Preliminary draft

Thailand's Economic development
And the Philosophy of Sufficiency Economy

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This paper discusses how the Philosophy of Sufficiency Economy has emerged as a development foundation for Thailand. It also describes the content of the philosophy in the context of mainstreams economic development, so one can perceive its applications in broader environment.

With this direction, the paper is divided into 5 sections. In the first section, the social and economic development plans are reviewed in order to illustrate evolution of Thailand development directions. The next section, then, discusses economic and social changes in Thailand up to the year of the economic crisis. Section Three presents the imbalanced of the Thai development, and causes and impacts of the economic crisis. The following section describes the emergence of Philosophy of Sufficiency Economy to cope with the crisis and for sustainable development. Subsequently, the last section discusses the interpretation of the Philosophy and how it can be regarded as an extension of mainstream economic development paradigm.

1. Thailand Social and Economic Development Path

Thailand is a constitution monarchy country situated in the heart of the Southeast Asian mainland, among the transitional countries including the Lao People's Democratic Republic, Cambodia, and Myanmar. Malaysia, an emerging country, borders the south of Thailand. Thailand covers 514 thousand square kilometers, slightly smaller than size of France, of which about 40 percent is cultivated area.

With the annual growth rate of the population of about 1.2 percent in the last two decades, number of Thai population reached 62.42 millions in 2004. About 31 percent of population is living in urban area, mostly clustering around Bangkok, the capital of Thailand. Even though the role of agriculture sector has faded out overtime with regard to production and trade performance, agriculture sector is still the backbone of Thai economy; it absorbs almost 50 percent of employment in recent years.

Thailand has implemented five-year development plans since 1961. This signified the redirection of economics policies from a vague and sentiment of economic nationalism, anti-private-business, pro-public-enterprise to more open economy and promotion of private business including foreign-own enterprises. Public enterprises created mostly after the Second World War for business purpose were either cased or contained. The economic direction and formulation of economic and

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social development plan was influence by the collaboration of the work from the World Bank and Thai government agencies[1].

During that time, the government also created new economic agencies under the Office of the Prime Minister. They are the National Economic and Social Development Board (NESDB), The Bureau of the Budget (BOB) and the Board of Investment (BOI). NESDB, BOB, Ministry of Finance and the Bank of Thailand (BOT) have been core agencies in macroeconomic management.

The principal objective of the First National Economic Development Plan was to raise the standard of living of the people. The key was the encouragement of economic growth in the private sector through the provision of basic infrastructure. The basic infrastructure consisted of the construction of irrigation works, the building and improvement of roads and other means of transportation, the provision of inexpensive electric power, and other physical infrastructure projects.

The Second Plan (1967-1972) continued to encourage economic growth and infrastructure development. The scope of the plan also included sectoral development programs. The Plan set targets of sectoral development. However, the result of development highly concentrated only on the major cities particularly in Bangkok.

In the Third Plan (1972-1977), the major objective was to improve both the social and economic dimensions. On the social side, the strategy was to reduce income disparities and promotes social justice. Family planning program to reduce the population growth rate was implemented in this period. In the economic aspect, the plan determined to restructure the economic system, promoted economic growth and maintained economic stability as well as increased the role of the private sector in economic development. However, the development performance revealed that the strategy correlated with only the sectoral programs and projects. The income disparities and poverty were still the big problems.

The first three economic development Plans emphasized infrastructure development. The plans identified the need to expand infrastructure facilities in transport, communication, and power. They also focused the need to provide health and basic education to the people. Theses Plans were quite effective in directing the budget allocation, as well as foreign aid, to targeted infrastructure development. This as well as basic health and education is crucial fundamental for the economic development.

These plans principal objective was to generate growth and provide basic needs for the people. There were three main reasons that the plans emphasized building up infrastructure especially road and electricity. First and foremost, it was a basic need. The road network connected people in village to market system and assists migration from rural area to cities. Electricity facilitated production and day-to-day activity. Secondly, infrastructure sector was considered a leading sector that created linkage effect to other sectors such as construction. Thus it stimulated more employment and growth. Another reason was a security one because road network could bring government services to people in rural area lessens the influence from the Thai Communist Party in remote rural areas.

The strategy for the Fourth Plan emphasized directly on these notable problems. The Fourth Development Plan (1977-1982)[2] was commenced during the

[1] Chirayu Isarangkun and Kobsak Pootrakool (undated) *Sustainable Economic Development through the Sufficiency Economy Philosophy.*

oil shock and unstable political environment. The Fourth Plan revitalized the economy from the effect of world recession and maintained economic stability as well as continued the economic-socio development. Although the plan indicated the new direction of development shifting the focus from economic growth to fundamental problems such as equity, rural development, even distribution of infrastructure and social services; it did not really implement because of the limitation of budget and foreign exchange. The evaluation of the forth plan exposed that the portion of the poor still was at the high level.

The Fifth Plan (1982-1987) recognized shortcomings of the previous development which caused problem in resource depletion and poverty. The plan emphasized structure development more than growth, emphasized balance in economic and social development, poverty reduction in rural area, cooperation between government sector and private sector. In this Plan, national development relied on the cooperation of the 5 major ministries (Ministry of Interior, Ministry of Public Health, Ministry of Education and Ministry of Agriculture and Cooperatives). The Plan initiated the framework of areas-based approach, stressed the equality in national economic and social development effort and poverty alleviation for people in backward rural areas. This Plan was considered not only a strategic plan, but also the coordinating plans.

The Sixth Plan (1987-1992) set 2 chief objectives: economic growth and human quality development. The strategic plan consisted of 4 strategies and 10 programs. It maintained at least 5 % economic growth so as to absorb new entrants into the labor market. The plan emphasized the development of human quality so as to expand the standard of living of the people in all areas. With the appropriate domestic policy inducing FDI and export growth and favorable external environment, the economic growth of Thailand has been very high since 1987. The annual GDP growth was average 11 percent during that period. It was the highest average growth rate of the past twenty-five years. Foreign debt was decrease. International reserve was increased. Employment in manufacturing and service sector was increased. However, the exceptionally high economic growth rates have led to the income disparities, social problems, and environment and natural resources deterioration.

This plan was an example of how difficult to implement plan with changing external environment. The plan prepared as the outlook of the economy was gloomy because of the second oil crisis, low commodity price and public foreign debt. The plan did not expect economic boom from foreign investment. The situation was reverse that the growth rates were very high and there is shortage in infrastructure. Thus, the plan was not suitable for economic environment.

