", Department of Economics, Kasetsart University, June 1974, and Somsak Tambunlertchai, "Japanese and American Investments in Thailand's Manufacturing Industries", Institute of Developing Economies, 1977, Chapters 3 and 4.

are among the main reasons of reluctance to set up backward stages of production. Unless these problems can be tackled, it would be very costly for the host country to establish plants for parts and components production.

3.39 One of the side effects of putting too much reliance on foreign direct investment and putting too much emphasis on the development of large scale modern industries in industrialization is the neglect of promotion of a large number of small scale enterprises, which together contributed much to the industrial production and employment. A study of small and medium scale industry in Thailand in 1977^{1/} reveals that small and medium scale firms possess several qualities which are desirable for industrial growth. Their production are relatively more labor intensive and are with less import contents. The small and medium scale firms are also found to be not less efficient in a number of criteria than the larger ones. The small scale firms, however, often confront with a number of difficulties including shortage of funds and inadequate access to the formal capital market and lack of managerial personnel. With proper assistance, particularly on the access of reasonable-term credits, improvement of quality of products, and the introduction of modern business practices, the numerous small and medium scale firms which are mostly outside of the government promotion list can become a strong force for Thailand's industrial development. Recently the government seems to pay more attention to the development of small and medium scale industries. Whether the increasing government attention to these firms will really help the development of this industrial sector would remain to be seen.

^{1/} Saeng Sanguanruang, Somsak Tambunlertchai and Nit Sammapan. A Study of Small and Medium Scale Industries in Thailand, 1977.

3.40 There is no doubt that foreign investment will continue to be warmly welcomed in Thailand. But for better contributions to the Thai economy, foreign investment should be encouraged on a more selective basis. Foreign investment projects should be selected in terms of their potential contribution to the local economy and not simply for the sake of having certain modern manufacturing activities in the country. Particular attention should be paid to the inducement of foreign investment into the production areas where idle resources of the country can be utilized. In addition, the government should try to facilitate the transfer of technology in foreign invested firms. The lack of well-trained local manpower certainly obstruct the learning of foreign technology. Thailand cannot forever rely on foreign investment for her industrialization. The building up of capable entrepreneurship and technological skills in the part of Thai nationals are thus important for sustained industrial growth.

PROBLEMS AND PROSPECTS

3.41 The industrialization process in Thailand in many ways resembles that of other developing countries. Infrastructural facilities for industrial investment were built by resources acquired from foreign aids and loans as well as by foreign exchange earnings from agricultural exports. In the beginning stage of industrial development, the setting up of domestic industries was facilitated by tariff protection and other incentive measures. The government promotional measures, in addition to certain favorable conditions existed in the domestic economy, have resulted in the setting up of many domestic market oriented industries. Quite a number of foreign investors have also been induced to set up their business in the country, and some of them have joined with local businessmen in industrial joint ventures. Many of the foreign firms invested in Thailand were those previously supplying their products through exports and were attracted by

the protectional and promotional measures. They have already possessed the technological know-how and some of them are producers of familiar-brand products. At the beginning of industrial development, when the setting up of new factories producing new products was proliferating, and as the products introduced were mostly industrial consumer goods with high income elasticity, the growth of industrial output was high.

The protection induced import substitution scheme thus helped to make a quick start on industrial development. It has, on the other hand, created a number of problems which tend to obstruct the country's industrial development in the long run. The products introduced by firms under promotion are mostly modern consumer goods which generally cater for the consumption of urban high and middle income people. The production of these products are mostly capital intensive in nature. Without sustained growth, the capital-intensive production would not be so helpful for the country's employment creation objective. The rapid expansion of the economy in general coupled with the uneven distribution of income in the economy might have helped the growth of import-competing consumer industries. But as the majority of people of the country are low-income rural residents which cannot afford the luxurious products introduced, the market for these modern consumer products would soon be saturated, and sustained growth for the industries could not be attained. On the other hand, the escalated tariff structure has also induced a number of assembly industries. These industries, in their final stage of production, may be considered as labor intensive since a large number of workers are required to put the imported parts and components together. However, the creation of these assembly industries in addition to other capital intensive activities has led to the heavy importation of parts and components, and other capital and intermediate products, thus making the industrial production

of the country highly import dependence.

The tariff structure which provides incentive to finished products also works to retard the development of intermediate and capital goods industries in the country. The fact that imports of capital and intermediate goods in Thailand remain in increase at a high rate after almost 20 years of industrial investment promotion and after the stage of heavy public investment indicate the slow pace of development of intermediate and capital goods industries. The protective structure which works to promote consumer good industries with high import content also has a side effect in leading to the concentration of industrial location, as industrial firms tend to locate near the principal port and principal consumer market in Bangkok.

3.42 In other developing countries, saturation of domestic market for industrial output coupled with the balance of payment difficulties have forced policy makers to revise their industrialization strategy to be more export oriented. In the case of Thailand, the launching of export promotion program seems to be slower. This might have been due to the fact that Thailand has not faced with serious balance of payment difficulties since the beginning of the industrial promotion program, eventhough the ever-increasing trade deficit caused some concern, particularly in recent year. As a matter of fact, the stages of industrial development in Thailand cannot be identified distinctly from import substitution to export expansion as experienced in some other developing countries. During the 1960s, eventhough domestic consumer good industries competing with imports grew fast, imports of consumer goods still increased at a rapid rate. Overall import substitution seems to be continued in the 1970s despite the fact that growth rates of a number of import competing industries have slowed down. In addition, although promotion of exports is emphasized in the 1970s, the structure

of protection which generally favor import-competing and bias against export industries has remained. As pointed out earlier, the excessive protection in a number of import-competing industries tend to induce too many entries, each with less than economical scale and with high cost of production. The prolonged protection has undoubtedly help the survival of these import competing industries and retard the speed of adjustments toward a more outward-looking industrialization.

3.43 For further industrial growth, expansion of industrial exports has to be continued. Attempts also have to be made to promote backward linkage integration wherever it is economically feasible. The entering into international market mean that exporting enterprises will be faced with more severe competition and only efficient producers can manage to survive. Export oriented industrialization also require capable entrepreneurship to cope with the changing international market environments. Heavy subsidization to industries on export and backward linkage integration may provide incentives for the creation of these activities. But the measure will create further distortion in the country's industrial structure. If the aim of industrial promotion is to foster sustained industrial growth, the inefficient producers survived only by protection should no longer be promoted. The revision of tariff structure to correct the excessive protection which has been in favor of import-competing industries and in favor of production at higher stages of fabrication will be helpful for the promotion of industrial exports and industrial backward integration, eventhough some marginal producers surviving only by heavy protection will be hurt as a result.

3.44 Although Thailand's industrial export promotion is just at her beginning stage, the prospect for export expansion looks good, particularly on various agro-based and labor-intensive products. Thailand's industrial wage rates have

risen much in the past five years. But compared with some other developing countries in Asia, the wage level in Thailand is still much lower. There is thus ample room for the expansion of labor-intensive exports, particularly those products which require basically unskilled work. The main constraints for the exports expansion are the capability to find marketing channels for a number of potential export products, the efficient control of product quality, and the rising restrictive trade practices in the importing countries on labor intensive goods. Thus far protectionism practised by the developed countries seems not having much adverse effect on Thailand's industrial exports. But as the country's export expansion continues, the restrictive trade practice will soon be materialized. Trade negotiation with developed countries on this issue is necessary. The development of new manufactured exports which are not produced in our trade partners' economy, and the development of new export markets can also be helpful to alleviate the problem.

3.45 Recently there have been a number of steps taken by the government which may prove helpful to the development of manufactured exports. Among them are the promotion of international trading companies, the setting up of export processing zone, and the proposed expansion of credit facilities for medium and small-scale manufacturers. The establishment of trading firms will help the manufacturers whose products are qualified for exporting, but the producers are not able to bear the expenses of finding overseas marketing channels by themselves to sell their products abroad. The export processing zone, if successfully operated, can attract a number of new investments in the exporting field. The provision of credits to small and medium scale firms, on the other hand, will help to promote industrial growth in general. And since the small and medium scale firms are by and large more labor and resource intensive, the promotion of

these firms may also be helpful for export promotion, as a number of medium and small-scale firms have already been engaged in production for exporting, particularly in food processing, textile garments, plastic products, jewelry, and a number of other products.

3.46 In the near future, it is expected that balance of payments deficit will become a constraint in Thailand's industrial development. The mounting oil prices will aggravate the country's trade deficit, and as external finance in the capital and service account is no longer expected to be able to compensate the trade deficit as in the 1960s, the country will start to face with balance of payments difficulty. The development of natural gas production in the country in the near future, although may partly reduce the reliance of oil imports, but is not likely to reduce the existing trade deficit. As a matter of fact, the investment in natural gas production and other basic industries, coupled with other public infrastructural development projects in the remaining years of the Fourth Plan are expected to produce even larger trade deficits for the country in the next few years. The solution on balance of payments problem up until the present time has been to further restrictive trade measures, like increase in tariff rates on import and quantitative control. This has created much distortion to the country's industrial structure and contributed to the inefficiency of a number of manufacturing industries. This type of practice, while may be helpful in restricting imports and hence alleviate a little of balance of payments problem in the short-run, will tend to aggravate the payments problem in the long-run as industrial exports cannot be developed out of inefficiency and prolonged protection of import-competing industries will induce further trade deficit. The better solution for the balance of payments deficit will be the utilization of macro-economic policy measures in the short run and improvement of domestic

industrial efficiency in the long-run. In countries like Taiwan the balance of payment difficulty had become a strong impetus for the development of industrial exports. If the Thai government can resist the temptation to further protect inefficient domestic producers, the Taiwanese example may also be followed in Thailand.

3.47 Even with attempts to promote industrial exports, Thailand's industrial production is still basically domestic-market oriented. The expansion of domestic income is thus helpful for the growth of this type of industry. Since a great majority of the people are low-income rural residents, and the low-income people consume largely simple products which are produced locally, the improvement of income distribution in favor of the low-income class will be helpful to increase the purchasing power of these people and provide increased demand for domestically-produced industrial products.

3.48 Thailand's industrialization is now at cross-roads. Whether the country could move to a higher stage of industrial development depends much on the industrialization strategy and the willingness of the government and the public to foster the industrial sector which will be in accordance with the benefit of the country's long-run growth potential, and not only to the benefit of a small number of existing large scale industrial enterprises, as it seems to be the case in the past.

CHAPTER 4
INDUSTRIALIZATION AND EXPORT EXPANSION

Kiyoshi Ikemoto

A. Exports from Thailand in Retrospect

4.01 Exports from Thailand increased 4.8 times during the period of 1969-77, i.e., from 14.7 million baht in 1969 to 71.2 billion baht in 1977 (see Table 4.1a). The following points can be seen from Table 4.1a, which gives the export structure by commodity groups. (1) Food increased their importance in exports, the share of which was 44.7% in the total exports in 1969, and increased upto 56.6% in 1977, although it was 59.1% in 1975. (2) Share of exports of crude materials was 31.6% in 1969, but it gradually decreased to 15.4% in 1977. (3) Share of manufactured goods was 14.7% in 1969 and only slightly increased to 16.8% in 1977. (4) Share of exports of machinery was only 0.1% in 1969. It increased rapidly since 1974 and rose to 2.4% in 1974. (5) Share of exports of miscellaneous manufactured goods was 0.2% in 1969 and increased rapidly since 1972. It was 3.9% in 1977.

4.02 The following observations can be derived from Table 4.2, which shows the development of principal exports and other exports. (1) Share of rice exports was 20% in 1969 and 18.8% in 1977. It has been showing big cyclical movement. (2) Share of rubber decreased to a large extent to 8.6% in 1977 from 18.1% in 1969. (3) Share of export of maize was 12% in 1969, but it was only 4.7% in 1977. (4) Share of tin exports decreased from 11.1% in 1969 to 6.4% in 1977. (5) Share of exports of jute and kenaf was only 0.6% in 1977, although it was 5.2% in 1969. (6) Share of exports of tapioca products increased to a large extent to 10.8% in 1977 from 3.2% in 1969.

Table 4.1 Trade by Commodity Groups

(Millions of Baht)

Period	Food (0)	Beverages & tobacco (1)	Crude materials (2)	Mineral fuels & lubricants (3)	Animal & vegetable oils & fats (4)	Chemicals factured goods (5)	Manu- factured goods (6)	Machinery manufactured goods (7)	Miscellaneous manufactured goods (8)	Miscellaneous transactions & commodities (9)	Re- exports (10)	Total (11)
1969	6,582	154	4,647	40	3	23	2,158	13	32	435	622	14,709
1970	6,957	206	4,262	45	14	33	2,188	15	59	471	522	14,772
1971	8,243	240	4,588	120	18	44	2,508	28	97	781	599	17,275
1972	11,212	285	4,806	269	9	75	3,475	46	332	1,107	875	22,491
1973	13,661	328	8,411	414	34	162	5,861	78	946	1,251	1,080	32,226
1974	27,660	459	9,111	386	43	335	7,977	313	1,340	1,034	1,161	49,799
1975	26,599	579	6,804	269	43	268	6,419	573	1,582	983	933	45,007
1976	35,429	706	9,566	120	39	268	9,336	1,211	2,432	1,062	608	60,797
1977	40,263	931	10,958	20	26	301	11,949	1,709	2,749	1,492	800	71,198
a. Exports												
1961	765	197	207	1,011	14	1,045	3,757	2,455	500	209	127	10,287
1962	755	147	205	1,224	18	1,190	3,872	3,156	566	215	156	11,504
1963	812	144	224	1,221	18	1,242	4,188	3,904	688	214	148	12,803
1964	876	183	282	1,458	35	1,486	4,343	4,520	689	278	103	14,253
1965	878	192	477	1,353	33	1,659	4,829	4,706	820	350	136	15,433
1966	975	296	521	1,873	26	2,141	5,461	5,800	955	311	125	18,504
1967	1,035	313	624	1,588	37	2,629	6,393	7,728	1,217	479	145	22,188
1968	1,109	479	623	1,995	38	2,862	6,248	8,821	1,338	411	179	24,103
1969	1,345	495	828	1,829	59	3,319	6,313	9,426	1,684	525	142	25,966
1970	1,091	303	1,400	2,329	35	3,505	6,458	9,536	1,350	894	108	27,009
1971	1,032	521	1,757	2,721	39	3,723	5,869	8,949	1,448	708	27	26,794
1972	1,210	609	2,077	3,116	46	4,757	6,517	9,716	1,913	914	-	50,875
1973	1,375	418	3,518	4,661	86	6,683	8,859	13,891	2,071	622	-	42,184
1974	1,812	676	4,276	12,571	124	9,318	12,015	20,467	2,052	733	-	64,044
1975	1,952	753	3,977	14,233	108	9,122	10,560	23,125	2,145	860	-	66,835
1976	2,281	656	5,225	16,695	163	10,505	11,984	21,424	2,867	1,077	-	72,877
1977	2,508	1,043	7,406	20,776	292	13,383	15,491	27,949	3,807	1,465	57	94,177
b. Imports												

Note : Excluding military goods.

Source : Department of Customs.

Table 4.2 Total Quantity and Value of Exports

a. Principal Exports

Period	Rice		Rubber		Tin ^{1/}		Maize ^{2/}		Tapioca Products		Jute & Kenf		Shrimp		Tobacco Leaves		Sugar		Mung Beans		Fluorite		Sorghum		Cements		Teak		Others		Total
	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Cubic metres	Millions of Baht	Millions of Baht	Millions of Baht	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	
1961	1,575,998	3,598	184,598	2,130	18,104	617	569,131	599	443,376	446	143,477	626	889	3	1,136	12	1,537	3	26,447	60	5,131	3	-	-	156,924	51	64,528	252	1,597	9,997	
1962	1,271,023	3,240	194,180	2,111	19,841	685	484,128	516	400,788	423	237,898	579	1,279	9	2,628	31	43,019	46	21,025	62	6,962	3	-	-	179,486	63	39,753	170	1,591	9,529	
1963	1,417,673	3,424	186,887	1,903	22,003	741	767,485	857	427,444	439	125,753	358	2,053	46	3,782	41	52,823	122	52,823	59	15,875	7	-	-	143,631	55	32,215	137	1,487	9,676	
1964	1,896,258	4,389	216,993	2,040	22,339	961	1,146,932	1,388	738,859	653	162,095	495	3,414	69	6,147	79	48,908	211	33,375	84	38,666	16	13,146	13	102,371	36	40,490	179	1,706	12,339	
1965	1,895,223	4,334	210,854	1,999	20,503	1,166	831,353	1,004	719,442	676	316,986	1,102	4,880	109	6,046	89	83,834	100	50,688	118	46,993	20	54,004	61	105,655	41	45,233	201	1,921	12,941	
1966	1,507,550	4,001	202,535	1,861	18,898	1,316	1,261,556	1,577	688,603	644	473,269	1,614	7,882	191	7,880	115	54,858	82	55,291	131	73,670	30	102,668	113	45,423	17	49,459	243	2,164	14,099	
1967	1,482,272	4,653	211,118	1,574	27,107	1,822	1,145,981	1,431	781,357	726	317,094	866	8,829	259	8,562	147	15,013	37	46,897	122	125,752	56	93,145	108	32,987	17	35,716	194	2,154	14,166	
1968	1,068,185	3,775	252,220	1,816	24,017	1,510	1,558,198	1,647	888,854	772	289,478	674	7,290	278	10,375	199	52	-	46,700	132	204,871	116	54,017	56	34,705	19	29,446	169	2,516	13,677	
1969	1,023,064	2,945	276,381	2,664	23,431	1,631	1,544,815	1,767	975,091	876	255,978	780	8,133	270	8,532	149	16,102	47	76,771	215	157,962	158	57,299	62	95,491	38	29,003	166	2,941	14,709	
1970	1,063,616	2,516	275,610	2,232	22,246	1,618	1,447,955	1,969	1,326,865	1,223	257,663	719	6,421	224	10,785	197	56,248	94	89,818	255	349,257	222	79,507	103	150,677	83	28,763	156	3,161	14,772	
1971	1,576,142	2,909	307,871	1,905	21,873	1,569	1,873,461	2,286	1,123,084	1,240	271,675	935	5,593	247	13,158	236	174,571	382	85,596	255	335,774	311	131,483	157	237,601	90	37,594	183	4,570	17,275	
1972	2,112,114	4,437	317,695	1,862	21,840	1,664	1,843,619	2,085	1,311,038	1,547	255,093	1,087	6,725	340	18,160	284	407,501	1,264	88,316	277	274,450	222	131,055	138	736,572	218	40,303	208	6,858	22,491	
1973	848,717	3,594	390,514	4,573	22,671	2,035	1,386,374	2,969	1,836,453	2,537	264,084	1,054	14,875	803	16,470	309	275,405	1,161	95,214	374	275,408	224	124,938	241	880,832	314	51,667	422	11,616	32,226	
1974	1,029,273	9,778	362,563	5,035	20,767	3,097	2,301,576	6,078	2,395,704	3,836	247,006	845	10,251	602	15,112	445	443,847	3,757	90,308	454	305,541	289	188,562	426	919,536	650	35,159	402	14,105	49,799	
1975	951,260	5,852	332,189	3,474	16,663	2,247	2,104,733	5,705	2,385,443	4,597	157,601	643	13,541	891	17,584	569	595,434	5,696	83,222	465	211,699	204	200,059	482	729,128	512	43,019	445	13,225	45,007	
1976	1,973,391	8,603	373,458	5,297	20,048	2,972	2,419,186	5,676	3,720,710	7,527	138,362	579	15,218	1,347	22,026	699	1,123,974	6,843	88,078	945	284,287	267	181,253	374	633,286	378	72,159	749	18,541	60,797	
1977	2,932,662	13,323	401,863	6,164	21,438	4,541	1,541,957	3,347	3,954,366	7,720	81,233	418	13,661	1,170	27,981	924	1,654,610	7,445	107,776	1,058	241,459	230	135,464	300	313,229	217	39,373	545	23,796	71,198	

^{1/} Figures for tin exports during 1957 - 1964 and parts of the exports during 1965 - 1967 were tin concentrates. Since 1968 they consist wholly of tin metal.

^{2/} Including maize groat and meal.

Source : Department of Customs.

b. Other Exports

Period	Cattle		Eggs, fresh		Hides & Skins		Feather unworked		Castor seeds		Cotton seeds		Kapok seeds		Soybeans		Ground nuts		Sesame		Seedlac and sticklac		Kapok fibre		Cotton, raw		Fruit, canned	
	Head	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)
1961	68,927	120	15,675	126	8,509	83	390	15	32,611	94	6,184	8	16,489	23	2,091	5	13,511	52	4,045	18	8,515	52	14,300	82	292	1	51	-
1962	61,601	102	4,593	38	6,892	60	411	14	53,989	124	9,200	8	28,000	37	1,909	5	14,741	56	7,091	26	14,638	56	15,796	102	321	1	8	-
1963	43,707	81	2,718	21	6,173	53	380	13	40,052	98	11,235	10	24,097	36	4,401	10	13,847	57	3,748	15	11,414	36	15,829	108	614	3	8	-
1964	67,045	115	5,009	33	7,270	63	582	17	36,202	90	14,622	12	20,669	28	4,285	9	12,201	50	2,618	12	10,983	60	17,539	123	260	1	3	-
1965	58,232	103	5,023	32	7,350	59	593	21	28,170	66	8,903	9	30,883	45	1,610	5	17,579	74	3,691	17	17,229	64	18,142	112	167	1	-	-
1966	55,505	100	1,095	7	9,023	72	619	32	43,859	96	17,664	20	27,574	46	5,608	15	17,557	72	5,288	25	15,263	56	17,584	101	484	1	20	-
1967	50,474	93	657	6	4,759	39	474	11	33,470	83	30,664	44	7,740	11	5,897	15	8,319	37	3,594	17	7,683	37	18,520	99	375	2	1,460	6
1968	31,255	62	2,468	21	5,545	47	813	21	26,939	83	47,079	68	14,329	16	3,552	9	4,589	20	3,942	22	10,198	38	20,316	132	3,794	46	7,747	29
1969	35,076	65	6,195	53	5,825	56	1,631	20	30,137	86	53,705	71	4,484	6	5,018	13	6,051	27	3,881	20	11,960	43	13,690	102	6,890	72	9,513	37
1970	35,029	73	5,533	43	5,806	52	1,230	18	35,679	93	23,720	34	11,269	18	6,290	16	6,445	29	5,422	27	6,759	36	18,472	134	3,418	17	13,655	55
1971	36,625	91	3,703	30	5,195	47	950	24	47,472	124	18,567	30	9,943	15	6,099	17	4,084	19	9,023	41	7,717	60	17,513	161	997	7	10,522	44
1972	43,321	115	3,944	32	9,603	102	879	31	28,832	97	35,786	48	12,134	16	7,240	23	1,524	9	8,494	48	11,100	107	17,521	149	3,309	39	12,909	53
1973	46,179	139	2,291	21	3,887	98	831	36	26,575	272	5,895	9	8,202	23	13,715	76	6,717	45	6,435	49	8,097	191	21,958	179	5,874	53	14,193	77
1974	29,913	120	963	16	2,000	70	811	17	27,887	215	7,017	23	13,411	42	8,710	47	4,532	41	13,418	95	8,244	287	20,031	195	2,680	21	29,749	280
1975	22,964	119	3,236	52	845	35	973	10	23,219	103	10,222	30	13,946	34	24,055	133	5,179	48	6,239	61	7,731	95	14,770	169	1,732	21	37,198	348
1976	28,924	146	2,661	40	1,165	55	300	6	43,430	251	4,246	11	16,587	40	8,131	49	6,662	67	8,424	89	8,699	91	20,723	272	2,627	42	63,440	630
1977	41,796	215	4,661	73	817	51	95	7	68,568	516	5,729	14	8,339	25	11,506	82	13,966	146	11,799	118	7,288	56	15,442	244	2,506	36	89,730	922

Period	Tamarind, dried		Molasses		Tungsten		Antimony		Other Slag		Petroleum products		Sea Salt		Yang Woods		Wood products		Vegetable cakes		Silk		Gunny bags		Garments		Precious stones		Others		Total
	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Thousand litres	Millions of Baht	Metric tons	Millions of Baht	Cubic Metres	Millions of Baht	Metric tons	Millions of Baht	Metric tons	Millions of Baht	Hundred Sq. yards	Millions of Baht	Thousand Units	Millions of Baht	Millions of Baht	Millions of Baht	Millions of Baht	Millions of Baht	Millions of Baht		
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)			
1961	7,304	13	90,871	24	250	8	53	-	208	-	-	-	189,984	21	61,317	58	1,460	7	12,389	19	3,545	22	95	-	10	21	717	1,597			
1962	14,012	17	48,180	15	243	4	73	-	597	1	-	-	134,911	18	57,007	53	1,809	7	18,198	28	4,155	24	54	-	12	25	758	1,591			
1963	10,888	15	36,643	16	257	3	866	3	707	1	-	-	116,760	15	68,951	63	1,725	6	20,973	31	5,823	34	135	1	17	33	708	1,467			
1964	11,528	17	36,614	22	87	1	1,470	5	800	2	38,991	6	139,798	18	74,539	71	1,855	8	30,084	45	5,702	33	34	-	17	49	819	1,706			
1965	16,797	24	131,198	38	209	5	1,996	11	877	2	171,392	40	81,763	13	59,843	56	537	5	26,803	43	5,259	32	154	1	13	71	959	1,921			
1966	18,411	21	117,855	35	817	22	3,197	14	3,035	57	214,920	50	84,807	13	34,361	35	2,032	5	28,530	46	5,792	37	5,972	48	19	97	1,022	2,164			
1967	8,638	15	81,749	38	888	44	2,778	12	6,298	192	182,306	78	87,619	13	17,850	21	2,783	16	16,603	25	5,419	37	6,449	46	14	93	1,010	2,154			
1968	20,309	25	24,600	16	819	44	1,102	3	3,684	80	80,170	15	107,739	15	11,946	14	1,425	19	35,333	43	4,456	31	17,503	74	17	142	1,364	2,516			
1969	14,087	17	82,413	32	569	32	1,355	5	2,473	19	80,607	38	123,790	22	12,521	14	2,300	27	42,074	56	5,645	39	15,883	74	13	150	1,732	2,941			
1970	10,957	19	111,528	45	1,151	83	3,298	53	1,403	6	40,919	36	92,859	18	15,111	13	3,887	36	43,832	62	5,179	34	12,118	63	16	130	1,902	3,161			
1971	22,106	30	239,546	86	4,842	329	4,702	34	3,465	25	212,656	132	37,685	14	19,286	16	10,798	75	38,105	43	4,410	30	34,605	178	65	228	2,595	4,570			
1972	17,692	28	227,191	91	6,433	322	5,082	30	4,825	60	503,794	248	48,665	15	12,639	15	18,683	156	61,389	61	3,988	29	26,036	170	255	379	4,130	6,858			
1973	18,891	28	406,057	312	4,972	260	6,360	56	6,105	107	658,937	379	104,467	27	34,412	62	33,184	438	54,101	125	4,795	39	49,342	312	652	632	6,919	11,616			
1974	12,981	51	492,493	500	4,929	467	6,794	116	9,742	165	161,987	303	122,101	37	13,830	28	29,646	499	25,535	56	3,456	34	44,726	330	795	763	8,492	14,105			
1975	18,776	57	500,027	478	3,382	379	4,289	64	4,226	60	108,782	230	116,162	48	10,373	33	23,573	497	25,511	44	2,602	29	38,530	283	1,008	785	7,976	13,225			
1976	18,484	49	728,063	498	4,062	531	6,017	99	5,257	59	46,681	99	90,094	39	16,423	53	32,013	744	33,501	71	2,828	29	19,851	116	1,418	879	12,058	18,541			
1977	17,223	36	953,176	746	3,971	799	3,990	79	4,637	72	447	-	77,159	33	2,610	6	33,526	851	30,993	70	2,721	29	23,503	164	1,499	1,055	15,916	23,796			

Source : Department of Customs

(7) Share of sugar exports showed a drastic increase, i.e., 0.3% in 1969 to 12.7% in 1975. It was 10.4% in 1977. Sugar exports became one of the principal exports from Thailand following exports of rice and tapioca products in 1977. (8) Among the exports, share of exports of molasses, canned fruit, wood products and garments increased from 0.22% in 1969 to 1.05% in 1977, 0.25% to 1.29%, 0.18% to 1.19% and 0.09% to 2.07%, respectively.

4.03 It follows from the examination of Thai exports by commodity that exports of food are still principal exports, but the share of rice exports decreased and many other agricultural products such as tapioca, sugar, maize, etc., appeared as non-traditional export, and that share of exports of industrial products which cover chemicals, manufactured goods, machinery and miscellaneous manufactured goods increased from 15.2% in 1969 to 23.5% in 1977, reflecting the development in Thai industrialization.

4.04 We turn now to the investigation of industrialization in Thailand from the view-point of import performances (see Table 4.3). Following points can be identified. (1) Share of imports of consumer goods decreased to 11.8% in 1977 from 21.7% in 1969. (2) Especially, share of imports of non-durable type of consumer goods showed drastic decline, i.e., 13.4% in 1969 to 6.8% in 1977. (3) Share of imports of durable consumer goods also decreased to 5.1% in 1977 from 7.7% in 1969, but the decline of share was rather small. (4) Share of imports of intermediate products and raw materials increased to 28.5% in 1977 from 22.4% in 1969. (5) Share of imports of intermediate products and raw materials chiefly for consumer goods was 14.5% in 1969 and 20.2% in 1975. It was 17.1% in 1977. This increase was supported by increase in "animal and vegetable crude materials", "wood, lumber, cork, pulp, waste paper", "textile fibres" and "chemicals". (6) Share of import of intermediate

products and raw materials chiefly for capital goods increased to 11.4% in 1977 from 8.1% in 1969. The increase in share was mainly due to increase in base metals. (7) Share of import of capital goods decreased to 26% in 1977 from 35.3% in 1969. (8) Share of other imports increased to 33.6% in 1977 from 20.4% in 1969, and this was mainly due to higher price of oil after 1974.

4.05 Net exports by commodity are shown in Table 4.4. (1) Net exports of food increased 7 times during the period of 1969-77, i.e., from 52 billion baht in 1969 to 377 billion baht in 1977. (2) Another main item of net exports is crude materials, but any trend cannot be identified. (3) Net imports of "mineral fuel & lubricants", "chemicals" and "machinery" show an upward trend. (4) Net imports of manufactured goods fluctuated between 2.6 billion baht and 4.3 billion baht. (5) Net import of miscellaneous manufactured goods showed downward trend by 1976, but it increased twice in 1977.

4.06 Thus it is concluded that industrialization in Thailand was characterized (1) by import substitution of consumer goods, leading to a relative decrease in imports of manufactured goods and to a relative increase in intermediate products and raw materials, and (2) by import substitution of capital goods in process.

