

## CHAPTER III

### INVESTMENT EXPANSION AND DERIVED LABOUR DEMAND

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#### 1. Employment Structure

Thailand has attained two-digit rate of growth for three consecutive years until 1990. Among the various factors which have contributed to such a rapid growth, the expansion of exports and investment is considered to be the most important. All this investment activity, including an influx of foreign capital, depends on an abundance of natural resources and the relatively low cost of labour. Since 1985, in particular, foreign capital has been flowing in a bid to take advantage of the benefits that exist in Thailand.

As shown in Table 1 and 2, the share of employment in the primary sector is remarkably high, currently standing at over 60%. In Japan, on the other hand, this figure had already decreased to 50% by 1920. According to this pool of work force, other sectors can easily get new workers. At this point, the Thai economy still depends largely on agriculture. But if we look at the production structure, we find that there is an obvious tendency towards a decrease in the share of the primary sector and towards an increase in that of the secondary sector, thus indicating that productivity in the former is low. As shown in Table 5, productivity in the primary sector is quite low compared to that in other sectors although it is going up.

Except for 1988, employment in the secondary sector has steadily been growing though in recent years the rate of growth has not been so great. Productivity in the secondary sector remained stagnant until 1987, but since then it has been increasing. One potential reason for this might be that Thai industry is introducing new methods of production thanks to the influx of new investment. Or, it might show that new investment is shifting their products to high value-added products. Some factories have adopted automatic machines by the reason of rising tendency of wages and competition with the new comers of low wage. The managers at such companies stress the importance of improving the quality of products to compete in the world market and for this purpose they introduce the new machines. One problem which is caused by such new investment is the shortage of engineers and technicians. To shed light on this point, it is necessary to look at the matter in greater detail.

**Table 1 Employed Persons by Industry (Thousand persons)**

	1980	1985	1986	1987	1988	1989	1990
Primary	15,979	17,674	16,130	15,717	17,442	17,427	17,498
Secondary	2,225	2,649	2,978	3,556	3,420	3,529	3,755
(Manufac)	1,789	2,067	2,300	2,739	2,611	2,705	2,883
Tertiary	4,320	5,530	6,112	6,901	6,864	7,051	7,070
Total	22,524	25,853	25,220	26,174	27,727	28,007	28,323

Note : The term 'Secondary' includes manufacturing and construction

Source : Labour Force Survey, NSO.

**Table 2 The Structure of the Employed Persons by Industry (%)**

	1980	1985	1986	1987	1988	1989	1990
Primary	70.9	68.4	64.0	60.0	62.9	62.2	61.8
Secondary	9.9	10.2	11.8	13.6	12.3	12.6	13.3
(Manufac)	7.9	8.0	9.1	10.5	9.4	9.7	10.2
Tertiary	19.2	21.4	24.2	26.4	24.8	25.2	25.0

Source : Labour Force Survey, NSO.

**Table 3 Structure of GDP by Industry (1972 const. price, %)**

	1980	1985	1986	1987	1988	1989	1990
Primary	23.3	22.4	21.4	19.7	19.4	18.7	17.2
Secondary	26.2	24.9	25.7	26.6	27.6	28.7	29.9
(Manufac)	21.7	20.7	21.8	22.6	23.3	23.8	24.7
Tertiary	50.5	52.7	52.8	53.7	53.0	52.6	52.9

Source : National Income of Thailand, NESDB.

**Table 4 Productivity by Sector (Thousands of baht / person)**

	1980	1985	1986	1987	1988	1989	1990
Primary	4.36	5.00	5.49	5.67	5.70	6.17	6.22
Secondary	35.26	37.03	35.74	33.91	41.42	46.82	50.35
(Manufac)	36.32	39.41	39.24	37.35	45.75	50.67	54.13
Tertiary	35.03	37.54	35.75	35.20	39.54	42.88	47.20

Source : Table 1 & 3

**Table 5 Indices of Labour Productivity by Sector  
(1980=1.00)**

	1985	1986	1987	1988	1989	1990
Primary	1.15	1.26	1.30	1.31	1.42	1.43
Secondary	1.05	1.01	0.96	1.17	1.33	1.43
(Manufac)	1.09	1.08	1.03	1.26	1.40	1.49
Tertiary	1.07	1.02	1.00	1.13	1.22	1.35

Source : National Income of Thailand, NESDB.