With the high growth rate from very high growth of export, tourism, investment, the Seventh Plan (1992-1997) did not set target of GDP growth, unlike other plans. The plan recognized that Thai economy had to adjust to cope with the high growth in order to be sustainable. The plan also mentioned investment-saving gap problem. There were three main objectives in this Plan: maintaining economic growth rate, redistributing income, and accelerating the development of human resource as well as upgraded quality of life and the environment and natural resource management. Income distribution targets designate six target groups, 14 million persons, and 3 target regions. The region was designated in the backward rural areas in the northeast region, upper part of the north region, and new

[2] For critical review of all the plans see Apichai Panthasaen (2002)

economic zone in core cites. The economic structure became more outward-oriented and internationalized. The evaluation of the plan showed that the overall of economic prosperity achieved the objective. However, the benefit from the development remained concentrated in some group of people and some areas. Eighty percent of manufacturing concentrated in Bangkok and the surrounding provinces. The amount of poor decreased but the income inequality was the highest in 1992. Furthermore, accelerated growth rate resulted in the rapid depletion of natural resources and deteriorating environmental condition.

One can also say that this plan emphasized infrastructure development to cope with high growth, like in the earlier plans. However, it included other type of infrastructure such as ports, telecommunication and transportation.

The Eighth Plan (1997-2001) was another plan with new initiatives that was not implemented. When the Eighth Plan was formulated, economic growth was not the problem. The Plant adjusted the development concept, shifting from a growth orientation to people-center development. The approach of development according to the plan was people center. The key strategic approaches were the establishment of good governance, people participation, and community strengthening, education reform and the reform of the development administration. The plan was formulated with people participation to a great extent in order to respond to criticism about the top down approach from the previous plan. There were workshops and seminars all over the country to gather opinions. Unfortunately, the crisis erupted just as the plan was commenced; the urgent to cope with the crisis make it impossible to pursue the longer development plan. Therefore, the eighth plan was not in effect implemented.

From the above discussion one can see that the focus and directive of each plan was different. The later plans shifted emphasis from GDP growth to social and human resource development issues. Still, the fundamental based on market mechanism, private sector initiation, foreign investment and capital flow and international market was always pursued. Nonetheless, the implementation of the plans has been limited.

2. Social and Economic Changes

Social Development

The success of social development resulting to the fall of infant mortality rate from 49 to 29 per a thousand live births in 1980 and 1999 as well as the better coverage of medical services. Numbers of persons per physician, per nurse, and per hospital bed have been declining. Life expectancy at birth both female and male has grown continuously to 70.4 year and 66.0 years respectively in 1999.

The basic education has been also improved. The literacy rates rose from 87.4 in 1980 to 82.4 in 1990, to about 95 percent in 1995, 98 percent in 2004. The male adult literacy rates were higher that those of female but not much different and they become closer. The enrollment rate was rising and high. It was only 40 percent in 1990 but was up to 81.4 percent in 2004. Elementary school enrollment rate has been high and wee can say that it reached 100 percent. The upper secondary school enrollment rates and university enrollment rates were low though they were on the rise (Table 1).

With the direction from the economic and social development plans, infrastructure development, especially road network, had been continuously developed throughout the country. The road network was ranked as a high priority.

By the end of 1980s, the road density was 0.055 kilometer per square kilometer, then reached 0.101 kilometer per square kilometer in 1998. However, the railroad network was relatively underdeveloped, the length of the railroad showed a very small change. Communication network, telephone lines and mobile phones, has expanded dramatically in the last decade. The number of telephone fixed-lines went up threefold from 0.78 lines per a hundred inhabitants in 1980 to 5.86 lines per a hundred per habitants in 1995. In 1999, there were 8.42 telephone lines serving each one hundred habitants. The mobile phone, an additional communication service, has also increased from 0.08 subscribers per a hundred in 1990 to 3.71 subscribers per a hundred habitants in 1999. Service availability of fixed-line and mobile phone in Thailand was almost same as the case of China, which provided 8.43 lines for the fixed-line service and 3.42 mobile subscribers per a hundred habitants.

Not only the living standard of the Thai people has been improve, poverty incidence in Thailand has also fallen; the economic growth helped reducing number of people under poverty line. Table 2 shows that number of the poor reduced from 12.75 million persons in 1975 to 10.98 in 1994 and 9.8 millions in 1996. Considering that during the same period the number of population of Thailand increase considerable the decline of the number of the poor is impressive. The number of the poor rose during the crisis, then declined to 7.5 million persons in 2004.

However, the poverty has fallen much faster in urban area than in rural area. In 1992, 25.88 percent of people in rural area lived under the poverty line and 7.13 percent of that in urban. With continuously declined in poverty incidence, in 1998, 14.01 percent of people in rural were reported as the poor and only 3.89 percent in urban.

The unsatisfactory side of Thai development process is income distribution. Income distribution shows no sign of improvement during the last decade. Income inequality has been raised. The 20 percent of the richest household owned 49 percent of total income in 1975, the shares rose to 57 percent, 58 percent in 1990 and 1998 respectively. In 2004, the number was 55 percent. On the other end, the share of 20-percent household with lowest income earned 6.05 percent of total income in 1975, the number even lower to 4.31 in 1990 and 4.24 in 1998. The number was improved slightly to 4.3 in 2004.

Economic Development

Since the implementation of the social and economic development plan, the Thai economic growth has been satisfactory up until the economic crisis in 1997. During 1960-1969 the growth rate of GDP was 7.2 percent; it was declined to 6.3 percent in the next decade. In the first half of 1980s the worldwide recession brought down the growth rate to 5.4 percent (Table 3). The Thai economy rebounded strongly in the second half of 1980s; the recovery began as early as the end of 1986 and continued until 1995. It was 10.3 from 1985-1990; then it was 8.6 percent from the next five year.

Thai economy has been well integrated to the international economy as one can see from the ratios of import and export to GDP. It was 36.4 percent in 1960, and then was up to 54.5 percent, 75.8 percent, and 125.1 percent in 1980, 1990 and 2000 respectively. The openness contributes significantly to economic growth through export growth foreign capital flows, both direct investment and portfolio investment.

The price stability has been a prominent feature of the Thai economy. Inflation rates were very low, around 2.3 percent during 1961-1970; it was up to 10 percent during 1971-1980 due to oil shocks. During the period before the economic crisis the inflation rate was average lower than 5 percent (Table 4). However, the government deficits and current account deficits indicated less stability in public and external sectors.

The production structure has developed from resource-base toward industrial economy. In the early development stage, resource-based products including mining and crops had contributed significantly to national income. The economic development policy not only brought about the growth of GDP but also significantly structural changes. Role of agriculture sector in production has declined. The share of agriculture value added in GDP declined from 34.2 percent during 1960 – 1969 to 19.5 percent from 1980-1985. The share was less than 12 percent since the early 1990s. During the same period, the share of manufacturing value added in GDP has risen dramatically. Its share was 22.5 percent during 1960-1969. The share of manufacturing sector surpassed the agriculture sector in 1980 when it rose to 28.4 percent. It rose to almost 40 present in the second half of 1990s.