B. Industrialization in Thailand and Exports

4.07 The movement of production, domestic sale and exports are examined, in turn, by using the available data (see Table 4.5). Table 4.5a shows automobile assembly. It is natural that the number of domestic assembly rapidly increased, while imports did not show upward trend after 1969, since the Thai government aimed at import substitution of automobile. The new government

Table 4.3 Imports by Economic Classification

(Millions of Bahc)

	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
I. Consumer Goods																
A. Non-durable																
Food and beverages	773	833	894	896	998	1,057	1,138	1,365	1,116	1,044	1,224	1,403	1,851	2,005	2,277	2,691
Dairy products	455	522	544	550	552	558	560	692	539	523	574	649	738	860	797	1,028
Fish and preparations	56	49	55	67	63	65	64	78	78	77	82	96	99	111	140	133
Cereals and preparations	79	91	99	87	132	132	145	169	136	111	163	240	451	325	571	307
Fruits and vegetables	44	49	59	53	57	67	75	87	81	83	78	103	127	245	285	452
Coffee, tea and spices	91	69	94	91	112	98	114	140	109	97	119	91	98	96	150	150
Others	48	52	43	43	48	137	180	199	171	153	208	224	338	368	434	621
Tobacco manufactures	1	2	3	4	3	3	4	3	3	3	3	9	8	6	22	7
Toilet and cleaning articles	169	122	118	134	147	172	191	230	201	189	239	332	405	354	432	520
Clothing and footwear	1,551	1,418	1,550	1,475	1,609	1,779	1,542	1,529	1,427	909	966	1,345	1,695	1,585	1,475	1,656
Medicinal and pharmaceutical products	356	327	348	410	466	548	568	672	741	715	859	977	1,208	1,198	1,280	1,504
Sub-total	2,850	2,703	2,913	2,919	3,223	3,559	3,443	3,619	3,406	2,859	3,291	4,066	5,148	5,586	6,378	
B. Durable																
Household goods	301	329	357	419	451	590	661	763	506	534	627	722	902	969	1,117	1,348
Electrical appliances	260	285	310	321	379	432	553	648	637	503	581	874	994	1,054	1,312	1,652
Wood and cork manufactures	9	11	9	14	27	23	17	29	72	45	43	54	65	48	48	54
Leather and leather manufactures	5	15	5	7	9	11	13	18	10	9	13	22	21	13	17	30
Furniture	11	15	18	20	20	27	32	45	31	15	17	12	16	19	20	30
Jewelry, including silver ware	16	21	33	22	30	55	47	78	82	86	57	78	100	103	113	184
Cycles, motorcycles, carts, etc.	130	201	228	289	333	471	394	330	305	237	246	405	591	810	919	1,258
Small arms	62	49	41	102	142	128	108	98	100	102	82	87	136	283	290	217
Sub-total	794	916	1,001	1,194	1,421	1,717	1,805	2,009	1,743	1,531	1,659	2,245	2,828	3,307	3,832	4,770
Total consumer goods	3,644	3,619	3,914	4,113	4,644	5,276	5,248	5,628	5,229	4,390	4,950	6,311	7,995	8,455	9,418	11,148
II. Intermediate products and raw materials																
A. Chiefly for consumer goods																
Animal and vegetable crude materials	59	55	78	67	84	114	115	149	155	141	163	232	824	341	467	761
Tobacco manufactures	126	121	162	161	258	261	413	417	279	430	588	382	628	693	559	897
Tobacco leaves	-	-	-	10	12	27	33	1	1	77	-	-	-	-	2	9
Tobacco manufactures n.i.e.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wood, lumber, cork, pulp, waste paper	7	7	29	33	31	45	63	129	197	242	363	533	956	532	807	1,337
Textile fibers	114	129	135	319	340	329	271	294	602	849	1,046	1,749	1,878	1,902	2,475	3,131
Natural	101	114	127	292	298	278	231	200	485	684	734	1,323	1,472	1,680	2,180	2,902
Synthetic	13	15	28	27	42	51	40	94	117	165	312	426	406	222	295	229
Textile yarn and thread	181	127	282	281	254	284	308	367	435	406	503	725	696	395	459	569
Paper and paperboard	305	334	337	374	498	540	582	622	509	558	504	781	970	935	988	1,178
Chemicals	515	598	770	863	1,075	1,351	1,422	1,727	1,962	2,293	2,713	4,156	5,893	5,522	6,795	8,386
Sub-total	1,307	1,362	1,813	2,128	2,552	2,951	3,207	3,760	4,139	4,996	5,880	8,538	11,345	10,318	12,530	16,059
B. Chiefly for capital goods																
Crude minerals	85	48	51	62	85	133	125	156	126	210	162	208	303	470	716	1,054
Base metals	628	687	922	1,020	1,304	1,653	1,754	1,970	2,480	2,558	3,089	4,875	6,722	5,367	6,970	9,716
Iron and steel	479	524	690	763	994	1,231	1,303	1,406	1,647	1,704	2,046	3,037	4,322	3,236	4,669	6,335
Others	147	163	232	257	310	422	451	564	813	854	1,043	1,838	2,400	2,131	2,301	3,381
Total intermediate products and raw materials	661	735	973	1,082	1,389	1,786	1,879	2,106	2,586	2,768	3,251	5,093	7,025	7,877	9,686	10,770
Total	1,968	2,197	2,786	3,210	3,941	4,737	5,086	5,866	6,725	7,764	9,131	13,621	18,370	16,105	20,216	26,829
III. Capital Goods																
Fertilizers and pesticides	195	183	236	235	361	524	641	630	582	503	877	1,142	1,710	1,933	1,861	2,714
Cement	12	10	6	14	89	112	40	22	14	6	1	-	-	-	-	3
Construction materials	226	265	281	410	471	578	495	407	171	103	90	105	221	142	137	196
Tubes and pipes	157	259	132	112	145	185	184	132	134	123	142	186	132	107	145	145
Glass and other mineral manufactures	58	68	78	94	72	91	101	124	383	389	344	413	577	685	688	843
Rubber manufactures	47	50	55	71	83	101	110	130	147	153	140	234	234	218	279	279
Metal manufactures	462	586	457	736	719	826	950	1,071	1,047	880	1,003	1,019	1,398	1,544	1,436	1,956
Non-electrical machinery and parts	1,384	1,609	1,838	2,103	2,554	3,563	4,063	4,773	4,558	5,083	6,386	10,978	11,973	9,862	12,671	13,862
For agricultural use	19	23	25	26	34	33	38	33	37	37	35	60	96	133	106	105
Tractors	133	245	348	351	456	655	558	454	385	478	345	388	684	1,439	1,447	2,047
For industrial use	1,232	1,361	1,483	1,726	2,164	2,975	3,239	3,576	4,251	4,643	5,706	5,988	10,361	8,308	10,319	10,319
Electrical machinery and parts	432	687	483	588	623	919	1,378	1,698	1,419	1,212	1,333	1,829	2,480	2,730	3,085	3,534
Scientific and optical instruments	144	173	189	231	261	355	421	423	421	465	541	694	742	831	1,071	1,071
Aircraft and ships	170	123	196	70	170	195	169	258	246	213	236	1,047	1,647	1,071	1,062	1,062
Locomotive and rolling stock	21	33	282	111	53	94	59	162	94	89	77	48	321	475	137	75
Total	3,248	4,056	4,242	4,775	5,701	7,543	8,339	9,172	9,371	8,628	9,783	12,826	19,808	22,239	19,405	24,319
IV. Other Imports																
Vehicles and parts	1,017	1,284	1,454	1,454	1,839	2,361	2,770	2,532	2,204	2,191	2,213	3,399	4,182	4,542	5,174	7,959
Passenger cars	147	261	289	321	394	559	765	702	511	324	312	544	860	315	385	462
Buses and trucks	202	257	312	361	531	761	1,008	907	1,025	1,203	1,028	1,695	1,908	2,406	2,028	2,714
Chassis and bodies	420	472	589	612	626	773	709	714	574	603	824	1,102	1,628	1,731	2,732	7,616
Tires	248	294	254	180	238	268	288	200	94	61	49	58	85	90	129	165
Fuel and lubricants	1,224	1,221	1,438	1,353	1,873	1,588	1,929	2,329	2,721	3,115	4,661	12,571	14,233	16,595	20,777	20,777
Coke, briquettes, etc.	-	3	3	5	6	8	7	13	11	21	20	28	71	79	89	89
Crude oil	19	10	229	427	725	721	995	749	1,198	1,941	2,432	3,572	10,382	12,076	13,857	16,448
Gaoline	340	322	250	94	86	93	102	112	119	34	12	48	44	158	120	161
Kerosene	183	189	57	31	35	32	29	24	38	18	14	12	13	14	5	22
Diesel oil and special fuels	447	490	670	570	752	426	503	596	561	457	347	677	1,530	1,478	2,116	3,415
Lubricants, asphalt, etc.	251	218	249	226	269	310	339	402	250	290	324	579	428	508	642	642
Miscellaneous	247	278	396	382	381	538	486	806	1,073	1,683	1,366	1,118	1,261	1,969	2,841	2,841
Munitions used in official services	22															

Table 4. Net Exports by Commodity Groups

(Millions of Baht)

Period	Food	Beverages & tobacco	Crude materials	Mineral fuels & lubri- cants	Animal & vegetable oils & fats	Chemicals	Manu- factured goods	Machinery	Miscel- laneous manu- factured goods	Total
1969	5,237	-341	3,819	-1,789	-56	-3,296	-4,155	-9,413	-1,652	-11,257
1970	5,866	-97	2,862	-2,284	-21	-3,472	-4,270	-9,521	-1,291	-12,237
1971	7,211	-281	2,831	-2,591	-21	-3,679	-3,361	-8,921	-1,351	-9,519
1972	10,002	-324	2,729	-2,847	-37	-4,682	-3,042	-9,670	-1,581	-8,404
1973	12,286	-90	4,893	-4,249	-52	-6,521	-2,998	-13,813	-1,125	-9,958
1974	25,828	-217	4,835	-12,185	-81	-8,983	-4,038	-20,154	-712	-14,245
1975	24,647	-174	2,827	-13,984	-65	-8,879	-4,141	-22,552	-566	-21,828
1976	33,148	50	4,341	-16,575	-124	-10,237	-2,648	-20,193	-435	-12,086
1977	37,755	-112	3,552	-20,756	-266	-13,082	-3,542	-26,240	-1,058	-22,979

Note : Calculated from Table 1a and 1b.

policy for localization of passenger cars was announced in August 1978. This policy cancelled and superseded the regulation of 1972. Contents of new policy are as follows: (a) ratio of localization is counted by totalling the percentage fixed by items of component parts; (b) target of ratio of localization is 50% within 5 years; (c) steps of minimum ratio of localization is (i) 35% by the end of 1980, (ii) 40% by the end of 1981, (iii) 45% by the end of 1982, and (iv) 50% by the end of 1983; and (d) no additional new model will be allowed to assemblers.

4.08 Table 4.5b shows automobile leaf spring. Production increased together with domestic sale. Export increased rapidly in 1973-74, but decreased drastically after 1975. Table 4.5c refers to carpet and rugs of wool, the production of which increased rapidly together with domestic sale since 1974. Exports increased in 1975-76. Table 4.5d shows car radiator, and no trend could be observed. Table 4.5e shows cement. Its production and domestic sale have been steadily increasing, but exports decreased since 1974. Supplement to the Bangkok Post (June 29, 1978) reported as follows. "Thailand, in 1978, is changing from an exporter to an importer of cement. Responsible for this unfortunate watershed was a series of wrong decisions on cement production and trade on the part of high level of authorities from 1973 to 1976".

4.09 Table 4.5f refers to detergents, synthetics: Production and domestic sale have been steadily increasing, but exports were seen only in the period of 1971-74. Table 4.5g shows fertilizer, and its production and domestic sale increased sharply in 1975-76. But it was expected only in 1973. According to another statistics by Customs Department (quoted from Supplement to the Bangkok Post mentioned above), percentage of imports to total consumption was 93% in

1969 and it was still around 80% in 1977. One billion baht was spent on fertilizer imports in 1977.

4.10 Table 4.5h shows galvanized iron plates, and there was no trend in production as well as in domestic sale. Exports disappeared in 1974. Table 4.5i shows gunny bags. Production and domestic sale of them increased. Exports reached their peak in 1973, and since then have been decreasing. Table 4.5j shows similar tendency for kraft paper as gunny bags. Domestic sale of matches has been increasing, but their exports hit peak in 1974 and disappeared in 1976, as in Table 4.5k. Table 4.5l shows motorcycles. Production and domestic sale have been steadily increasing, but exports disappeared since 1974. Exports of motorcycle tubes increased sharply in 1976, as in Table 4.5m while exports of passenger car tyres showed big fluctuations as in Table 4.5n.

4.11 Table 4.5o refers to pig iron, and its production and domestic sale have been increasing with fluctuation. Export were sizable in 1972-74, but decreased to nil in 1976. Exports of plywood have been decreasing since 1971, and its production has been declining after 1973, as in Table 4.5p. Exports of printing and writing paper declined to nil since 1974, and its production and domestic sale have been decreasing since 1972, as in Table 4.5q. Table 4.5r shows that production and domestic sale of television sets have been steadily increasing, and that exports of them started since 1975. Table 4.5s refers to tractor tyres. Their production and domestic sale have been increasing, but exports have been declining since 1973. Similarly production and domestic sale of truck and bus tyres have been increasing, while exports have been declining since 1972, as in Table 4.5t. Finally Table 4.5u shows that production of vinyl floor tiles started in 1970, but there were big fluctuations. Similarly for domestic sale, exports have been decreasing since 1972.

Table 5. Production, Domestic Sales and Exports : Selected Manufactured Goods

(a) Automobile Assembly

1962 - 1976 Unit : units

Year	Car			Commercial Vehicles			Grand Total		
	Import	Domestic Assembly	Total	Import	Domestic Assembly	Total	Import	Domestic Assembly	
1962	3,730	908	4,638	3,414	276	3,690	7,144	1,184	8,328
1963	7,279	1,871	9,150	4,621	1,682	6,303	11,900	3,553	15,453
1964	7,200	3,987	11,178	6,602	3,289	9,891	13,802	7,267	21,069
1965	6,507	4,408	10,915	8,037	5,687	13,724	14,544	10,095	24,639
1966	10,086	4,898	14,984	17,977	5,749	23,726	28,063	10,647	38,710
1967	17,105	6,211	23,316	19,508	6,607	26,015	36,613	21,818	49,431
1968	20,689	7,209	27,898	29,409	6,779	36,188	50,098	13,988	64,086
1969	18,266	6,110	24,376	35,039	6,030	41,069	53,305	12,140	65,445
1970	15,224	6,604	21,828	23,378	4,063	27,441	38,602	10,667	49,269
1971	8,991	9,017	18,008	20,601	5,997	26,598	29,592	15,014	44,606
1972	7,248	11,630	18,878	16,984	7,755	24,739	24,232	19,385	43,617
1973	12,780	17,935	30,175	30,344	9,499	39,843	43,124	27,434	70,558
1974	11,639	17,572	29,211	29,753	14,891	44,644	41,392	32,473	73,855
1975	7,864	15,524	23,388	38,862	15,467	54,329	46,726	30,991	77,717
1976	5,366	15,333	20,699	31,913	25,729	57,642	37,279	41,062	78,341

Note : Figures for 1961 - 1973 exclude one unreporting company.

Figures for Nov. & Dec. 1976 exclude two unreporting companies.

(b)

Unit : metric tons

Industrial Product	Year	Beginning inventory	Production	Domestic sale		Export
				Own-use	Sale	
Automobile	1967	434.6	3,871.5	-	2,998.4	64.0
Leaf Springs	1968	1,243.7	5,367.4	-	5,127.6	56.4
	1969	1,427.1	5,585.7	-	5,841.9	84.4
	1970	1,086.5	4,058.4	-	3,879.6	10.4
	1971	1,254.9	4,393.8	-	4,444.4	49.1
	1972	1,155.2	6,109.9	-	5,203.3	12.3
	1973	2,049.5	6,031.5	-	5,933.9	100.3
	1974	2,046.8	6,182.8	-	5,827.4	125.3
	1975	2,277.0	6,285.0	-	6,746.0	-
	1976	1,816.0	8,463.0	-	8,784.0	34.0

(c)

Unit : square metres

Industrial Product	Year	Beginning inventory	Production	Domestic sale		Export
				Own-use	Sale	
Carpets & Rugs of Wool	1967	-	-	-	-	-
	1968	-	21,534.26	-	20,094.49	-
	1969	1,439.77	56,294.20	-	40,275.15	-
	1970	17,458.82	72,308.87	-	78,857.10	-
	1971	10,910.59	60,912.49	-	62,645.80	-
	1972	9,177.28	62,035.14	-	66,620.40	-
	1973	4,592.02	88,994.07	253.29	82,494.30	1,515.89
	1974	10,665.61	202,850.58	140.56	173,069.09	3,862.72
	1975	36,443.82	266,444.99	169.78	227,948.68	14,499.45

(d)

Unit : units

Industrial Product	Year	Beginning inventory	Production	Domestic sale		Export
				Own-use	Sale	
Car Radiator	1967	...	...	...	...	...
	1968	...	...	...	...	...
	1969	...	...	...	...	...
	1970	...	...	...	...	...
	1971	...	...	...	...	...
	1972	4,762	18,106	37	16,821	-
	1973	6,010	15,787	10	17,434	-
	1974	4,353	15,272	16	17,577	-
	1975	2,032	16,531	15	17,601	-
	1976	...	...	...	...	...

(e)

Unit : metric tons

Industrial Product	Year	Beginning inventory	Production	Domestic sale		Export
				Own-use	Sale	
Cement	1967	49,555	1,716,353	8,661	1,670,784	25,230
	1968	61,233	2,199,529	18,322	2,152,371	29,043
	1969	61,026	2,362,593	22,237	2,240,051	99,932
	1970	61,399	2,578,040	22,466	2,397,564	151,501
	1971	67,908	2,787,009	11,518	2,508,931	257,828
	1972	76,640	3,389,715	2,947	2,861,044	520,228
	1973	82,136	3,682,782	12,961	2,920,811	740,381
	1974	...	3,880,200	2,826	3,152,176	832,014
	1975	...	3,975,619	1,629	3,322,968	601,976
	1976	...	4,437,508	1,966	3,880,850	541,439
	1977	...	...	...	...	...

(f)

Unit : metric tons

Industrial Product	Year	Beginning inventory	Production	Domestic sale		Export
				Own-use	Sale	
Detergents, Synthetic	1967	1,063.00	20,477.00	-	19,859.00	-
	1968	1,681.00	23,815.00	-	23,561.00	-
	1969	1,935.00	27,188.00	-	26,433.00	-
	1970	2,690.00	27,079.00	-	27,657.00	-
	1971	2,112.00	32,200.00	-	30,090.00	15
	1972	4,207.00	40,009.00	-	39,266.00	349
	1973	4,601.00	46,580.00	20	46,959.00	93
	1974	4,108.37	40,699.67	18	42,629.14	1
	1975	2,160.00	50,555.55	4	50,758.49	-
	1976	1,953.06	53,601.04	217	52,699.29	-

(g)

Unit : metric tons

Industrial Product	Year	Beginning inventory	Production	Domestic sale		Export
				Own-use	Sale	
Fertilizer	1967	4,033.3	34,344.1	-	8,233.1	-
	1968	30,144.3	26,883.9	-	25,888.3	-
	1969	31,139.9	17,041.8	-	35,843.6	-
	1970	12,338.1	39,767.3	35.3	47,183.4	-
	1971	4,886.7	37,976.3	17.5	37,297.3	-
	1972	5,548.2	31,139.4	4.5	22,731.0	-
	1973	13,952.1	24,395.7	43.4	31,944.8	1,000.0
	1974	5,359.6	30,584.2	21.4	23,903.1	-
	1975	12,019.3	153,274.0	80.7	137,997.5	-
	1976	27,215.1	178,627.3	18.2	168,052.8	-

(h)

Unit : metric tons

Industrial Product	Year	Beginning inventory	Production	Domestic sale		Export
				Own-use	Sale	
Galvanized Iron Plates	1967	13,205	108,380	--	108,040	927
	1968	12,618	101,088	--	104,746	580
	1969	8,380	111,289	--	106,130	775
	1970	12,764	98,246	--	93,603	898
	1971	16,509	110,520	--	112,116	358
	1972	14,555	121,264	40	122,353	541
	1973	12,885	101,275	122	98,983	68
	1974	14,987	92,652	17	87,067	--
	1975	20,555	102,669	38	102,790	--
	1976	20,396	115,136	53	117,360	--

(i)

Unit : units

Industrial Product	Year	Beginning inventory	Production	Domestic sale		Export
				Own-use	Sale	
Gunny Bags	1967	7,711,819	49,089,342	6,320	43,203,854	6,066,990
	1968	7,523,997	49,700,487	15,080	34,407,746	12,351,730
	1969	10,449,928	44,858,638	6,226	36,790,904	11,089,450
	1970	7,421,986	51,440,214	45,657	35,772,442	13,768,659
	1971	9,275,442	63,792,219	2,192	42,928,984	27,121,950
	1972	3,014,535	81,018,412	13,021	44,460,629	25,798,800
	1973	13,760,497	90,689,716	1,000	48,904,805	50,072,952
	1974	5,471,456	107,711,281	40,720	68,532,014	37,313,151
	1975	7,296,852	108,053,915	373,864	59,464,792	36,776,159
	1976	18,735,952	96,944,311	170,663	68,535,149	30,715,483

(j)

Unit : metric tons

Industrial Product	Year	Beginning inventory	Production	Domestic sale		Export
				Own-use	Sale	
Kraft Paper	1967	...	...	...	...	...
	1968	...	...	...	...	...
	1969	...	...	...	...	...
	1970	...	...	...	...	...
	1971	...	...	...	...	...
	1972	...	...	...	...	...
	1973	...	...	...	...	...
	1974	1,804	86,640	10,448	46,876	9,019
	1975	22,101	66,211	14,357	48,853	7,339
	1976	17,763	75,583	11,063	62,000	3,455

(k)

Unit : cans

Industrial Product	Year	Beginning inventory	Production	Domestic sale		Export
				Own-use	Sale	
Matches	1967	6,082	58,698	-	57,319	-
	1968	7,461	58,119	-	60,573	-
	1969	5,007	65,729	-	65,485	-
	1970	5,251	68,171	-	68,467	-
	1971	4,955	64,651	-	63,435	877
	1972	5,294	61,936	-	66,285	342
	1973	603	80,024	-	75,464	1,681
	1974	3,482	71,390	-	64,349	4,534
	1975	5,989	69,345	-	72,216	180
	1976	2,938	75,314	-	77,301	-

(1)

Unit : units

Industrial Product	Year	Beginning inventory	Production	Domestic sale		Export
				Own-use	Sale	
Motorcycles	1967	...	...	...	...	...
	1968	...	...	...	...	...
	1969	...	...	...	...	...
	1970	...	...	...	...	...
	1971	...	...	...	...	...
	1972	1,010	34,380	-	33,978	370
	1973	1,042	56,615	-	56,546	200
	1974	911	66,779	-	65,930	-
	1975	1,760	83,939	-	83,083	-
	1976	2,616	99,015	-	98,773	-

(m)

Unit : units

Industrial Product	Year	Beginning inventory	Production	Domestic sale		Export
				Own-use	Sale	
Motorcycle tubes	1967	5,632	50,026	-	47,875	-
	1968	7,783	64,072	-	54,880	-
	1969	16,975	100,157	-	79,430	-
	1970	37,702	109,966	-	92,138	-
	1971	55,530	265,996	250	197,656	-
	1972	123,620	535,693	-	567,321	730
	1973	91,262	746,921	1,014	745,314	-
	1974	135,311	653,214	1,361	676,762	2,000
	1975	42,693	770,469	640	662,636	500
	1976	144,235	554,188	1,294	612,761	27,425

(n)

Unit : units

Industrial Product	Year	Beginning inventory	Production	Domestic sale		Export
				Own-use	Sale	
Passenger Car	1967	19,670	114,104	79	110,951	536
Tyres	1968	22,208	125,323	71	112,881	3,512
	1969	31,067	189,874	523	178,328	50
	1970	42,040	311,641	1,892	287,612	1,762
	1971	62,415	378,987	1,700	353,278	9,768
	1972	76,656	385,072	2,255	375,423	10,117
	1973	73,933	470,612	3,251	465,393	4,918
	1974	70,983	456,695	3,100	418,906	7,478
	1975	102,497	439,768	3,100	443,263	11,462
	1976	84,440	447,854	4,410	453,846	1,709

(o)

Unit : metric tons

Industrial Product	Year	Beginning inventory	Production	Domestic sale		Export
				Own-use	Sale	
Pig Iron	1967	350	6,392	2,416	671	-
	1968	3,655	17,352	2,673	2,684	-
	1969	15,650	11,120	1,051	789	-
	1970	24,930	10,812	5,219	2,923	800
	1971	26,800	13,560	7,335	1,621	304
	1972	31,100	11,918	23,619	4,329	3,215
	1973	11,795	14,064	10,267	6,061	6,850
	1974	2,681	16,021	7,609	3,125	5,845
	1975	2,123	13,546	6,322	4,665	987
	1976	3,695	18,334	10,756	9,597	-

(p)

Unit : metric tons

Industrial Product	Year	Beginning inventory	Production	Domestic sale		Export
				Own-use	Sale	
Plywood	1967	....	2,498,558	4,749	2,156,943	-
	1968	...	2,538,367	31,297	2,798,048	-
	1969	...	2,719,427	30,576	2,694,227	-
	1970	...	2,968,122	30,647	2,729,366	-
	1971	...	3,241,772	19,526	3,113,803	184,000
	1972	...	3,488,796	1,125	3,455,617	22,581
	1973	...	3,569,823	1,128	3,595,630	34,549
	1974	...	3,151,638	1,344	2,881,062	28,700
	1975	...	2,965,766	28,081	3,121,045	-
1976	...	2,859,735	78,535	3,073,840	4,400	

(q)

Unit : metric tons

Industrial Product	Year	Beginning inventory	Production	Domestic sale		Export
				Own-use	Sale	
Printing & Writing Paper	1967	4,866.75	21,086.40	99.72	16,514.69	2,549.80
	1968	6,788.98	23,906.43	121.65	20,650.59	2,706.44
	1969	7,216.73	30,171.01	137.74	24,883.86	2,882.06
	1970	9,484.08	31,698.86	125.68	27,719.72	2,097.60
	1971	11,239.94	37,680.86	111.57	38,287.07	2,454.82
	1972	8,067.34	42,396.85	207.36	44,002.72	437.41
	1973	5,816.70	39,710.83	45.36	41,442.13	1,393.00
	1974	2,647.04	33,828.72	46.69	29,413.07	-
	1975	7,016.00	25,075.00	640.00	23,111.00	-
1976	8,340.00	26,389.00	127.00	29,438.00	-	

(r)

Unit : units

Industrial Product	Year	Beginning inventory	Production	Domestic sale		Export
				Own-use	Sale	
Television Sets	1967	-	2,569	-	864	-
	1968	1,705	3,927	-	4,998	-
	1969	634	7,411	-	6,117	-
	1970	1,928	9,767	-	10,790	-
	1971	905	20,258	-	19,488	-
	1972	1,675	35,238	17	32,794	-
	1973	4,102	71,168	5	66,256	-
	1974	5,673	73,128	3	64,748	-
	1975	14,050	70,371	6	72,723	1,852
	1976	9,840	89,857	5	88,977	1,147

(s)

Unit : units

Industrial Product	Year	Beginning inventory	Production	Domestic sale		Export
				Own-use	Sale	
Tractor Tyres	1967	2,459	13,658	5	14,138	-
	1968	1,974	18,525	6	14,325	200
	1969	5,968	14,976	30	15,045	150
	1970	5,719	26,987	83	21,306	98
	1971	11,219	35,215	159	30,778	1,051
	1972	14,446	26,984	153	28,777	1,436
	1973	11,064	25,894	68	31,182	1,709
	1974	3,999	32,333	106	27,317	1,497
	1975	7,412	33,498	61	33,045	1,601
	1976	6,203	43,135	101	40,804	1,007

(t)

Unit : units

Industrial Product	Year	Beginning inventory	Production	Domestic sale		Export
				Own-use	Sale	
Truck and	1967	23,736	137,944	42	136,760	600
Bus Tyres	1968	24,278	170,956	41	165,522	2,854
	1969	26,817	275,236	913	241,412	37
	1970	59,691	402,001	6,162	371,826	1,802
	1971	81,902	433,885	8,143	449,642	4,771
	1972	53,231	565,039	5,577	549,692	9,515
	1973	53,486	672,274	3,677	663,126	8,322
	1974	50,635	655,398	7,230	610,837	4,018
	1975	83,638	692,955	8,130	691,604	2,650
	1976	74,209	823,551	9,869	803,777	3,649

(u)

Unit : square metres

Industrial Product	Year	Beginning inventory	Production	Domestic sale		Export
				Own-use	Sale	
Vinyl Floor	1967	-	-	-	-	-
Tiles	1968	-	-	-	-	-
	1969	-	5,972.00	-	-	-
	1970	5,972.00	523,684.47	2,653.59	89,988.08	-
	1971	437,014.80	204,305.65	6,031.68	109,432.52	31,500.00
	1972	494,356.25	509,964.05	2,016.62	318,151.75	185,673.80
	1973	498,478.13	716,067.54	5,304.54	552,582.67	63,046.18
	1974	593,612.28	396,637.81	9,832.01	338,549.49	37,847.49
	1975	604,021.10	485,333.69	14,045.69	442,453.06	10,047.20
	1976	622,808.84	708,329.13	21,259.35	634,599.01	8,842.25

Explanation : ... Data not available

- Nil

Source : Ministry of Industry, Industrial Statistics 1977.

4.12 Exports and imports of textiles are given in Table 4.6. Exports of cotton yarn became more than imports since 1976. Similarly exports exceeded imports since 1975 in the case of cotton fabrics, since 1976 in the case of man-made yarn, and since 1976 in the case of man-made fabrics, respectively. Value of textile exports as a whole exceeded that of imports since 1946, showing that Thailand is now one of net exporting countries in textiles.

4.13 Development of the textile industry in Thailand is summarized as follows. Textile industry established in 1950's was just an infant industry, and at best a cottage industry. Villagers spun their own yarn and wove cloth for their own use. In early 1950's, some pioneers appeared with textile industry. It is to be noted that during the period majority of pioneers invested in cotton knitting business, as an attempt to substitute import of under-garment. Later they expanded their business into spinning and weaving, and then garment making.

4.14 The first expansion period of textile industry was seen in 1956-61. The BOI, established in 1960, gave priority to the development of textile industry. New investors during the period were mostly local and they invested mainly in automatic machines for the production of cotton yarn and fabrics. Some of the present top ten major textile companies were incorporated at that time.

4.15 The second expansion period was in 1963-66. In 1962 the BOI revised "Industrial Promotion Act" and newly enacted "Investment Promotion Act" to actively introduce the foreign investment, to which were provided several privileges. Great changes seen in this period were as follows. (1) In addition to cotton spinning and weaving, synthetic spinning and weaving were started and

Table 4.6 Textile Export - Import Statistics

Unit : Q : Ton, 1,000 Yard, 1,000 pcs
A : 1,000 baht

	1974		1975		1976		1977		1978 (1-6)	
	Quantity	Amount ₪	Quantity	Amount ₪	Quantity	Amount ₪	Quantity	Amount ₪	Quantity	Amount ₪
Cotton	62,313	1,464,380	77,002	1,670,430	82,652	2,167,187	91,993	2,815,453	30,465	881,527
Import	4	98	-	-	-	-	333	4,676	894	26,944
Export	253	22,679	288	12,895	116	10,568	57	8,355	25	2,430
Cotton Yarn	174	18,370	-	-	881	55,052	2,853	159,537	1,989	122,232
Cotton Fabrics	38,014 Y	362,230	25,745 Y	261,539	14,621 Y	215,069	21,485 Y	308,903	15,004	218,214
Import	32,248 Y	253,842	48,671 Y	350,072	122,917 Y	1,058,354	121,140 Y	974,091	65,707	491,098
Export	15,589	443,775	10,099	251,024	13,042	336,806	15,755	285,896	3,923	118,175
Man-made Fiber	-	-	-	-	339	7,844	4,267	93,199	1,254	28,378
Man-made Yarn	9,970	527,453	3,258	173,207	5,777	333,622	3,367	215,868	1,384	92,794
Import	2,546	147,538	3,082	124,344	11,047	381,429	14,422	452,831	9,395	320,663
Export	51,102 Y	712,532	40,708 Y	648,639	32,754 Y	561,468	41,308 Y	637,511	31,188	419,405
Man-made Fabrics	51,153 Y	533,688	66,721 Y	455,110	140,089 Y	986,196	159,475 Y	1,186,484	137,633	900,917
Import	-	-	26,456 Y	314,221	18,552 Y	260,466	11,573	182,682	8,407	126,433
Export	-	-	-	-	21 Y	184	-	-	40 Y	0.9
Garment	1,359 P	61,421	850 P	44,091	667 P	41,229	978	56,455	227	18,929
Import	31,656 P	844,872	41,303 P	1,038,579	47,943 P	1,531,215	46,049	1,673,741	34,663	1,191,181
Export	-	-	-	-	-	-	-	-	-	-
Total	Import	3,594,470	3,376,046	3,926,415	4,511,123	1,877,917				
Export	1,798,408	1,968,105	4,020,371	4,544,558	3,081,414					

Note : Jeifin Polyester (Thailand) Ltd.

a small-scaled synthetic filament production complex was established. (2) Many companies were established on the joint venture basis with Japanese capital, technology and expertise.

