CHAPTER 2

REVIEW OF THE PUBLIC AND PRIVATE CAPITAL OF THAILAND

Mainly, the study aims to explore and examine whether the public agents administrate and encourage labor productivity properly and effectively. The public capital and private capital background is unable to be omitted. The chapter will discuss the nature and background of public and private capital of Thailand in 3 sectors: agriculture, industry, and service.[1]

2.1 Public Capital

The total government expenditure is classified into 3 types: (1) government consumption expenditure (GCE), (2) government investment expenditure (GIE) and (3) transfer expenditure. GCE is the expenditure utilized to buy goods and services of government, for example, military durable goods, and household durable goods. The public capital in this study concerns to the net stock of equipment and accumulated investment of public sector (GIE) as the direct component of production.

Normally, the public capital formation was concentrated on promoting the growth of private economic activity and facilitating expansion of private ventures. A large part of investment funds came from domestic sources in the form of savings accumulated by the enterprise concerned, whereas funds from financial institutions have secured as an increasingly greater proportion consistent with the level of development and expansion in the monetary system. Funds from unclassified sources, which played a major role in the first plan, have been controlled to a decreasingly minor proportion.

The National Economic and Social Development Plans have a significant influence on public policy as can be summarized in the following table.

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[1] The period of study lies during 1970 – 1999 which is the most recent data of capital stock in Feb 2003. The division accounts for this statistics is about to revise the method of collect and classify data.

Table 2 The main objectives of the National Economic and Social Development Plans

Plans	Period	Main Objective
Plan 1	1961 - 1965	To push the economic growth
Plan 2	1966-1970	To push the economic growth
Plan 3	1971-1976	To push the economic growth
Plan 4	1977 - 1981	To stabilize the price
Plan 5	1982 - 1986	To stabilize the current account and balance account
Plan 6	1987 - 1991	To stabilize the current account and balance account
Plan 7	1992 - 1996	To push the economic growth, to stabilize the price, to stabilize the current account
Plan 8	1997 - 2001	Given "Human" as the center of development, to stabilize the current account

Source: Samridsab(2535)

During 1970-1971, at the end of the second plan, foreign aids decelerated while receipts from report dropped in the wake of low prices of principal export commodities. In addition to a decline of export earnings, international politics took a new turn with the U.S. policy to withdraw troops and curtail the ad hoc budget in the Vietnam War. The Thai economy was extremely affected, especially in the construction and tourism industries.

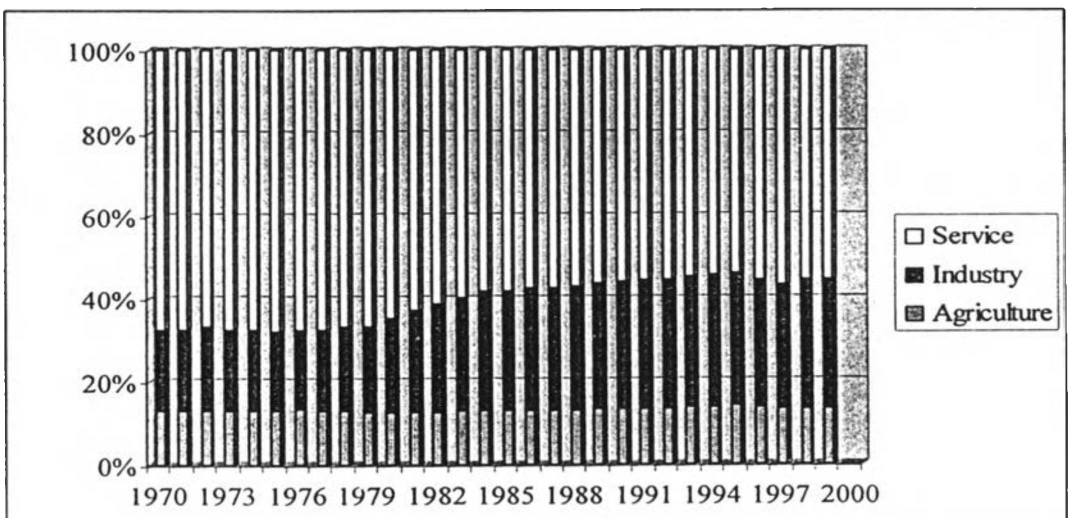
In the first half of the 1970's, the trade chasm was tremendously widened when world economic conditions were sluggish. Non-oil producing developed and developing countries suffered from the level of the oil crises and had to make appropriate adjustment. The overall growth rate slackened while the volume of international trade diminished. As for Thailand, the growth rate sustained a high level; trade expanded and investment increased unabated. Investment expansion has been evident in both public and private sectors in comparable volumes.