Thailand's export was benefit from her rich natural endowment. In the early stage of development, Thailand exported her resource-based products to the world market. Rice dominated Thai's export until the late 1980s; the other principal crops are maize, tapioca, and rubber. Later on, the labor-intensive products had played a considerable role in export taking advantage from low cost of labor. During 1980s and 1990s, the major labor-intensive manufactured products are textiles and garment, footwear, jewelry, and toy. Other major resource-based manufactured products were canned fruits, and sugar.

Thailand's export can be classified into two main product groups, namely manufactured products and resource-based products. Only 18.39 percent of export value in 1993 was the resource-based products, consisting of agriculture products, fishery products, and mineral products. In the same year, the manufactured products dominated, as its share was 80.42 percent in value of total export. In 2000, their resource-based products remained their shares at a smaller one of 11.53 percent while that of manufactured products, especially technical/skilled intensive, slightly increased to 85.54 percent. In the past decade, the technical/skilled-intensive manufacture products have dominated the export performance. Their shares has grown continuously to exceed 50 percent of total export in 1998 and reached to 57.28 percent of total in 2000. The share of labor-intensive has been declining.

While the next section will points out the weakness of development in Thailand leading to the economic crisis, there are many indications support that Thailand's social and economic development during the last five decades has enhanced human development. Fundamental of human development is to expand human choices by building human capacities which is the range of thing that people can be. The basic for this is living a long and healthy life, being educated, having a decent standard of living. Health and education data suggest that Thai people are better in health and basic education. With growth the standard of living is higher. Globalization also inducing modernization and enhances people choices in consumption, technology, information and culture.

3. **Imbalanced Social and Economic Development**

The chronicle of Thailand's economic development was not perfect. The development path has led to income and regional imbalance, resource utilization imbalance, and macroeconomic imbalanced.

On income and regional imbalance, Warr (2005:p48) pointed out characteristics of poverty as follows: absolute poverty has declined dramatically over the last four decades but inequality has increased; poverty is concentrated in rural areas, especially in the Northeastern and Northern regions of the country; large families are more likely to be poor than smaller families; farming families operating small areas if land are more likely to be poor than those operating larger areas; household headed by persons with low level of education are more likely to be poor than others.

As mentioned above, while absolute poverty has declined dramatically over the last four decades but inequality has increased. Considering the characteristics of the poor the situation is not likely to improve. The poor is concentrating in rural area with lower education and smaller amount of land. With lower income, they get less education and capital accumulation so cannot catch-up with the majority. There are empirical studies conclude that growth can reduce number of the poor but evidences are not conclusive that growth reduce income inequality.

The development focusing on growth in manufacturing sector caused imbalance and inequality. The value added share of agriculture sector decline significantly amounting to 10 percent of GDP; while the labor in the sector is about 50 percent of labor force. With less production base but large population income per capita cannot be rising in the same proportion to that of other sector. Furthermore, Bangkok and major cities are production bases for manufacturing sector and related activities, consequencely Bangkok and major cities have developed faster than the rest of the countries. The GDP per capita of Bangkok is about 4 times higher than that of the country average indicating immense disparity in spatial development.

The GDP growth came at the expense of the resource depletion. It raised rural environmental problems such as deforestation, forest encroachment, soil erosion, and flooding and water shortage. Table 5 shows that the forest area of the whole country decline from 25 percent in 1981 to 25 percent in 1999. In 1960 the forest area was 53 percent. It also increased urban environmental problem including air pollution, water pollution, soil waste, toxic waste, land subsidence and flood damage.

Mingsarn Kaosa-ard (2005: p332)[3] asserts that " The process of economic development in Thailand also took on a particularly damaging form, in that it relied on the accelerated depletion of its natural resources and view the environment as no more than a waste sing, causing not only the environmental degradation but negative impact on human health."

Macroeconomic imbalance came mainly from saving-investment gap causing current account deficits. With regards to international competitiveness, Thailand has low productivity as evidence from low total factor productivity growth. Most of labor

[3] Mingsarn Kaosa-ard *Natural resources and the environment* in Warr Peter (2005).

force got primary school education; therefore, it is more difficult to product higher level of technology products. This can wider current account deficits.

These imbalances showed the weakness of the Thai society. The development path and policies led to the crisis in 1997

The crisis was not the result of a single, time-specific event. It was the result of a process related to weak policies, weak institutions and weak management in addition to the imbalanced development_In other words, the crisis was caused by many factors, including volatile international financial markets, weak corporate governance, domestic policy failures and greed[4].

Behind the picture of continuously growing economy, nobody seemed to be recognizing the danger caused by macroeconomic mismanagement. With the view that Thailand can be a center for the region, the government undertook financial liberalization policy. Bangkok International Banking Facility (BIBF) was established in 1993 to facilitate international lending and borrowings. The Stock Exchange Commission (SEC) Act of 1992 was amended to allow a limited company and a public company to issue debt instruments abroad as private placement without requiring permission from the Security Exchange Commission. Since the issuing of debt instruments can be done only by large companies, the Act, therefore, permitted a large company to have an access to low interest foreign funds.

Furthermore, with the basket system of foreign exchange, the Thai baht in effect was fixed with US dollar and as the exchange rate of the US dollar was quite stable, this eliminated exchange rate risk.

As a result, the three schemes, the liberalization of the financial system, low world interest rate and the domestic currency which had been pegged to the US dollar, undoubtedly had greatly promoted the massive foreign borrowings especially in terms of short-term foreign loans (Table 6). Consequently, the share of short-term debts relative to reserves in 1996 was quite high at 164 per cent while external debts accounted for 50.4 per cent of GDP. The ease of the access to that capital also encouraged private sector to over-invest in some sectors, especially in the real property sector and speculative activities. The excess supply of housing in Bangkok and the metropolitan area is expected to exceed 300,000 units, and the occupancy rate of office space in Bangkok has dropped to only about 60 percent at the end of 1998. Due to the excess supply, some investors are unable to repay both foreign and local debts. Evidence of the sharp rise in investment could be found in the drastic increase in proportion of private investment spending in GDP and the high proportion of imported capital goods to total import.

Thailand's high economic growth before the crisis was predominantly the result of the massive inflows of foreign loans due to foreign exchange liberalization. This in turn caused the economy to become more vulnerable to internal and external shocks affecting capital flows.