4.16 The period of 1967-73 was characterized the third expansion period. There was a great expansion of the industry due to a drive toward import substitution and also due to the promotion policy of the BOI. Many large mills came into existence and the established mills increased their production capacity to a greater extent. Important changes were (1) the industrialization of synthetic fabrics in a large scale, (2) the start of operation of the synthetic filament fabrics production, and (3) the scramble for expansion to meet export demand due to the textile boom in 1971 and 1972. The BOI approved an additional number of spindles and looms, all for the export market alone.

4.17 The first textile crisis in Thailand was seen in 1974-76. This was caused by the Oil Crisis in 1973 and world-wide slump after the Crisis. In addition to this fact, Indo-chinese countries, which were customers of Thailand textiles, were having political changes, leading to the loss of markets for Thailand. Profit accumulated during the textile boom in 1971-73 was cancelled through the loss generated due to higher cost of production, decrease in exports, big inventories, and dumping sales by foreign manufacturers, and big loss was seen in 1975-76.

4.18 The period of 1977-78 was characterized by the recovery from recession. After the fourth quarter of 1977, textile market was gradually improved, especially for export. This was because (1) restoration of political stability between Thailand and the neighboring countries, (2) all the

companies from upstream to downstream tried to keep an orderly marketing in local market and endeavored to develop the export market, and (3) Japanese Yen was revalued relative to the U.S. dollar.

4.19 It follows from the above observation that new export goods have been appearing, but volume of exports did not show steady increase. Exports can be realized or expanded if production exceeds domestic sale. This type of exports can be characterized as the vent for surplus or marginal exports.

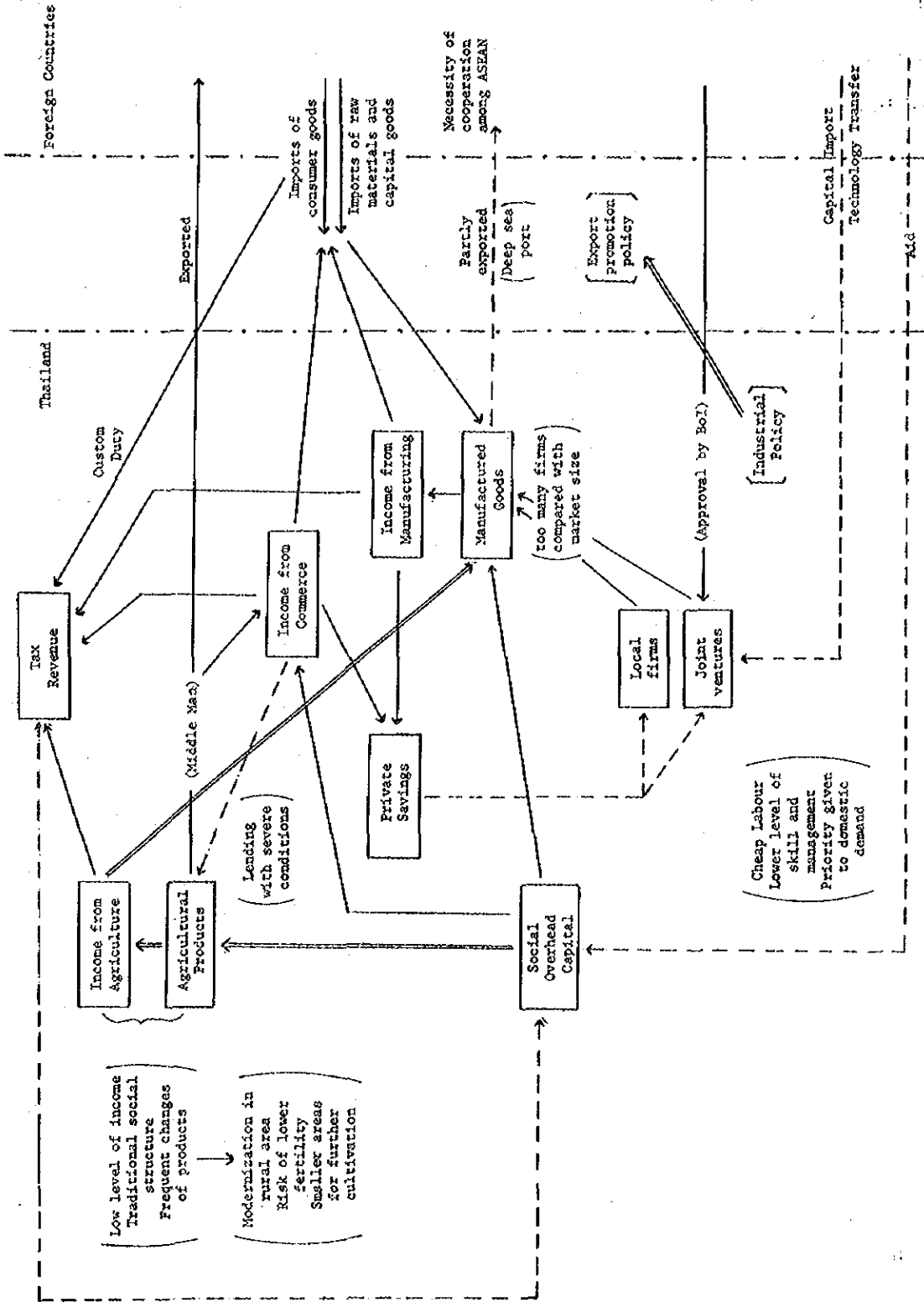
C. Structure of the Thai Economy

4.20 Figure 4.1 shows the present structure of the Thai economy in essence. Before 1960, the Thai economy was characterized as an export economy in the sense that economic expansion depends on rice exports. It was the class of middlemen - mainly Chinese residents - who controlled the distribution mechanism.

4.21 It was since 1961 that the Thai government truly carried out her plan of industrialization, leading to decline of influences from overseas market. Economic development through industrialization contributed to the decrease in the outflow of capital of Chinese residents, and more capital invested in the Thai industrialization.

4.22 Expansion of manufacturing industries mainly depended on joint ventures with developed countries. Their establishment needs the approval of the BOI. Import substituting industrialization has been carried out for consumer goods in the period of 1962-71. In 1972 the Investment Promotion Act was promulgated and export industries, especially agro-industry and labor intensive industry, were promoted.

Figure 1. Structure of Thai Economy



4.23 The BOI approves new industries after it evaluates their aims and effects. There has been a tendency that the BOI approved so many industries compared with small market. This was the reflection of traditional fashion of liberalism in Thailand. As a result, economies of scale could not be realized, leading to lower productivities and higher prices, which in turn tended to introduce protective measures for domestic industries. These protective measures had a merit in that domestic savings were invested into protected industries. Since import substituting industrialization did not consider exportation as an initial condition, exports have been often fluctuating up and down.

4.24 Manufacturing industries and agro-industry are concentrated in the metropolitan area around Bangkok, leading to wide income disparity between the metropolitan area and other rural areas. GDT per capita in the metropolitan area in 1977 was 6 times as high as the Northeastern area. There has been remaining the traditional social structure in the rural areas. Economic control by middle men has been seen and land ownership was not yet established. There were risks of lower fertility of land and of smaller room for expanding land for cultivation. Meanwhile modernization in the rural area has been gradually penetrating through the transmission of information and movement of products and people using newly constructed road network.

4.25 In this circumstance the Fourth National Economic and Social Development Plan is trying (1) to accelerate economic recovery, (2) to reduce income disparities, (3) to reduce population growth rate, improve manpower quality and increase the level of employment, (4) to improve the management of basic resources and rehabilitate environmental conditions, and (5) to strengthen national security management.

4.26 As to the first of these purposes, economic recession was a main problem during the later half of the Third Plan, and immediate measures should be undertaken to revitalize the economy in order to ensure a higher and sustainable rate of output, investment and employment expansion during 1977 and 1978. In this connection, a more solid foundation can be established for further development during the later half of the Fourth Plan period.

4.27 As to the second, measures should be undertaken to improve income distribution and to raise the living standard of various target groups such as farmers, labors, and others with low income. Furthermore various measures should be implemented to spread the fruits of development as well as social services to people in rural area to a greater extent.

4.28 Regarding the third, (1) measures should be taken to lower the population growth rate to make it commensurate with natural resource availability and the envisaged economic growth, (2) manpower must be developed to meet the country's future manpower requirements so that a higher level of productivity can be achieved in the long run, and (3) employment opportunities must be generated in both rural and urban areas to lower the level of unemployment.

4.29 As to the fourth, particular emphasis should be placed on the allocation and rehabilitation of land, forest, water and mineral resources for optimum economic efficiency.

4.30 Finally as to the fifth, appropriate emphasis should be stressed on development of critical natural resources that are vital to the national security management and proper economic mobilization plan will be formulated

accordingly. At the same time, special area development programme should be launched to support the national security objective.

D. Economic Development and Export Policy in Thailand

4.31 Earlier development economists recommended the strategy of import substituting industrialization, according to which are substituted by domestic production, which in turn contributes to higher productivity if scale of production increases enough to realize economies of scale. Domestic products will be transformed into exportables. Those industries which have larger forward and backward linkages, under the assumption that larger linkage effect contributes to appearance of related industries.

4.32 In reality the import substituting industrialization which emphasizes heavy industries frustrated, since related industries were not established. Then the expansion of import substituting production resulted in the increase in the import of intermediate inputs from developed countries, and exports could not be realized due to higher cost of production under smaller domestic sale. Quality of products is rather low because of the shortage of experienced and skilled labor force. Moreover, agricultural exports may decrease, or in some case may be switched into imports, unless appropriate measures are taken to expand agricultural production.

4.33 Development economists changed their strategy into export-oriented industrialization from the lessons derived from the frustration of import-substituting industrialization. Export-oriented industrialization contributed to economic development directly and indirectly through linkage effect. Its characteristics is seen in the lack of protective measures. But export

business is not an easy one. It needs fuller market research, choice of credible partner, survey of commodity, after service, etc. Due attention should also be given to technical norm and quality control. Successful export-oriented industrialization requires abundant labor of high quality and of being diligent, and market of developed country such as the U.S. It can be promoted if the government takes strong guidance and measures.

4.34 Among the present newly industrialized countries (NICS), Korea and Taiwan formulated a wide range of strong measures to promote exports, including governmental control of labor strikes and wage drift. The reason why these measures were taken can be derived from special political consideration. On the other hand, long experience as a transit port, abundant capital of Chinese residents and open market of the U.S. played a great role in a rapid economic development in Hong Kong and Singapore. Governmental guidance is of course to be added to the list. Brazil and Mexico succeeded to expand exports only after the very long process of import substitution. Hong Kong and Singapore were not endowed with natural resources. But they had enough human resources of high quality and with experience. They could not survive without exports. Brazil and Mexico were endowed with abundant resources, and they could support their people even if foreign trade was stopped by some reasons. Then there are tendencies that governmental guidance is not so strong. It is also added that Brazil and Mexico had no competitor in the neighboring developing countries that showed more rapid economic growth than theirs. Thailand can be included in the classification of Brazil and Mexico by judging from her abundant resources. But in her neighboring developing countries, there are Hong Kong and Singapore as NICS, and Malaysia and Philippines, both of which have been showing rapid industrialization. Unless Thailand establishes some type of manufactured goods

as her exports, or if she stands in a position of late comer in industrial exports, then such entry barriers will appear that it takes additional time period to overcome them.

4.35 The first way to increase industrial exports from Thailand is to establish a system of international division of labor among ASEAN. Now the ASEAN industrial project has been under discussion among ASEAN countries, and decision has been made to carry out some projects.

4.36 The second way is to find some developed countries that purchase Thai product, whether primary or manufactured goods, just as the U.S. imported Hong Kong products in a larger volume. Relative economic strength of the U.S. has declined in 1970's. She has suffered from unfavorable balance of payments position and with unemployment problem. Now she has less capacity to import foreign products. It is, therefore, desirable that the EC and Japan, both of which increased their relative economic strength and constitute the economic triangle with the U.S., open their markets for developing countries. It is, however, unconceivable that only Thailand can have access to markets of the EC and Japan unless she stands in an extremely special relationship to them. Furthermore, since the oil crisis, there has been conflicts in trade among developed countries with almost similar industrial structures due to the prevalence of similar technologies through rapid transmission, and they have been suffering from unemployment problem. Then the possibility of open door policy on the part of developed countries is not high.

4.37 The third way is to make domestic demand of Thailand increase by any policies. Increase in domestic demand contributes to economies of scale and to international competitiveness. The first policy to increase domestic

demand is to increase public investment in the metropolitan area, which has already high GDP per capita compared with other areas. It is however clear that this type of policy makes income disparity widen leading to increase in complaints with the existing political power. This may undermine the national security. This point, which is non economic element, is worth contemplating under the condition that most of neighboring countries of Thailand run into socialist group.

4.38 The second policy is to increase income level of people in the relatively poor areas through public investment, income redistribution through taxation, subsidization, etc. If the Thai government invests in irrigation system, training of agricultural production techniques, extension of electricity, extension of road network, establishment of new industries, etc., there appear many benefits: (1) possibility of expanding agricultural exports, (2) expansion of manufacturing exports, and (3) strengthening of domestic stability.

4.39 The first policy of expanding domestic demand in the metropolitan area will give higher rate of economic growth for some time, but it may lead to stagnation of agricultural exports and to instability of national security. World economy is toward the age of resource limit: exhaustion of mineral resources and shortage of foods. It is better from long-run point of view to adopt policy which emphasizes the expansion of agricultural production, contributing to the economic as well as political security in the long-run. The second policy is in line with the basic human needs (BHN) strategy of economic development by ILO and OECD. Among developing world, some of them, including Thailand, formulated the BHN strategy and are now in the process of implementation.

4.40 According to the Fourth Plan, policies for promoting export-oriented industries were first formulated in 1970 and specific measures to promote such exports were introduced in 1972. Principal measures for export promotion cover tax refund to producers for imported materials used in the production of export goods, special privileges of promotion according to the Investment Promotion Act such as the exemption of import tariffs and business taxes on machinery and other materials which are in the production of export goods as well as other promotion privileges to reduce cost of production such as preferential electricity rates. Moreover, the government has been providing export credit through the Bank of Thailand and financial assistance through the Industrial Finance Corporation of Thailand.

4.41 The Fourth Plan legitimately mentioned the following export problems which must be taken for future export expansion. (1) Changes in government export policies to deal with immediate and short-run problems are often made without due consideration to long run implications for exporting. (2) Existing tax structure favors import substitution industries and in some cases has adverse effects on exports. (3) The present policy of refunding tax paid on imported inputs of export products is not fair to exporter of similar products due to the method of calculation that has been adopted. (4) Long-term export credit is not readily available for Thai exporters. (5) The development of basic infrastructural facilities for promoting exports has not been impressive so far. Though major facilities such as deep-sea ports and export processing zone have been given high priority status, actual implementation has been slow. (6) Necessary marketing information and services provided by Thai commercial attaches established in foreign countries are still limited. (7) The provision of export incentives in the form of tax concessions and rebate is still

very limited and ineffectively organized. Exporters are faced with bureaucratic red-tape and complex procedures when he applies for a refund on tax paid on imports of materials used as inputs in the production of export products. (8) Existing tax system is not adequately geared towards the promotion of export, since deduction of marketing expenses has not been provided in the calculation of income tax. (9) Amount of long-term credit available for exporters is not enough to promote exports. (10) Marketing research has not been realized to a fuller extent. Collection of data and information is essential for production and investment planning of exports, in particular of agricultural exports, and for development of new markets. (11) Lack of standardization obstructed export expansion and export due to low quality. Also responsible for this point is incompleteness of inspection and licensing system.

4.42 Export targets as well as strategies and measures are given in Appendix I. The BOI presented the list of activities eligible for promotion (see Appendix II). It will play a key role in industrial policy as well as export promotion policy.

E. Some Policy Recommendations

4.43 Food exports are still major exports from Thailand, but there can be seen a variety of new products exported, even in food. It reflects industrialization on the one hand and modernization of agriculture on the other. It is however to be noted that exports of manufactured goods with some exceptions, have rarely shown upward trend. They fluctuated violently and in some cases stopped exporting. This rather curious phenomena mean that most of manufactured goods have not yet established as exportables on a firm basis. They can be seen as marginal exports in the sense that they will be exported only if domestic

sales cannot increase steadily. It should be noted that the stage of marginal exports is the necessary step toward steady export, the realization of which requires appropriate economic and manpower policies.

4.44 Agricultural products have been major exports in the past and will be so for considerable time period in the future. Increase in agricultural production has been supported by the extension of areas for cultivation. It is however said that there are only few areas for new cultivation. Then it is urgently necessary to raise the productivity of land through technical improvement, irrigation, etc.

4.45 Empirical investigation of the Thai economy and theoretical consideration of economic development lead to the following policy recommendations:

a. It is urgently necessary to have a clear vision of industrial structure and foreign trade structure in the long-run. Entrepreneurs strongly require the future vision as guidance for their viable and stable management. The present writer proposed this new approach in 1970 ("A New Look on Economic Development Strategies" in *Annals of Economic Studies*, Kobe University).

b. Growth in exports of agricultural products and seafood, and their processed forms are still necessary even in the future, and it should be accompanied by the higher productivity.

c. Exports of manufactured goods should be supported by quicker and fuller export subsidization or promotion policy, including tax refund, tax credit, export credit, etc.

d. In order for manufactured goods to have higher productivity, it is necessary to have production facilities of large scale instead of a number of

small scale plants. Free competition among small firms may be inefficient. It is of course necessary to have fuller surveillance to a few larger firms by the BOI.

e. It is necessary to have appropriate manpower policy, especially with the aim of improvement of labor skills.

f. In order to have larger volume of production of manufactured goods under the condition that economic integration or cooperation among ASEAN countries is not yet feasible, it is then necessary to have larger domestic demand through raising purchasing power in rural areas. This recommendation presupposes the new idea proposed by, for example, ILO, i.e., the new strategy for economic development with the new constraint of making income disparity, as between urban and rural areas, to lessen. And this policy is also desirable to economic as well as political security, especially from the long-run point of view.

g. It is of course better to have extensive and intensive economic cooperation among ASEAN countries.

h. It is necessary to have deep sea port and infrastructures accompanying with it in order to expand foreign trade, especially exports from Thailand.

i. It is well known that the Japan Export Trade Organization (JETRO) played a great role in expanding exports from Japan. And the performance of the Korean Trade Organization (KOTRA) gives another good example. It is thus necessary to have a Thai Trade Organization (THATRA), and to train able persons to carry out the business.

4.46 As is known from the content quoted in the text and in Appendix I, most of recommendations mentioned above are included in the text of the Fourth Plan. In this respect the text of the Fourth Plan should be appreciated. It is, however, critical that various strategies in the text of the Fourth Plan are practised one by one with strong will. Also important is to have future vision of the Thai economy. Without it any policies can be applied only in an ad hoc way, and may not contribute to the sheer economic development of Thailand.

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Appendix I

Export Targets in the Fourth National
Economic and Social Development Plan
(Quoted from the Plan)

3.2 Export Targets

The target for an increase in the value of exports at an annual rate of 14 percent during the Fourth Plan period, is based on the following assumptions:

(1) World economic conditions will follow the normal trend of the recent past.

(2) Actual exports to each foreign country in the past, import trends of the same products of competitors and trends in demand and productive capacity in importing countries have all been taken into consideration. In addition, allowances have been made for the expansion of exports into new markets for some commodities, as well as the trade restrictions imposed by foreign countries on certain products.

3.2.1 Targets for Agricultural Exports

These targets are classified into 3 main groups namely:

(1) Products with Substantial Export Earnings. Export expansion of these products is influenced especially by the following conditions:

(a) In promoting exports, due consideration must be given to domestic consumption. Rice and maize in particular must be considered in this light. Export quantities will depend very much on the amount of

surplus over domestic consumption at a reasonable price during the Plan period. To this end, Fourth Plan measures will include the provision of reserve stocks for exports to maintain uninterrupted supplies to regular customers and long term credit for exporting to certain foreign customers. Definite and clear-cut policies will be formulated on various aspects of exporting such as taxes, premiums and the exporting system, such as whether export controls will be imposed or not.

(b) New market outlets have to be found and traditional overseas markets must be maintained. New markets for rice will be found in the Middle East and in African countries. For maize, tapioca products and rubber, new markets can be developed in Socialist countries, in Eastern Europe and in Asia. Various incentives will have to be devised to encourage exporters to look for new markets.

(2) Products with Favourable Demand and Export Potential. There are seven products in this category, each with different export problems. For commodities such as tobacco, frozen shrimp, frozen squid and black matpe mung bean, output must be increased as the problem is on the supply side. For commodities such as fresh orchid, fresh vegetables and eggs, the problem is that each commodity is being exported on an individual basis and so there is no collective bargaining power. Hence, exporters and/or producers of these commodities should be encouraged to form associations or marketing boards during the Fourth Plan period. Moreover, due to the nature of certain commodities which cannot be kept for a long period of time, special allowances have to be given to the revision of rules and regulations on customs clearance and transportation system.

Targets for Principal Exports during 1977-1981

Unit : Thousand Tons.

Commodities	1977	1978	1979	1980	1981
Agricultural Products					
1. Agricultural Products which earn considerable foreign exchange					
1.1 Paddy	1,500	1,550	1,600	1,650	1,700
1.2 Maize	2,500	2,600	2,800	3,000	3,200
1.3 Rubber	390	400	420	430	450
1.4 Tapioca Products	3,400	3,500	3,550	3,580	3,600
2. Agricultural Products with good Export Prospects					
2.1 Tobacco	25	30	36	42	48
2.2 Frozen Shrimp	17	19	22	25	28
2.3 Frozen Squid	22	24	26	30	34
2.4 Orchid (million bunches)	42	50	58	66	74
2.5 Black Matpe Bean	50	56	62	70	78
2.6 Fresh Fruits	45	50	56	62	70
2.7 Eggs	3.5	3.9	4.2	4.6	5
3. Other Agricultural Products					
3.1 Sorghum	200	220	250	270	300
3.2 Soy Bean	27	29	31	33	36
3.3 Mung Bean	45	46	47	49	52
3.4 Other Beans	14	15	16	17	19
3.5 Cattle (Thousand heads)	35	38	40	43	45
3.6 Water Buffaloes (Thousand heads)	15	16	17	18	20
3.7 Sesame	11	12	13	14	15
3.8 Castor Bean	32	34	35	38	40
3.9 Seed lac and sticklac	8	8.5	9	9.5	10
3.10 Kapok Fibre	21	22	23	25	27
3.11 Dried Tamarine	20	21	22	23	25

Commodities	1977	1978	1979	1980	1981
Industrial Products					
1. Industrial Exports					
1.1 Canned Pineapple	50	55	60	65	70
1.2 Electronic Equipment (million units)	80	100	150	180	230
1.3 Garments	4,500	5,300	6,000	6,700	7,500
1.4 Watch Case and Parts (Thousand units)	460	540	610	680	750
1.5 Canned Fruit Juice	3.5	3.9	4.2	4.5	5
1.6 Furniture (Thousand units)	350	450	600	700	800
1.7 Leather Gloves (million pairs)	5.4	6.5	7.8	8.9	10
2. Industrial Products in which domestic output exceeds Domestic Demand					
2.1 Sugar	1,150	1,120	1,250	1,300	1,400
2.2 Molasse	740	760	790	820	850
2.3 Canned Fruits and Vegetables	1.5	1.7	2.0	2.2	2.5
2.4 Cement	900	950	1,000	1,100	1,200
2.5 Cotton yarn (tons)	300	320	350	380	400
2.6 Synthetics (tons)	4,000	4,300	4,500	4,800	5,000
2.7 Cotton Cloth (million square yards)	120	130	140	160	180
2.8 Synthetic Cloth (million square yards)	160	177	194	215	240
2.9 Kenaf Products	70	76	84	90	98
2.10 Radio (Thousand sets)	90	100	110	130	150
2.11 Sanitary Ware Product (tons)	900	950	1,000	1,050	1,100
2.12 Pharmaceutical Product (million baht)	120	125	130	140	150

Commodities	1977	1978	1979	1980	1981
3. Cottage Industry Products					
3.1 Carved Wood	4	5	6	7	8
3.2 Thai Silk	350	400	450	500	550
3.3 (Thousand square yards)					
3.3 Gems and Pearls	1,115	1,250	1,350	1,450	1,555
3.4 Utensils made from wood	12	15	18	20	25
3.5 Bronze ware (tons)	280	295	300	310	320
3.6 Furniture (thousand units)	300	350	400	500	600
Minerals					
1. Tin (Metal)	22	23	24	25	26
2. Fluorite	285	282	280	280	280
3. Barite	140	160	180	200	224
4. Tungsten	4.0	4.5	5.0	5.5	6
5. Manganese	25	25.5	26	27	28
6. Antimony	6	6.4	6.9	7.5	8

(3) Other Agricultural Products. There are commodities in which potential export earnings and demand in foreign markets are substantial. These commodities face different exporting problems. The output of kapok fibre, castor bean, sesame, dried tamarine and seedlac has not expanded very much over time and the Government has not given enough encouragement to producers of these products despite the fact that these products are in great demand in foreign countries. As for cattle and water buffaloes, government measures at present are not adequate for promoting production and exports.

3.2.2 Industrial Products can be classified into 3 main groups of commodities, namely:

(1) Industrial Products Manufactured Specifically for Exporting. At least seven major commodities fall under this category, including garments, electronic equipment, furniture and leather gloves. To stimulate exports of these products, certain problems must be tackled, including the following:

(a) Improvements must be made on several fronts, including product advertisement, trade negotiations and the preparation of better programmes and projects for promoting exports.

(b) The shortage of raw materials and the imposition of import tariffs on raw materials which are required for production purposes increase the production cost of electronic equipment, leather gloves, garments and canned pineapple. To stimulate the production and export of these commodities, special export processing zones for industrial products have to be established.

(2) Industrial Products in which Domestic Supply Exceeds Domestic Demand. At least twelve commodities fall under this category, some of which have become principal exports such as sugar, kenaf products, textiles and cement. In promoting exports of these commodities, the policy on domestic price control has to be revised in conjunction with active market expansion measures. In addition, negotiation with foreign purchasers have to be made to reduce trade limitation measures and restrictions imposed on Thailand's major export commodities such as textiles, kenaf products, pharmaceutical products and sugar.

(3) Cottage Industry Products. As these products are the result of the work of craftsmen and are uniquely Thai, it is believed that these products have good export potential. If production of these goods can be increased, further market expansion can be expected in the United States, the Common Market countries, Eastern European countries and Japan. Nevertheless, improvement in packing still has to be made to reduce damages during shipment, particularly for carved wood, bronzeware and utensils made from wood. For precious stones and pearls, import taxes levied on uncut raw materials should be abolished in view of the increase in value of these exports.

3.2.3 Mineral Ore. As the amount of mineral ore reserves is not known, the export target for minerals is set at a level which is not lower than the quantity exported in the past. To achieve this export target, the Government must actively promote investment in the mining sector so that the level of mineral production can be raised to the level required.

3.3 Strategies and Measures

To deal with these problems on export promotion, the Government will have to adopt the following strategies and measures in order to achieve the above mentioned targets.

3.3.1 The Government will set up machinery for export promotion planning which will consist of representatives from the exporters' organization or association, representatives from various government agencies and producers of agricultural and industrial export commodities. In addition, the work of the Commerce Ministry and other government agencies involved with export promotion, trade negotiation and the management and provision of advisory services on exporting will be streamlined. Agencies involved with export promotion will be encouraged to work more closely together to study and analyse changes in the economic situation and to set annual production and export targets consistent with projected foreign demand for various commodities. The machinery to be created will also be responsible for accelerating export development projects so that export targets can be achieved.

3.3.2 Closer coordination of international trade activities of various agencies such as the Ministry of Commerce, the Ministry of Finance and the Ministry of Foreign Affairs will be encouraged so that the Ministry of Foreign Affairs can make diplomatic manoeuvres to increase Thailand bargaining position, help find new markets for Thai products and negotiate for more trade preferences.

3.3.3 Buffer stocks of certain commodities will be established so that the Government can intervene in the market to stabilize domestic

prices which in turn will encourage more production. In addition, stocks of particular commodities can help stabilize supplies of certain commodities for export so that traditional markets can be maintained. Thai exporters can thus conclude sale agreements on particular commodities in substantial quantities and on a long-term basis with more confidence. Apart from the buffer stock scheme, the Government will have to regulate more effectively the existing distribution system in the private sector in order to stabilize prices. At the same time, the Government will have to monitor developments in the international political scene more closely so that possible changes in the demand for Thai export products due to international political changes can be known in advance.

3.3.4 Support will be given to the provision of basic infrastructural projects which are necessary for promoting export. These projects include the following:

(1) The commercial marine fleet will be strengthened through the setting up of a committee of exporters who send their goods by ship and the establishment of a centre for reserving godown facilities. In addition, air and land transport facilities will be improved. The Government will also consider the expansion of existing deep sea ports or the construction of a new port, particularly for handling the export business.

(2) A telecommunications system will be set up to improve information flows between export promotion agencies in the country and Thai commercial attaches stationed abroad. This should help improve Thailand's international competitiveness.

(3) An export processing zone or industrial factory will be established for producing export of goods which must use substantial amounts of imported raw materials in order to avoid complications in the calculation of tax rebates. Most of the goods produced will be high quality goods which generate substantial value added.

(4) The Bank of Thailand and various commercial banks provide credit facilities for some producers and exporters at relatively low rates of interest, for example, through the rediscounting facility. Nevertheless, consideration should be given to the setting up of an export-import bank to extend services to include longer term credit for exporters.

3.3.5 In promoting exports, definite and clearcut programmes must be formulated by relevant government agencies in conjunction with the private sector. Guidelines for coordinating public and private efforts in this field include the following:

(1) Research work will be strengthened so that data on consumption, production and surplus which can be exported are available for export planning along with information on trade restrictions in various countries as well as the extent of foreign competition in various commodities. These studies should be useful to both exporters and producers.

(2) The export promotion activities of the Ministry of Commerce should be reorganized in the following ways:

(a) Activities relating to trade missions to explore new markets, public relations, trade information and the arrangement of trade fairs will be brought together under one operating unit or agency.

(b) Work on marketing information, the provision of advisory services on export procedures and on the utilization of special tax privileges for exporters should also be integrated under one unit.

(3) The establishment of a large-scale export corporation by the private sector will be encouraged to increase the capability of Thai exporters to expand into new markets and to export more industrial goods that are produced domestically. Special privileges will be provided by the Government to this type of private corporation. In addition, the Government may also participate in the undertaking through equity sharing.

(4) As for the export of agricultural products, the Government will support institution building initiatives, whether it concerns the setting up of an association, a cooperative, a marketing board or a corporation in which the Government and the private sector jointly hold shares. This support also extends to farmers groups, producers cooperatives and distributors cooperatives. It is believed that the building up to such groupings can help to increase the bargaining power of Thai producers and exporters vis-a-vis foreign competitors and buyers in addition to raising the status of Thai exporters and generating more confidence overseas in Thai exporting capability. Domestic producers stand to benefit as well from such actions.

(5) Improvements will be made in the system for inspecting the quality of export products. Up to now, work on the inspection of the quality of export products for which standards have to be stipulated still need a clear-cut assignment of responsibilities between the public and the private sector. In future, the inspection of the quality of export products will be undertaken at the origin which should help to make export quality

control more effective for both agricultural and industrial exports.

(6) The Government will improve the marketing capabilities of officials working in the field of export promotion so that Thai exports can have a better chance to penetrate into new markets.

3.3.6 The Government will build up a system of incentives for encouraging exports in general and selected commodities in particular. The export incentives that can be provided include the following:

(1) Fiscal incentives will be initiated and improved through revisions of various taxes on production, sales income, exports (including export premiums) and imports. Fiscal incentives will be built into the tax system in order to improve the competitive position of Thai commodities in foreign markets. Exporters will be encouraged to take initiatives to penetrate new markets. This can be done, for example, by allowing exporters to make deductions in their income tax returns based on expenses incurred in developing new export markets. Also, tax discounts can be given to exporters who find new markets and conclude sales agreements involving a significant amount of foreign exchange.