During the end of the 1970's, public investment grew very well with the inclusion of the offshore natural gas development project. Investments in machinery and equipment rose at a record rate due to procurement of more modern machinery for major projects.

The Government Expenditure in 1980-1999 mainly focused on account of the acceleration in investments in infrastructure, rural developments, and agricultural restructuring. Education and human resource management has become more important as the eight plan stress the "Human" as the center of development. The amount of investment was allocated to project in agriculture especially to improve land-use efficiency as well as projects in water resource development, land reform, highway construction, scientific research technological developments, environment and rural developments. Higher investment expenditure was seen in infrastructure, i.e. electricity, water works, telephone and express ways in rural area. The expenditure on research and development was significantly increased compared with others in the last 10 years.

As can be seen from Figure 3, the service sector since 1970 has remained the biggest proportion followed by industry and agricultural sector. The service sector of public sector, which includes education and hospital service, significantly decreased its role since 1979, and became slightly increase around the eight plan since 1997. The industrial sector has increased its role in the last 20 years; while agricultural sector has approximately somewhat declined.

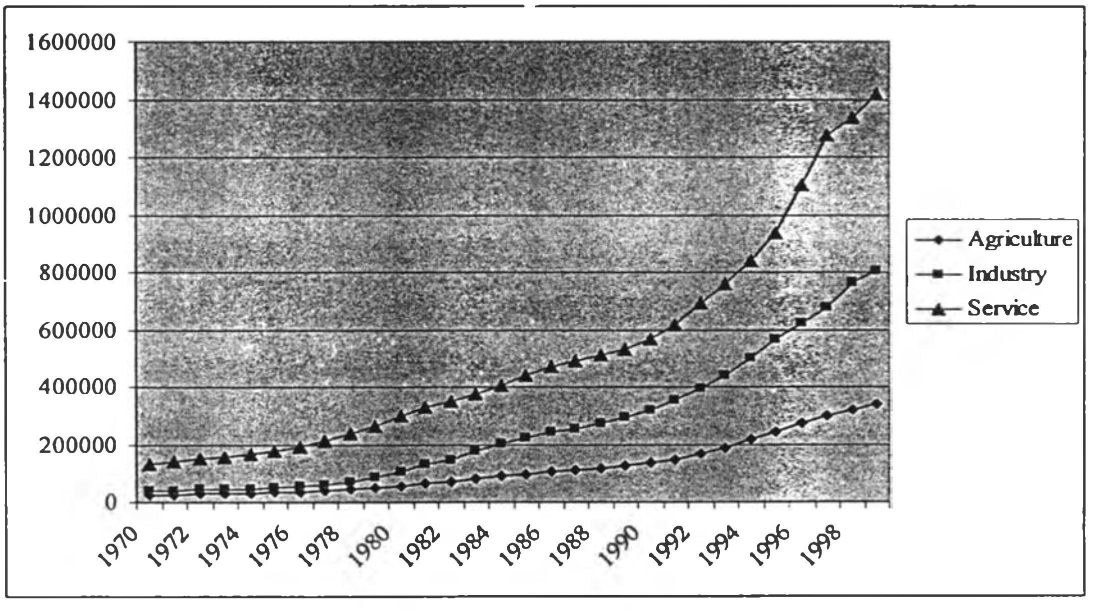
Figure 3 The sector share of public capital at 1988 price



Source: The National Economic and Social Development Board

Figure 4 shows the value of public capital by the line graph. It is noticable that the public capital invested in the service sector is outstanding far beyond the others, and has an increasing trend. The industrial sector, though strated at the close value with agricultural sector, has public capital greater than that of the agriculural sector.