The domestic saving is not kept up with the demand for investment. The above discussion explains that government policy and business behavior caused huge inflows of foreign loan. This resulted in increasing current account deficit. The current account deficit increased from 0.7 per cent of GDP in 1987 to 8.5 per cent of GDP in 1990 and continued to be high in a range between 5-8 per cent until 1996. The excessive expansion of demand due to the surge of investment financed by

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[4] Causes and impacts of the crisis are drawn mainly from Nattapong Thongpakde and Srawooth Paitoonpong (1999).

foreign borrowing is acceptable only if the investment project paid off, especially in terms of foreign currency earnings. However, as mentioned, most of foreign borrowing had been used in several unproductive activities; this in turn caused the economy to become more vulnerable.

The weakness of financial institute emerged with the disclosure of the Bangkok Bank of Commerce Public Company Limited (BBC) loan fraud raised question to corporate governance. The problem arose as more than 75 billion baht was borrowed by politicians and/or companies controlled by them of which about 5 per cent has been repaid.

The similar situation also appeared in a number of financial companies as large sum of money were moved on the signatures of top executives and thus were recently under investigation of the Bank of Thailand. General Finance and Securities Public Company Limited executives were under investigation for allegedly having approved loans without sufficient collateral. Sica Investment Finance and Securities Public Company Limited executives were under investigation in relation to approximately 2 billion baht in money transfers to its leasing unit with little or no supporting documentation to legitimize such payments. Similarly, three of Finance One Public Company Limited top executives have been charged by the Bank of Thailand for approving loans exceeding 2.1 billion baht to two companies (located at the same address) which had a combined capitalization of 310 million baht and thus in turn combined negative net worth of 1.435 billion baht. In fact, such fraud transactions or connected party transactions appear consistently, not only in the financial sector and the one who benefit from such transactions are those who have the appropriate relationships with politicians, senior government officers and company executives.

The absence of corporate controls, the mingling of funds among listed and closely held companies of the same family, the use of multiple sets of accounting books and the highly paid rubber stamp directors are common characteristics of Thailand's private companies which is one of reasons that have brought Thai economy to the brink of collapse. Alphatec Electronics Public Company Limited is a good example in this story. Profits of the company had been overstated by at least 164 million US dollar during three-year period and at least 160 million US dollar had been transferred to other companies controlled by the founder without board approval. This generated great value of debt of 450 million US dollar to the company.

Financial institutes also allocated large amount of fund to unproductive or oversupply sectors with low return. Table 7 shows that during the crisis debt-equity ratios of Thai companies were high and returns (EDBITDA/debt) were low; in the year of the crisis it was less than ten percent. As a result, non-performing loans proliferated creating problems for financial institutions.

The lack of corporate governance undermined the trust of the people on the financial system. With addition to the non-performing loan problem, people confidence in the financial system diminished. Moreover, since exports had stagnated and an over supply situation had developed in various sectors, confidence in the Thai economy and value of the baht eroded. Since the economic slowdown, the Thai economy has declined ever, and hidden problems began to emerge, which have greatly aggravated the severity of the economic downturn.

One may notices that while pursuing the liberalization of the financial system, Thai official did not effectively monitor the adverse effects that would have occurred if too large amount of short-term loans were made by a number of private companies. Although this would not have been a problem had the private sector still been profitable. However, the unexpected economic turmoil arose because of the vulnerability of the economy. This could be viewed as a consequence of a number of factors. Firstly, the majority of loans were given to unproductive activities, such as the property sector, capital intensive heavy industries, and speculation in stock markets. Secondly, the current account deficit which rose to nearly 8 per cent of GDP in 1996 and the increasing rate of inflation since 1993, the export slowdown in 1996 which was mainly due to loss of competitiveness in labor-intensive products. These altogether led the Thai economy to be more vulnerable to the unexpected shocks both internal and external. In other words, if something went wrong in the economy then suddenly a lot would go wrong. Therefore, it was like one drives a car without knowing exactly how to control the speed.

The above discussion indicates the vulnerability of the Thai economy. The huge foreign debt outstanding accumulated during 1993 to 1996, high current account deficits, an excess supply in property and other sectors leading to high and increasing non-performing loan of financial institutions, the unusually strong baht, and the slowdown of exports have made the baht unstable. As a result of these problems, the baht was under attacks by international hedge funds for almost two years and the Bank of Thailand adopted a strategy of defending the baht by keeping interest rates high. As a result of the unstable baht and other economic problems, capital outflows have made credit tighter and interest rates have surged. The high interest rates and tight credit market caused a further slowdown in private investment and consumption spending. It is quite clear that the Thai economy currently is in a downturn of the business cycle.

The severe baht attacks occurred in February and, subsequently in May 1997. To defend the baht, the Bank of Thailand had to utilize foreign reserves to counter the attacks by buying in the both spot and forward markets. In May alone, foreign reserves fell by as much as US $ 4 billion. The forward commitment of a long position on baht taken by the Bank of Thailand totaled an astonishingly high as US $ 23.4 billion.

Since the attack in May, the financial situation has worsened. The money market has become tight which is reflected by the surge of inter bank rates which peak at almost 30 percent. Capital outflows rose and foreign reserves continued to dwindle. At the end of May, the minimum lending rate and minimum over draft rate rose sharply as liquidity was drained from the system. The situation deteriorated as the high interest rate slowed down the economy and non-performing loans rose, and rumors about financial difficulties spread. Consequently, panic ensued resulting in deposit runs at many financial companies producing a liquidity crunch in these companies. The problems in the financial sector finally began to permeate to the production sector due to the tight liquidity and high interest rates. Speculation about the baht devaluation became stronger causing capital outflows, which, in turn, caused a drain on liquidity in the financial market.

Finally, the Bank of Thailand decided to abandon the old exchange rate regime of the basket system on July 2 and adopted the new managed float regime. Under this new regime, the value of the baht is determined by demand for and supply of the baht

With depletion of foreign exchange, high depreciation of baht, unstable foreign exchange and prices, financial system collapse, negative GDP growth, Thailand was in her deepest economic crisis. Finally, the Thai government requested assistance from the International Monetary Fund (IMF) to alleviate the economic crisis.

The severity of the economic downturn and problem accumulated during the economic expansion reveal that the Thai economy and policy makers are not ready for the globalization of capital mobilization. There are weaknesses in various institutions including financial system and the supervision of financial system, policy making process and business community. The crisis also showed that the knowledge to cope with the crisis was not adequate such as too slow too adjust to exchange rate system, the process to cope with deposit run. For the Thai economy to have sustainable prosperity these weaknesses must be seriously dealt with and structural adjustment in various sectors are needed.