(2) On financial incentives, long term loans with low interest rates will be provided to producers of export goods and exporters. In addition, export credit insurance will also be initiated.

(3) Incentives will also be provided for developing new export products and for improving the quality of export products to increase their competitiveness in foreign markets. These incentives include the provision of financial assistance to research workers on product quality on design

and packing, and other aspects.

3.3.7 International cooperation among countries in the same region, among countries producing the same commodities or between producing countries and importing countries will be promoted. Such cooperation will be aimed at the arrangement of international trade agreements on particular commodities to stabilize prices, the establishment of international buffer stocks of major export commodities at regional, sub-regional and interregional levels as well as the formulation of common measures for the expansion of production and marketing. This matter will require closer coordination among various government agencies concerned. The Ministry of Foreign Affairs in particular will have to play an active role in conducting foreign economic relations and international trade negotiations.

Appendix II

List of Activities Eligible for Promotion

(Compiled as of July 31, 1978)

(Marked with asterisk * are industries which could be established in Bangkok area according to the Ministry of Industry's regulation)

1. Agricultural Products and Commodities

Type	Size & Conditions
Type 1.1 <u>Large-Scale Cultivation</u>	Combined cultivated area of not less than 1,000 rai. Exceptions are in cases which are specially approved by the Board. <u>Conditions</u> <ol style="list-style-type: none"> 1. Not less than 60 percent of the registered capital must be owned by the Thais. 2. Must be exported or utilized in or sold to industrial enterprises.
Type 1.2 <u>Processing of Agricultural Products</u>	A capital investment of not less than 2 million Baht excluding cost of land and working capital.
Type 1.3 <u>Processing or Preservation of Food</u> - Canning (air-tight containers) - Food Preservation - Fruit Juice* (1)	A capital investment of not less than 5 million Baht excluding cost of land and working capital. <u>Condition</u> - Not less than 50 percent of total sales must be exported.

* (1) Factory producing refreshment without alcohol or mixing of fruit drink with alcohol could be in Bangkok area.

Type	Size & Conditions
Type 1.4 <u>Animal Feed</u> - Prepared animal feeds* - Mixing stuff for animal feeds* (2)	A capital investment of not less than 10 million Baht excluding cost of land and working capital. <u>Conditions</u> 1. Not less than 60 percent of the registered capital must be owned by Thais. 2. Factory must be located outside Bangkok Metropolis. <u>Exception</u> - Mixing stuff for animal feeds : a capital investment of not less than 2 million Baht excluding cost of land and working capital.
Type 1.5 <u>Oil Production from Agricultural Products</u> - Olive Oil - Palm Oil	A capital investment of not less than 5 million Baht excluding cost of land and working capital.
Type 1.6 <u>Corn Products</u>	A capital investment of not less than 10 million Baht excluding cost of land and working capital.
Type 1.7 <u>Products from Stick Lac</u>	A capital investment of not less than 2 million Baht excluding cost of land and working capital.
Type 1.8 <u>Rubber Products*</u> (3)	A capital investment of not less than 10 million Baht excluding cost of land and working capital. <u>Condition</u> - Not less than 80 percent of total sales must be exported.

* (2) Factory for grinding vegetable, seed, garbage, meat, bone or shell could be in Bangkok area.

* (3) In Bangkok only for producing synthetic resin rubber, elastomer plastic, synthetic fibre (which is not glass fiber) and tire and tube repairing for automotive, man or animal vehicle.

Type	Size & Conditions
Type 1.9 <u>Livestock Raising or Meat Processing*</u> (4) - Cattle - Hog - Poultry - Aquatic Animals	A capital investment of not less than 1 million Baht excluding cost of land and working capital. <u>Exception</u> - For raising of cattle and processing of its meat : a capital investment of not less than 5 million Baht excluding cost of land and working capital. <u>Conditions</u> 1. Not less than 60 percent of registered capital must be owned by Thais. 2. Hog and poultry raising and processing of its meat must be exported.
Type 1.10 <u>Animal Products*</u> (5) - Bone Products - Leather Products	A capital investment of not less than 5 million Baht excluding cost of land and working capital. <u>Condition</u> - Not less than 80 percent of total sales must be exported.
Type 1.11 <u>Cultivation of Mulberry Trees and Silk Worm Farming</u>	A cultivated area of not less than 100 rai.
Type 1.12 <u>Silk Reeling</u>	A capital investment of not less than 2 million Baht excluding cost of land and working capital.

* (4) In Bangkok except to produce preserve aquatic animals by roasting pickle, salting, drying or freezing.

* (5) In Bangkok only for washing, bleaching, dyeing, selecting or dressing feather.

Type	Size & Conditions
Type 1.13 <u>Deep-Sea Fishing and Off-Shore Fishing</u>	A vessel of minimum size of 150 gross tons must be used. It must be equipped with radar, radio communication equipment, sonar equipment or water depth finder winch, refrigerating unit (not using ice cubes) of suitable size. <u>Exception</u> - For off-shore fishing, a vessel of minimum size of 50 gross tons must be used.
Type 1.14 <u>Slaughtering and Disemboweling of Chicken for Export</u>	A capital investment of not less than 10 million Baht excluding cost of land and working capital. <u>Conditions</u> 1. Not less than 60 percent of the registered capital must be owned by Thais. 2. Chicken meat must be exported. 3. Only the internal parts, blood bones, feathers, legs and wings which have no overseas market, will be allowed to be sold locally.
Type 1.15 <u>Manufacture of Products Made from Rattan and Bamboo for Export</u>	A capital investment of not less than 3 million Baht excluding cost of land and working capital. <u>Conditions</u> 1. Not less than 60 percent of registered capital must be owned by Thais. 2. Must be exported totally.

2. Minerals, Metals and Ceramics

Type	Size & Conditions
Type 2.1 <u>Mineral Ore Prospecting</u>	<p>A registered capital of not less than 1 million Baht.</p> <p><u>Condition</u></p> <ul style="list-style-type: none"> - The project must be approved by the Board.
Type 2.2 <u>Mining or Dressing of Ores</u>	<p>A capital investment of not less than 10 million Baht excluding cost of land and working capital.</p> <p><u>Condition</u></p> <ul style="list-style-type: none"> - Not less than 60 percent of registered capital must be owned by Thais, except project which has investment capital of not less than 100 million Baht.
Type 2.3 <u>Smelting*</u> (6)	<p>A capital investment of not less than 20 million Baht excluding cost of land and working capital.</p>
Type 2.4 <u>Processing of Metal</u> - Founding and Casting*(7) - Rolling* (7) - Galvanizing* - Other Process	<p>A capital investment of not less than 10 million Baht excluding cost of land and working capital.</p>

* (6) In Bangkok only for primary smelting iron or steel.

* (7) In Bangkok only for primary founding, casting and rolling.

Type	Size & Conditions
Type 2.5 <u>Ceramic Products Industry</u>	A capital investment of not less than 5 million Baht excluding cost of land and working capital.
- Glazed Pottery	<u>Conditions</u>
- Stoneware	<u>For the Manufacture of Cement Clinker</u>
Porcelain	- Raw material in the natural state must be used in the process.
Bone China	- Not less than 60 percent of the registered capital must be owned by Thais.
- Heat-Resistant Materials	<u>For the Manufacture of Glazed Pottery, Type Stoneware, Porcelain or Bone China</u>
- Heat-Resistant Glass	- Not less than 51 percent of the registered capital must be owned by Thais.
- Crystal Ware	- Quality must pass standard approved by the Board.
- Materials Used to	- From the third year onwards export (FOB value) must not be less than 30 percent of the total sale.
Produce Ceramics	

3. Chemicals and Chemical Products

Type	Size & Conditions
Type 3.1 <u>Chemical Products</u> * (8)	A capital investment of not less than 5 million Baht excluding cost of land and working capital.
Type 3.2 <u>Soda Ash</u>	A daily producing capacity of not less than 100 tons.
Type 3.3 <u>Carbon Black</u>	A capital investment of not less than 50 million Baht excluding cost of land and working capital.
Type 3.4 <u>Petrochemicals</u> * (9)	A capital investment of not less than 50 million Baht excluding cost of land and working capital.
Type 3.5 <u>Pharmaceutical Products</u> - Mixing Stuff for Pharmaceutical Products - Fungicides* - Pesticides* - Insecticides* - Herbicides*	A capital investment of not less than 10 million Baht excluding cost of land and working capital.
Type 3.6 <u>Fertilizer</u> *	A capital investment of not less than 50 million Baht excluding cost of land and working capital.

* (8) In Bangkok only for chemical mixture or impoisoneous chemical products.

* (9) In Bangkok except for asphalt or tar producing, and tarcoal distilling which are not gas or steel products.

Type	Size & Conditions
Type 3.7 <u>Paints or Similar Products*</u> (10)	A capital investment of not less than 10 million Baht excluding cost of land and working capital.
- Pigments	
- Dyes	
- Printing Paints	
- Printing Inks	

* (10) In Bangkok only for product mixturing.

4. Mechanical and Electrical Equipment

Type	Size & Conditions
Type 4.1 <u>Production or Assembly of Engines*</u>	A capital investment of not less than 25 million Baht excluding cost of land and working capital.
Type 4.2 <u>Production or Assembly of Mechanical Equipment</u> - Agricultural Machinery - Construction Work Machinery - Mining Machinery	A capital investment of not less than 3 million Baht excluding cost of land and working capital.
Type 4.3 <u>Production or Assembly of Machinery or Electrical Equipment</u>	A capital investment of not less than 5 million Baht excluding cost of land and working capital.
Type 4.4 <u>Production of Components and Parts of Machinery or Electrical Equipment</u>	A capital investment of not less than 3 million Baht excluding cost of land and working capital.
Type 4.5 <u>Production of Component Parts for Vehicles* (11)</u>	A capital investment of not less than 3 million Baht excluding cost of land and working capital.

* (11) In Bangkok only for special component parts or parts of locomotive train or tram.

Type	Size & Conditions
Type 4.6 <u>Production or Assembly of Electronics*</u>	A capital investment of not less than 2 million Baht excluding cost of land and working capital.
<ul style="list-style-type: none">- Radio Transmitters and Receivers- Electronic Components- Radio Receivers- Television Receivers- Electronic Calculators- Electronic Products	<u>Condition</u> <ul style="list-style-type: none">- Radio Receivers, Television Receivers, Electronic Calculators and Electronic Products must be exported totally or largely.

5. Other Products

Type	Size & Conditions
Type 5.1 <u>Production or Assembly of Clocks or Watches or the Component Parts*</u>	A capital investment of not less than 2 million Baht excluding cost of land and working capital.
Type 5.2 <u>Production or Assembly of Cameras*</u>	A capital investment of not less than 5 million Baht excluding cost of land and working capital.
Type 5.3 <u>Manufacturing of Stationery and Educational Equipment or Parts or Components*</u>	A capital investment of not less than 2 million Baht excluding cost of land and working capital.
Type 5.4 <u>Manufacture of Sporting Equipment, Musical Instruments or Toys*</u>	A capital investment of not less than 2 million Baht excluding cost of land and working capital.
	<u>Condition</u> - Not less than 50 percent of total sales must be exported.
Type 5.5 <u>Manufacture of Medical Supplies or Medical or Scientific Equipments</u>	A capital investment of not less than 5 million Baht excluding cost of land and working capital.
Type 5.6 <u>Plastic or Plastic-Coated Products</u>	A capital investment of not less than 3 million Baht.
	<u>Condition</u> - Must be exported totally or largely.

Type	Size & Conditions
Type 5.7 <u>Manufacture of Ornament or Cutting and Polishing of Gem Stones*</u>	<p>A capital investment of not less than 2 million Baht excluding cost of land and working capital.</p> <p><u>Conditions</u></p> <ul style="list-style-type: none"> - Not less than 80 percent of total sales must be exported. - Income Tax exempted when annual foreign currency more than total raw materials buying.
Type 5.8 <u>Production of Umbrella*</u>	<p>A capital investment of not less than 3 million Baht excluding cost of land and working capital.</p> <p><u>Conditions</u></p> <ul style="list-style-type: none"> - Production must include the manufacturing of the structure and the assembly of finished umbrella. - Not less than 50 percent of total sales must be exported.
Type 5.9 <u>Rubber Tree Products</u>	<p>A capital investment of not less than 5 million Baht excluding cost of land and working capital.</p>
Type 5.10 <u>Production of Lenses or Spectacles or Parts*</u>	<p>A capital investment of not less than 5 million Baht excluding cost of land and working capital.</p> <p><u>Condition</u></p> <ul style="list-style-type: none"> - Not less than 80 percent of total sales must be exported.
Type 5.11 <u>Production of Fire Hydrants or Component Parts</u>	<p>A capital investment of not less than 2 million Baht excluding cost of land and working capital.</p>

Type	Size & Conditions
Type 5.12 <u>Building and Repairing</u> <u>of Large Ships for</u> <u>International Sea</u> <u>Transportation*</u> (12)	A capital investment of not less than 200 million Baht excluding cost of land and working capital. <u>Conditions</u> <ol style="list-style-type: none"> 1. It must have ship repairing capacity between 3,000 - 15,000 gross tons, of not less than 10 ships per annum and a building capacity of up to 15,000 gross tons of ships of all types. 2. It must have beam, dock, machinery, tool and other facilities for repairing and building of large ships. 3. The project must employ not less than 300 engineers, technicians and workers.
Type 5.13 <u>Building and Repairing</u> <u>of Small Ships for</u> <u>International Sea</u> <u>Transportation*</u> (13)	A capital investment of not less than 50 million Baht excluding cost of land and working capital. <u>Conditions</u> <ol style="list-style-type: none"> 1. It must have ship repairing capacity between 500 - 3,000 gross tons of not less than 10 ships per annum and a building capacity of up to 3,000 gross tons of ships of all types. 2. It must have beam, dock, machinery, tool and other facilities for repairing and building of large ships. 3. The project must employ not less than 100 engineers, technicians and workers.

* (12) In Bangkok only if small or medium size.

* (13) In Bangkok only if small or medium size.

Type	Size & Conditions
Type 5.14 <u>Production of Arms and Ammunition*</u>	A capital investment of not less than 100 million Baht excluding cost of land and working capital. <u>Condition</u> - As approved by the Ministry of Defence or the Ministry of Interior.
Type 5.15 <u>Manufacture of Natural Fibre or Synthetic Fibre Products</u>	A capital investment of not less than 10 million Baht excluding cost of land and working capital.
Type 5.16 <u>Tire Cords</u>	A capital investment of not less than 20 million Baht excluding cost of land and working capital.
Type 5.17 <u>Printing of Textiles</u>	A capital investment of not less than 20 million Baht excluding cost of land and working capital.
Type 5.18 <u>Production of Assembly of Measuring and Texting Equipment or Components Parts*</u>	A capital investment of not less than 3 million Baht excluding cost of land and working capital.
Type 5.19 <u>Production of Hand Tools*</u>	A capital investment of not less than 5 million Baht excluding cost of land and working capital.
Type 5.20 <u>Manufacture of Prefabricated Housing or Components</u>	A capital investment of not less than 10 million Baht excluding cost of land and working capital.

Type	Size & Conditions
Type 5.21 <u>Manufacture of Zip*</u>	A capital investment of not less than 10 million Baht excluding cost of land and working capital. <u>Conditions</u> - Not less than 51 percent of the registered capital must be owned by Thais. - Not less than 50 percent of total sales must be exported.
Type 5.22 <u>Manufacture of Gloves*</u>	A capital investment of not less than 3 million Baht excluding cost of land and working capital. <u>Condition</u> - Not less than 80 percent of total sales must be exported.
Type 5.23 <u>Manufacture of Abrasive Sheets</u>	A capital investment of not less than 5 million Baht excluding cost of land and working capital.
Type 5.24 <u>Manufacture of Matches for Export*</u>	A capital investment of not less than 10 million Baht excluding cost of land and working capital. <u>Conditions</u> - Not less than 51 percent of the registered capital must be owned by Thais. - Concession for wood production must be owned by the company or shareholder(s) of the company. - Products must be exported totally. - The Board must be satisfied with the proof that there are markets overseas to absorb the products.

Type	Size & Conditions
Type 5.25 <u>Artificial Flower and Tree for Export</u>	A capital investment of not less than 2 million Baht excluding cost of land and working capital. <u>Condition</u> - Must be exported totally.
Type 5.26 <u>Manufacture of Cellophane</u>	A capital investment of not less than 20 million Baht excluding cost of land and working capital.

6. Services

Type	Size & Conditions
Type 6.1 <u>Industrial Estates</u>	An area of not less than 500 rai.
Type 6.2 <u>Hotel</u>	Within the municipal area, the hotel number of bed rooms must not be less than 80. Outside municipal area, not less than 60.
Type 6.3 <u>Water Transportation</u>	A capital investment of not less than 50 million Baht excluding cost of land and working capital.
Type 6.4 <u>Car Parking*</u>	A building for parking of not less than 200 cars.
	<u>Condition</u>
	- The location and the standard and design of the building must be approved by the Bangkok Municipality and the Board.
Type 6.5 <u>Repair Service for Vehicles, Machinery or Engines*</u>	A capital investment of not less than 5 million Baht excluding cost of land and working capital.
Type 6.6 <u>Warehousing*</u>	A capital investment of not less than 10 million Baht excluding cost of land and working capital.
Type 6.7 <u>Hospitals</u>	Within Bangkok Metropolis, the number of beds must not be less than 50. For provincial areas, the number of beds must not be less than 25.

Type	Size & Conditions
Type 6.8 <u>Cold Storage*</u> (14)	A capital investment of not less than 5 million Baht excluding cost of land and working capital.
Type 6.9 <u>Loading and Unloading Facilities for Sea Transport</u>	A capital investment of not less than 20 million Baht excluding cost of land and working capital, <u>Conditions</u> - Loading and Unloading system must be approved by the Board. - Loading and Unloading capacity of not less than 200 tons per hour.
Type 6.10 <u>Movies Making</u>	A capital investment of not less than 5 million Baht excluding cost of land and working capital. <u>Condition</u> - Not less than 60 percent of the registered capital must be owned by Thais.
Type 6.11 <u>Tourist Promotion Services</u> - Tour Boats* - Cable Cars	A capital investment of not less than 3 million Baht excluding cost of land and working capital. <u>Exception</u> - Cable cars : A capital investment of not less than 20 million Baht excluding cost of land and working capital.
Type 6.12 <u>X- Ray Computer Center*</u>	A capital investment of not less than 20 million Baht excluding cost of land and working capital. <u>Condition</u> - At least one radiologist must be in attendance 24 hours a day.

* (14) In Bangkok except to remove or clean food for freezing.

Activities Suspended from the List of Investment Promotion

(Collected as of July 31, 1978)

Group 1. Agricultural Products and Commodities

Type	BOI's Announcement
Type 1.2 <u>Processing of Agricultural Products</u>	Suspended from the list only for "Yeast for Bread Making", since January 17, 1978, according to the Announcement of the Board of Investment No. 7/1978.
Type 1.3 <u>Processing or Preservation of Food</u>	
- Prepared Wheat Noodle	Suspended from the list since June 17, 1977 according to the Announcement of the Board of Investment No. 19/1977.
- Canned Pineapple	Suspended from the list if located in Prachuab-Khiri Khan and Phetburi Provinces, since September 29, 1977 according to the Announcement of the Board of Investment No. 35/1977.
Type 1.4 <u>Animal Feed</u>	Suspended from the list if located in Chachoengsao, Pathum Thani, Chon Buri, Nakhon Pathom, Ayutthaya, Samut Prakarn, Samut Sakorn, since May 26, 1978, according to the Announcement of the Board of Investment No. 23/1978.

Group 2. Minerals, Metal and Ceramics

Type 2.2 <u>Mining or Dressing of Ores</u>	Monazite Ore was suspended from the list since December 21, 1977, according to the Announcement of the Board of Investment No. 40/1977.
Type 2.3 <u>Smelting</u>	Tin smelting was suspended from the list since March 15, 1978, according to the Announcement of the Board of Investment No. 19/1978.

Type	BOI's Announcement
Type 2.4 <u>Processing of Metal</u>	Cross Section Aluminium was suspended from the list, since December 21, 1977, according to the Announcement of the Board of Investment No. 4/1978.
Type 2.5 <u>Ceramic Products Industry</u>	Cement Clinker was suspended from the list since May 8, 1978, according to the Announcement of the Board of Investment No. 25/1978.
Group 3. <u>Chemicals and Chemical Products</u>	
Type 3.1 <u>Chemical Products</u>	<ul style="list-style-type: none"> <li>- Suspended from the list only for "Liquid Oxygen, Nitrogen and Argon" since March 15, 1978, according to the Announcement of the Board of Investment No. 13/1978. <li>- Liquid Carbondioxide and dry ice was suspended from the list since February 9, 1978, according to the Announcement of the Borad of Investment No. 18/1978. <li>- Calcium Carbonate was suspended from the list since April 19, 1978, according to the Announcement of the Board of Investment No. 21/1978. <li>- Aluminium Hydroxide was suspended from the list since May 26, 1978, according to the Announcement of the Board of Investment No. 24/1978.
Group 4. <u>Mechanical and Electrical Equipment</u>	
Type 4.5 <u>Production of Component Parts for Vehicles</u>	Suspended from the list only for "Automotive Spring" since March 25, 1968, according to the Announcement of the Board of Investment No. 14/1968.

Group 5. Other Products

Type	BOI's Announcement
Type 5.1 <u>Production or Assembly of Clocks or Watches or the Component Parts</u>	Suspended from the list only "Stainless Watch Band and Vinyl Watch Band for local supply", since June 8, 1978, according to the Announcement of the Board of Investment No. 27/1978.
Type 6.2 <u>Hotel</u>	<ul style="list-style-type: none"> - Suspended from the list if located in Amphoe Hadyai, Amphoe Muang Songkla (Samila Resorts), since September 29, 1977, according to the Announcement of the Board of Investment No. 32/1977. - Suspended from the list if located in Kamphaeng Phet, since April 19, 1978, according to the Announcement of the Board of Investment No. 20/1978. - Suspended from the list if located in Phuket, since June 8, 1978, according to the Announcement of the Board of Investment No. 26/1978.
Type 6.10 <u>Movies Making</u>	Suspended only for developing recording and film copying, since February 10, 1978, according to the Announcement of the Board of Investment No. 8/1977.

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CHAPTER 5

FOREIGN TRADE AND BALANCE OF PAYMENTS OF THAILAND

Supote Chunanantatham

Introduction

5.01 International trade has always played a major role in the Thai Economy since its opening to a large-scale contact with western countries under the Bowring Treaty in 1855. The main occupation of most Thai people and hence their ways of life were then much connected and largely dictated by the monocrop in rice farming. The principal economic growth in Thailand before World War II can be largely explained by a stable and rapid growth in its rice export. In fact, average rice export was still 48 percent of the total Thai export earnings during 1935-1939. But after the World War II, rice has begun to lose its relative importance in both the diversified Thai agricultural economy and its shares of total values of exports. While rice export still averaged about 44.5 percent of total Thai export earnings during 1955-1957, rubber and tin, together with some exports of maize and tapioca products provided about 30-34 percent during the same period.

5.02 However, the most recent economic changes in Thailand can be said to begin in the late 1950's. The rapidity of these recent changes have also reflected in the changes of Thailand's external trade positions. Though the main objective of this paper is to look into the external trade and balance of payments position of Thailand, it is, however, pertinent just to mention in passing two main factors. First, the recent rapidity in Thai economic changes was directly related to the cumulative public investment in economic infrastructure

which infact had been taking place slowly in Thailand since the early 1950's. The heavy governmental capital formation in highways, intra-provincial road networks, port-facilities, communication networks and hydro electric dams (up to the early period of 1970's) has resulted in a higher capacity to produce and export for the Thai economy. Secondly, major governmental role in fostering the rapid economic growth in Thailand has been the financial stability (1955-1972) realised as a result of the government's conservative monetary and fiscal policy working in the framework of the fixed exchange rate system (1955-October 1978).

5.03 This paper intends to look into the recent external trade situations of Thailand and its balance of payments. Growth and structural changes in the Thai economy will first be briefly described. After that, we shall discuss the detailed patterns of Thailand's exports and imports. Governmental policies and other factors affecting international trade will be discussed in the next section. Descriptions of other flow items in the balance of payments will follow. Following the above discussions, we shall then move to analyze the Thai balance of payments adjustments and make some economic policy recommendations. The role of exchange rate in Thailand's balance of payments adjustment will be stressed after an attempt to assess the equilibrium value of the Baht.

A. Growth and Structural Change in the Thai Economy

5.04 For the last twenty years or so, the Thai economy has undergone a rapid growth and structural change. Table 5.1 shows the pertinent statistics. During the 1960's, gross domestic product (GDP) at 1962 constant price grew at an annual growth rate of 8.1 percent. The simple growth rate per annum of GDP fluctuated in between 4.3 to 8.1 percent in the period of 1970 to 1976.

Table 5.1 Gross Domestic Product by Industrial Origin, Relative Sectoral Shares, Rates of Growth, and Their Contribution to the Change in Production, 1960 - 1976.

Industrial Origin	Value added in billion Baht (at current prices)			Share of sectoral value added in GDP (percent)			Average annual simple growth rate (percent)		Contribution to the increase in gross domestic product (percent)	
	1960	1969	1976	1960	1969	1976	1960-69	1969-76	1960-69	1969-76
1. Agriculture	21.5	40.3	102.0	39.7	31.3	30.7	8.7	21.8	25.2	30.3
2. Mining & quarrying	0.6	2.5	4.7	1.1	1.9	1.4	31.7	12.5	2.5	1.0
3. Manufacturing	6.8	20.1	60.5	12.5	15.6	18.2	20.0	28.7	17.8	19.8
4. Construction	2.5	8.2	17.8	4.8	6.3	5.3	22.8	16.5	7.6	4.7
5. Electricity and water supply	0.2	1.4	3.9	0.3	0.1	1.1	60.0	25.5	1.6	1.2
6. Transportation and communication	4.0	7.6	19.9	7.3	5.9	5.9	9.0	23.1	4.8	6.0
7. Wholesale & retail trade	8.2	22.4	57.7	15.1	17.4	17.3	17.3	22.5	19.0	17.3
8. Banking, insurance and real estates	1.1	4.8	15.7	2.0	3.7	4.7	33.6	35.5	4.9	5.3
9. Ownership of dwelling	1.5	2.6	4.8	2.7	2.0	1.4	7.3	12.0	1.4	1.0
10. Public administration and defence	2.5	5.7	13.8	4.6	4.4	4.1	12.8	20.3	4.2	3.9
11. Service	5.2	13.0	31.1	9.6	10.1	9.3	15.0	19.8	10.4	8.9
Gross domestic product (GDP)	54.0	128.6	331.9	100*	100*	100*	13.8	22.5	100.0	100.0
Per Capita GNP	1,989	3,527	7,713							

* Errors due to rounding

Source : National Economic and Social Development Board

The growth rate for the periods after the 1960's were therefore slightly lower than before. Nevertheless, the continuous high growth rate made it possible for the Thai per capita income to increase despite the high growth rate in population. Hence per capita income at current price increased from Baht 1,989 in 1960 to Baht 3,527 and Baht 7,713 in 1969 and 1976 respectively.^{1/}

5.05 When we look into each individual production sector, we find differential growth performances, giving rise to structural changes in the Thai economy. For the 1960's, agricultural sector as a whole grew at annual growth rate of 8.7 percent, being 5.1 percent lower than the national average. Almost all other sectors grew faster than the agricultural sector during the decade of the 1960's. Manufacturing sector itself grew by 20 percent during the 1960's. But its growth rate increased to 28 percent during 1969-1976. A number of other sectors grew even faster especially during the 1960's. The higher growth rates of non-agricultural sectors resulted, therefore, in the lower percentage share of the agricultural sector in the total production during the 1960's. The share of agricultural production fell from 40 percent in 1960 to 31 percent in 1969. Within the agricultural sector^{2/} itself, paddy also lost its dominance. The share of paddy (not shown in Table 5.1) in the total Thai agricultural production fell from 50 percent in 1950 to slightly above 30 percent in 1969. But mainly due to the higher prices of rice and other agricultural products as a whole since the early period of the 1970's up to the latter half of 1974, the

^{1/} In real term, GDP per capita increased much lower after 1971 because of the slower rate of growth of the economy and the higher base of GDP while the high population growth rate of 3 percent has not much declined from then.

^{2/} In the Thai GDP statistics, the agricultural sector is defined to include crops, livestock, fisheries, and forestry products.

average growth rate in agricultural production (21.18) was then slightly lower than the national average growth rate of 22.5 percent during 1969 to 1976. The value share of agriculture in the 1976 total production was, therefore, 30.7 percent comparing to 31.3 percent in 1969. Nevertheless, Thai agriculture has been much diversified since 1958. Beside paddy, major crops in the 1960's included rubber, maize, kenaf, and tapioca. Products which become more important during the 1970's especially for exports include sugar, various bean crops, sorghum, fruits, tobacco leaves as well as fisheries particularly sea-food (shrimp) for exports.

5.06 Returning to Table 5.1, we have also calculated the contribution of each sectoral growth to the growth in total GDP. They are calculated because the contribution percentage, measured as the ratio of each sectoral production change over the change in GDP in the corresponding period, can render us an additional information in evaluation of the relative sectoral performances. A slight increase of value-added from a small base in the initial period can render an exceptionally high rate of growth. In this connection, we should notice that a number of production sectors e.g. mining and quarrying, electricity and water supply as well as banking, insurance and real estate, were in the category of small initial bases in 1960. They all grew at an astonishing rates especially during the 1960's. But their contribution ratios to the growth of GDP during the 1960's ranged merely from 1.6 to 4.9 percent.

5.07 The structural change in the Thai economy can also be seen from the relative expenditures on gross domestic products. The relative share of gross fixed capital formation (private and government) increased remarkably from less than 10 percent around 1950 to 14 percent in 1960 and 13 percent

in 1967. Since then it has stayed up and fluctuated above 20 percent. In fact, it was 24.0 percent in 1970 and 27 percent in 1977. The major source of this rapid rise in the domestic gross capital formation has been the increased private domestic saving while the private consumption has been reduced. Foreign sources, consisting mostly of loans and credits, have provided 40-50 percent of the total domestic capital formation since the latter half of the 1960's.

5.08 The large increases in domestic investment has been responsible for a high rate of recent economic growth of the Thai economy and its accompanying structural changes. It has also given rise to the recent change in the structure of Thai imports and more indirectly the structure of exports. When we compare the relative share of investment and exports in GDP, we find that the share of capital formation has exceeded that of exports of goods and services in almost every year since 1963. This fact has a profound implication on the adjustment process in the Thai balance of payments which is subject of section D below.

B. Pattern of Thailand's External Commodity Trade

5.09 Changes in production structure are also reflected by shifts in the composition of Thailand's external trade patterns. We will first concentrate on imports.

a. Pattern of Thai Imports

5.10 The structure of imports may be classified according to SITC (Standard International Trade Classification) codes or as economic uses. Table 5.2 gives us Thailand's imports classified according to SITC codes as adopted by the Bank of Thailand. The average annual growth rate of each

Table 5.2 Thailand's Imports Classified by Commodity Groups, 1957 - 1977

(Percent)

Year	Total Imports (millions Baht)	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(5-9)
		Food	Beverage and tobacco	Crude materials	Mineral and lubrication	Animal vegetable oil and fats	Chemical	Manufactured goods	Machinery	Miscellaneous manufactured goods	Others	Manufactural products
1957	8,537	8.1	2.4	0.9	10.9	0.2	8.8	36.9	22.3	5.8	2.5	76.3
1958	8,237	9.5	2.4	0.9	10.9	0.3	9.2	36.0	23.0	5.7	2.3	76.2
1959	8,988	9.0	1.9	0.8	10.5	10.3	10.3	35.0	25.0	5.4	2.6	75.7
1960	9,622	8.2	1.1	1.5	10.7	0.2	10.1	34.2	24.8	5.4	3.1	74.5
1962	11,504	6.6	1.3	1.8	10.6	0.2	10.3	33.7	27.4	4.9	1.9	76.3
1964	14,253	6.1	1.3	2.0	10.22	0.2	10.4	30.5	31.7	4.8	2.0	77.4
1966	18,504	5.3	1.6	2.8	10.12	0.1	11.6	29.6	31.4	5.2	1.7	77.8
1968	24,103	4.6	2.0	2.6	8.3	0.2	11.9	25.9	36.6	5.6	1.7	80.0
1970	27,009	4.0	1.1	5.2	8.6	0.1	13.0	23.9	35.3	5.0	3.3	77.2
1972	30,875	3.9	2.0	6.7	10.1	0.1	15.4	21.1	31.5	6.2	3.0	74.2
1974	64,044	2.8	1.1	6.7	19.6	0.1	14.5	18.8	32.0	3.2	1.1	68.5
1976	72,877	3.1	0.9	7.2	22.9	0.2	14.4	16.4	29.4	3.9	1.5	64.0
1977	94,177	2.7	1.1	7.9	22.1	0.3	14.2	16.4	29.7	4.0	1.6	64.3

Note : Total import includes gold imports but excludes military imports.