Figure 4 The public capital classified by sector at 1988 price



Source: The National Economic and Social Development Board

2.2 Private Capital

During the first half of the 1960's, gross capital formation in the private sector grew in line with the government's policy to provide infrastructural facilities to promote private investment. Investments undertaken during this time were principally directed towards medium and small-scale industries.

The financing of private investment by institutional credits played the impending role in changing the structural change. Private investment during the second plan centered upon import substitution industries in response to policy emphasis on this sector, which aimed at redressing the prevailing and potential payments imbalance. However these industries, which manufactured mainly consumer goods, depended heavily on imported raw materials. As a result, the balance of payments deficit was not averted. Major industries received promotional privileges.

During the third plan, prevailing monetary and energy crises greatly affected private investment. The government had switched its promotional drive from import substitution industries to export-oriented ones. The industrial boom was thus enjoyed by export-oriented and agro-industries.

Private gross capital formation accounts for 70 per cent of total capital formation, with domestic sources, business saving, sustaining their significance. Capital from these sources has been in the range of 30–50 per cent of total private investment, rising rapidly from 30 per cent during the First Plan to 50 per cent in the second plan.

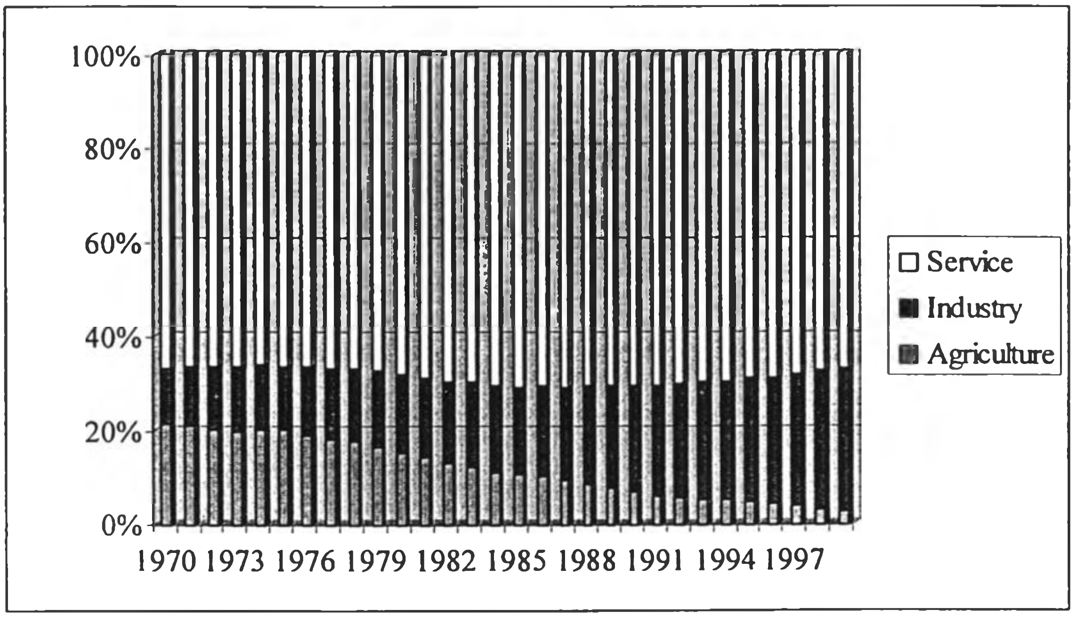
Finance and securities companies and the Industrial Finance Corporation of Thailand as well as commercial banks have been playing an increasingly greater role since then.