Peter Warr (2005 p.57) provided insightful summary of the cause of the crisis as follows: "It is vital to recognize that Thailand's crisis was a collapse of a boom. It was not cause primarily by vicious speculators or by corrupt politicians, although both of these play a role, but by errors of macroeconomic policy. These policy errors occurred during the boom period and arose from the complacency, and to some extent, arrogance, produced by a decade of unprecedented economic growth. Central among these policy mistakes was the insistence on retaining a fixed exchanges rate when circumstances no longer suited it. The extended boom also produced a euphoria-some would say greed- which led business decision-makers and other to take risks they would not ordinarily have accepted."

1.4 The Emergence of Sufficiency Economy

The crisis caused the baht depreciation because it had been overvalued with fixed exchange rate system. Since the change in the exchange rate regime, the baht had depreciated considerably to the range between 39 and 41 baht per US Dollar. The baht volatility caused price instability, high inflation, and increase debt burden.

Many finance companies and commercial banks have experienced the problem of insolvency because an increasing share of their loans has become non-performing undermining profitability capacity. They also have faced liquidity problem since they have to pay back their foreign loans. Many finance companies were closed, all banks had to restructure their capital, and some were required to change ownership.

These circumstanced caused the credit crunch as banks were reluctant to lend to most corporations whose balance sheets have been significantly deteriorated as a result of the depreciation which in turn led to the contraction of the economy. In addition, credit crunch could also be viewed as a result of a set of conditionality stipulated by the IMF, along with its rescue package, for the purpose of financial reform. The tighter regulations and supervision of financial institutions were needed in order to restore confidence in and stability of the financial system, the more difficult for investors to be approved to have an access to banks' loans. Without any doubts, the credit crunch directly caused high interest rates and a fall in investment.

The crisis in 1997 caused the negative growth rate of 1.4 percent. The recession continued in 1998 with the negative growth of 10.5 percent. This was quite different from the boom period when average of GDP growth was 10.3 percent p.a. during 1985-1990 and 8.6 percent p.a. during 1990-1995. Even with the recovery since 1999, the growth rates were less than 5 percent. The crisis illustrated that the precedent high growth rates were not sustainable.

The social impact of the Crisis covers a wide range of problems. One of the major social impacts of the crisis in Thailand was the high and widespread unemployment. Unemployment reflects the social sufferings through losses of income, means of basic needs and the quality of life as well as social status, A person's employment does not only indicate his/her utilization of time for productive purposes but also for social purposes. It also determines or is closely related to a person's social behavior. According to the Department of Labor Protection and Welfare about 4,900 establishments went out of business laying off approximately 408,967 workers while in 1998, between January- Augusts, about 2,600 establishments were closed down and laid off about 222,950 workers.

Another major concern concentrates on the social impact caused by a reduction in the government expenditure due to a fall in government revenues. While there is increasing demand for public services, especially health and education, the budget constraints have forced the government to curtail some social programs. The sharpest cuts were in transport and communications, but balanced against that were equally severe cuts in environment and in social services (Siamwalla A. and Sopchokchai O, 1998).

This decline in budget raised concerns on the human resources development problem of the country, as it was evident that the number of students dropped out from schools and universities significantly increased over time since the crisis started. Such an increase could be viewed as a result of the loss or reduction of income of their parents, causing their children to drop out from schools and universities to look for jobs. A survey by the Ministry of Education indicated that more than 45,000 students have been affected because their parents have lost their jobs (UNDP, 1998). Although the government provided loans for drop-out students for 1,000 million baht, only 10 per cent of the amount has been made.

The government also cut the expenditure on the government scholarships. Therefore, it undermined the development of human resources in the government sector.

The crisis did not only affected students, both public and private schools also facen the problem of decreasing budget and increasing costs. While private schools all over the country recorded 923 million baht overdue tuition for the second semester of the 1997 academic year, public schools experienced a decreasing budget expenditure for stationary, tuition fee, and food.

The crisis made people at all level suffer. With negative growth, less income and less budget for social services, it undeniably weakened human development.

As discussed above, although Thailand economic development path had created growth and was successful in many aspects, it caused imbalance resulting to unsustainable development and economic crisis. The circumstance pressed the Thai society to reexamine and to reevaluate both individual and national values, policies and practices for development. To get out of the crisis and move on to the sustainable social, economic and human development, the old path of development cannot be entirely relied on and the new paradigm of development is desirable.

His Majesty bestowed the speech on Sufficiency Economy on December 4 1997. However, exploring more on the King's speeches and remarks in various occasions, one must realize that the idea of this philosophy has been advocated, with out much attention, for some times. The Sufficiency Economy concept and practices emerged through His Majesty the King's wisdom and his 50 years experiences with rural development and poverty alleviation. One example can be reflected in the excerpt from His Majesty's speech given on July 18, 1974. His Majesty kindly suggested guideline for the country's development based on moderation.

> *"Development of the nation must be carried out in stages, starting with the laying of the foundation by ensuring the majority of the people have their basic necessities through the use of economical means and equipment in accordance with theoretical principles. Once a reasonably firm foundation has been laid and in effect, higher levels of economic growth and development should be promoted. If we were to concentrate only on fast economic progress without allowing the plan of operation to harmonize with the conditions of the country and people, an imbalance in various aspect would be caused and may bring about failure in the end, as witness the serious economic crises currently faced by many a developed country."*

Adhering to the speech on December 1977, the NESDB invited academicians and experts in various fields to work jointly in synthesizing His Majesty's remarks and speeches on development and sufficiency economy. The synthesis of the philosophy was submitted for royal consideration and the approval was granted for Thailand Development Research Institute (TDRI) year end Conference. The synthesis is as follow:

> *"Sufficiency Economy" is a philosophy that stresses the middle path as the overriding principle for appropriate conduct by the populace at all levels. This applies to conduct at the level of the individual, families, and communities, as well as to the choice of a balanced development strategy for the nation so as to modernize in line with the forces of globalization while shielding against inevitable shocks and excesses that arise. "Sufficiency" means moderation and due consideration in all modes of conduct, as well as the need for sufficient protection from internal and external shocks. To achieve this, the application of knowledge with prudence is essential. In particular, great care is needed in the utilization of untested theories and methodologies for planning and implementation. At the same time, it is essential to strengthen the moral fiber of the nation, so that everyone, particularly political and public officials, technocrats, businessmen and financiers, adheres first and foremost to the principles of honesty and integrity, In addition, a balanced approach combing patience, perseverance, diligence, wisdom and prudence is indispensable to cope appropriately with critical challenges arising from extensive and rapid socioeconomic, environmental and cultural changes occurring as a result of globalization.*

Furthermore, to deepen the understanding of the philosophy and to make it more applicable to various practices, in 2001 NESDB set up a working group to further analyze the content of the philosophy and study the application. The group identified the three principals of sufficiency as moderation, reasonableness and self-immunity and necessary conditions of sufficiency are knowledge and morality. Knowledge condition requires careful study and planning. Morality condition makes people honest and trustworthy in their duty and daily life.