Source : Bank of Thailand, Monthly Bulletin, various issues

category of imports including its contribution to the increase in total imports are presented in Table 5.3.

5.11 It is evident from the statistics in Table 5.2 that prior to 1973 imports of Thailand consisted mainly of manufactured goods both for consumption and capital goods. Being a food surplus country, Thailand's imports of food is small and in fact has a declining trend. Beverage and tobacco imports are also minimal, fluctuating between 1-2 percent of total imports. But imports under SITC 5 to 8 accounted approximately for 3 quarters of total imports before 1974. After 1973, the share of mineral fuels and lubricants has jumped up from around 10 percent to not less than 20 percent mainly as a result of a quadruple increase in the price of oil in the late 1973 by the OPEC cartel. The absolute value of import of fuels and lubricants in 1973 was Baht 4,661 million consisting of Baht 3,572 million of crude oil and Baht 1,089 million of finished oil products. In 1974, the total import of fuels and lubricants jumped to Baht 12,571 million consisting of Baht 10,382 million and Baht 2,198 million for crude oil and finished oil products respectively. In 1977, the total imports of this category increased to Baht 20,776 million contributing 28 percent to the increase in total Thai import during 1972-1977. The average annual growth rate of mineral fuels and lubricants was 111.49 percent as compared to the average total import growth rate of 68.34 percent. (See Table 5.3). As a result, the percentage share of other categories of imports declined significantly after 1972. Most evidently, the combined share of manufactured products (SITC 5-8) has come to fluctuate around 65 percent.

5.12 Within the total manufactured imports itself, the share of manufactured goods has a continuous declining trend. It was 49.0 percent in 1957 and

Table 5.3 Rates of Growth of Commodity Imports and Their Contributions to the Increase in Total Imports, 1957 - 1977

Year	Total Imports (millions Baht)	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		Food	Beverage and tobacco	Crude materials	Mineral and lubrication	Animal vegetable oil and fats	Chemical	Manufactured goods	Machinery	Miscellaneous manufactured goods	Others
1957-1960	4.23	4.32 (8.29)	-15.59 (-8.75)	31.08 (6.35)	3.48 (8.94)	1.75 (0.09)	9.72 (20.27)	1.48 (12.90)	8.44 (44.51)	2.10 (2.85)	1.48 (8.66)
1960-1966	15.38	4.05 (2.15)	2.90 (2.11)	44.05 (4.25)	13.78 (9.54)	5.00 (0.06)	19.96 (13.13)	11.10 (24.68)	23.77 (38.39)	13.82 (4.87)	0.27 (0.05)
1966-1972	11.14	4.01 (1.89)	17.62 (2.53)	49.77 (12.57)	11.06 (10.04)	12.82 (0.16)	20.36 (21.14)	3.15 (8.37)	11.25 (31.65)	16.71 (7.74)	32.31 (4.89)
1972-1977	68.34	21.45 (2.05)	14.25 (0.68)	51.31 (8.41)	111.49 (27.89)	106.95 (0.38)	36.26 (13.62)	27.53 (28.80)	37.53 (28.80)	19.80 (2.99)	12.09 (0.87)

Note : The figures in the parentheses are the sectoral contribution ratios to the change in total imports.

Source : Bank of Thailand, Monthly Bulletin, various issues.

became 40.0 and 28.0 percent in 1965 and 1972. After the oil price increase, its share went down to be around 25.0 percent in 1977. The share of chemicals and machinery combined had a rising trend throughout the period starting at 42.0 percent in 1957. It became 52, 62, 67 and 68 percent in 1965, 1970, 1974 and 1977 respectively.

5.13 These patterns of imports and their changes can also be clearly seen by reclassifying total imports according to economic uses. Basing again on the data and classification of the Bank of Thailand, imports (totalling 50 commodity items) are classified into six economic classes; i.e. non-durable consumer goods, durable consumer goods, intermediate products and raw materials chiefly for consumer goods, intermediate products and raw materials chiefly for capital goods, capital goods, and other commodities. Table 5.4 presents economic compositions of the Thai commodity imports during 1957 to 1977.

5.14 From Table 5.4, we can see that the share of non-durable consumer goods has a continuous declining trend. Being 28.97 percent in 1957, it plunged down to 12.9, 8.07 and 6.73 percent in 1970, 1974 and 1977 respectively. Durable consumer goods slightly declined from 8.23 percent in 1957 to fluctuate around 5.0 percent in the last four years. Then it can be definitely concluded that the percentage share of consumer goods in the total Thai imports had a downward trend during 1957-1977. On the contrary, the share of the combined intermediate products and capital goods imports rapidly rose from 40 percent in 1957 to 45 percent in 1962, around 60 percent in 1970 and 1974 and 55 percent in 1977. If we include some commodities, e.g. vehicles and parts, in the category of capital goods,^{1/} the proportion of the total intermediate products

^{1/} Vehicles and parts are included in the category of "other commodities" by the Bank of Thailand.

Table 5.4 Structure of Thai Imports by Economic Classes, 1957 - 1977

Commodity Class	1957	1962	1970	1974	1977
	%	%	%	%	%
1. Non-durable consumer goods	28.97	24.80	12.90	8.07	6.73
2. Durable consumer goods	8.23	7.15	7.45	5.03	5.07
3. Intermediate products and raw materials chiefly for consumer goods	10.27	11.37	15.27	20.10	17.06
4. Intermediate products and raw materials chiefly for capital goods	6.82	5.75	9.60	10.37	11.46
5. Capital goods	23.43	28.27	34.26	30.93	26.08
6. Other commodities	22.24	22.69	20.50	24.90	33.60
7. Total	100*	100	100	100	100

* Errors due to rounding

Source : Bank of Thailand, Monthly Bulletin, various issues.

and capital goods would be 52.45, 54.18, 67.75, 66.14 and 63.05 percent in 1957, 1962, 1970 and 1977 respectively. The share of intermediate products and capital goods declined mainly as a result of rising import bill of petroleum products which are included in the category of "other commodities". The last category of imports had a share of 20.24, 22.69, 20.50 and 24.90 and 33.60 percent in 1957, 1962, 1970, 1974 and 1977 respectively.

b. Pattern of Thai Export

5.15 The pattern of Thai exports during the period from 1957 to 1977 is presented mainly according to SITC codes in Table 5.5. Table 5.6, which give average annual rate of growth among commodity classes together with their respective contribution ratios to the total change in exports.

5.16 Thai exports in 1957 and prior to that year consisted mainly of food, crude materials related to agriculture, and minerals, mainly tin. The combined share of primary products exports (SITC 0-4) ranged from 66 to 96 percent of total export earnings. The share of food alone fluctuates between 45 to 58 percent of total exports, reflecting the character of Thailand as an agricultural-export and food-surplus country.

5.17 Manufactured goods was minimal, being a couple of percent, in 1957. But the share of manufactured goods in total exports rose sharply from 1.45 percent in 1964 to 11.02 percent in 1966. After that it fluctuated between 13.18 - 16.78 percent during 1968-1977. If we combine all manufactured products (SITC 5-8) together, its share in Thailand's total export earnings would become approximately a quarter after the early 1970's. This is evident from Table 5.5 in which it shows that manufactured products grew at a much higher rate than the primary products resulting in a declining ratio of primary

Table 5.5 Thailand's Total Exports and Shares % Exports Classified by Commodity Groups, 1957 - 1978

Year	Total exports (millions Baht)	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(0-4)
		Food	Beverage and tobacco	Crude materials	Mineral fuels and lubricants	Animal vegetable oil and fats	Chemical	Manufactured goods	Machinery	Miscellaneous manufactured goods	Other miscellaneous	Primary products
1957	7,540	55.09	1.43	37.73	0	0.11	0.14	1.33	0.01	0.34	0.49	94.36
1960	8,614	45.41	0.23	49.95	0	0.02	0.09	1.11	0.01	0.16	0.70	95.61
1962	9,529	49.34	0.36	44.25	0	0.17	0.08	1.66	0.03	0.25	0.94	94.12
1964	12,339	57.97	0.66	35.75	0.04	0.03	0.12	1.45	0.05	0.25	0.77	94.45
1966	14,099	50.45	0.85	33.78	0.35	0.09	0.07	11.03	0.10	0.25	0.82	85.52
1968	13,679	51.29	1.49	26.58	0.10	0	0.12	13.18	0.06	0.25	1.84	79.46
1970	14,772	47.09	1.39	28.85	0.30	0.09	0.22	14.81	0.10	0.38	3.18	77.72
1972	22,491	49.85	1.26	21.36	1.19	0.04	0.33	15.45	0.20	1.47	4.92	73.70
1974	49,799	55.50	0.92	18.29	0.77	0.08	0.67	16.01	0.62	2.69	2.07	75.56
1976	60,797	58.27	1.16	15.73	0.19	0.06	0.44	15.35	2.02	4.00	1.74	75.41
1977	71,198	56.55	1.30	15.39	0.02	0.03	0.42	16.78	2.40	3.86	2.09	73.29
1978	20,012	48.01	0.80	17.70	0.02	0	0.40	21.01	2.84	4.12	2.25	66.53

Source : Bank of Thailand, Monthly Bulletin, various issues.

Table 5.6 Rates of Growth of Commodity Exports and Their Contributions to the Increase in Total Exports

Period	Total Exports	Food	Beverage and tobacco	Crude material	Mineral fuels and lubricants	Animal vegetable oil and fats	Chemical	Manufactured goods	Machinery	Miscellaneous manufactured goods	Others
1957-1960	4.74	-1.94 (22.53)	-25.61 (-7.72)	17.08 (135.75)	0 (0)	-25.92 (-0.65)	-9.09 (-0.27)	-1.65 (-0.46)	0	-15.38 (-1.11)	21.62 (2.23)
1960-1966	10.61	13.64 (58.38)	6.40 (1.75)	1.78 (8.38)	intintity (0.91)	91.66 (0.20)	6.25 (0.05)	253.47 (26.61)	233.33 (0.25)	23.80 (0.36)	15.30 (1.02)
1966-1972	9.92	9.58 (48.82)	22.58 (1.95)	0.15 (0.51)	73.00 (2.60)	-5.12 (-0.04)	96.96 (0.76)	20.55 (22.86)	34.44 (0.36)	146.07 (3.55)	141.02 (11.79)
1972-1977	43.31	51.82 (59.64)	45.33 (1.32)	25.60 (12.63)	-18.51 (-0.51)	37.77 (0.03)	60.26 (0.46)	48.77 (17.39)	723.04 (3.41)	145.60 (4.96)	6.95 (0.79)

Note : Figures in parentheses indicate contribution ratios to the increase in total export.

Source : Bank of Thailand, Monthly Bulletin, various issues.

export products to that of manufactured export products.

C. Factor Affecting the Pattern of External Trade

5.18 We have just completed a survey on the structure of Thailand's external commodity trade with its changing pattern during 1957-1977. We can now see that the patterns of Thai imports and exports were changing rapidly during this period. The differential performances of imports and exports among different commodity classes can be attributed to both the internal and external factors. Given the endowments of factors of production and natural resources, demands also play an important role in shaping the trade structure.

5.19 On the import side, demand for imports, given other things being unchanged, are a function of incomes, prices of the goods imported and prices of the import-competing goods. It is logical to infer from the Engel law that income elasticities of demands for manufactured goods are generally higher than non-manufactured goods especially food. This is particularly true for the food-surplus Thailand where people generally have a relatively high food (rice) consumption per capita. With a relatively fast-rising real per capita income during the 1960's and the early 1970's (about 3-5 percent per annum with the faster rates of income increment falling between 1958-1960), the demand for manufactured goods should be growing faster relative to the demand for food. These differential income effects of demand growth has resulted, given the supply responses, a higher proportion of manufacturing sector in the Thai gross domestic product as mentioned above. Given all other things, the differential import growth rates among various commodity classes are also not divorced from these long-run and subtle differences in income effects. Table 5.7 and

5.8 give some evidences on income and price elasticities of the demands for imports as classified by SITC codes and by economic classes. Domestic demand arising mainly from the increase in population has also placed an impinge on exportables particularly on rice exports.

5.20 Another equally important factor directly explaining the structural changes in imports and exports is the governmental intervention in trade, production, and industrial promotion policies. Theoretically speaking, free trade implies that a country does not interfere with importation and exportation of commodities. Ignoring the cost of transport and assuming no price discrimination in international market, free trade implies that single commodity has the single price in all trading countries. This is the well-known "law of one price". Interventions in international trade through for example an imposition of an import tariff or an export tax give a wedge between the domestic prices and international prices for the same commodities. For a small country facing an infinite elastic supply of imports and demand for exports, the domestic price will be fully diverted from the given international price. The non-uniformity of international trade taxes alter relative domestic prices which over time will yield differential growth rates of various production sectors. This in turn affects the country's overall import and export structures.

5.21 In the case of Thailand, various governmental interventions in trade and production have given rise to various tariff and non-tariff barriers to trade and production.^{1/} The various ways in which the Thai government has

^{1/} For a detailed analysis of tariff and non-tariff barriers to trade and production up to 1974, readers are advised to read Narongchai Akrasanee and collaborators, (1975).

Table 5.7 Elasticities of Thai Demands for Imports by Commodity Classes

Commodity Classes	Elasticities	
	Price	Income
1. Food	0.587	0.174
2. Beverage and Tobacco	0.311	0.680
3. Crude-materials	0.176	1.682
4. Mineral fuels and lubricant	0.218	1.221
5. Animal and vegetable oils and fats	0.423	0.917
6. Chemicals	0.864	1.212
7. Manufactured goods	0.432	0.475
8. Machinery	1.204	0.281
9. Miscellaneous manufactured foods	-	1.306
Total	0.807	0.912

Source : Bank of Thailand, unpublished.

Table 5.8 Elasticities of Thai Demands for Imports by Economic Classes

Commodities classified by economic classes	Elasticities	
	Price	Income
1. Raw material	0.535	1.060
2. Capital goods	1.454	0.756
3. Consumer goods	1.148	0.904
4. Services	1.3496	1.789

Source : Bank of Thailand, unpublished

intervened in trade and production are:

(a) Taxation and subsidization of trade and production. These include various rates of import tariffs, surcharges on imports, business taxes, excise taxes, various forms and rates of export duties (especially the heavy export taxes on rice), royalties on mining productions, and various subsidization of trade and production. Particularly for exports, there are tax refunds or drawbacks and rebates which have begun to be actively applied to a number of export goods since 1971.

(b) Quantitative restrictions and controls on price, trade, and industry. Quantitative restrictions and controls are placed on imports and exports in different degrees under the categories of approval, quota, and total ban. The Ministry of Commerce issues a list of import and export items subject to prior approval for imports and exports.

Import items under the "approval" list are mostly for the purpose of protecting domestic producers and permissions for their imports are not usually granted. There are however relatively few items under the approval list. There are not much uses for import quotas while outright import bans are occasionally practised on some specific commodities. For example, a complete import ban on sugar was adopted during the domestic sugar glut at the end of 1959 and early 1960. There was also a complete ban, for political reason, on imports originated from the People's Republic of China during 1959-1974. Most recently on February 1st, 1978, the government put temporary ban on imports of 18 commodities which are considered as luxury goods. The purpose of this last ban is to reduce Thailand's deficit in the balance of payments.

Direct export controls are mostly set up with the objective of ensuring adequate domestic supplies and stabilizing domestic prices mainly for consumers. Permissions on export items under the "approval" list are normally granted except in a certain period (year of domestic shortages). Export quotas as well as outright export ban are also adopted periodically and occasionally. We can say that the government uses a quota system and an export ban on a case by case basis and in an ad hoc manner.

Other instruments to control imports and exports are, for example,

- (i) the mixing requirement scheme (e.g. for tea and gunny bags) forcing the importers to buy a specified percentage of domestically produced tea and gunny bags for every certain amount of their imports;
- (ii) the reserved requirements for exports of certain products (e.g. rice), requiring exporters to reserve a certain percentage of their exports to be sold to the government at a certain specified price;
- (iii) the minimum export price requirement as well as export standard controls.

On industry, the restrictions rest with the Ministry of Industry. It is empowered to permit or ban new entry, the expansion of existing firms, or establish the conditions for new entry, as well as fixing the requirements of local contents to be used by manufacturers for the purpose of promoting local industries, e.g. in steel wires, in electric wires, in milk, and in motor-cycles and car assembly.

The ban on entry and expansion is applied if the domestic market can be

supplied by existing firms and capacity or to prevent, at the request of producers, greater competition. Conditional new entry is also applied to some products which are promoted, e.g. in fertilizer and ceramic products (mostly tiles). There are also other conditions for entry in some specific industries, e.g. a certain percent of equity must belong to Thais, and a minimum scale of plant.^{1/} These measures tend to reduce domestic competition providing a longer life for an inefficient producer.

(c) Industrial promotion policies. Industrialization policy in Thailand can be said to begin by the promulgation of the "Act on Promotion of Industries" in October 1954. The main instrument used in industrial promotion policy is the various forms of tax exemptions or reductions; for example, exemption on import duties on machinery, accessories, and equipment, exemption from or reduction of import duties on material inputs, and exemption from corporate income tax for a period of 2-5 years:

The industrial promotion policy did not become very effective until the establishment of the Board of Investment (BOI) in April 1959 to administer the industrial promotion act and the passage of a new investment law in 1960. The "Promotion of Industrial Investment Act of 1960" was further revised in 1962. This new law classified industrial activities into 3 groups (A, B and C) supposedly according to their importance and necessity to the Thai economy. The rights and benefits to promoted firms were similar to the old investment law except that the reduction of import duties on imported material inputs were 100 percent for group A, 50 percent for group B, and 33.3 percent for group C, each lasting for 5 years from the beginning of operation.

^{1/} For some details, see N. Akrasanee, ibid., pp. 76-81.

The investment act of 1962 was repealed and replaced by the Decree of the National Executive Council Nos. 227 and 329 in 1972. According to the new Decree, most of the non-tax privileges were retained while other tax concessions were changed. The promoted firm received an exemption from corporate income tax between 3-8 years. The BOI was empowered, for instance, to fix a special surcharge for importing of products similar to those produced by the promoted firm at an appropriate rate not exceeding 50 percent of the c.i.f. price. In addition, there were also special tax incentives for the promoted firms locating themselves in the "promoted area". There were even more tax concessions for export promotion, including exemptions from import duty, business tax, and export duty on imported inputs, imports for re-export and export of the products produced. The emphasis of industrial promotion by the Board of Investment has changed, it is said, from import substitution to export promotion. The last investment law is that of April 1977, which is still effective. Under this law, most investment incentives in the forms of import surcharge and tariff concession on imports of capital goods and intermediate inputs (up to 100 and 90 percent on an annual basis respectively) are still in force. Equally important, the BOI's decision committee is raised to the ministerial level with the Prime Minister as the chairman of the committee. Thus, the political power of the BOI has also risen accordingly.

(d) Credit subsidization and selective credit controls. The Bank of Thailand also applies selective credit controls over the commercial banks. Selective controls are usually pursued with the objective of creating a sound banking practice, but lately they have been used for other purposes as well, e.g. channelling more credits to the agricultural sector and credit control for balance of payments purpose. The latest credit control was taken on

February 1, 1978 to shore up the balance of payments deficit by freezing the credits of commercial banks to finance companies dealing in hire-purchase of motor vehicles. In the same year the Bank of Thailand also acquired commercial banks to limit credits to firms dealing with hire-purchases of the so-called luxury goods.

Commercial banks in Thailand can borrow from the Bank of Thailand in two ways, i.e. by pledging government securities and by rediscounting. Unlike the bank rate in the United Kingdom or the U.S. discount rate, which are used as instruments of monetary policies, Bank of Thailand's rediscounting policies aim mainly at promoting various exports (since 1956), industrial production (since June, 1963), sales on credits of some industrial goods by manufacturers (August 1964-1969), and agro-industries (since April 1959). The instruments eligible for rediscounting are export bills of certain commodities and promissory rates arising from certain industrial activities both agro-business and non-agro-business. Through these rediscounting facilities and through commercial banks, exporters are able to obtain a working capital at a subsidized interest rate (about 2 percent) for a specified period of time usually not exceeding 180 days. Since 1974, longer subsidized credit up to 3-5 years have been extended to eligible firms whose industrial activities are considered crucial to economic development with backward and forward linkages.

Credit subsidization to various firms in various activities have also been provided by the Industrial Finance Corporation of Thailand (IFCT), a semi-governmental investment banking institution since 1959 and by the Small Industries Finance Office of the Ministry of Industry since 1964. These credits are subsidized at a nominal interest rate of approximately 4-5 percent compared to

the 14-15 percent rate of interest charged by commercial banks in this normal lendings.

5.22 From the above discussion, we can see that though tariff remains the most important tool in trade and in industrialization promotion in Thailand, the combined effects of various governmental intervention in trade and production are relevant in the view of resource allocation. This combined protective effect does not only give rise to the present structure of differential production among sectors but also the structure of imports and exports. Basing on the concept of nominal and effective rate of protection, Dr. Narongchai Akrasanee and his collaborators made some studies on a changing structure of industrial protection in Thailand in 1964, 1969, 1971 and 1974.^{1/} Their studies indicated a level of protection which was not prohibitive and in fact was generally lower in 1974. For example, in import-competing industries most products with the exception of transport industries particularly car assembly and a few other products like metal furniture and perfumery and cosmetics, had a realized nominal rates falling in between 13.0-33.0 percent and a realized effective rate by the Corden method of 5.06-39.68 percent. For non-import competing industries which included mainly a number of food and beverages, the realized nominal rates reduced from the average of 63.95 percent in 1964 to 12.1 and -13.72 percent in 1971 and 1974 respectively. The realized effective rates also declined during the same period with a number of rates turning to be negative.

5.23 For exports, the structure of protection in all four years under study were unfavourable. Average rates of both nominal and effective protections were all negative. Nevertheless, for the most recent years, some

^{1/} See N. Akrasanee, *ibid.*, pp. 166-170.

industrial products have enjoyed an impressive export growth. They include, for example, textile products including garments, household utensils of wood, precious stones and jewellery, molasses, and canned fruit (mostly pineapples). This rise in export of manufactured products is due to the obtained quotas from a number of markets in the developed economies as well as the lagged responses to export promotion policies adopted after 1972. The government also has adopted a rather vigorous (though not always consistent) export promotion policies. With continuously vigorous export drive coupled with some tax concessions on exports, we can reasonably see a further export growth in industrial products resulting in long-run rise of the ratio of manufactured exports to that of primary products.

D. The Balance of Payment, 1956-1977

5.24 We have just analysed Thailand's pattern of international trade. We should now come to the balance of trade and the balance of payments as a whole. Table 5.9 gives the statistics for the balance of payments between 1957-1977.

a. The Period of 1956-1972

5.25 It is mentioned earlier that Thailand returned to the use of fixed and single exchange rate system by abolishing the multiple exchange rate system in August 1955. The adoption of the fixed rate with its devaluation and trade liberalization helped to give a small trade surplus in that year. But Thailand began to have a small trade deficit of Baht 33.5 million in 1956. Since then the trade deficit in money terms grew consistently larger swelling up to Baht 25.6 billion in the year of 1977. However, during this long time-span, growth

Table 5.9 : Thailand's Balance of Payments, 1968 - 1977^{1/}
(Millions of Baht)

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977 ^{2/}
A. Merchandise										
1. Exports, f.o.b.	13,227.6	14,254.2	14,269.7	16,692.1	21,750.2	31,252.5	49,002.4	44,364.5	60,361.2	70,463.4
2. Imports, c.i.f. 2/	-23,645.8	-25,422.8	-26,406.7	-26,606.4	-30,634.8	-42,054.9	-63,304.6	-64,525.7	-71,446.1	-96,033.7
3. Non-monetary gold 3/	-231.8	-142.1	-107.8	-26.6	-	-	-	-	-	-56.8
4. Trade balance	-10,650.0	-11,310.7	-12,244.8	-9,940.9	-8,884.6	-10,802.4	-14,302.2	-20,161.2	-11,084.9	-25,607.1
B. Services										
1. Receipts	9,209.9	9,385.3	10,094.8	9,899.6	11,322.7	12,723.1	15,694.2	16,551.6	13,993.3	14,771.7
1.1 Freight and insurance on merchandise	397.3	275.5	313.4	494.2	639.0	925.5	1,453.7	1,229.3	1,604.0	1,730.1
1.2 Other transportation	182.5	207.9	288.6	330.8	455.9	513.7	1,200.1	1,269.0	1,131.3	1,468.6
1.3 Travel 4/	1,253.3	1,768.0	2,170.0	2,208.9	2,718.0	3,393.8	3,805.1	4,482.2	3,990.0	4,606.9
1.4 Investment income	1,052.5	1,284.6	1,636.6	1,423.4	1,206.7	1,448.1	2,919.6	3,887.0	3,145.8	3,036.1
1.5 Government, n.i.e.	5,571.9	5,043.9	4,839.8	4,514.2	5,262.5	5,034.3	4,238.3	3,519.8	2,022.9	1,081.4
Military services	(4,917.8)	(4,445.7)	(4,192.1)	(3,788.7)	(4,413.2)	(4,210.3)	(3,393.4)	(2,643.7)	(763.2)	(4.6)
Other governmental services	(654.1)	(598.2)	(647.7)	(725.5)	(849.3)	(824.0)	(844.9)	(876.1)	(1,289.7)	(1,076.8)
1.6 Other services	749.9	805.4	836.4	928.1	1,040.6	1,407.7	2,017.4	2,164.3	2,069.3	2,848.6
2. Payments	-3,061.4	-3,430.9	-4,058.6	-4,495.5	-4,739.7	-5,886.7	-8,033.5	-10,390.8	-12,350.8	-12,366.5
2.1 Freight and insurance on merchandise	-167.6	-142.4	-202.9	-338.7	-431.9	-504.1	-1,005.0	-822.0	-1,093.9	-1,289.5
2.2 Other transportation	-115.4	-121.1	-186.4	-202.8	-204.5	-386.7	-749.0	-643.5	-544.5	-690.0
2.3 Travel	-874.2	-1,001.5	-1,267.4	-1,294.5	-1,286.8	-1,465.4	-1,634.0	-2,735.3	-3,183.3	-3,183.7
2.4 Investment income	-780.3	-1,058.5	-1,257.9	-1,393.8	-1,534.0	-1,872.4	-2,993.9	-3,775.9	-4,515.5	-4,515.5
2.5 Government, n.i.e.	-477.7	-452.7	-395.3	-399.0	-336.8	-444.8	-303.7	-457.2	-443.4	-443.4
2.6 Other services	-646.2	-654.7	-749.3	-866.7	-945.7	-1,229.3	-1,393.1	-2,110.4	-2,380.6	-2,239.4
3. Net services	6,148.5	5,954.4	6,036.2	5,404.1	6,583.0	6,836.4	7,600.7	6,160.8	1,642.5	2,405.2
Net goods and services	-4,501.5	-5,356.3	-6,208.6	-4,536.8	-2,301.6	-3,966.0	-6,701.5	-14,000.4	-9,442.4	-23,201.9
1,547.5	1,187.2	1,011.7	904.1	1,238.8	2,968.8	4,916.9	1,632.1	454.5	801.9	801.9
C. Unrequited transfers										
Balance of goods, services and unrequited transfers	-2,954.0	-4,169.1	-5,196.9	-3,632.7	-1,062.8	-997.2	-1,784.6	-12,368.3	-8,977.9	-22,400.0
D. Capital movements										
Capital movements (non-monetary sector)	2,444.0	2,897.6	2,478.8	1,733.1	3,643.2	2,937.6	9,054.7	7,754.7	9,263.6	13,854.1
1. Direct investment	1,239.7	1,057.5	890.5	808.4	1,427.1	1,604.9	3,836.3	1,744.8	1,614.1	2,163.8
2. Other private long-term loans and credits to government enterprises	43.1	272.2	90.7	60.2	338.3	372.7	1,173.9	2,203.0	1,839.3	4,767.3
2.2 Loans and credits to private enterprises	673.8	1,299.2	1,007.7	397.0	1,392.5	-1,199.0	2,637.1	1,316.7	689.3	867.2
2.3 Portfolio investment	94.9	100.5	237.0	100.5	277.3	211.0	195.2	27.4	21.5	1.5
2.4 Other	-0.5	-	7.4	2.4	0.6	0.8	1.1	7.1	-	102.0
3. Other private short-term	96.8	186.0	183.4	154.8	309.1	1,292.4	1,131.3	2,600.3	2,778.5	5,113.6
4. Local government project	-14.0	37.1	53.1	50.9	-25.4	-25.5	-24.1	-23.0	-13.2	-
5. Central government	616.4	292.1	445.1	306.3	214.7	387.2	126.4	-105.0	2,157.2	770.8
5.1 Loans	-60.6	-158.8	-395.7	-31.7	-360.8	293.1	-22.5	-18.2	219.8	69.0
5.2 Long-term assets	8.8	20.3	-5.0	-25.8	-20.1	-	-	-	-	-
5.3 Baht liabilities to IFRD, IDA and ADB	-254.4	-209.0	-35.4	-89.9	89.9	-	-	1.6	-	-1.1
5.4 Other	-	-	-	298.2	320.7	-	-	-	-	-
E. Allocation of SDRs	-	-	-	-	-	-	-	-	-	-
F. Recorded balance (A through E)	-510.0	-1,271.5	-2,718.1	-1,601.4	2,901.1	1,940.4	7,270.1	-4,613.6	285.7	-8,545.9
G. Net errors and omissions	959.1	357.7	66.1	1,266.2	1,090.3	-1,076.2	741.9	1,755.6	-368.5	1,008.0
H. Overall balance (F plus G)	449.1	-913.8	-2,652.0	-335.2	3,991.4	864.2	8,012.0	-2,858.0	-82.8	-7,537.9
I. Monetary movements	-449.1	913.8	2,652.0	335.2	-3,991.4	-864.2	-8,012.0	2,858.0	82.8	7,537.9
1. Net IMF accounts	-	-	-202.8	-	-	-	-	-	1,572.8	345.9
2. Private institutions' liabilities	462.9	603.1	941.0	263.2	417.2	3,673.0	1,668.0	1,808.0	1,724.0	7,388.0
3. Private institutions' assets (increase -)	-651.0	-440.5	64.6	-1,010.4	-757.8	-1,036.3	-38.0	436.0	-1,710.0	-1,712.0
4. Central institutions' assets (increase -)	-261.0	751.2	1,646.4	1,379.6	-3,330.1	-3,498.9	-9,662.0	614.0	-1,518.4	1,620.0
5. Monetary gold (increase -)	-	-	202.8	1.0	-	-	-	-	-	-46.0
6. SDRs (increase -)	-	-	-	-298.2	-320.7	-	-	-	14.4	-38.0

Notes : 1/ Data are summarized from the basic reports. No sign indicates credit, minus sign indicates debit.

2/ Excluding military aid imports.

3/ Including gold imported by the authorities for the minting of commemorative coins (Debit of 25.7 for 1968).

4/ Pre 1969 Source : Bank of Thailand, Since 1969 Source : Tourist Organization of Thailand.

5/ Including U.S. Government holdings of baht arising from Thailand's purchases of U.S. surplus agricultural commodities.

6/ Including oil concession fee, Baht 1,070 million, received in June 1974.