Capital from unclassified sources, which was formerly the most significant, has gradually lost its top status terms of private investment, decreasing from 52 percent in the first Plan to 10 per cent in the Fourth Plan The crucial turning – point was at the juncture of the first and the second plans when family business succumbed to modern enterprises, while the banking system became more advanced and performed more significant roles.

For private investment on which actual data are available after a long lag, capital from these two sources constitutes roughly only half of the actual investment expenditure. The rest, which come from ploughed back profits and financing from unclassified sources, take time to compile and are reported on an annual basis. Any estimation for a shorter time period is difficult to carry out by nature of the myriad of enterprises effecting those investments. This is unlike investment data pertaining to the Government and public enterprises, which can be traced from data, supplied by state agencies. Over the time span of 1960 - 1996, net private capital inflows experience a rapid growth in line with the expansion of private investment.

Similar to the agricultural sector, private capital is in the service sector, industrial sector and agricultural sector, orderly. Whereas, the industrial sector meaningfully has increased its role, the agricultural sector has decreased. It implies the diminishing role of agriculture in the private point of view.

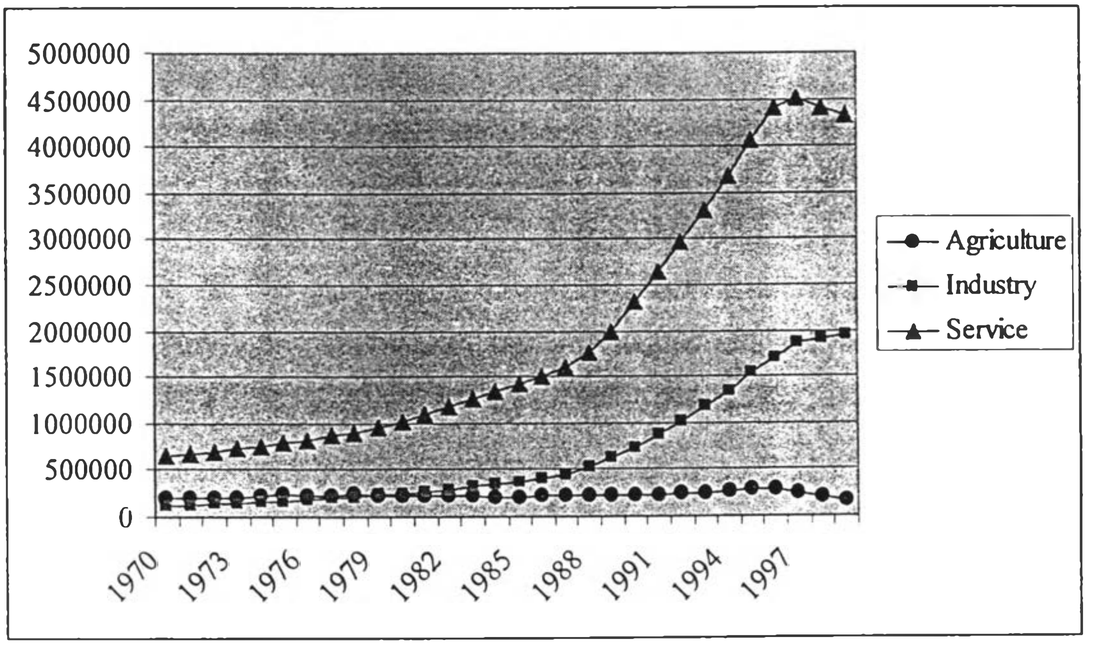
Figure 5 The sector share of private capital at 1988 price



Source: The National Economic and Social Development Board

The private capital confirmly shows the significance of service sector. Moreover, the trend of service and industrial sector has been united. All sectors have slightly dropped since 1997 as a result of the economic crisis.

