

1988 TDRI Year-End Conference on
Income Distribution and Long-Term Development

**An Economic Forecast for Thailand in 1988
and During the Sixth Plan Period**

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Prepared by

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of the

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AN ECONOMIC FORECAST FOR THAILAND IN 1988
AND DURING THE SIXTH PLAN PERIOD

1. Introduction and Summary

Thailand's economic success in 1988 is a continuation of 1987's forward momentum which saw a 7.09 percentage growth in the GDP. The mechanisms of growth for both of these years were quite similar, being led by a dramatic increase in manufactured exports and reinforced by a large net inflow of foreign capital through both direct and portfolio investment. Overall 1988 growth is, however, expected to be significantly higher than that in 1987 around 10.3%, due to the recovery of the agricultural sector from the damage caused by the two severe droughts of 1986 and 1987.

Although the growth patterns of the last two years are similar, the economic success of 1988 is more distinctive. Many regard this year as an important milestone in Thailand's economic development and movement toward becoming a more industrialized country. The following trends could support this proposition.

First, the "excellent" performance of Thai manufactured exports is, up to the present time, more secure. Beginning in 1986, manufactured exports have risen sharply and increased their world market share. Indeed, the growth rate of manufactured exports this year is the highest since export promotion policy was introduced.

Second, in 1988, Thailand's superior investment atmosphere attracted much more (mostly export-related) domestic and foreign investment. This huge investment, and potential future investment will contribute to industrialization.

Third, Thailand's service receipts grew significantly because of the better-than-expected increase in tourism income. If this trend of service income is not temporary, the surplus will play an important role in providing resources for long-term development.

Fourth, the sharp increase in agricultural prices and production helped reduce the usual anxiety that past development efforts were biased against the agricultural sector.

In summary, one can say that Thailand's economic performance in 1988 has been much better than expected. The future outlook is also generally positive, provided that there is no great shock in the world economy and that careful and prudent strategies are undertaken. Indeed, the threat of world economic recession after the stock market crisis in October 1987 has faded away. Many now regard the phenomenon as having been an adjustment in the international financial market toward equilibrium. Even though protectionism is tending to intensify, we still believe that its near-future effects will not be very serious.

Looking inward, the rapid economic success that Thailand has achieved in the last two years (1987-88) in terms of growth with satisfactory stability, has caused a shift in economic

target priorities. Just recently, in 1985 and 1986, the most important economic targets were to stabilize and to stimulate economic activity. Now, although stabilization is still of great importance, the most pressing concern seems to be preparation for a long-term economic transformation. There is no doubt that Thailand is restructuring its production base to be more industrialized and, consequently, some fundamental problems need to be closely examined and resolved. These will be looked at in some detail in the final part of this paper.

Our forecast covers the period 1988-1991, or until the end of the Sixth Economic and Social Development Plan. The forecast assumptions are based on the relatively optimistic outlook of the world economic circumstances just cited above. The forecast results indicate that Thailand should continue to enjoy a substantially high rate of economic expansion, although not as high as this year. However, trade and the current account deficit tend to increase dramatically due to fast growth of imported capital. The external debts outstanding will leap but, as the country's exchange earnings will also grow rapidly and the net inflow of foreign capital is expected to remain high, the debt position of the country will not reach an unmanageable state.

This paper is divided into five sections. The next section explores in some more detail the actual situation in 1988. The third section declares some important assumptions used for the forecast. The fourth section shows and discusses the forecast results and the final section discusses the policy

issues the government should address in order to maintain high and stable economic growth.

2. The Situation in 1988

If one considers 1987 as the year that the Thai economy began restructuring toward industrialization, in 1988 the process accelerated. In this section the actual situation and some important indicators of growth will be examined in detail.