## 2. Investment Expansion and Derived Labour Demand

During these past three years, the formation of gross fixed capital has enjoyed a growth rate of 37.5%, 35.1% and 30.5% respectively.

In recent years, the increase in the number of employees engaged in the industrial sector has been remarkably high in contrast to employment situation in the other sectors. Table 6 shows the number of employees engaged in the firms which have been promoted by the BOI together with their investment value and the number of these firms that became operational in each year. In terms of employment, Thailand enjoyed a growth rate of 8.6% for 1989 and 64.9% for 1990. Since the average size has not changed to a significant degree, it can be said that the high rate of growth may be attributed to the increasing number of firms that have been established.

It also emerges that the capital-intensive nature of industry as a whole is increasing. This might confirm the fact that productivity in this sector has recently been increasing as stated above. The country's main exports such as shoes, canned foods, toys, garments, gloves and jewellery are all labour-intensive goods as shown in table 7. This particular table shows the level of investment and the size of the workforce of factories which have created a large number of job opportunities during a three-year period from 1988 to 1990. It is worth noting that there exist not only labour-intensive goods but also capital-intensive goods such as chemical products.

**Table 6 Investment and Employees (Millions of Baht, person)**

	1988	1989	1990
No. of firms	224	227	414
Investment <sup>(1)</sup>	18,886	24,941	66,650
Employees <sup>(2)</sup>	48,245	52,402	86,436
(1)/(2)	0.391	0.476	0.771

Source : Operations started, BOI. Figures (1) are deflated values.

**Table 7 Investment and Employment by Sector (1988-1990) (Millions of Baht, person)**

	Investment(a)	Employee(b)	(a)/(b)
Electronic products	26,992	29,839	0.905
Shoes	2,696	17,701	0.152
Canned foods	1,696	14,208	0.119
Toys	2,025	9,536	0.212
Machinery, Components & Parts	8,662	7,343	1.180
Plastic products	3,043	6,269	0.485
Garments	526	6,165	0.085
Spinning, Weaving, Dyeing,			
Printing, Knitting	8,582	5,924	1.449
Metal Processing	10,174	5,773	1.762
Gloves/Rubber gloves	1,510	5,716	0.264
Agricultural products	4,133	4,787	0.863
Ceramics & Glass products	2,496	4,361	0.572
Sporting equipment	1,173	4,426	0.265
Jewellery	757	4,385	0.173
Rubber products	2,302	4,256	0.541
Electrical appliances	4,328	3,961	1.093
Animal products	1,618	3,960	0.409
Chemical products	18,795	3,808	4.936
Furniture	783	3,242	0.242

Source : BOI. Firms started operation.

A brief glance at the employment figures classified by region reveals that firms launched in Bangkok and its perimeter employ 116,435 persons, thereby accounting for 62% of the figure for the whole country. The Northeast, on the other hand, accounts for only 3%.

**Table 8 Number of Thai Employees by Region,  
Started Operation Projects**

Region	1988	1989	1990
Bangkok	8,041	10,877	9,704
Samutprakarn	10,209	10,575	15,096
Perimeter	13,912	11,796	26,225
Central	2,254	3,381	8,401
North	454	297	3,356
South	4,827	2,439	5,977
East	6,015	9,188	15,280
West	647	969	1,366
Northeast	1,886	2,880	1,031
Whole country	48,245	52,402	86,436

Source : BOI

It must be noted that the recent increase in investment is due to the influx of foreign capital. With regard to the creation of employment opportunities it has contributed a great deal. In the years 1989 and 1990 respectively, foreign capital or joint ventures employed 64% and 72% of total employment. The share of Japan and Taiwan in particular was 48% in 1989 and 39% in 1990.