Figure 6 The private capital classified by sector at 1988 price



Source: The National Economic and Social Development Board

2.3 Capital Stock of Public and Private Sector of Thailand

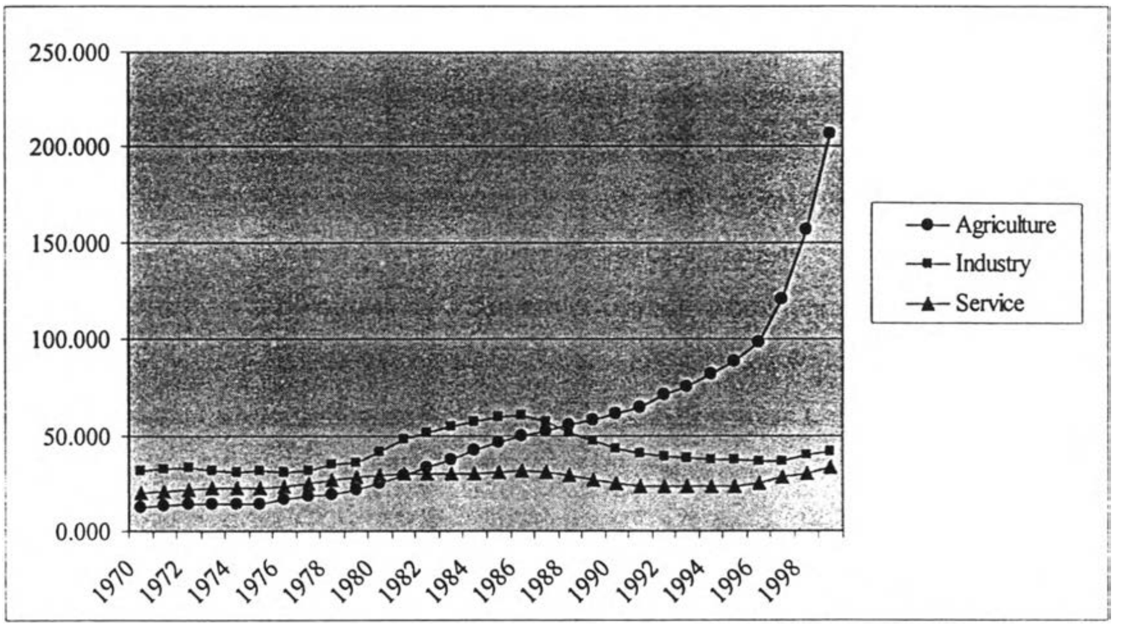
The growth of the public and the private investment in each sector during 1970-1997 represents the similar trend. The amount of capital embodied in the service sector, the industrial sector, and the agricultural sector sequently as can be seen in Figure 4 and 6. However, at the end of the 1990s, the private capital in every sector has tended to decrease, but the public capital has remained increase though in the smaller slope than the earlier one.

Although, Thailand has supported export-oriented since 1972, the capital stock in industrial sector has not been raised as much as service sector. The service capital of both public and private sector, instead of industrial sector, utilized the highest amount of capital stock. The capital stock in agriculture of private sector continues down trend while as public sector is vis-à-vis, though not significantly different. The rapid growth of the capital stock of service sector initiated from the growth of the transportation and communication and the financial and banking sector.

During the period 1970 – 1996, the structure of gross capital stock classified by institutions indicated that the largest position of gross capital stock was held by the private sector. At the end of the 2nd Plan, the ratio of capital stock between public and private sectors was 15 : 85. The ratio was changed to 23 : 77 at the end of the 7th Plan as a result of increasing public investment in infrastructures.