Source : Bank of Thailand.

rates of exports and imports were, of course, different. Exports grew at an average annual rate of 4.7 percent during the earlier period of 1957-1960, while imports grew at a slightly lower rate of 4.2 percent for the same period. This high rate of the growth of exports was mainly a result of agricultural diversification responding to foreign demands and made possible by the rapid development of the production capacity mentioned in the introductory note above. This resulted, with the exception of bad export year in 1958, in relatively low trade deficit for the period 1957-1960 as a whole. There were balance of payments surplus in 1956, 1957, 1959 and 1960 and a balance of payments deficit in 1958.

5.26 During the 1960's and up to the early period of 1970's, exports expanded at an average annual rate of 10-11 percent, while imports grew at a few percent higher, ranging from 11-15 percent. These different growth rates are small in percentage terms. But in absolute money terms the trade deficit per annum rose from a few billion Baht during 1960-1965 to about Baht 10-12 billion in 1968-1973. These deficits in merchandise trade were normally more than offset by the combined surplus in other accounts, i.e. the service account, the transfer account and the capital account. There were, thus, continuances of surpluses in the balance of payments in most years from 1960 to 1973. The balance of payments was in the reds only in 1969, 1970 and 1971, totalling all together Baht 3.9 billion. This combined deficit was, however, wholly offset in money terms by the single surplus in the balance of payments in 1972. The long years of surpluses in the balance of payments since 1955 enabled the Bank of Thailand (central bank) to accumulate a large sum of foreign exchange reserve. Thus, Thailand has been borrowing long and lending short in the international capital market.

5.27 Returning to the other flow items in the Thai balance of payments, the two major items contributing to the surpluses in the service account were the U.S. military expenditure spent in Thailand in connection with the war in Vietnam and the expenditures from foreign travellers in Thailand. U.S. military expenditures in Thailand were spent mostly in construction and maintenance of military air-bases. They produced much effects on the Thai economy. Tourism was also accelerated in the latter half of the 1960's, contributing at least 1.0 billion Baht per year to the Thai balance of payments since 1967. It reached about Baht 3.4 billion in 1973 (11 percent of total value of merchandise export of Thailand in that year). The continuous surplus in the service account, therefore, began marginally in 1960 and became increasingly large in the latter half of the 1960's. It reached and was maintained at a level of 5.6 billion Baht for many years up to the first half of the 1970's. The large surplus in the service trade enabled Thailand to face a much smaller deficit in the current account particularly during 1960-1973. It was, however, the combined surplus in the balance of unrequited transfers (the receipts of aids and grants mainly by the government) and the capital movements, particularly the latter, which outweighed the deficit in the current accounts during most of the years in 1956-1973.

5.28 Capital movements, according to the balance of payments statistics published by the Bank of Thailand, are classified by types of transactors (government and private), by types of transactions, (direct investment, loans and credits, as well as portfolio investment), and by duration of the capital flows (short-run and long-run).

5.29 Direct foreign investment was negligibly small before the year 1960.

But with the rush in the Board of Investment's issuing of investment-promotion certificate under the investment promotion of 1960 and thereafter, foreign direct investment as appearing in the balance of payment, began to rise from Baht 0.16 billion in 1962 to Baht 0.57 billion in 1966, and to Baht 0.9-1.6 billion in between 1968-1973.

5.30 While net long-term loans and credits (mostly suppliers' credits resulting from the rising volume of trade and foreign direct investment) for private as well as semi-governmental enterprises are larger and increase rapidly after 1960, net portfolio investment have always been small ranging in between Baht 100-200 million during 1967-1973.

5.31 On private short-term capital flows, net flows are a results of advance payments on imports (a debit entry in the balance of payments), pre-payments on Thai exports and other short-term liabilities to Thailand as well as net changes in trade liabilities. The net private short-term flows was first reported in the statistics of the balance of payments in 1960 and did not become important until 1973.

5.32 Net governmental capital transactions consist of net official long-term loans (drawings less payments), net changes in governmental long-term assets and long-term trade credits, Governmental long-term capital movements did not provide a sizable net inflow until the latter half of 1960's. The largest governmental capital inflows are loans from the World Bank and some rich countries like the United States, West Germany and Japan. These loans are usually for investment purposes but most lately (1977-78) some loans are also internationally floated for the purchases of military armaments.

b. The Period After 1972

5.33 The balance of trade has been in bigger deficits and fluctuated widely compared to a relatively stable deficit of approximately Baht 10.0 billion between 1968-1972. In money terms, the trade deficits ranged from Baht 10.5 billion to Baht 25.6 billion with the deficits exceptionally large in 1975 and 1977. The large trade deficit in 1975 was mainly a result of a bad export year while import continued to be large. Though export increased rapidly in 1976 and continued to rise in 1977, it was far below the rising import bill resulting in a large merchandise deficit of Baht 25.6 billion in 1977.

5.34 The service account continued to bring large surplus averaging about Baht 7.0 billion per year during 1972-1975. But after 1974, the surplus dropped drastically mainly because of the sharp decline in foreign (U.S.) military expenditures in Thailand. Foreign military spendings in Thailand were Baht 4.2, 3.4, 2.6, 0.8 and 0.005 billion in 1973, 1974, 1975, 1976 and 1977 respectively. The decline in this service receipt item has not yet been adequately offset by the rise in the country's receipt from foreign travellers despite the Thai government's effort in tourism promotion. The decline in the surplus in the service account, therefore, gives rise to large deficits in the current accounts especially in the years of export slump which happened in 1975. Though the value of export continued to increase in 1977 after a slump in 1975, imports also rose sharply in 1977. With rising import prices of manufactured goods, both intermediate and capital goods, as well as the high-cost of energy import bill, there was a deficit in the balance of current account by Baht 23.2 billion representing 91 percent of the total trade deficit.

5.35 The current account deficits were normally, in the past, more than

made up by the combined surpluses in transfer and capital accounts and yielding surpluses in the balance of payments as a whole. This was still the case during 1972-1974. In 1972, there was a serious downfall, except in Thailand, of international food (especially rice) production. This world-wide shortage of food (and of rice to be directly relevant to Thai export) sent rice prices exorbitantly high which did not subside until the latter half of 1974. The value of Thai rice export jumped from Baht 2.9 billion in 1971 to Baht 4.4, 3.6 and 9.8 billion in 1972, 1973, and 1974 respectively.^{1/} The combined values of other major agricultural exports e.g. rubber, maize, tapioca, and sugar, as well as tin, also rose during this same time span. The combined export prices rose more than enough to compensate for the high prices of petroleum imports, resulting in the gain from international terms of trade during this few-year period. With the relatively normal surplus in net service trade during 1972-1974 as mentioned above and with the relatively large surplus in capital inflow in 1974, the balance of payments turned around from a deficit in 1969-1971 to Thailand's favor during 1972-1974. The balance of payments surplus of Baht 8.0 billion in 1974 was, in fact, the largest in money terms (and rather assuredly in real terms as well) ever achieved by Thailand's international economic relations.

5.36 Nevertheless, there were large deficits in the Thai balance of payments after 1974. The deficit was exceptionally large in 1977 and almost comparable to the large surplus in 1974. Since the deficit in Thailand's balance

^{1/} Export earnings from rice in 1972 and 1973 would be much higher had the government not imposed stern quantitative restrictions and rice export bans during 1972-1973.

of payments is (at the time of this writing) preliminarily estimated to repeat the figure of 1977, this opens up the question of whether Thailand is now beginning to face a balance of payments problem like so many economically-developing countries and a few developed countries. The balance of payments has been unfavourable to Thailand for the fourth consecutive year which occurs mainly and clearly as a result of the deterioration of its international terms of trade. The main culprit is the high price of petroleum imports. It is, however, doubtful that the present balance of payment deficits are chronic and are a result of the failure of the Thai economy to adjust to the long-run structural change occurring in the Thai economy and to disturbances originated from abroad. This will be understood better when we look into the market mechanism in the adjustment of the Thai balance of payments.

c. Analysis of the Thai Balance of Payments

5.37 Historically, the adjustment mechanism in the Thai balance of payments followed closely the type under the well-known metallic (originally silver and later gold) standard. Given the official parity (through silver or gold and hence sterling before World War II), the conservative fiscal and monetary management, relatively low magnitude of private and government international capital flows,^{1/} little fixed long-term contracts in business activities and in factor hiring, the balance of payments adjustment was normally automatic and left to private hands. Exports usually paid for imports. When export earnings rose, they generated an increase in Thai national incomes which, in turn, gave rise to increases in imports. On the contrary, when exports

^{1/} The private remittances by the overseas Chinese in Thailand were linked to their business earnings which in turn depended on Thailand's export earnings.

decreased, incomes in Thailand also decreased through the multiplier process which induced a reduction in imports. Though the adjustment was rapid, it was smooth and did not produce much pains. This was because private residents themselves automatically retrenched their consumption plans as they saw their income (or to borrow the monetarist's stress on money, their cash balances) dwindle. But the historical fact even prior to the early 1950's was that exports consistently leaped ahead of imports giving rise to the consistent trade surpluses and hence, with little service and capital flows, the surpluses in the balance of payments.

5.38 But as mentioned above, Thailand began to have a trade deficit from around the middle of 1950's with the size of deficit growing rapidly and consistently larger after 1964. The reasons were due to the changing economic situations both in Thailand and abroad as well as the economic policies of the Thai government. In particular, the government has been pursuing economic development and investment promotions policies emphasizing mainly the increase in national output (national income) even up to the present development plan. As a result there has been a structural change in the Thai economy as described above. There has been a rise in the relative share of domestic investment particularly since 1964. If we assume that investment responds to the level of rising income, how then will the adjustment mechanism in the balance of current accounts be different? Theoretically speaking, when exports rise incomes also rise, causing not only imports but also investments to rise along with them. The rise in investments in the process further increases incomes and hence imports. The increase in exports may thus generate the increase in imports (probably lagged by a year or so) more than the initially autonomous increase in exports causing a trade balance deficit. This is possible in the case of

Thailand where import contents of domestic investments are as high as 30-35 percent. The high Thai marginal propensity to import with respect to income also helps in the process in the balance of payment. A decrease in autonomous exports also by itself reduces incomes and induced investment and hence imports. It then still can be concluded that the characteristic of automatic self-adjustment in the trade balance from the autonomous changes in exports are still operating in Thailand as evident most vividly and recently in 1976. When exports rose sharply (36 percent) from a bad-export year of 1975, imports rose only 10.9 percent in 1976 and 35.2 percent in the following year of 1977. Nevertheless, with domestic investment responding to the fluctuating level of income originated from changes in autonomous exports, the automatic adjustment of trade balance may not be exactly complete.

5.39 The above analysis, of course, assumes that all investments depends on the level of income. But large part of Thai domestic investment can also be surely considered autonomous especially the construction of economic infrastructure by the government. Even here, the market adjustment process in the Thai balance of payments can be favourable. When investment falls, income also falls through the Keynesian multiplier process. Imports will be induced to decrease along with income, in addition to the originally autonomous decrease in investment-goods imports mentioned above. Hence there is an improvement in the Thai balance of trade.^{1/} But when investment rises, the trade balance tends to deteriorate. The domestic investment boom and slack have, therefore, resulted in the deterioration and improvement in the balance of trade respectively.

^{1/} We, of course, assume implicitly here that the investment is not effecting directly exports, otherwise the reduction of investment in export-industry may cause export to fall, offsetting the tendency to balance-of-trade improvement.

The real problem is of course that any reduction in income as a result of domestic investment slump may not be economically or more so politically welcome. The government may then be compelled to intervene by using discretionary fiscal or monetary measures to counteract the reduction in income. If this is the case, the smooth and automatic equilibrating process in the external balance is, therefore, hampered. This is, of course, the dilemma between the desired high rate of economic growth and the improvement in the external balance. The conflict arises from using only one policy instrument for the two economic goods or objectives.

5.40 The above analysis of the adjustment mechanism is based on the assumption of zero-capital flows working under the fixed exchange rate system. We also mention earlier that the current-account deficits are normally more than filled up by the net capital inflows. But this assumes that there is no connection between the deficits in the current account (more narrowly the deficit in trade balance) and the capital inflows, which is really erroneous. It can be safely argued that all of the capital inflows into Thailand (the bulk of which are private inflows) are autonomous. These inflows are lured largely by the free-economic-enterprise system in Thailand and as a result of Thai government's economic development efforts and its industrial promotion policies. These autonomous inflows give rise to an increase in imports of goods and services, tending to worsen the balance of current account. This is the normal and necessary aspect of the interaction of capital flows and current accounts well known to students of the theory of the balance of payments. Monetary transfers from abroad have resulted, through income and price effects, in real transfer of goods and services. This explains substantially Thailand's sustained and consistent excess of goods imported over those exported.

Looking from this view point, the net effect of capital inflows on the Thai overall balance of payments can be considered minimal.^{1/} On the contrary, capital inflows are the culprits giving rise to much of the trade deficits. Nevertheless, here again, there may be a dilemma. When foreign capital inflows fall (for what ever reason) imports will also fall accordingly, giving no serious problem to the Thai overall balance of payments. But the fall in foreign capital inflows may trigger a fall in domestic investment, which may be unacceptable to the government. If the government steps up its expenditures to compensate for this fall. This will hamper the balance of payments adjustments. With no reduction in imports and a short-fall in foreign capital inflows, the balance of payments will turn sour.

d. Economic Policy Toward the Balance of Payments

5.41 Having understood the market mechanism of adjustment in the Thai balance of payments, we now turn to the question of how the Thai government solve its perceived balance of payments problem. Has the Thai government ever attempted, with intention, any monetary and fiscal policies affecting aggregate domestic absorption and hence balance of payments? The answer has been "no".^{2/} Adjustment in the Thai balance of payments has normally been left to the working of the free market. What the government has usually done to shore up its perceived balance of payments crisis is to raise, on an ad hoc basis, tariff rates,

^{1/} Of course, there are other benefits and costs to be reckoned with particularly in the case of foreign direct investment before a definite conclusion can be reached as to the desirability of foreign capital.

^{2/} For the automatic role of government budget in the adjustment process of the balance of payments, see Siamwall, A. (1975).

imposing quotas and bans and other restrictions aimed at reducing imports, e.g. tariff increases on July 1, 1971, and in February and March of 1978. The trouble with the ad hoc increase of tariffs and the use of direct restrictions on trade is that they usually do not produce lasting effects on the balance of payments especially if it is accompanied by a government deficit budget financed directly from credit-creation through borrowing from the Bank of Thailand, especially since the year 1968 with an exception of 1974 and 1975. The rise in domestic prices from the government's fiscal deficits from credit creation will offset the initial effect of tariff increases.^{1/} But-tariff increases have also the effect of reducing volume of trade and deprive some of the country's gain from exchange and specialization in production. In addition, ad hoc tariff increases on selective import items and selective quantitative controls on trade for the purpose of the balance of payment certainly give rise to differential nominal and effective rates of protection among various production sectors. Though the average level of tariff protection is generally not high, the adverse side effects of tariff-rate increases are not fully realized by Thailand's high-level policy makers.

5.42 We have just explained the inability of tariff devices and trade restrictions to solve the balance of payments deficits. What should then be the appropriate policies and measures taken to solve the balance of payments problem if Thailand faces it? There are of course different alternatives.

^{1/} This statement should not be taken as contrary to the observed link between external prices and domestic prices in Thailand. Being a small and open economy adopting rather faithfully a pegged exchange rate system up to 1978, domestic price and business fluctuations in Thailand were (still are) invariably linked to world prices and business fluctuations abroad.

5.43 An appropriate policy dealing with the balance of payments under the fixed exchange rate system is to deflate or slow down the economy. In fact, with high import-content of the domestic investment in Thailand and high marginal propensity to import with respect to income, any change in autonomous exports and investments should bring an automatic self-adjustment in the Thai balance of payments. The policy-makers can help the adjustment process and ease the pains from this by making both factor and commodity prices as flexible as ever. Administrative commodity price fixing usually practiced for political purposes should be looked upon as a grain of salt. Thailand is lucky in the sense that labour unions and, to a lesser degree, trade unions have not generally and really been strong enough to start a process of cost-push price inflation which has frequently paralysed some western industrialized countries.

5.44 Export promotion policies which have been adopted since the early 1970's is now beginning to yield some positive results which is clearly seen in the most recent surge of manufactured exports. This policy should be consistently and vigourously pursued because the best way to pay for imports is the exports of both goods and services. Now the long-drawn gas price negotiation is completed for certain wells of natural gas found in the gulf of Thailand, the government should ensure a quick and smooth private investments to bring the natural gas to uses. This will, in the long-run, not only save foreign exchange by substituting Thai natural gas with some of the petroleum imports, but also can give rise to changing international comparative advantages in certain Thai products for more exports.

5.45 Moreover the government itself may continue to seek long-term capital inflows from abroad for purposes of building and extending basic infrastructures to increase the country's capacity and flexibility to produce. Private

domestic investment including those foreign capital participating in domestic investment should also be more carefully and selectively induced by using the criterion of social cost-and-benefit analysis together with its implication on foreign exchange earnings (or savings).

e. The Role of Exchange Rate

5.46 In the discussions above, we assume a fixed exchange rate system for Thailand. In fact this assumption is verified for Thailand which can be said to have faithfully adopted an adjustable peg system under the International Monetary Fund's Article of Agreements from August 1955 up to 1978.^{1/} The exchange rate is of course the price of a currency against another currency. The exchange rate is thus the link between the domestic prices of goods and services among trading countries. In this connection, an exchange rate has a role to play particularly in the adjustment of current account of a small open economy like Thailand. Lowering the value of the Baht would encourage exports and discourage imports with more or less no change in its barter terms of trade.^{2/} With given sets of price elasticities of the demand for Thai exports and its demand for imports, we can easily show that the balance of current account will tend to improve in the long-run, say after 1-2 years. But instead of

^{1/} Though Thailand did not declare its parity of the Baht vis-a-vis gold (or in effect the U.S. dollar before 1971) until October 1963, it had adopted a single exchange rate system during the middle of 1955 to the middle of 1978. After a relatively short period of linking the Baht to a basket of currencies, the Bank of Thailand has adopted a daily fixing of the Baht against the U.S. dollar since November 1, 1978.

^{2/} Lowering the value of the Baht by say 10 percent is equivalent to a uniform import tax by 10 percent coupled with a uniform export subsidy by the same amount. The daily-fixing exchange rate system is, therefore, a blessing giving the Bank of Thailand an extra instrument to influence the balance of payments. Daily exchange rate fixing gives more flexibility to the Bank of Thailand in changing the value of the Baht whenever required by making it less political.

concentrating ourselves on this issue, we will look at the exchange rate from another angle. We will attempt to figure out whether the Baht is overvalued or undervalued in relation to its free equilibrium rate. In short, we are attempting to find out the free-trade "shadow exchange rate" of the Baht in terms of the U.S. dollar.

5.47 As described above, tariffs and export taxes and lately the differential rates of business tax (indirect tax) imposed on imports and locally produced goods as well as other trade restrictions give rise to a structure of protection in Thailand. We shall assume that all barriers to trade will be dropped and the market for Thai foreign exchange will go to equilibria. The year used for the calculation of the shadow exchange rate is 1976. The general formula adopted for the calculation of a shadow exchange rate is

$$\frac{dr_t}{r_t} = \frac{M_t - X_t}{X_t l_x - M_t l_m}$$

where $\frac{dr_t}{r_t}$ = the devaluation required to keep the balance of current account in equilibrium

M_t = value of imports at the effective exchange rate

X_t = value of exports at the effective exchange rate

l_x = exchange rate elasticity of the demand for Thai exports

l_m = exchange rate elasticity of the Thailand's demand for imports.

The above formula can take account of the net capital inflow by simply

adding the net capital inflow to the numerator. This of course assumes that capital inflows into Thailand are not affected by the level of the exchange rate.

5.48 The above formula for the shadow exchange rate requires the knowledge of the effective exchange rates facing both exports and imports. With the values of exports and imports, export duty, royalty (mostly for tin export), and import tariffs collected in 1976, the average effective exchange rates for exports and imports deviating from the average nominal rate of Baht 20.40 per U.S. dollar in that year can easily be obtained. The average effective exchange rates for imports and exports are found to be Baht 23.052 and Baht 19.584 per U.S. dollar respectively. We can choose to assume a value for the exchange rate (price) elasticity of the demand for imports in order to bring us to the value of imports at that level of the effective exchange rate for exports. Exports are divided into rice and non-rice exports. With additional assumptions of the values of the price elasticities of the demand for and supply of Thai exports, we can then proceed to obtain various estimates on the shadow exchange rates of the Baht. For example, if we assume that the exchange rate elasticity of the supply of rice export is zero (completely elastic), and that average elasticity of supply of non-rice exports to exchange rate varies in between 0.5 to 2.5, we then can obtain, with the additional assumption of the price elasticity of the demand for import being equal to -0.5, the shadow exchange as follows:

(a) In the case of no-capital inflows, the shadow exchange rates varies from 7.5 to 20.1 percent above the average nominal rate of Baht 20.4 per dollar prevailing in 1976.

(b) If we take into account of the net capital inflows all of which are assumed autonomous, the equilibrium exchange rate will be about 3.3 to 8.8 percent higher than Baht 20.4 per U.S. dollar.

5.49 The calculation under (b) is of course more realistic since capital inflows are taken into account. Nevertheless, if we assume that in a longer-run of more than one year, the supply of Thai rice export will not be entirely inelastic. Relaxing the complete inelasticity of rice export supply with respect to price then causes the levels of the calculated equilibrium rates to be generally lower than those above if the price elasticity of demand for Thai rice exports exceed one (elastic). Hence, if we take the highest value of the elasticity of non-rice export supply to exchange rate to be 1.5 (middle value of 0.5 and 2.5 as mentioned above) and assume non-zero price elasticity of the supply of rice export together with the elastic export demand for Thai rice, we will certainly obtain a more realistic shadow exchange rate not significantly different from the minimum overvaluation of the Baht (3.3 percent under the (b) calculation above).

5.50 The preliminary exercise of shadow exchange rate calculations above tends to lead us to a conclusion that the Baht was not overvalued in 1976. If it was, it was slight probably about a couple percent. There is another piece of market evidence tending to confirm our estimate above. It is the small discount of Baht (premium for the U.S. dollar) in the forward market. The differential rate of interest among various financial instruments between Bangkok and the major financial markets ran probably about 1-3 percent in 1976, while the forward discount for the Baht plus all administrative costs was not exceeding 1 percent. If the value of the Baht was in doubt, speculators must have pushed the Baht to a much higher forward discount exceeding

the narrow interest rate differential prevailing in 1976. Those who disagree with our estimate may argue that the forward market in Thailand is small and does not really give much indications as to the strength or weakness of the Baht. But the market is just a sub-market of the total foreign exchange market in Bangkok which is, in turn, closely linked with important foreign exchange markets abroad. The absence of speculation against the Baht indicated that our estimate was rather correct.

5.51 The analysis of this paper seems to lead to a not-too-pessimistic outlook for the present prospect of the Thai balance of payments. Despite the recent continuous deficits in the balance of payments since 1975, the official exchange reserve held by the Bank of Thailand as at June, 1978 is still \$2,161.6 million representing about 5.7 times the balance of payment deficit in 1977.^{1/} With the help of large accumulated short-term international reserve helping to ease the deficits, the appropriate long-run policies of maintaining a high rate of growth with no long-run balance of payment problem are to facilitate or at least not to hamper the market adjustment process working rather effectively in the Thai economy. Export promotion policies should be continued. Interest rate policy, particularly on saving, should now be reconsidered and adjusted upward to make the real rate more attractive to savers. More foreign capitals should also be sought for projects which are economically sound. The criterion of project selection and evaluation basing for example on the domestic resource cost technique of foreign exchange earned or saved should be applied. In the end, the exchange rate can be made more flexible to provide an additional flexibility in adjusting directly to the balance of payments. In fact, the more flexibility of the Baht is not only

^{1/} Total country's net reserve stood, however, at \$1,198.6 million. Private foreign debt has increased sharply in 1976 and since the latter half of 1977.

desirable to help insulate somewhat the Thai economy from foreign price fluctuations. But it is inenevitably the result of the collapse of the Bretton Woods system and the OPEC cartel's oil price hike. We also would like to conclude the paper by cautioning readers that future economic growth in Thailand and continued capital inflows to help in maintaining the high rate of domestic investments also hinge on the implicit assumption that there is a continued political stability in the country.

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CHAPTER 6
ALTERNATIVE DEVELOPMENT STRATEGIES FOR THAILAND
FOR THE 1980S AND INDUSTRIAL FRAMEWORK
Narongchai Akrasanee

6.01 It has become apparent that Thailand is faced with a growing demand for more sharing in the development process while constraints acting on the economy are becoming much more severe. The demand is due to the realization that social objectives of development have not been sufficiently fulfilled. A large number of the people still live below absolute poverty. They have not participated fully in the development process. Yet at the same time resources are being depleted faster than their discovery including the discovery of ways to save them. The interdependence with other countries has made Thailand subject more to changes in international environment. All of these new development suggests that Thailand needs to think of a new set of development strategies for the 1980s^{1/}.

6.02 This chapter attempts at identifying alternative development strategies for Thailand. Part A surveys current thinking on alternative development strategies in several countries and circles. An assessment of these strategies in terms of their suitability to Thailand is made in Part B. Parts C and D discuss strategies for the internal and external sectors respectively. Part E deals with an industrial (production) framework as envisaged by the new development strategy. The last part examines administrative machinery for development, including roles of various organizations in the development process.

^{1/} The following discussion has been derived largely from Akrasanee (1978).

A. CURRENT THINKING ON ALTERNATIVE DEVELOPMENT STRATEGY

6.03 There has been a growing dissatisfaction with the outcome of past development efforts in most countries, market economy as well as socialist, which has led to the search for an alternative development strategy. The followings are some of the causes of dissatisfaction which have often been cited.

a. Poverty has prevailed in most countries, even in those considered to be rich countries. It has often been criticized that after a long period of development efforts, poverty has not been eliminated. The gap in income has also been found to be widened in most countries. With a very rapid depletion of natural resources and a fast population growth, the problem of poverty and income distribution will be more and more serious.

b. The degree of democracy in terms of human rights and freedom has not increased with the increase in income. This is contrary to what people were told to believe at one time or another as a justification for the so called "temporary authoritarian rule". The quality and the meaning of life have also been found to be on the decline in some countries.

c. The degree of dependence on other countries, especially of the developing countries on developed countries, has increased rather than declined. Again this is contrary to the belief that it should decline following industrialization. The situation seems to be worst in the least developed countries. This may be seen in the growing amount of debt which they have found to be very difficult to pay. To these countries, it is the matter of not knowing how long they can depend on others. To another group of countries the dependence is in the form of import dependence. The import bill has been growing often faster than

their export earning and economic growth, resulting in the widening gap of trade deficit. The problem in this case is how long they can continue to rely on capital flow to finance the growing trade deficit.

d. The people in every country has an increase in expectation which has become more and more difficult to fulfill. Modern communication has created the "demonstration effect", and the people continue to want more and more of everything.

e. The role of state and the size of bureaucracy has increased. This has usually resulted in inefficiency and disillusion with the government. In some countries, even in the United States, it has produced a rebellion against the State.

f. Developing countries feel that they have been exploited in their international economic activities, and that the existing international economic institutions are not effective in correcting the imbalances. The problems are seen in the prices of primary commodities, protectionism in developed countries against imports of processed primary commodities and manufactured goods from developing countries, and the control of transnational corporations through investment, marketing and licensing agreements.

6.04 The discussion on ADS has been held at several fora, at subnational, national, regional, and global levels. The fora may also be classified according to the participating parties. For example the Non-Aligned Meeting in Colombo in August, 1976, was attended by governments of the third world; the Conference on International Economic Co-operation (the North-South dialogue) in Paris in 1976-1977 was participated by governments of both the third world and industrialized

countries; the Interfutures group (of the OECD) consists entirely of industrialized countries; the Third World Forum and the Inter-regional Co-ordinating Committee of Development Association (ICCDA) are both third world but non-governmental. At these fora as well as at others the objective and strategies for development have been discussed. For objective it seems that the satisfaction of basic needs has been voiced as the most important objective of development. Different countries may define basic needs differently, but most usually include the physical necessity of life and human rights and freedom. The responsibility to satisfy basic needs has been extended to the global level. Developed countries and more advanced developing countries, in other words, are expected to help poorer countries satisfy the basic needs through international transfer of resources.

6.05 Apart from the concept of basic needs the following concepts, which may be considered to be strategies, have most often been mentioned^{1/}.

a. Self reliance. Every country has expressed the wish to rely more on itself. The definition of self reliance varies from country to country, from the most extreme one of autarky to delinking, and to just an improvement in the ability to manage itself. If there is the need to rely on others, developing countries would like to rely on countries that are at similar level of development. This is the concept of collective self reliance.

b. Resource and environmental constraint. There is now an awareness of the limitation of resources and the deterioration in environment. Energy has been cited as a resource which is non-replenishable. Some raw materials may be

^{1/} See Rist (1978).

substituted by others at different periods of time through research and development. But the production of these raw materials require energy input. Furthermore, the use of energy also creates environmental problems, some of which have become irreversible. A strategy of development is to preserve resources and environment as much as possible.

c. Indigeneous technology. The technology to be used is indigeneous in the sense that it is suitable for local conditions. Advanced technology is usually developed in advanced countries which, naturally is made to suit the conditions in which it is developed. Since conditions in developed and developing countries are different, advanced technology is often found to be too expensive in terms of resource cost for developing countries. On the other hand, if a technology can be developed based more on local conditions and availability of resources, it is believed that this strategy would be more appropriate in the long run.

d. Institutional reform and structural adjustment. Two concepts are involved here. The first is a reform of institutions in the sense that it would allow more participation in the development process. A difference is made between "top down" and "bottom up" approaches to development. The "top down" approach is a natural consequence of a very centralized form of government. It has been found that through this approach the development is forced down, and has not produced what the people need. A reform is to be made such that decisions are made at the level closer to the people themselves.

Structural adjustment is meant to be an adjustment in the production structure. The concept is applicable to both developed and developing countries, and considered necessary for a harmonious growth of the world economy. For

developing countries, the economic structure is often found to be too dependent on imports, and further development would lead to more import requirement. This concept is thus complementary to the concept of self-reliance. In the case of developed countries, structural adjustment means the phasing out of industries in which comparative advantage has been lost. This would allow for the expansion of imports from developing countries.

e. Reordering of the international economic system. This is the external strategy which developing countries have been working together. The objective is to create an international economic system which will provide a more equitable distribution of gains from international economic relations. There are many areas in which developing countries have been attempting to work out certain arrangements. These may be summarized as follows^{1/}.

i. Raw materials. Developing countries seek to stabilize their export income from their export of raw materials, and to maintain their purchasing power through export of raw materials by way of price stabilization or indexation. Furthermore they seek to add more value through processing on the spot, and to have a surveillance of the conditions for competition between natural products and synthetic substitutes. A programme proposed to deal with these activities is known as the integrated programme for commodities (IPC), which has the Common Fund as the financial instrument.

ii. Manufactured products and industrial development. Developing countries seek to have a better access for their manufactured exports to the market of industrialized countries through the elimination of tariff and non-tariff barriers.

^{1/} The summary is based on EEC (1977).

They propose an international redistribution of industrial activities to give LDCs a greater share of world industrial production, thus enabling them to satisfy their own domestic needs. They also encourage industrial investment in their country with a transfer of technology.

iii. Public aid and private capital transfer. The proposals include several items, namely : the public aid objective for the second development decade (0.7% of GNP from the rich countries) to be made and the conditions attached to it made less strict; increase of resources from international development finances, e.g. World Bank, IDA, and regional banks; increase of access to resources (notably from the IMF) to cover balance of payments difficulties; cancellation of public debt of the least developed countries; rescheduling by new methods of public debt of developing countries; and measures to protect developing countries from international inflation.

iv. Energy. LDCs would like to see (1) a recognition of the limited character of oil and natural gas resources; (2) maintenance of the purchasing power of revenues coming from export of energy; and (3) development of all forms of energy.

v. Services and the tertiary sector. These areas are known to be under the control of DCs. LDCs thus want greater participation in the field of maritime transport, insurance, tourism, etc., and reduction in the cost of access to technology such as patents, know-how, etc.

vi. Agriculture and food. Proposals which have been made are : development and diversification of the production of developing countries to meet their general food needs; increase of financial resources devoted to agricultural

development; and improvement of food aid programmes.

vii. International decisions. Perhaps this is the most contested area in recent development of international economic relations. It is well known that DCs have designed "rules of the game" and have administered those rules believed to be to their advantage. Thus LDCs have demanded : that roles of developing countries in international institutions be increased; right of participation in common administration of common resources (e.g. ocean resources); and code of conduct for transnational corporations.