As regards the figures for those firms which are promoted by BoI and are already operational, it may be said that the "other" sector accounts for 63.4% of the total number of employees. This is followed by firms producing "machinery and electronics" which account for 16.5%. The latter sector has attracted a great deal of investment but the absorption of workforce is not so great. A quick glance at registered capital reveals that foreign capital accounts for a 83% share for "other", and 89% for "machines and electronics".

**Table 9 Investment and Workers in Firms Promoted by the BOI**

(Started Operation in the Year 1989 and 1990)  
( Millions of Baht, person)

	Number	Investment(a)	Employees(b)	(b)/(a)
Agri-products	138	9,994	20,256	2.03
Mineral products	59	9,848	7,551	0.77
Chemical products	27	16,695	3,335	0.20
Machines & Electronics	134	31,504	30,942	0.98
Others	508	45,557	18,654	2.60
Services	49	6,515	6,345	0.97

Note : (b) includes Thai workers only.

Source : BOI

The Department of Labour makes surveys four times a year about the labour requirements by 10 thousand establishments in the period of next 3 months. According to this figure of 1989, we can see that manufacturing sector accounts for 36.4% of the total demand. In manufacturing sector, food and textile take major part. Looking at the figures classified by occupation, we can see the growth of demand for professional, technical workers and production workers and the diminish of demand for clerical and sales workers.

The facts cited above are confirmed by data from the Factory Control Division for the year 1990. Table 10 shows the figures for some sectors which absorbed large number of workers. The sectors which have absorbed a large number of Thai workers are as follows: garments, textiles, radios & TVs, other electronic products, plastic containers, rubber products, footwear, non-metallic minerals and so on. Except textiles, rubber products, and non-metallic minerals, all of them are labour-intensive industries. The cement sector accounts for the largest volume of investment and the highest ratio of capital to labour.

**Table 10 Investment and Workers in Newly Established Factories ( 1990 )**

Sector	Investment (Millions of Baht)	Worker (Persons)
Garments	1,709	9,935
Textiles	6,862	8,655
Radio & TVs	1,749	6,001
Other electronic products	889	5,604
Plastic products	2,193	4,489
Rubber products	2,487	3,447
Footwear	362	3,267
Non metallic minerals	2,046	2,950
Fabricated metal products	1,494	2,703
Knitting	880	2,592
Automobile assembly	1,120	2,215
Iron and steel	1,954	2,126
Cement	19,701	1,890

Source : Factory Control Division, Ministry of Industry.

As for the role of foreign investment, it is often said that foreign capital has introduced capital-intensive technology, and it has less contributed to the creation of local employment. But there is evidence that shows the labour-intensive tendency in the production process in export industries. It is understandable if we come to think of the fact that recent investment is coming to take advantage of low cost and qualified labour in Thailand. Even the capital-intensive industries need more labourers in Thailand than in Japan.



**Table 11 The Figures for Newly Established Factories**

	1988	1989	1990
Number of Factories	4,894	4,058	4,441
Investment(Millions of Baht)	33,515	48,804	68,871
Number of Workers	114,245	131,423	127,361

Source: Factory Control Division, Ministry of Industry

Take the case of the garment sector which, apart from, contributing to the growth of the exports, is also the country's largest employer. Nowadays, the garment manufacturing has multi - products and small lot process, and it needs a lot of sewers. In the factories, sewers are allotted sewing machines imported from Japan or Taiwan. It is easy to recruit workers most of whom come from the north-eastern region. According to the impressions of one Japanese manager, the efficiency of Thai workers is 75% of that of their Japanese counterparts - though they tend to be more skillful than Indonesian workers. The products which are produced in Thailand are divided into 3 categories : the goods for Japan, for United States and for local. The products which are produced in Thailand are divided into 3 categories : the goods for Japan, for United States and Europe and for local market. The products exported to Japan are of a better quality those destined for other countries. At factory of joint venture with Japan, management system and production technique are brought from Japan. Most of the local company will not overcome the barrier of discriminative market in Japan. In Thailand they can be sold as high quality goods, but in Japan, they are marketed as goods of medium quality. This is the typical case which explains how goods made in Thailand are penetrating into the world market and how Thai industrial structure is organized so far. Confronted by market demand and new competitors, Thai garment association are considering the development policy for garment manufacturers such as training institute and so on.