In Figure 7, the increasing proportion between public stock and private stock is almost equal in service sector. The industrial sector shows not much different between the capital stock in the public and private sector; public capital is higher than private capital approximately 40%. The most significant gap has lied on the agricultural sector. The trend of capital stock of public sector compared to the private sector's was climbing up to 325% in 1996.

Figure 7 Percentage of public capital devided by private capital of Thailand during 1970 – 1999



Source: The National Economic and Social Development Board

The same tendency of public investment is also found in the paper of Patmasiriwat(1992:15-18). According to his work, from 1975 to 1985, the government investment expenditure's growth rate has increased every year. Especially, during 1975-1978, the growth rate of public investment was 27.2 % on average. But from 1970 to 1986, there existed a huge gap between both capitals' marginal product(MP).

This may be interpreted into two ways. One is the gap that shows the transition process to steady state. The gap was gradually adjusted in the direction that says that both capitals MP equate. Another interpretation is that, government had no essential ability to conduct drastically big scale of public investment. These reasons might be the shortage of tax revenue or the restriction on public debt.

In terms of economic activities, at the end of the 7th Plan, the ownership of dwelling sector has the highest share of gross capital stock accounted for 23.9 percent of the total. For the same period, transportation & communication, manufacturing, services and agricultural sectors have accounted for 17.5, 16.9, 11.1 and 6.7 percent of total gross capital stock sequently.

2.4 Capital Stock of Public sector, Private sector and Labor Productivity.

The physical capital is claimed , in case of the complement input, as a pushing factor to the marginal productivity of labor. Thus, both public and private capital should energize the labor productivity as well.

As the public sector must 1) enhance and establish a stable and predictable macroeconomic, legal, and political environment, 2) improve the social conditions of citizens 3) improve the availability, quality, and efficiency of cross-cutting or general purpose inputs, infrastructure, and institutions 4) set overall rules and incentives governing competition that encourage productivity growth, facilitate cluster development and upgrading 5) create institutions and processes for upgrading competitiveness. The public investment, thus, is the tools to stabilize and make confidence for support investment and upgrading; on the other hand, it supposes to create the opportunity for producitivity.

The public investment by accountability must provide and brighten up the factor input. It also provides important intermediate service to the public sector. For instance, the public capital of agricultural sector is a dam, an agricultural office, servicing the agricuturist which gives a better irrigation to people around there, and enhance the agricultural output. Even a government office building provides the better working condition to government officers; hence, it tends to push the productivity to the government officer and the quality and quantity to serve the populace as well. The service, including the health and educational concerns, beyond the shadow of a doubt, mostly directly enlarge the labor productivity, such as a hospital or a school enhance the productivity of the employee in the short run, and create healthy or knowledgable people for the society in long run.

The significance of public capital that expands the productive capacity of an area is affirmed by Costa, Ellson,and Martin (1987), Holz-Eakin(1988), and Munnell(1990). It increases resources and enhances the productivity of existing resources. For example, a well-constructed highway allows a truck driver to avoid circuitous back roads and to transport goods to market in less time which makes the producer pay the driver lower wages and the truck experiences less wear and tear or makes the private companies produces their products at lower total cost.

The private operator is required to achieve the productivity itself, unless, he is unable to survive in the business. The private investment is mainly in machinery, which directly enhance the employee's capability. Universally, it helps to increase the quality and quantity of output and push the value added per workers, or producitivity; no enterprise buys a new machine to gain less profit. Another example, the building, similar to public sector, provides a better working condition, thus, it indirectly enhances the labor productivity.

To view the overall picture, the average labor productivity, public capital, and private capital of Thailand during 1970 – 2003 (Q3) are shown in Table 3 and Figure 8.