6.06 It is obvious that the proposals for reform of the international economic system have been both elaborate and articulate. What is not obvious is how the proposed international strategies are linked to the internal strategies. Perhaps this will vary from country to country, and will be determined by the degree of openness of the country, the availability of natural resources, and the level of the country's development. A discussion more relevant to the Thai situation will be made in later sections.

B. THAILAND AND THE ALTERNATIVE DEVELOPMENT STRATEGIES

6.07 The suitability of development strategies for a country depends upon economic, social and political conditions of the country. Thailand provides an interesting case study for various reasons. In relative term, the rate of economic growth has been an impressive seven percent in real term during the last two decades. With this rate of growth, the per capita income is now about US\$450, which means that the country is no longer a poor country by world standard. But poverty remains a serious problem in Thailand. According to the latest statistics, on the average 25 percent of the population are still living below the poverty line, with a much higher percentage in rural areas. The Thai economy

is described as agricultural, for more than 75 percent of the people depend on the farm as their means of livelihood. And although the government plays an important role, the economy relies very much on private initiatives and enterprises, with foreign trade and investment being important factors in economic development. Several problems have been identified and analysed in the previous chapter. We summarize below the problems considered to be more serious.

6.08 Lack of energy and depletion of natural resources have been identified to be among the more serious problems faced by Thailand. This is followed by the high rate of population growth and the demographic structure which reveals a very high rate of labor force participation. In terms of production, though the industrial sector has a relatively good potential for growth, growth in the agricultural sector depends very much on the increase in agricultural productivity. This is perhaps the most crucial factor affecting economic development of Thailand in the 1980s. Finally the deficit in the balance of payments has become a serious constraint on the Thai economy.

6.09 What we have not mentioned so far is the problem of economic and development management. This is an obstacle to development. The problem is seen to be more serious at the public level. Specifically the State lacks mechanism to deal with the increasing number of development problems and issues. The State is still organized in the same way as it was a century ago when the duties of the State were confined basically to defence of the country and the maintenance of law and order. During the last two decades, the State, or the bureaucracy, has expanded itself, and has assumed the role of a "welfare state". It has created expectation among the populace that it will provide all amenities that will lead to an improvement in social welfare. Social welfare has, therefore, become the responsibility of the State. But the State is not capable of handling this new task.

With the high rate of population growth and limited resources, the provision of welfare as expected of the State has become practically impossible. Furthermore, the Thai government has a very serious shortage of capable personnel, because of its low pay relative to the private sector's and a very inefficient decision making procedure, which is even more serious at the very top level. The whole decision making process is anti-development. Practically every important decision has to be made by the Cabinet, and any controversial ones by the Prime Minister himself.

The State is not alone in having the shortage of qualified personnel. In fact the same thing can be said of the entire economy. This makes the issue of management even more important.

6.10 Having identified the problems, and having discussed the concepts of development, it is proposed that the satisfaction of basic needs be the most important objective of development for Thailand. If this is accepted, then it will represent a very important change because in the past the satisfaction of want was usually the rule.

Basic needs should be defined to include not only food, shelter, and clothing, but also education, public health, gainful employment, human rights and freedom. These elements are considered necessary for a meaningful life. As to the level of satisfaction, the old expectation as reflected in the Thai saying of "eat well, live well", is considered to be too much, and "eat moderately, live moderately" should be adequate.

6.11 The new development concepts mentioned in Part A are applicable to the case of Thailand. But because of the peculiar characteristics of the Thai economy and its problems, the development concepts as discussed in Part A need to be

modified, and other considerations added. In general terms the following strategies are suggested for the satisfaction of basic needs.

a. To continue to use market and not the State for the distribution of goods and services. In other words, the market economy is to be continued. Thus the alteration of production process is to be accomplished through taxation and subsidization.

b. To have more self-reliance in the sense that the country is to manage its own problems, to make its own decision, and to work for what it needs. This definition of self reliance is different from the popular definition, which is to reduce the relationship with developed countries. Thailand considers the relationship to be interdependence rather than dependence, thus there is no need to reduce the relationship. The increase in interdependence will be of mutual advantage if the country is able to manage itself.

c. The new strategy is to preserve resources and environment. Resources are defined to include human as well as traditional resources. The desire to have a more efficient resource management is clearly felt. Energy has been identified to be the most crucial resource.

In connection with resource preservation it is believed that the slowdown in the rate of increase of consumption would contribute to resource saving. Advertisement may be blamed for a lot of wasteful consumption, and this certain kinds of advertisement should be restricted.

d. The concept of indigeneous technology is viewed favorably as a means to help solve many local problems. But indigeneous technology needs not be the only kind of technology. It is felt that market-oriented technology would

be more suitable for export expansion projects. It is obvious that, especially for manufactured goods, exports are demand determined. Thus their production and marketing technology should be determined by the market.

e. There should be a reform in the bureaucracy and institutions dealing with development, so that the State will be able to contribute to the new development. In this case the roles of state should be clearly specified. The reform is considered necessary to allow for local participation. We shall come back to this point later.

f. To continue to use the open economy approach for international economic relations. The new strategy will be that serious efforts will be made to derive maximum benefit from the external sector. This is to be achieved also through co-operation with other developing countries, and with countries producing similar commodities. The strategy should produce more income for the country, which can then be used for basic needs.

In the following sections we shall discuss in more detail the development strategy for the internal and the external sectors.

C. DEVELOPMENT STRATEGY FOR THE INTERNAL SECTOR

6.12 On the objective of development to satisfy basic needs, it should be emphasized that the satisfaction of basic needs is most lacking in rural areas. Problems in rural areas are linked with problems in urban areas through migration. For example, low productivity in rural agriculture which is the main cause of rural poverty is the determinant of the unskilled wage rate in the urban area which, in turn, is the main cause of urban poverty. Attention should therefore be focused on the rural area.

6.13 Consequently three specific strategies are suggested.

a. Rural development is to be the strategy for the coming decade. The strategy is to increase productivity and thus income of the farmer through a more intensive and more appropriate utilization of land. As for urban unemployment, the problem will be somewhat lessened by the rise in rural income. In addition an export-oriented strategy of industrialization will be able to create more jobs than the import substitution strategy adopted so far. Small-scale and labor-intensive industries, if promoted, also have a high capacity to create employment. Of course all of these measures would still not be enough to combat unemployment and poverty, and the rate of population growth must be brought down to 2 percent by the year 1990 at the latest.

b. A new agricultural pricing policy should be implemented such that income of the farmer will increase at a faster rate than in other sectors. This refers in particular to the increase in the price of rice on a stable basis, using the average long term world price of rice as guideline.

c. For other rural development projects, the following suggestions are made.

i. There is a need to change the attitude towards rural development of both the so called development workers and the people in rural areas. In the past rural development projects were activities thought to be carried out by one party, the government, for another party, the people, and the attitude was re-confirmed accordingly. This has resulted in a discontinuity in development works.

ii. Rural development project needs to have consent from the people in the area. In other words, a project is not to be forced upon an area as it used to.

iii. There must be a full participation from the local level, from local planning to implementation, monitoring of projects, and co-ordination with other projects.

6.14 On what model a rural development project should take, we certainly would wish to see a Thai model, but are not quite sure what such a model looks like. What is certain is that Thailand has already tried too many pilot projects, some based on a Korean model, some on an Israeli model, etc. The trouble with this pilot-project approach is that the project is fashionable only for a short while. Changes have been frequent and have created confusion in the process. It is also felt that the government should keep its involvement in rural development projects to the minimum. There are cases of too many government agencies having visited a particular area without co-ordination among them. A model suggested is to use a non-profit private organization to carry out the project by working with the local people on behalf of the government. This model has been applied very successfully by the Population and Community Development Association of Thailand in its health project which it has carried out for the Ministry of Health. There are several advantages in this approach, the most important of which are, firstly, the organization will be held accountable for its task, and secondly, the feeling of dealing with "the authority" of the people is very much reduced. Those who are familiar with Thailand would appreciate these two advantages.

6.15 To summarize, development strategy for the internal sector is to have three components : a general policy with a focus on rural development; a new agricultural pricing policy more favorable to the rural sector; and a new approach to implementing rural development projects. The strategy can be translated into specific actions which will involve many areas of economic activities. For example the general policy with a focus on rural development implies a rising

proportion of government expenditure for rural areas; the new agricultural pricing policy means an effective price support program during a slump year; and the new approach to rural development projects requires changes in the procedure in implementing these projects.

It is obvious that the internal strategy can not be designed and carried out in isolation from the international economy. In the next section we shall discuss development strategy for the external sector, and then try to explain the linkages between the two sectors.

D. DEVELOPMENT STRATEGY FOR THE EXTERNAL SECTOR

6.16 The significant influence of the external sector on the country's economic development is well known, the consequence of which has been the duality in the economy. Attempts to break the duality may have adverse repercussion, and a different set of strategies for the external sector is therefore necessary.

6.17 The link between the external sector and the internal sector is through foreign trade, foreign investment, and capital flow. Having assessed changes in the international economic system, we are of the opinion that the system in the 1980s is likely to be the combination of the present system and the system as suggested in the NIEO movement. In other words the protectionism in developed countries, the exchange rate flexibility, and the influence of transnational corporations is world trade and investment will continue, but there will be more participation in the management of the world economy from the developing countries. For Thailand the external sector will be relied upon for the exchange of goods and services, and as a source of investment fund, for the benefit of the national economy. As mentioned earlier, in general the open-economy approach will be continued. More specifically, a few strategies are suggested.

a. Trade. More negotiations should be used to expand and to direct trade. Negotiations are to be carried out on both bilateral and multilateral bases. New market for exports and new sources of imports should be identified. For exports, we have in mind negotiations with socialist countries, and countries which have been applying restrictive trade practices (EEC, Japan, the United States). New sources of imports are seen in a number of more advanced developing countries. Products should be promoted for export, and imports should be kept at the level which the country can afford in the long run. In effect an aggressive management strategy should be applied to foreign trade.

In addition to the strategy outlined in the preceding paragraph, Thailand should design alternative strategies taking into consideration some proposals in the NIEO movement. The proposal to have a reordering of trade in primary commodities should at least have the effect of more opportunities being opened for processing of raw materials in Thailand before export. The demand for greater access for manufactured products from LDCs to the markets of industrialized countries should have an important effect on the development of manufactured exports of Thailand. Since it is unlikely that LDCs will succeed in this demand, it follows that trade will be more managed through quota arrangement. Furthermore, the more advanced developing countries will have to concentrate their resources in the production of higher-technology goods (rather than the labor-intensive ones), thus they will soon become new markets for manufactured exports from a country like Thailand. In both instances negotiations to promote trade are required.

It is obvious that these trade strategies will contribute to the effectiveness of the internal strategies suggested earlier. More processing of primary commodities would benefit the rural sector. And the promotion of labor-intensive manufactured exports will contribute to employment creation in urban areas.

b. Finance and development. Grouped under financial strategy are the issues of foreign debt and foreign investment. For foreign debt, it is certain that Thailand will have to rely more on it during the 1980s because of the difficulties in the balance of payments and the development needs mentioned earlier. The strategy here is to create debt at the best terms possible, subject to the constraint that the debt-service ratio for both public and private debts should not exceed 20 percent. This implies that the creation of private debt should be administered or at least monitored, because the terms of private debt will affect the inflow and outflow of fund.

With respect to foreign investment, Thailand has so far been very liberal. Only foreign investment under the "promoted" category has been supervised and followed up by the Board of Investment; the rest have been practically left to do as they wish. Apart from other effects of such a liberal policy, it is felt that more benefits from foreign investment could be derived through clearer policies and guidelines on various aspects of foreign investment including licensing agreements and transfer of technology.

c. Co-operation with other countries. Co-operation with other countries such as ASEAN is strongly encouraged. This is mainly for the purpose of increasing the bargaining strength and for trade expansion. During the last few years ASEAN has proved to be a viable form of regional economic co-operation. It has reached agreements in the areas of industrial co-operation, preferential trading arrangements, co-operation in basic commodities (i.e. food and energy), and joint approaches in international negotiations. Although up to now only the agreement on preferential trading arrangement has been implemented, all other agreements are either close to start or have a very strong potential.

d. The development of international services and tertiary sector.

This is a very important area which has been largely ignored until very recently. By developing maritime transport and insurance, Thailand can save substantially on the foreign exchange cost of trade. The cost of patents and know-how too can be saved through more appropriate legislations, thus saving the payments in foreign exchange for these services.

6.18 Apart from what has been said briefly above, perhaps what Thailand can do is to join with other LDCs in their efforts to reform the international economic system. Thailand is usually known to have a moderate position on international economic issues. This position should be maintained, but in a more active manner. That is Thailand should be "actively moderate", for we believe that this is perhaps the only way to make the reform possible. A moderate position means cooperation rather than confrontation, which has been the standard practice in international negotiations. In this respect Thailand, through ASEAN, can perform a very useful role in the North-South relations.

E. AN INDUSTRIAL FRAMEWORK FOR THE NEW STRATEGY

6.19 To visualize an industrial (production) framework it is important to establish the linkage between internal and external strategies described above. It is not difficult to see that the linkage is through foreign trade. The increase in agricultural productivity and hence output will result in higher income for the farmer if and only if the additional output can be sold at good prices. Obviously this may be achieved through export. And if they are exported in processed form, it would mean more local value added and employment. Higher income in rural areas will lead to more effective demand for manufactured goods. Thus export promotion is seen to be very consistent with the policy of rural

development through the improvement in agricultural productivity. Furthermore, the strategy to promote manufactured exports is necessary for the policy of export-oriented industrialization.

6.20 In the area of international finance, the strategy is designed such that financial requirement for development can be fulfilled on a continuous basis. And subregional co-operation, if successfully carried out, will be a powerful tool for the promotion of domestic industries and trade.

6.21 Having proposed internal and external strategies and having established the linkage between them, it is perhaps useful to visualize the production framework consistent with those strategies. If we are to divide productive activities into three groups, i.e. agriculture, industry (mining and quarrying, manufacturing, public utilities, construction), and tertiary, then in terms of growth rate the agricultural sector will grow at the rate slightly higher than the historical trend of about 3-4 percent per annum. This is because of the limitation in land areas and the increase in agricultural output is only through the increase in agricultural productivity. Economic growth will therefore have to rely on growth of the industrial sector, particularly manufacturing, and the tertiary sector. For example if the overall growth is to be around 8 percent, the rate considered necessary for the eventual eradication of poverty in the 1980s, then both the industrial and tertiary sectors will have to grow at about 10 percent. Obviously if this is the case, the structure of production in terms of value added will be concentrated much more in the industrial and tertiary sectors by the end of the 1980s.

6.22 It should be emphasized that the growth oriented strategy suggested above is designed with a social objective in mind. High growth is necessary

because there is a need for more products to be shared among a much larger number of people. The basic difference between this growth strategy and the conventional growth strategy is that the new strategy is a growth-cum-distribution oriented strategy. That is, the promotion of growth is directed towards a particular sector, or sectors, of the economy, while the rest of the sectors are left to market forces, of course with proper government policies allowing market forces to function. This approach is considered suitable for Thailand because of the existence of a very strong and flexible private sector, and a relatively efficient market system.

6.23 In more detail the structure of all the sectors will also be drastically changed in the 1980s. The agricultural sector will have more high-income-yielding crops. More land, especially in the Central Plain where water can be controlled, should be turned to produce more cash crops including vegetables. Crops which can be grown in the Northeast will be promoted, and cassava and kenaf are seen to have a rising share in agricultural commodities. Similarly, the production of fruits, tobacco, and oilseed will increase in the North. The South will have a high-yielding rubber trees during the 1980s. And rural areas along the shore in both the South and the East will produce more marine products. Rice is seen to occupy less land, but its growth should remain at about the same rate.

6.24 In industry, manufacturing is expected to have the fastest growth rate. Within the manufacturing sector itself the following groups of products should have higher shares in manufacturing value added : processed food; agricultural equipments and machinery; products considered to be basic industries such as chemical fertilizer (potash), steel, soda ash, paper; construction materials; and labor-intensive products. It is clear that products expected to

grow faster than others are those related to the agricultural sector (input and output), and the products which can be exported.

The production structure described above is considered to be consistent with the policy of the satisfaction of basic needs which has been identified to be the most lacking in rural areas. Realizing the fact that the Thai economy relies very much on market mechanism, the structure is therefore an intended one. In terms of policy implication, it means that those sectors and industries should receive a high priority in government's policy and promotion activities. Other sectors may grow according to market forces. The only influence, the government may have on them if it wishes, is through taxation policy which does not encourage their production and consumption.

6.25 One last comment about the industrial framework and the policy of basic needs is that production is only one aspect of the development to satisfy basic needs. Other aspects are distribution and participation, the reorganization of which requires institutional reforms at various levels. There are also problems in rural areas beyond the scope of economic reorganization. For those problems specific projects will have to be carried out.

F. ROLES OF THE GOVERNMENT AND OTHER ORGANIZATIONS

6.26 It is obvious that the government has a very important role to play in the development to achieve the objective of the satisfaction of basic needs. For whatever will happen the government and the bureaucracy will remain. Also likely to remain in the next decade is the existing political system and form of government, which is an alternate between a military government and an elected government. Of course, one would wish to see a growing degree of democracy. Some people have expressed concern that if the government and the bureaucracy

do not change (for the better) then the political system might be changed. The reason given for this possible outcome has been that the satisfaction of basic needs can not be achieved if the government and the bureaucracy continue to work in the same manner as they used to a century ago, when the duty of the state was much more limited.

6.27 Following the above argument an obvious conclusion is to have a reform of the government, or the bureaucracy, or of both. At this point a very interesting observation is that some people tend to see the government and the bureaucracy to be two separate entities. Among these people, some feel that the bureaucracy could be reformed if the government really wants to. Others are of the opinion that it is the bureaucracy which controls the government, and not the other way around. Still other people argue that the government and the bureaucracy are legally the same person, and should both be considered together as the State. The question then is what should be the roles of the State.

6.28 In general one can readily observe among the public the dissatisfaction with the results of the State's efforts in development works, for reasons implicit in the discussion in earlier sections. Two alternatives may therefore be considered to be the nature of the reform of the State.

a. The State is to be responsible for carrying out development works. In this case the quality of its personnel and its system of management must be overhauled. An important condition is that development works are to be carried out on a project by project basis. That is, development works are separated from routine works of the State, and the work unit set up especially for the project will cease operations when the project is completed.

b. The State is not to be involved in development works, especially in rural development, nor in other non-routine works. All projects are to be contracted to the private sector, preferably non-governmental, non-profit organization.

6.29 Both alternatives are unlikely to be acceptable to the government. A more likely role the State can play may be as follows.

a. In general the State is to be involved in development works, but with the understanding that it will improve its mechanism and method of operation.

b. For single-purpose rural development project, the State should let a non-governmental organization (which is also non-profit) carry it out for the State. In this case the State may initiate a project, in consultation with the people affected, and then let the implementation be done by the people and a non-governmental organization.

c. Activities in the external sector should also be initiated by the State. The private sector, which in this case is the business sector, should be asked to carry them out for the State, or to work with the State. Private commercial banks could help in this matter effectively.

d. For general development the State should co-operate with other organizations such as the mass media, the business community, and other interest groups. These organizations, in turn, should be reorganized so that they can work more effectively with the State.

6.30 To translate the above suggestions into actions it is necessary to know how development decisions are made. In theory the development plan is supposed to be the document which sets directions and programmes for all development

works carried out by line ministries. In practice this has not been the case. Since the early 1970s authorities of the planning office, the National Economic and Social Development Board, seems to have been on the decline, due largely to political reasons. In the meantime most line ministries have developed their own planning offices, some of which are now very powerful. These line ministries have direct access to the Cabinet, and have often by passed the NESDB in the submission of their work plans. Another important development was during the period of elected governments when each government which took turn in coming to power would have its own development plan. The official five-year plan thus received very little attention.

6.31 Attempts have been made to bring more co-ordination to development works. The NESDB has been made more powerful by having the Prime Minister as the Chairman of its Executive Board. But it is doubtful if this reorganization would change the situation very much.

A likely scenario in the 1980s in terms of development administration is that there will be several governments, again each with its own programmes for development. The line ministries will continue to be powerful in their plans and programmes of works. How can, then, the State play the roles as suggested earlier?

6.32 With respect to planning for development, we feel that it has to be considered in two levels : The overall planning and the project planning. The NESDB should be responsible for the overall planning for both long term and short term. Its functions should be to identify basic problems of Thailand, and to suggest remedies, both of which should be acceptable to any governments. Thus its project evaluation tasks should be transferred to the Budget Bureau, which

is infact already responsible for evaluating projects. The Budget Bureau will therefore plan projects with various line ministries.

The NESDB will, after this reorganization, be the planning authority of the country, perhaps under the name of the National Planning Board. Its staff can devote their time to planning and research, rather than spending most of their time attending various committee meetings as they do now. It will be the economic adviser to the government, seeing to it that the economic and social objectives of development are met, and internal and external strategies are carried out as planned. With an increase in knowledge through research and studies, the National Planning Board should be recognized as the development authority of the country. Without such a well-recognized body to keep following up on new policies, we are afraid that the alternative development strategies suggested in the earlier sections may never be implemented.

6.33 Having separated the project planning from the overall planning, the line ministries can now plan individual development projects. The implementation of these projects, as suggested earlier, should be carried out with a full participation from the people. It is in this area which we think non-profit private organizations can perform a very useful role in bringing the authority and the people together. For the co-ordination of these projects there should be a national level committee perhaps with the Prime Minister Office as the Secretariat,

6.34 The implementation of the external strategy is to be carried out in a similar manner by the line ministries concerned. In this case co-operation with the business sector should be arranged. And since international economic affairs involve many ministries, but the country is represented overseas by the Ministry of Foreign Affairs, a national co-ordinating committee on international

economic affairs should be set up with the Ministry of Foreign Affairs acting as the Secretariat^{1/}. The Secretariat will utilize local and international expertise on international economic problems in providing technical back-stopping for the committee.

G. CONCLUDING REMARKS

6.35 Needless to say many of the ideas discussed above are not new. What is new is the growing degree of acceptance of those ideas. The satisfaction of basic needs has already been emphasized in the Fourth National Economic and Social Development Plan. But so far the objectives laid down in the Plan have not had enough commitment from the top-level decision makers. Nor has the concept been so far clarified and publicized enough. Rural development has also received a high priority for several years now. But the general opinion is that the government has been far from successful in its rural development programmes, in both rural development in general as well as specific rural development projects. The suggestions that the government should reorganize its bureaucratic machinery for a more effective and efficient development works, and that non-governmental organizations should be used for various development purposes are a clear expression of dissatisfaction with the bureaucracy.

6.36 On international economic problems the views expressed are a reflection of the realization that the Thai economy is very open. While it is subject very much to international economic fluctuations, it does not have much influence over them. Thus its main task is to be able to manage its external sector better, expecting that by doing so it can benefit more from international economic

^{1/} The present similar committee has the Ministry of Commerce as the Secretariat.

relations while it is more adaptable to changes. In this case it is inevitable that the duality will remain in the Thai economy in the sense that the external sector will continue to be market-oriented even when the internal sector is becoming more development-oriented.

The suggestions for reorganization of the bureaucracy may be considered to be very modest. But they are made because they are believed to be possible, apart from being thought to be necessary.

6.37 As the 1980s is approaching all indicators seem to suggest a growing number of problems. The international economy is heading towards a down-swing in the long-run cycle. This is bound to have a repercussion on the Thai economy, although it is not clear how much. The incidence in Iran will surely worsen the energy problem. The conflict in Indochina is becoming more and more global, causing great concern for security in Thailand. At the same time it has become obvious that a very large number of the people have received too little for too long from the development process. It is with these problems and prospects in mind that we have ventured to suggest some alternative strategies for development, so that the 1980s will be a decade of better development. We are hopeful that these suggestions will receive serious consideration from policy and decision makers of the country.

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APPENDIX I : AGENDA OF THE MEETINGS

A. KOBE-THAMMASAT JOINT MEETINGS (from 06 to 20 November 1978)

- 06 Nov. (Mon.) GENERAL SURVEY OF STATISTICS IN THAILAND
Mr. Shoichi Yamashita (IDE & NESDB)
- 07 Nov. (Tue.) SHIPPING AND PORT FACILITIES
Mr. Kisaburo Enomoto (ESCAP)
- 08 Nov. (Wed.) GENERAL ECONOMIC SITUATIONS
Mr. Songkram Krachangnetra (Budget Bureau)
Dr. Twatchai Yongkittikul (NIDA)
- 09 Nov. (Thu.) INDUSTRIALIZATION
Mr. Chumpol Phornprapha (S.P. International)
Mr. Pairote Gesmankit (BOI)
Mr. Aswin Kongsiri (IFCT)
- 11 Nov. (Sat.) FIRST MID-TERM DISCUSSION
Team Members
- 13 Nov. (Mon.) RURAL AND AGRICULTURAL DEVELOPMENT
Mr. Tatsuo Owada (Mitsui Corporation)
Mr. Noboru Tabe (IDE & ESCAP)
- 14 Nov. (Tue.) TRADE AND BALANCE OF PAYMENT
Mr. Pittaya Snutrakarin (Ministry of Commerce)
Dr. Chaiwat Wibulsawasdi (BOT)
- 15 Nov. (Wed.) DEVELOPMENT OF MANUFACTURING INDUSTRIES
Mr. Kiyohiko Miura (Thai Toyota Motors)
Mr. Tokumasa Inui (Teijin Polyester)
- 16 Nov. (Thu.) FUTURE PROSPECTS OF THE THAI ECONOMY
Dr. Sathit Uthaisri (Bangkok Bank)
- 18 Nov. (Sat.) SECOND MID-TERM DISCUSSION
Team Members
- 20 Nov. (Mon.) GENERAL DISCUSSION
Team Members

B. INTERVIEWS (from 07 to 21 November 1978)

- 07 Nov. (Tue.) AUTO-INDUSTRY IN THAILAND
Mr. Kiyohiko Miura (Thai Toyota Motors)
Mr. Takashi Fukuda (Thai Toyota Motors)
- 08 Nov. (Wed.) INPUT-OUTPUT TABLES IN THAILAND
Mr. Shoichi Yamashita (IDE & NESDB)
- 09 Nov. (Thu.) MONETARY AND FINANCIAL SITUATIONS IN THAILAND
Mr. Masahiro Miyata (Bank of Tokyo)
Mr. Kazuhiko Oomori (Bank of Tokyo)
Mr. Kimio Hanada (Bank of Tokyo)
- 10 Nov. (Fri.) GENERAL ECONOMIC SITUATIONS OF THAILAND
Mr. Kazuyuki Harada (JETRO)
- 12 Nov. (Sun.) COMMODITY TRADE OF THAILAND
Mr. Minoru Suzuki (ESCAP)
- 16 Nov. (Thu.) PRIMARY AND ITS RELATED COMMODITIES
Mr. Yoshiaki Asao (Mitsui Corporation)
- 17 Nov. (Fri.) BACKGROUND OF THAI ECONOMIC DEVELOPMENT
Mr. Kazuyuki Harada (JETRO)
Dr. Tsuneo Nakauchi (ICU & ESCAP)
- 21 Nov. (Tue.) POSSIBILITIES OF RURAL DEVELOPMENT IN THAILAND
Mr. Koichi Nonaka (IDE)

APPENDIX II : SUMMARY RECORDS OF THE MEETINGS (08 November 1978)

A: CURRENT ECONOMIC SITUATIONS

Guest Speakers: Dr. Twatchai Yongkittikul (NIDA)
Mr. Songkram Krachangnetra (Budget Bureau)

Today's discussion pertaining to the above-mentioned topic was extensive in its coverage, giving an insightful knowledge of the proposed subject-matter.

"Current" refers to the year 1978 but a backdated two-year period was found to be necessary to give a historical background which has several important following considerations. Firstly, change in the government caused a lot of uncertainty, and these disturbances have economic implications. Next, the boom year of 1976 was reflected in the output and exports of Thailand. Finally, the Fourth National Economic and Social Development Plan (1977-81) identified a number of controversial issues for the Thai economy and given time may affect the country's economic direction and policy. In the early part of 1978, thoughts were rather pessimistic as balance of payments for 1977 fared badly and the flood caused a lot of concern. But as the year moved towards the end, the earlier estimates were disproved and fear dispelled. On the contrary, agricultural production is now expected to have a record performance despite the flood, and northeastern Thailand, which has been the victim of droughts, was pasture green.

The few products that have been started or had a go-ahead are those of natural gas, Don Muang airport extension, diesel engine projects and the deep sea port construction. Investment situation therefore seems good. It was noted that the investment atmosphere is mostly of the public sector. The

role of the public sector, then, takes on an outstanding position. A reallocation of investments between private and public sectors was called upon as the balance is considered to be just as important. In order to help the private sector in its investment directions, a clear government guideline was also recommended. It will be of great assistance if the people are aware as to whether the country wants to produce more of urban consumer or rural consumer goods. On the other hand, a fellow Thai representatives found the government to be, at present, maintaining its status quo in the sectors they have earlier participated, and that the government will not interfere with the private sector's domain. Examples cited were that the whisky brewery will be released to the private sector and the government will be just a partner in the expanding oil refinery industry. Related to this is a request for a government priority list. A list, though available at The Board of Investment (BOI) lacks specific treatment. It was found too, that the Fourth Development Plan which emphasizes on social plans, does not get to be specific enough. But it was cautioned that development plan does not exist to serve as a handbook for investments nor should it be a mere package of projects. In fact, the development planners have a delicate task before them; on one hand they have to avoid being too broad in their treatment of the contents, and on the other they must not get too specific.

On industrialization, a participant expressed that regional (ASEAN) rather than national considerations should serve as the rationale when setting up certain industries. It was pointed out that Thailand's industrialization is now leaning towards heavy and resource based industries, example, the natural gas projects. As to the possibility of the development of agro-based industries (example fruits and vegetable canning), the problem may

apparently be related to the lack of technical knowledge in dehydrating the agricultural produce. But further discussion indicated that the question of technology may not be such a barrier as technology can be imported. The greater obstacle lies in the way of management, organizational and bureaucratic set-up. Also stressed was the importance of having producers' contact with consumers abroad implying that there is a need for someone to identify the overseas demand. Last, but not least, in viewing Thailand as the possible "Vegetable Garden of Asia", this strongly implicates the potential of the agro-based industry.

The Balance of Payments of Thailand has been in the red and may continue to worsen. With some optimism based on good harvests, balance of payments for 1979 may have hope in seeing some slight improvement. A question was raised as to why, then there has been rather fixed rate of exchange for the Thai currency in terms of U.S. dollars. It was pointed out that by fixing to U.S. dollars, the baht was in fact being devalued with respect to other major currencies. Also, the earlier business contracts signed may delay the short run effects of exchange rate policy and that imports-exports are usually quoted in U.S. dollars. The change in exchange rate will need a few months to make people realize the increase in import prices and hopefully they will then decrease the quantity imported. Challenging the above reply was that inflation pressure has roots in imported inflation related to the exchange rate policy. Devaluation should be avoided. Thailand imports more than 30% of goods and services from Japan and the inelastic demand for these goods caused grave concern on seeing the appreciation in the Japanese Yen. In view of the nature of the country's trade, this externally-induced inflation is exemplified in the cost-push prices of oil, that fuels more inflation. On

top of the cost-push inflation, the monetary base was increased enormously. Private credits are expanding almost 30% annually, and there is visibly no sign of tight-money situation. Hence, Bank of Thailand (B.O.T.), the Central Bank, has been using a lot of moral suasion on commercial bank's lending activities. With the exception of reserve rates, and foreign exchange control, there is no law governing credit borrowing. A comment was made on the untapped potential authority of the Central Bank and the lack of an in depth study about the various uses of private credit.