With the weakness and imbalance of past development plans, it was imperative that The Ninth Economic and Social Development Plan undertakes the Philosophy as a fundamental of the plan. The Ninth Plan set up development vision focused on *"the alleviation of poverty and the upgrading of the quality of life for the Thai people, so that 'sustainable development and well- being for all can be achieved'. The sufficiency economy philosophy will be followed as a shared value of the Thai people, guiding the transformation to a new national management system based on efficiency, quality of life, and sustainability objectives".* The plan visualizes the Thai society to be the quality society, knowledge-based and learning society, and united and caring society, i.e. "strong and balanced society".

The review of Thailand social and development plan in Section One shows that the implementation of the plan has been limited. One problem is when economic environment changes, then plans become irrelevant. Another problem is that each agency might not entirely perform according to plan. With the Philosophy of Sufficiency Economic as the fundamental core value of the plan, the implementation of the plan should be more effective since every agency can adhere to this philosophy and implements development measures with respect to changing environment. Therefore, every organization has the same foundation that can be applied according to its mission to reach the same development goal which is sustainable and balanced development. Evidence is that this year there are many government agencies initiate development projects by themselves based on the philosophy.

1.5 Sufficiency Economy Philosophy: Extension of Economic Development Framework

To understand the Philosophy of Sufficiency Economic in the context of economic development, the framework of economic development should be explored. The perception of economic development has evolved over time.[5] Meier G. (2001)[6] classified generation of development economists into two generations: the first generation (1950-1975) and the second generation (1975-present).

The first generation framework focused of increasing per capita income. Since population, as a denominator, was always rising, the way to do was to increase GDP which was a measurement for income. Therefore, GDP growth was a principal objective of development. Raising GDP could be done principally by increasing capital accumulation as a necessary requirement; so models in the first generation essentially focused on capital accumulation and rate of saving.

Furthermore, since agricultural sector was under- or unemployment, productivity of labor is low, to increase growth, it was essential to move labor from labor-surplus agricultural sector to more productive manufacturing sector. This required industrialization measures in a developing country.

While market mechanism was the foundation of the economy; however, this development framework implied very active roles of the government. The

5 Toye John (2003) "Changing perspective in Development Economics" in **Rethinking Development Economics** Ha-Joon Chang (edited)

6 Meier G (2001) *The Old Generation of Development Economists and the New* in Frontiers **of Development Economics: the Future in Perspective** edited by Gerald Meier and J. Stiglitz New York: Oxford University Press.

government had to act as a principal agent of change. Roles of a government were not only to provide security and correct market failures; but also to raise capital, to facilitate industrialization and labor movement, to provide infrastructure, to relax foreign constraint, and to coordinate development programs. In the early period of development, the governments in developing courtiers were strongly involved in development planning and implementation.

With respect to analytical technique, the second generation of development economists employed neoclassical economics as fundamental principal. The models were disaggregated microstudies which units of analysis were households and production units. The focus was not on the process of development but rather on specific features of under development and how units of analysis response to incentives. The studies extensively utilized quantitative tools. The analytical techniques in the second generation were more rigorous than the first one.

While capital accumulation was still considered to be important for economic growth, this generation expanded the scope of the studies. The level of capital accumulation was found less important than how capital was allocated. The technological changes were believed that could come from many sources such as, improvement in quality of labor, allocation of resources form low-productivity to high-productivity sectors, economies of scales, redesign of engineering process. The new growth theory also indicated great important of human capital and knowledge in economic growth.

The second generation of development economists'view on the government roles was much different form the first generation. The second generation gave more attention to the politics of policy making, since it believed that the government was not an exogenous force. It could have its own self-interest and its own goals difference from social optimality. There were ample evidences of government failure in development policy implementation and made things worse. Therefore, this generation proposed less government roles in the economy. Meier stated that (P17) *"Not differences in initial conditions but differences in policies were now thought to explain the disparate performances of developing countries. A country was not poor because of the vicious circle of poverty but because of poor policies. Market, prices, and incentives should be of central concern in policymaking."*

The analysis of 'new market failures' has been a major contribution from the second generation. Besides traditional market failures like public goods and externality, the second generation recognized that transaction costs, weak property rights enforcement, imperfect and costly information, incomplete market, absence of future market and cooperation failures could cause market system to perform inefficiently. This required different government intervention from conventional market failures. It was important for the government to set up suitable so market can work efficiently.

Even though the second generation of development economists provided more rigorous analysis and higher state of knowledge about economic development than the first one, there are many broaden and unsettle matters to be contemplate.

These issues include employment creation, understanding the sources of growth, the influence of institutions, the role of technology and social capability, defining social capital, the evolution of financial institutions, the implication of globalization, complimentarity of state and market, and policy making and economic advice[7].

Furthermore, economists recently are interested more on individual and social well- being. It is apparent that GDP growth does not have one to one impact on quality of life and human development, especially in developing countries. There are many aspects of well-being required by people according to their preference, such as leisure, peace, clear air, social participation, social coherent, freedom to express, political freedom. With this view, economists commence researches on happiness and well- being to get better understands of development theory and policy formulation. Measurement of well-being and happiness were analyzed. These indicators can be formulated from national income account or other quantitative methods[8]. However, this area of study is in its early stage.

With many issues to be considered and settled in social and economic development and some are beyond traditional economics, the Philosophy of Sufficiency Economic provides perceptive broader and deepen substance to economic development thoughts and frameworks. While the Philosophy transpires to cope with the crisis, it is a foundation for sustainable development. The Philosophy of Sufficiency Economic is a holistic approach that provides comprehensive direction for people well-being integrating multidimensional aspects of development in one framework. Recent development thoughts put less emphasis on GDP growth; the Philosophy further provides guidelines for balance, sustainable and less risky path of development coping with globalization.

The Philosophy of Sufficiency Economic is compatible to mainstream economics[9], as it accepts trade and globalization, accept optimization, and accept market uncertainty. However it transcends the economic sphere as it is a holistic approach while most economic analysis are partial; the philosophy takes into account political freedom, stability, equity, social capital, cultural values and traditions, ethic, attitudes and the environment. To demonstrate the argument, some distinctive characteristics of the Philosophy of Sufficiency Economic for development are presented as the followings:

<u>Development path must be balanced</u>

Policy formulation and implementation must take into account all three objectives of economic development which are growth, equity and stability. GDP- growth- dominated policy is not compatible with the philosophy.

There are always controversial thoughts on how to cope with globalization. Some even favor self-sufficiency and isolationism. The Philosophy of Sufficiency Economic settles the issue stressing self-reliance. This refers to interact and take advantage with globalization process with knowledge and wisdom; knowing own strength and weakness. At the same time, suitable tools must be built up to immunize ones against external volatility.