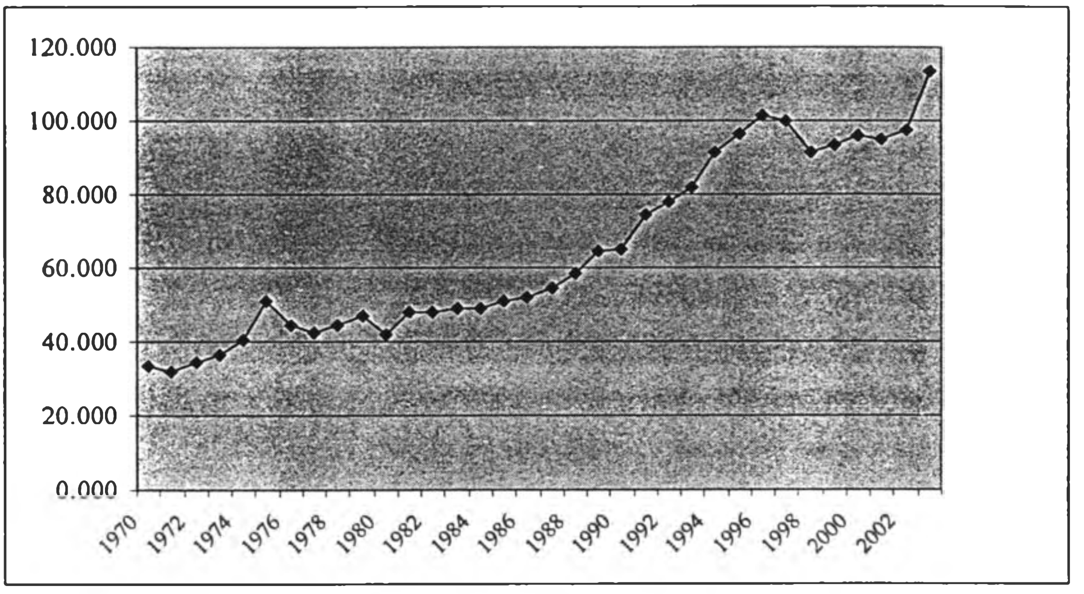
Table 3 Labor productivity of the whole economy at 1988 price (Baht/manday)

Year	GDP Million Baht	Employed person (1,000persons)	The labor productivity of the whole economy
1970	478,041	14,169	92.43
1971	501,203	15,629	87.86
1972	522,344	15,121	94.64
1973	574,414	15,835	99.39
1974	600,154	14,905	110.32
1975	629,858	12,338	139.87
1976	687,608	15,368	122.58
1977	755,415	17,687	117.02
1978	830,025	18,626	122.09
1979	873,508	18,538	129.09
1980	913,733	21,688	115.43
1981	967,706	20,210	131.18
1982	1,019,501	21,211	131.68
1983	1,076,432	22,076	133.59
1984	1,138,353	23,208	134.38

Year	GDP Million Baht	Employed person (1,000persons)	The labor productivity of the whole economy
1985	1,191,255	23,347	139.79
1986	1,257,177	24,281	141.85
1987	1,376,847	25,272	149.26
1988	1,559,804	26,745	159.79
1989	1,749,952	27,048	177.25
1990	1,945,372	29,956	177.92
1991	2,111,862	28,332	204.22
1992	2,282,572	29,261	213.72
1993	2,470,908	30,200	224.16
1994	2,692,973	29,420	250.79
1995	2,941,736	30,537	263.93
1996	3,115,338	30,691	278.10
1997	3,072,615	30,730	273.93
1998	2,749,684	30,091	250.35
1999	2,871,521	30,646	256.71
2000	3,000,595	31,282	262.80
2001	3,049,981	32,173	259.73
2002	3,223,562	33,046	267.26
2003(Q1-3)	2,535,758	25,151	276.22

Remark: The labor productivity is calculated by GDP at the 1988 price divided by the annual average of employed person.

Figure 8 The labor productivity of the whole economy (Baht/manday)



The labor productivity of the whole economy has increased from 92.43 to 276.22 baht; it has grown 183.79 baht throughout 34 years. This aspect as well as the labor productivity of each sector will be explored further in the empirical result.