With regard to the subject on Rural Development it was felt that despite development efforts, redistribution of income is still an outstanding issue. From a recent report, it was found that the income-gap in fact has worsened since the last reference study. A possible way of improving the income situation is through the conversion of flood-prone areas into growing high value crops. Also allowing the price of rice to increase may induce marginal areas to be used for rice cultivation. An added informative point pertains to government's new formula in increasing the percentage rate of the fiscal budget in its allocation of finance for rural infrastructure projects. So far, local authority and government were given some small grants for construction of roads, bridges, etc. The implementation of this new scheme will serve to be a substantial addition to their annual allowance and also will give the villagers some idea of their forthcoming budget. This may in a way, help villagers planning decision as they can estimate their budget constraint. On the administration side, a committee will be set up in each province with decisions made at the grass-root level by the local villagers themselves and approval made at the committee level which comprises of people who are familiar with the projects. This approach, from the "bottom upwards" in the hierachical

structure and which will be more than just a mere plan for the central government, is considered a rather positive move towards rural development.

B: RURAL AND AGRICULTURAL DEVELOPMENT (13 November 1978)

Guest Speakers: Mr. Tatsuo Owada (Mitsui Corporation)
Mr. Noboru Tabé (IDE & ESCAP)

Mr. Tabé is a coordinator of the ESCAP Project on Integrated Industrialization in Non-Metropolitan Areas. He started his introductory speech by explaining the purpose of the ESCAP Project that is organized by the Intergovernmental Committee of Industry, Housing and Technology.

The purpose is to take a pre-feasibility study for the rural development in some selected countries in the ESCAP region. Industrialization policy in these countries is to shift the priority from industrial development in urban areas to reallocation of industries among rural areas. This is considered as a part of socio-economic development policy in rural areas that pertains to developing urban-facilities and infra-structures in the rural areas.

Pre-feasibility study of the ESCAP's Facts-Finding Mission has started to identify a development center (or a growth center) in each selected rural area; Khorat as a center for developing agro-based industries and Songkla-Hadyai as a center for developing industries based on marine-products. The development center is selected in consideration of possible availability of labour-power and infrastructure-facilities (banking system, marketing and distributing system, and training institutions).

The second step of the pre-feasibility study is to suggest certain possible industries that are to be developed in the areas. The industries,

to be selected, should have characteristics of labour-intensive and resource-utilization.

The Khorat Development Project may have the merits of (1) possible developments in potential cash-crops, either traditional or new ones, and (2) possible economic development of South-Eastern Thailand in relation to the development of the deep-sea port at Sattahip.

Mr. Owada, an expert in processed-food, suggested that a stable supply of agricultural products is indeed needed for development of agro-based industries. However, unfortunately, agricultural products in Thailand are very sensitive to the price-changes of the products. So far, Thai farmers are so sensitive to agricultural product prices that farmers changed the types of crops grown whenever their relative prices change. Thus, food processing industries could not expect a stable supply of raw-materials for their processing activities. This problem is mainly related to the institutional and economic systems of the rural areas in Thailand that are being controlled by big land-owners and middle-men.

In order to have a stable supply of raw-materials to agro-based industries (food processing industries) the following pre-requisites needed are (1) to stabilize prices of agricultural products, (2) to improve efficiency in production of agricultural products, and (3) to secure the freshness and quantity that are requested by the processing industries. These have to be considered first in the development of agro-based industries. However, in Thailand, there exist many difficulties that have to be overcome in order to improve the situations, either institutional or economic in nature.

C: INDUSTRIALIZATION (09 November 1978)

Guest Speakers: Mr. Chumpol Phornprapha (S.P. International)
Mr. Pairote Gesmankit (BOI)
Mr. Aswin Kongsiri (IFCT)

The discussion of this evening covered many conceivable aspects, mainly from the micro and some macro points of view, of the concept of Industrialization.

The successes as well as the failure of a few agro-based industries were firstly discussed by a representative who is in a position to assess the 'inside' story of these firms on account of his profession at the Industrial Finance Corporation of Thailand, IFCT. The main problems of the agro-based industry are tied to that of pricing where the right prices are needed to induce the farmers' production; seasonality with respect to the nature of the agricultural products which are the main raw material inputs supplied to these factories; labour whereby a tussle over the pool of workers usually occurred during the peak periods. In addition, the relationship between the factory operators and their respective agricultural producers and also a good survey of the site before building certain technical facilities, were cautioned upon as these may have compounding effects in addition to the above-mentioned problems. Besides overcoming these obstacles, successes of the agro-based industries relate a lot to the peculiar nature of the industry such as those of finance and profit-sharing, organization, providing technical assistance and vertical-horizontal integration as far as the nature of the industry permits. Available studies conducted on the comparisons of various competitive and substitutable industries serve as investment guides and hence indicate the prospects of certain agro-based industries. With respect to the agro-based

industries which have potential, the BOI has identified six major prospective areas which include meat, maize, leather, rubber products, livestock, fruits and fruit-processing, covering up to 12 products.

Other considerations that have to be taken into account when assessing the agriculture and livestock industries are government regulations (e.g. import ban may eliminate prospective markets) and the initiative of the foreign private investors in seeking imports from Thailand.

So far, no analysis has been done on the importance of agro-based industries in rural development and the income-generation resulting from these development activities. The problem of location has been raised and location of these industries depends mainly on the perishable nature of the crops, for example oil palm factories must be located within the plantation, and on the transportation costs as in the pulp industry.

Discussion then turned to the highly controversial industry of the country, the automobile-assembly industry. This industry which has contributed a lot to value added was searched for rooms in its growth and, if so, in the possible direction of growth. Auto-assemblying has its glaring problem of suffering from the lack of economies of scale connected to low demand and excessive number of models competing in the limited market. It is interesting to note that the whole year's supply of locally-produced parts for use in the auto-assembly can be accomplished in a day, hence ruling out the future prospects in this sector. The area of interests then points to the motorcycle assembly industry as a number of factors contributes to its potential. Government's stipulation of using at least 50% of the locally-produced parts in the finished product is twice that laid down for cars, and this figure will be

increased to 70% in 1979.

In order to conceive any economies of scale, the market must be big enough to justify the output expansion. Advanced countries seem to be a good and likely market as following the Product Cycle Theory, they are losing out to the less-developed countries the comparative advantage in the production of small, labour-intensive model. The three suggested areas listed below in order of high potentiality and priority are: -labour- intensive industry such as those of motorcycle seats; medium-sized investment which is not too capital-intensive; the highly technically-intensive production of engine parts, an industry which is rather lucrative but faces the problem of "speed and tempo" in the investment decisions. This implies there may not be Economies of Scale if investors act too hurriedly while slow decision-making may turn Japanese partners away. Also noted was the precarious position of the local investors in that, though the Japanese know how and investment are welcome yet local preservation of identity is viewed as important, too. A smart trade-off on both sides is required to bring the two groups into a fruitful set-up. Another source of demand which may enhance the latent attractiveness of these industries lies in good rural development. With rural-infrastructural development and increasing income taking place, it is possible to envisage a rising trend in demand, (at the rate of 20% compounded for past 5 years) for these consumer products.

Next topic relates to that of the development of basic industries which produce industrial raw materials, such as pulp, paper, fertilizer, iron and steel, heavy-metal works, etc. Noting the dependency of such important imports on foreign countries, certain outstanding ones were selected for local production. As to which industries will be accorded priorities, Board of

Investment (BOI), will be faced with a delicate task of making as balance a decision as possible giving considerations to costs (private and social), infrastructural availability and the nature of the industry itself. Each product will be considered separately due to different exclusive characteristics of the industry in question. As far as the incentives of the private sector in investing in this basic industries are concerned, the situation is reflected in the competitiveness of many leading companies' request for setting up their respective factories. But to some, overly heated competition may not be good, and thus this view confronted itself with the basic philosophy of the BOI which is to have competition and the resulting market determination of the survival of the fittest.

Discussion moved on to the subject of labour-intensive industries which hopefully will lessen unemployment problems. Thus as to what are the possible choices of technology for firms to select was brought up. Logically, labour-intensive technology should be encouraged as much as possible. However, it is very important to create not merely "jobs" but the "right" kind of jobs. The latter is thus a more appropriate criteria and should take precedence over the former employment-creation objective. In addition, by promoting the setting up of labour-intensive industries, the BOI has to shoulder a very great responsibility. This implies that BOI must have the strength and facilities to face the consequences of any promoted but failing industry, as this deficiency of the industry may cause the entire affected labour force to lose its sense of job direction. Thus it is better to have an error of omission (that is allowing unemployment, unless appropriate longterm and stable jobs can be created) than to have an error of commission (that is, in creating employment in the industry that cannot withstand the dynamism of

changing technological progress, as it will sooner than later cause promoted industry to be wiped out of competition after its temporary existence).

Like most less-developed countries the phenomenon of factor price distortion, of cheap subsidized capital and relatively higher labour prices, was not exempted from Thailand. It was suggested that BOI should correct the situation by presently giving priority to small-scale industries which is less capital-intensive. On the other hand, BOI has other just as important considerations to take into account besides the pressing issue of employment-generation.

Finally the mining industry was given a few thoughts as to why only small loans were given to the mining firms; BOI's favouring big investment; and Japan as a third largest consumer of tin does not yet possess any stockpile. From financial company's point of view tin mining industry has its uncertainty tied to changing government regulations and law. Mining firm also lacks much of a collateral and a lot is based on the trust that the land has tin inside its ground. Lastly, the fluctuations of prices deterred finance companies to extend more loans to this industry.

The BOI viewed mining with a philosophy of its own when making decisions. Tin so far has been the domain of the private sectors whose gravel-pump operations required capital in the range of 4-6 billion baht. By giving promotion to firms of these sizes some injustices are bound to occur. Thus promotion based on a different character, such as incorporating the conservation concept in BOI's promotional policy, was made. This would entail interested firms to use capital intensive and more sophisticated methods in exploiting of the metal, so as to reduce wastes.

The problems and opinions cross-exchanged by participants is a healthy way viewing and reflecting their individual group interests and in indicating the peculiarity of each industry, the various concrete examples given, will serve to guide future investors in the area of industrialization.

D: DEVELOPMENT OF MANUFACTURING INDUSTRIES (15 November 1978)

Guest Speakers: Mr. Kiyohiko Miura (Thai Toyota Motors)
Mr. Tokumasa Inui (Teijin Polyester)

The manufacturing industries, mainly with respects to Japanese-Thai joint venture, formed the subject of discussion. The two firms selected were Thai Toyota Motors and Teijin Polyester (T) Ltd.

It was found that in Thailand, on average, the number of persons per vehicle is 50.0 as compared to Japan which is 3.7. This leads one to infer as whether there are signs for future prospects in this industry. The positive and pessimistic factors were both viewed and the forecast growth of 7% per year of the automobile market was made for the period 1978 and 1983.

The main problem concerning this automobile-assembly industry is that local production was too small, making economies of scale more a theoretical concept than of any practical significance. The following reasons account for the small-scale production:

- (i) the limited market due to low-national income and high prices of the products,
- (ii) too many assemblers, approximately 17 in total,
- (iii) too many models and types, about 40 of them available.

In August 1978, the new government policy for localization of passenger cars, announced a targeted ratio of 50% which must be achieved within five years. The minimum ratio of localization appears in the following order:

end of	1980	35%
	1981	40%
	1982	45%
	1983	50%

But to expedite localization, a steady progress of parts industry is essential. Hence enough stimulation must be given to this industry. On the other hand, the parts industry has lots of room for improvement in its production engineering, production facilities and quality control. An overall efficiency of the industry is thus suggested.

But an interesting question to note is whether this local parts percentage stipulation by Board of Investment (BOI) is realistic enough. Though assembly firms find not much of a problem in obtaining parts from the local manufacturers in fulfilling the present figure of 25%, but anything beyond this present regulation may pose some doubts as more specialized parts are then required by the automobile assemblers.

It was suggested that if the ASEAN approach (such as the Industrial Complementation Project) were followed, these percentage figures may be realized, whereby the classification will be according to ASEAN component rather than according to a particular country's component. This, thus leads to the feasibility and possibility of the exports of spare parts which could be conducted on an exchange basis, among ASEAN countries.

Next part of the discussion moved on to assessing the textile industry, which is horizontally and vertically integrated. Presently, the industry is divided into: upstream (fibre-producing), mid-stream (spinning and weaving industry), downstream (dyeing and garment manufacturing).

The textile industry in Thailand experienced a severe depression in 1974-76 whose cause backdated to the oil crisis of late 1973. Specific to Thailand, the political changes in 1975 in the Indochina countries brought a substantial loss of markets. The high costs of production, labour strikes, unstable political situation, dwindling export markets, excess capacity and dumping from foreign manufacturers causing cut-throat competition, drove the textile industry to bankruptcy and as a matter of fact, 3 major companies went bankrupt which caused a black mark in the textile industry history.

Fortunately, since late last year, textile market has been improving gradually, especially for exports. The reasons accounted for were political stability restoration, intensive and compulsory export drive to clear the excess goods, appreciation of Yen value causing Japan to lose its markets which Thailand gladly replaces.

Between 1973-78, contribution of textile industry to the Thai economy in terms of Gross Domestic Product (GDP) was found to be in the range of 2.88 to 3.0 while its share as percentage to the manufacturing sector has been from 15-18%; the percentage of export value of textiles to GDP ranged from 0.36 to 1.23, and as for the percentage of textile export value to textile output, the figure was more than 40% in 1976 and 1977, this revealing the industry's dependency on exports.

Further concentrating on the textile exports of Thailand shows that polyester filament yarn constitutes a large volume of bale exported. Viewed according to regions, cotton fabrics is mainly exported to Europe which took up 75% of the total exports. As for polyester-cotton blended fabrics, Europe, Asia and Middle-East are good markets for Thai textiles.

In anticipation of the increase in demand in 1981, plans to increase future supplies have to be considered now, in view of decision and administrative lags. But before any concrete plan can be undertaken, the management requires an assurance of a firm demand. Textile industry in Thailand is considered to be still without firm and stable foundation, hence fluctuating easily according to the world market situation. The price and quantity movements in the export markets must not be overlooked as they have repercussions on the business activities in this industry.

As a closing note, a number of personal proposals were given by the speaker.

The discussion having its reference to the automobile assembly and textile-manufacturing industries has been rather interesting as these two industries have been facing some strong challenges, and the revelations by the speakers contribute to understanding their respective industrial organization.

E: TRADE AND BALANCE OF PAYMENT (14 November 1978)

Guest Speakers: Mr. Pittaya Smutrakarin (Ministry of Commerce)
Dr. Chaiwat Wibulsawasdi (BOT)

Firstly an assessment of the Balance of Payments of Thailand was made. Though Thailand's trade and balance of payments gap has existed for some time,

yet the country has been able to finance it by way of the Capital and Services Accounts. But with the United States withdrawal of its military base, contribution of the Services Account is no longer so substantial. As far as capital accounts are concerned, government has been borrowing a lot from International Monetary Fund besides Japanese and German markets. Private borrowing, especially the role commercial banks played in borrowing heavily from foreign markets, also helped to finance the balance of payments deficits. Noted too was that the net and official reserves of the country is quite high. But this huge accumulation of reserves was cautioned as the short-term borrowing by commercial banks for financing trade will render itself a rundown on liquidity should there be changes in the rates of interest.

Projection of the future pattern of trade in that the existing trend will continue for some time, firstly because the export-oriented growth, although is yet to be developed. Thai exports are function of many factors: environmental (weather conditions); external conditions related to world trade; capacity, that is, whether Thailand can continue to increase its production. Secondly, so far there is no plan for reducing the country's import dependency on oil and capital goods, as the ambitious growth rates need these imports to facilitate its growth. With increases in aggregate demand, monetary policy has to be that of an expansionary type. Hence the role of external finance of the private and public sectors is inevitably important.

The question that posed to be a dilemma for Thailand is that given the above general growth, monetary and trade situations, what then are the options available for the country to solve partly, if not wholly, its balance of payments problems. As stated earlier, external borrowing can be a strain on the

future economy of the country, especially so if the plans fail to realize the expected rates of returns. Thus the tradeoff between good external source of finance to solve the balance of payments problems and achieving the targeted growth rate of 7-8%, deemed crucial.

A number of good solutions were proposed in view of the above dilemma. Firstly, on top of the list is to cut down the imports of oil. This may probably be achieved if domestic prices of oil, petroleum etc., were allowed to increase but with the hope that this action will not entail a sacrifice of growth targets.

The role of Japan was heavily questioned as trade deficits with Japan constitutes more than half of Thailand's overall deficits. It was suggested that Thailand should start its own unilateral decision as bilateral trade negotiations do not seem promising. The question pertaining to identifying new sources of imports should be pursued further. It was informed that a possible alternative is to have balanced trade with the Socialist countries. Here, barter trade is used as a basis in the exchange of goods, where in addition the balance of payments problem can be slightly alleviated as these countries act as new market avenues for Thai exports. A sad note is that Socialist countries seem to give priority to advanced-developed countries higher than to less-developed countries. A point further noted was that Thailand lacks a strong import association. It is quite possible that government, after having signed the contracts with its counterparts may return home to find the private importers refusing to honour these contracts. But it was assured that though this problem may be real, it is solved by including the private sectors in the government's overseas trade missions as private sectors have a better knowledge

of the potential types of imports and exports.

It is surprising to note from ECOCEM (the Economic Cooperation Centre for the Asian and Pacific Region) studies, that government and state enterprises have been one of the major uses of imports from Japan, and that a reduction of these imports on their part, can be of some contribution to solving the trade problem. Also, since Japanese investment usually leads to more imports from Japan, a ban on Japanese investments, except those in the export-oriented business, could be carried out. But this measure was considered to be a little too drastic. An alternative suggested was to ask the Japanese joint venture firms to seek different sources of imports and thus other cheaper sources of import-supplies should be identified and made known to them. A defending comment from a Japanese representative is that the Japanese-Thai joint ventures have always had price, be it of the capital goods or that of raw materials, as a prime consideration in their buying of these products.

In addition, a Japanese "network" was found to be useful for Thailand as through this system, the Japanese and Thai private traders can help one another which may prove to be more efficient than the government-to-government negotiation.

As a long-term solution, Japan was called upon to alter its industrial structure. This potential has a historical development whereby in the restructuring of industries, Japan will concentrate on the production of highly technology intensive products. But the oil crisis made Japan turned feverish again in its accumulation of resources. Later it was discovered that the oil crisis had not hit Japan as badly as was anticipated, and right now this restructuring of industries is given serious thoughts. The restructuring of industries will

go a long way in helping to expand the scope of Thai exports. But from Japan's point of view, the restructuring may take a much longer time to realize as the serious unemployment problem will then be worsened. This is because in the realignment of these industries, the likely ones to be given up by Japan are labour-intensive in nature and structural adjustment that has to accompany the restructuring decisions is in no way an easy task. But it is heartening to hear that to get things started, Japanese government has made provision for these adjustments.

Finally the Tariff and Non-Tariff Barriers were discussed. It is important, especially for the less-developed countries (LDC) to know the trend of protectionism practised by the advanced developed countries (ADC) and hence an assessment of the effects on the exporting countries can be made. The trend is undoubtedly increasing and escalating too. World Bank report indicated that this has its greatest impact on the LDCs in general. An obvious implication is that due to the interdependence of the world trade, restrictive measures imposed on the exports from Korea, Taiwan, may prevent the lower category of LDC from moving up the leader in their quest for export promotion. Also noted was that General System of Preferences (GSP) treatment for Thailand was very minimal when compared with the preferences given to the "Gang of Four" Countries (Taiwan, Korea, Hong Kong, Singapore). Thus it was suggested that government should step up its negotiation in this area. Last but not least, the small traders whose goods have defects in the quality of the product and consequently suffers from non-tariff discrimination, ought to be better informed.

This evening's discussion indicated the awareness of the nature of the problem relating to Thailand's Balance of Payments and that the suggested

policies given authoritative execution and time may prove to be quite recommendable solutions.

F: SHIPPING AND PORT FACILITIES (07 November 1978)

Guest Speaker: Mr. Kisaburo Enomoto (ESCAP)

The meeting started with a talk given by Mr. K. Enomoto, presumably an authority in shipping in due respect of his position in the shipping and transportation section of Economic and Social Commission for Asia and the Pacific, ESCAP.

He briefly introduced the idea of shipping, where essentially there are 3 categories, namely, the Domestic Transportation, Inland Water Transportation and International Transportation. He then went on to cite a number of reasons as to why shipping status in the ESCAP region was poor, prior to World War II, and also the causes of their recent emergence in the post World War II period. Those reasons of economic bearing that gave strong impetus to colonial countries to develop their own fleet and also construction of their own port facilities are the saving of foreign exchange, earning foreign currency, development of multiple industries and the innovation in International Shipping as represented by containerization.

Present tonnage figures and the number of vessels quoted from ESCAP investigation revealed the thirty years of development that has taken place. Excluding Japan, India now has the largest fleet of 8 million dead weight tons, followed by China (6.5 million dead weight tons) and thirdly Korea (5 million dead weight tons). Among ASEAN countries, the ranking is of the following order: Indonesia (3 million dead weight tons; 140 ships), Philippines (1

million dead weight tons; 44 ships), Singapore (743,000 dead weight tons, 26 ships), Malaysia (108,000 dead weight tons; 25 ships), Thailand (420,000 dead weight tons; 36 ships).

Talk then was focused on Thailand's shipping position. It was noted that not only her volume of tonnage was small, 420,000 dead weight tons, but that this figure was to be shared by numerous companies. There are in all 26 companies in Thailand thus giving an average of 15,000 tons. This, from an economic point of view is not beneficial which results in companies making annual losses. He then cited a couple of reasons as to the existence of small shipping companies, such as depreciation of shipping companies' own property and escaping taxation. Also commented on is the lack of an education institution on shipping and the peculiarity of Thailand's past colonial history which does not lend herself to the national spiritual flare-up in pursuing the shipping industry more vigorously. But Thai representatives defended the issue saying that it is not so rational for Thailand to follow suit as shipping industry of other countries in the region are not finding this sector lucrative.

An interesting subject touched upon was that of port problem. There has been harsh debate in Thailand on the construction of deep sea port. Klong Toey, the country's main port is often congested and yet no comparable facilities exist elsewhere. With changing export-import structures, bigger vessels than the present ones accommodated by the port will be needed, but Klong Toey is in no position to handle this change. Construction of a deep sea port is thus inevitable but the question is where to build this new deep sea port. The possible "candidate" sites were Sattahip and Laem Chabang and the government has decided on the former. The speaker expressed his wish in seeing ports

built nearer to Bangkok so as to cut down on road distance and hence costs in transporting goods. But this point was immediately questioned as one should not lose sight of the urbanization problem so that locating the port further away from and out of Bangkok may prove to be just as recommendable. It was noted that World Bank's preference was for Sattahip. A Thai representative then made a few comments as to why he felt Laem Chabang is not so economical a site.

Ways of improving shipping in Thailand were listed by Mr. Enomoto. They are:

- (i) the construction of new ships, cutting out old-age vessels and building new ones,
- (ii) unitization of the numerous existing companies into three groups, namely, the coastal shipping company, tanker company and international shipping company,
- (iii) construction of new port.

Also discussed were the Merchant Marine Act and its effects on the country, with a brief comment on the shipping rates determination. It was felt that if the Merchant Marine Act is adopted strictly, it may have negative repercussions on Thailand, as the Act is rather protective and discriminatory in its handling of cargoes. It may be unrealistic as the country does not have adequate shipping to cope with its demand but though chartering foreign-owned ship may be a solution, this latter behaviour may give rise to undue competition. Shipping rates are of two categories:

- (1) liner, which have fixed route and regular schedule, have their rates determined by conferences,

(ii) trampers whose cargo rates are dependent on supply and demand, tend to fluctuate more. Besides above consideration, determination of rates on the whole is a function of very complex factors and may include for example, distance and scarcity of tonnage.

The whole discussion was rather interesting covering a wide range of subject matter from comparative statistics on shipping to current and specific Thai Shipping problems.

G: FUTURE PROSPECTS OF THE THAI ECONOMY (16 November 1978)

Guest Speaker: Dr. Sathit Uthaisri (Bangkok Bank)

A recent assessment of the overall economic development of the country carefully viewed its domestic sector and also the external sector which it is believed, always inevitably has effects on the former. It was felt that there has been too much reliance on the natural resources, either directly or indirectly, and to continue to be so, may not be easy in the future. As for the external sector which has been very important to the open economy of Thailand, it is becoming more and more complicated and simultaneously witnessing huge deficits. So to proceed along the same trend of trade in primary commodities and manufactures, allowing for foreign investment, borrowing and aid, may as a consequence, jeopardize the future economy.

An important question to ask and hence leads to the country's objective for the time to come, is that based on these prospects, what do the people want of their future. In answering the question, a new goal is set which is to be different from the present one instead of achieving a high rate of growth, a more desirable plan, basing the objectives more on the satisfaction of basic

needs and more participation from the people, was suggested.

Government intervention was felt to be important in the better management of the external sector. In terms of exports development, the choice of technology and products will be geared by market determination. Here the concepts of self-reliance and indigenous technology have to be interpreted more carefully in the case of an open economy like Thailand.

Strategy for internal sector will witness a few drastic changes. As development of this sector is to satisfy the objectives of "basic needs", a lot of taxation, price, production and location policies will be utilized. Elaborating on the "basic needs", it is said that it should include the amount of food the individual needs, the level of education he should have and the health condition he has to be in. Hence a certain amount of income (critical income) must be earned by the individual to satisfy these needs as short of which he will be classified as below the poverty line. The poverty level is to be determined according to the level of income that would help the individual to satisfy his basic needs as being defined above by the Planning Authority.

Another important suggestion is to try to concentrate development efforts more on the social matters and this is to be accomplished by an interesting scheme, using non-profit private foundations to carry out social projects of the government. This new approach combines both efficiency and accountability because in the past, government bureaucratic red tape has hindered the progress of many social projects while private sector's maximizing profit objective is not "social" enough.

Another local Thai economist viewed the future of the Thai economy in

another perspective but more or less along the same lines of thought, implicitly. Mainly structure according to production, external balance and investments, both short-run and medium-term expectations were discussed.

In the short-run, in terms of production, the livelihood is still hinged on agriculture. Latest reports on agriculture showed that, for this year, the country's production of rice is $15\frac{1}{2}$ million tons which is 10% higher than last year's. This addition to the aggregate demand, plus a betterment of the manufacturing sector could lead one to suspect a growth rate of 6.5% while for the next year, due to the good harvest of 1978, growth rate can be expected to be about 6.8%. But trade deficit is a record figure of 30,000 million baht. Next year will witness big government projects in infrastructural development and this undoubtedly requires a lot more imports and coupled with the rise in the price of oil, will soar up the import bill. Export promotion has been rather slow and unless the export drive is successful, trade deficits will continue to be gaping wide.

It was felt that the majority of the people are quite confident of the near future as indicated by private sector's move in buying houses, consuming more durable goods, asking for more loans from the commercial banks and requesting promotional privileges for their new investments. In addition, the Board of Investment (BOI) has been suggesting to private sectors the appropriate type of investment and technology acquirement hence giving a sense of direction for national growth.

Government participation in the economy will be greater in all respects. In the monetary sector, one sees the authority's regulation on the distribution of loans. A good indirect effect is seen in government requesting more

commercial bank loans be given to the agricultural sector making the lending institutions as committed as the farmers, if not more so, to the agricultural production activities, because loans to this sector entails a great amount of risks. It was noted that the banks' loans of 11% of the total deposits made directly to farmers are not the same as the agricultural loans of the Philippines, as the former does not include loans to agro-based industries. In the next five years or so, government projects should bear fruits and probably the production of natural gas, together with some modifications in technology will replace a great portion of the crude oil consumption. As it stands, import bill for oil, is about 25% of the total imports. Natural gas will then serve to be a cheaper source of energy as its price is only half that of crude oil.

A couple of strategies and plans of action for micro-level economic activities were suggested. An interesting recommendable proposal was that the government should come up with a new kind of bond bearing 8-9% rates of interests. These bonds when sold to the public could be a source of funds for long-term investments. Though the bonds will form the government's liability, but being characterized by low risk and high liquidity, will on the other hand be quite an attractive asset to the private sector. Assessing the prospects of the export drive, it was advised that it is not sufficient to continue promoting the principal existing exports. New markets and commodities must be discovered. In this respect, identifying markets will be very useful though a tough job, as besides calculating the market share of each country for each product exported, the respective commodity's quota, tariff and non-tariff regulations and product differentiation may cause added difficulty to the market research study.

The discussion revealed some of the latest course of direction in the Thai economy, and in proposing concrete strategies, better prospects are promised to the Kingdom's future.

H: GENERAL SURVEY OF STATISTICS IN THAILAND (06 November 1978)

Guest Speaker: Mr. Shoichi Yamashita (IDE & NESDB)

A good account of the subject on Thai Statistics was given by the speaker who, based on his experience and impression, tried to give some useful and detailed insights to various aspects pertaining to the availability, reliability, consistency and usefulness of Thai data.

His general impression was that Thailand's National Accounts statistics was good, for example, NESDB annually compiled the National Accounts of Thailand, either in current prices or in constant prices, in Production and in Prices for the various sectors such as agriculture, manufacturing and mining. There are a lot of statistics on Production, Trade and the coverage is good. Also available are Consumption figures based on household expenditures survey. It was suggested that both, the macro and micro and also the Consumption and Production, points of view should be studied simultaneously to check for inconsistencies with respect to pattern and structure.

A much-discussed and rather impressive topic was that on the Input-Output survey compiled for the year 1975. It was commented to be a good year as it was a lapse of 12 months after the oil crisis. Using reconciliation work, statistics was compiled on 180 sectors covering 900 commodities. Though input structures were easier to compile but the directions as to where, and in what proportions the output of the particular industries were sent to, were rather

difficult to assess. This was due to companies' ignorance as firms usually transferred their products to wholesaler who in turn sold the goods to any person that came along and bought the merchandise. As a rough estimate, then, final demand versus intermediate demand; and also government households, inventories were used. The tables proved to be detailed and systematic covering 10 types of mining, 29 types of agriculture and 98 types of manufacturing. These production data could be used to indicate the structure of the manufacturing sector.

The humbleness of the speaker was expressed in his inviting the Thai economics experts to check the results of this survey. Hopefully this job on the Input-Output survey will be accomplished, hence, available by the end of this year or January 1979; and the accessibility is via permission from the Executive Committee as the report is confidential.

Above discussion pertains mainly to the macro point of view. For the micro side, the speaker suggested that one should turn to reports of the industrial census. National Statistical Office (NSO) which is an office of the Prime Minister, makes these annual census from where he cited two examples. The first one being Report of the 1971 Industrial Census, Whole Kingdom, NSO, which gives the number of employees. The second one which he regarded as the most important work of the NSO was the Socio-Economic Survey 1971-1973. He found the items rather detailed for example, those of the household expenditures and hence the data can be quite useful for studying demand - consumption patterns.

Further general discussion on Thai Statistics extend to as whether there is available figures on the "potential" GNP of Thailand. "Potential" here is

defined as the full-capacity GNP, that is, when all production facilities are fully utilized. It was informed that the Bank of Thailand has tried to estimate these figures but only for the manufacturing sector. Though results can be used for further projections one must be careful as therein exists some conceptual problems. Relatedly there is an M.A. Thesis currently working on the full-production capacities of the textile industries using Maximum Likelihood Estimation method. With regard to statistics on inventories, agricultural sector fared badly to the extent of non-availability of relevant data, though manufacturing sectors do keep reasonably good records. Statistics on wage rates, salaries number of employees are still weak, as these aspects of employment-payment varies among industries, and also among firms with different firms having dissimilar wage levels. Also it was cautioned to look out for data discrepancies from the labour department.

It was suggested that to have a knowledge on the Thai income-distribution data, the work of Dr. Oey Meesook would provide a very comprehensive study of the subject matter. Her research was conducted using size distribution. As a good source for both labour utilization and income-distribution data, the Economics Faculty library of Thammasat University was recommended.

This topic of discussion, (which may be of good use to the Japanese researchers) proved to be an interchange of ideas and of resources, bringing out each participant's own past work experience, thus contributing towards a deeper understanding of Thai Statistics.