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[7] Meier G (2001) op.it pp23-39

[8] Romina Boarini, Asa Johnasson and Marco Mira d'Ercole(2006) *Alternative Measures of Well-being* OECD social, Employment and migration Working Papers.

[9] **TDRI Quarterly Review** Vol.15 no.1 march 2000, pp 6-17

In addition, development must be balanced with regard to sectors of production, spatial, natural resources and environment, income and access to public services.

Conduct must be reasonable.

Reasonableness is one principal of sufficiency economy. This accentuates long-term consideration. Growth in the present does not necessary guarantee future growth. The Philosophy of Sufficiency Economic gives attention to future generation capability to utilized resources; therefore, the present generation must utilize natural resource efficiently and concerning the long run impacts. Investment and productivity improvement are needed to make up for depleting natural resources. There must be investment in new sources of natural resources or their, substitute. This consideration is applicable to utilization of other inputs contributing to GDP growth.

The philosophy also guides individual, household, business behavior not to be short-sighted and always take into account long-run impacts. Planning is a good tool for thorough long-run consideration.

Self-immunity must be contemplated.

Another element of the Philosophy of Sufficiency Economic beyond traditional economic development is self immunity. This implied growth with caution and designing tools to cope with the worse case scenario. It highlights the importance of risk management and social safety net mechanism. This is also valid at individual, community, business level.

Development needs ethical and knowledge institution.

Traditional economics does not pay much attention on institution development. On the contrary, morality, and knowledge are fundamental for Sufficiency Economic. Without knowledge, one will not comprehend to reasonable behavior and to build up appropriate self-immunity means. Likewise, one without morality is not likely to be moderate in a living.

To foster knowledge and morality as pillars for sufficiency economy, there must be institutions embedding in a society. The institutions include, rule and regulations, social norm and value, political institutes, civil society, social fabric. With these institutions, the application of the Philosophy of Sufficiency Economic can be effectively practiced.

The Philosophy of Sufficiency Economic also mentions roles of policy makers, academicians and businessmen who all play important roles for development. They must perform with knowledge and honesty. This requires institutions for good governance in public and private (corporate governance) sector.

Development is beyond material creation.

The Philosophy of Sufficiency Economic is not against the creation of wealth which stimulates growth. However, this is not goal of development the ultimate goal of sufficiency economy is sustainable development. This can be reached with balanced development as discussed above. Furthermore, the Philosophy of Sufficiency Economic aims to make people be able to cope with materialistic, environmental, cultural and social impacts, as well as economic effect, from internal and external changes. Therefore, it is not possible to thoroughly apply the Philosophy of Sufficiency Economic involving only economic factors.

With direction from the Philosophy of Sufficiency Economy social and economic development is sustainable. It employed a holistic view of development. The philosophy does not set the society to be isolated or to reject the economic growth or market mechanism but to augmented important ingredients to obtain quality of growth and human development. It will create balanced development with social harmony. Furthermore, with this philosophy as a core value there is less likely to be an economic crisis as in 1997. There would not be euphoria, overconfidence and unrealistic expectation of investors, and arrogant of policy makers which would cause the bubble economies and inappropriate policies leading to a crisis.

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Table 1 : Selected Thailand Socio -Economic data

Year	1980	1985	1989	1990	1991	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Basic Data																	
Population (Million persons)	46.72	51.58	-	55.84	-	59.10	59.46	60.12	60.82	61.47	61.66	61.88	62.31	62.80	63.01	61.97	62.42
Labor Force (Million persons)	22.73	26.85	-	31.55	-	32.58	32.18	32.12	32.57	32.46	32.72	33.22	33.92	34.26	34.90	35.72	36.13
Employment (Million persons)	22.52	25.85	-	30.84	-	32.10	30.82	30.98	31.52	30.10	30.66	31.29	32.17	33.06	33.84	34.73	35.26
Health																	
Birth Rate (per 1,000 persons)	-	-	-	17.00	-	16.30	16.20	15.80	14.80	14.70	12.30	16.86	16.63	16.39	16.37	16.04	15.70
Death Rate (per 1,000 persons)	-	-	-	4.50	-	5.20	5.50	5.70	5.00	5.10	5.90	7.53	7.54	7.55	6.86	6.94	7.02
Life Expectancy at birth (years)																	
Male	-	63.80	65.60	-	67.70	-	69.90	-	-	-	69.90	69.90	69.90	69.90	67.00	-	66.00
Female	-	68.90	70.90	-	72.40	-	74.90	-	-	-	74.90	74.90	74.90	74.90	73.00	-	74.00
Fertility Rate (Births per woman)	3.50	2.80	-	2.30	-	-	2.00	-	-	-	1.90	1.80	1.87	1.86	1.91	1.89	1.88
Education																	
Enrollment Rate (percent)	-	-	-	40.60	-	57.49	59.33	61.51	65.05	71.07	73.10	74.12	74.95	75.96	75.75	81.64	-
Pre Elementary(age 3-5)	-	-	-	-	-	64.60	73.70	78.76	90.78	94.52	90.78	74.93	72.54	69.94	65.00	74.44	-
Elementary (age 6-11)	-	-	-	-	-	94.03	89.99	89.67	90.66	102.60	103.60	103.14	103.79	104.77	104.49	104.24	-
Secondary (age 12-17)	-	-	-	-	-	48.53	53.19	56.87	56.69	66.84	70.60	69.70	70.47	71.10	71.75	78.60	-
University (age18-21)	-	-	-	-	-	13.24	14.82	16.71	19.34	21.31	21.50	39.03	41.08	43.81	48.56	57.09	-
Male Adult Literacy Rate (percent)	92.30	92.30	-	95.60	-	-	96.00	96.00	96.70	96.90	97.00	-	-	-	-	98.10	-
Female Adult Literacy Rate (percent)	84.00	84.00	-	91.20	-	-	91.60	92.00	92.80	93.20	93.50	-	-	-	-	97.80	-
Literacy Rate (per 100)	87.60	90.30	-	92.40	-	-	94.20	-	-	-	95.30	-	-	-	-	98.00	

Sources : Somchai Jitsuchon , National Economic and Social Development, National Statistical Office, United Nation Statistics Division, World Health Report, and CIA World Fact book

Table 2 : Poverty and Income distribution

Year	1975	1980	1985	1990	1994	1995	1996	1997	1998	1999	2000	2001	2002	2004
Poverty and Income distribution														
Number of Population Under Poverty Line (million persons)	12.75	-	-	-	10.98	-	9.80	-	11.00	-	12.80	-	9.50	7.50
Income Distribution by Quintile Group														
Top Income Group	49.26	-	-	57.00	57.23	-	56.73	-	56.31	58.21	57.62	-	55.20	55.20
Secondary Income Group	20.96	-	-	19.45	19.72	-	19.92	-	19.82	19.41	19.89	-	20.50	20.30
Third Income Group	14.00	-	-	11.68	11.67	-	11.75	-	11.90	11.41	11.47	-	12.30	12.30
Fourth Income Group	9.73	-	-	7.54	7.32	-	7.46	-	7.67	7.13	7.18	-	7.80	7.90
Lowest Income Group	6.05	-	-	4.31	4.04	-	4.11	-	4.24	3.83	3.88	-	4.20	4.30

Sources : 1) National Economic and Social Development
2) World Development Indicators database

Table 3 : Thailand's GDP Structure 1960-2004 Unit : Percent

Year	GDP Share			Growth	Share of Importing + Exporting in GDP
	Agriculture	Manufacture	Service		
1960	38.2	19.0	42.8	-	36.4
1965	34.0	22.8	43.1	7.9	37.8
1970	30.2	24.1	45.7	6.5	38.2
1975	24.8	25.7	49.5	4.8	41.3
1980	20.4	28.6	50.5	4.8	54.8
1960-1969	**34.2**	**22.5**	**43.3**	**7.2**	**38.7**
1970-1979	**24.1**	**27.1**	**48.8**	**6.3**	**4.37**
1980	20.2	28.4	51.4	4.6	54.5
1981	20.0	28.7	51.3	5.9	54.0
1982	19.5	28.4	52.1	5.4	47.5
1983	19.4	29.9	50.8	5.6	47.4
1984	19.1	30.5	50.4	5.8	48.1
1985	19.1	29.3	51.6	4.6	49.2
1980-1985	**19.5**	**29.2**	**51.3**	**5.4**	**50.1**
1985	19.1	29.3	51.6	4.6	49.2
1986	18.2	29.9	51.9	5.5	49.2
1987	16.6	31.4	52.0	9.5	57.2
1988	16.2	32.3	51.5	13.3	67.4
1989	15.8	33.8	50.4	12.2	72.8
1990	13.6	35.4	51.1	11.2	75.8
1985-1990	**16.6**	**32.0**	**51.4**	**10.3**	**61.9**
1991	13.4	36.6	50.0	8.6	78.5
1992	13.0	37.2	49.8	8.1	78.0
1993	11.7	38.0	50.3	8.3	79.4
1994	11.3	38.4	50.3	9.0	82.0
1995	10.7	39.1	50.2	9.2	89.8
1990-1995	**12.3**	**37.5**	**50.2**	**8.6**	**80.6**
1995	10.7	39.1	50.3	9.2	90.4
1996	10.5	39.6	49.9	5.9	84.8
1997	10.5	39.2	50.2	-1.4	94.6
1998	11.6	37.6	50.8	-10.5	101.9
1999	11.3	39.8	48.9	4.4	104.0
2000	11.5	39.8	48.6	4.6	125.1
2001	10.4	38.3	51.3	2.2	125.2
2002	10.0	39.0	51.0	5.3	121.7
2003	10.4	40.2	49.4	7.0	124.3
2004 p	9.3	40.9	49.8	6.2	136.4

Sources : 1. 1960-1995 from Somchai Jitsuchon

2. 1996 2004 from National Economic and Social Development

Table 4 : Economic Stability Variables of Thailand

Year	Price Stability (CPI Inflation)	Public Sector Stability (Government Budget Balance as% of GDP)	External Sector Stability (Current Account Balance as% of GDP)
1961-1970	2.3	n.a.	n.a.
1971-1980	10.0	-3.1	-5.2
1981-1990	4.4	-2.1	-4.1
1991-1999	4.9	-0.4	-2.2
2000	1.6	-2.4	7.6
2001	1.6	-2.1	5.4
2002	0.7	-2.2	5.5
2003	1.8	0.6	5.6
2004	2.7	0.3	4.2
2005	4.5	0.2	-2.1

Sources : 1) 1961-1999 from Somchai Jitsuchon
2) 2000-2005 from Bank of Thailand

Table 5 : Forest Area Unit : Percent

Year	1981	1986	1991	1995	1999
Northeast	16.05	14.04	12.91	12.59	12.37
North	52.74	48.9	45.47	43.55	42.81
South	23.65	21.47	19.02	17.61	16.96
East	23.71	21.88	21.07	20.8	20.5
West	43.12	38.21	37.91	37.21	36.51
Central	2.48	2.25	1.8	1.51	1.44
Whole Kingdom	31.36	28.58	26.64	25.62	25.14

Source : Ministry of Agriculture and Cooperation

Table 6 : Private Capital Flow **Unit : Million $**

Year	Direct investment	Portfolio investment	Loans
1983	355.00	15.00	183.00
1984	411.00	-6.00	1,029.00
1985	159.00	141.00	63.00
1986	261.00	97.00	-125.00
1987	182.00	499.00	-619.00
1988	1,082.00	447.00	188.00
1989	1,731.00	1,429.00	1,842.00
1990	2,402.00	457.00	4,535.00
1991	1,866.00	163.00	5,661.00
1992	2,015.00	561.00	2,846.00
1993	1,438.00	4,852.00	-2,432.00
1994	904.00	1,110.00	-5,845.00
1995	1,169.00	3,420.00	1,518.00
1996	1,455.00	3,488.00	5,451.00
1997	3,180.00	4,550.00	-3,688.00
1998	5,019.00	422.00	-3,713.00
1999	3,218.00	391.00	-4,359.00
2000	2,761.00	106.00	-4,509.00
2001	3,702.00	-643.00	-2,786.00
2002	882.00	-1,109.00	-2,200.00
2003	1,460.00	-244.00	-1,518.00
2004 p	782.00	-561.00	709.00
2005 p	2,494.60	5,188.22	-1,168.43

Source : Bank of Thailand

Table 7 : Thai Corporate Balance Sheet Quality

Quarter/Year	Debt/Equity Ratio	Rate of Return on Investment (%)	EBITDA/Dept (%)
1994	1.5	29.0	25.0
1995	1.6	24.0	20.0
1996	1.9	22.0	16.0
1/1997	2.0	5.0	14.0
2/1997	2.1	11.0	8.0
3/1997	3.1	10.0	7.0
4/1997	4.6	4.0	8.0
1/1998	3.7	6.0	9.8
2/1998	3.7	3.0	8.5
3/1998	3.3	4.0	9.0
4/1998	2.8	3.0	9.5
1/1999	2.8	5.0	12.5
2/1999	2.8	6.0	14.1

Source : Supavud and Thanomsri (2000), parts of table 2