Total exports in the first nine months of 1988 have already accounted for 290 billion baht, 35% higher than exports for the same period last year, and we can expect the same rate of export growth for the entire year. This year is therefore the third consecutive year since 1986 in which exports grew by more than 20%. The average annual growth rate of total exports during 1986-88 was 27.65% while the same figure was 23.74% over 1976-80 and only 7.74% over 1981-85 (Table 2.1). The composition of exports also changed rapidly. The manufacturing export share has been the largest since 1985 (49.5% compared to an agricultural export share of 38.0%), and has exceeded 50% since 1986 (Table 2.2). This is because manufactured exports have been growing by more than 20% per annum since 1984, and even accelerated during the last two years, i.e., 45.6% growth in 1987 and approximately 50% in 1988. Its share is expected to be about 70% by the end of 1988, as it was already 67% during the first six months.

Imports have also increased sharply since the second half of 1987. Total imports grew 38.5% in 1987 and during the first six months of 1988 the growth rate was as high as 50.2% higher than over the same period last year. It is expected that in 1988 total imports may reach 490-495 billion baht, or 46%-48% higher than last year's value. The import components that most contributed to this fast growth were imports of capital goods, intermediate products, and raw materials which, during the first six months, grew by 90% and 48% from the same period last year, respectively (Table 2.3). The total share of these two import groups increased from around 67% in 1986 and 1987 to 74% in 1988, while that of consumer goods decreased from around 10.1% to 7.4%. These huge amounts of capital goods and intermediate product imports are clearly demanded by increased investment.

Total imports would have been higher if the price of oil had not decreased substantially. The world price of oil has fallen since December of 1987 when the West Texas price fell from around \$19 per barrel to less than \$17 per barrel and the Oman price fell from \$17 per barrel to \$15.5 per barrel (Table 2.4). During 1988, the oil price fluctuated with an obviously downward trend, and reached a level of less than \$15 per barrel in the first quarter. As a result, the weighted average price of Thailand's crude oil imports gradually declined from \$17.6/barrel in January of 1988 to only \$13.8/barrel in September. The average for the first nine months was \$15.9/barrel (Table 2.5).

The lower price of oil not only has had an impact on foreign exchange savings but also has helped stimulate high investment and stabilize the economy by slowing down the inflation rate. 1988's economic stability is also strengthened by the low interest rate level, although it was adjusted higher in the second half of the year.

Investment

Another factor that is contributing to 1988's fast growth is the rapidly increasing investment demand due to this year's attractive prevailing circumstances. A large number of investment schemes were initiated by either local or foreign firms or as joint-ventures. In the first eight months, capital goods imports grew, in comparison to the same period last year, by 83.1% in current prices and by 70.1% in constant prices. And, during the first nine months, approved construction areas increased by 72.7% in the Bangkok Metropolitan Area and by 44.9% in other areas (Table 2.6). At the same time, investment projects applying for BOI promotion privileges increased by 92.9% and approved projects increased by 231.3%. Although investment projects that started operations did not increase in the same proportion (indeed, they declined from the same period last year (Table 2.6)), we can expect that many more projects will start investing no later than next year, given that the time lag between approval and operation is about one or two years.

Applications from foreign firms (most coming from Japan and Taiwan) also increased sharply, from 35.5 billion baht in

1986 to 163.1 billion baht in 1987 and to 184.9 billion baht in only the first eight months of 1988 (Table 2.7). The Japanese projects applied for and approved account for about half of all foreign investment applications and projects approved.

Electricity Consumption.

Electricity use is also an accurate indicator of growth, especially for growth of the industrial sector. Table 2.8 shows that electricity use in fiscal year 1988 grew at a high rate, about 13.86% higher than total use in fiscal year 1987. Although residential use of electricity increased slower than last year, it was more than offset by the high growth of electricity used by the business sector.¹ Industrial sector electricity use increased at about the same rate as it did in 1987, about 15-16%.

Agricultural Prices and Production

The prices of many major crops have improved substantially since late 1987. Two factors are responsible for this. First, agricultural production was damaged by two droughts in 1986 and 1987, causing a supply shortage which raised the

¹ The combined growth rate of total residential and business sector electricity use of in 1988 was 12.4% while the same figure for 1987 was 11.9%.

domestic price. Second, world agricultural prices have been more favorable in 1987 and 1988, which pushed up the export price for Thai agricultural products and, further, motivated larger cultivation of almost all major crops in the 1987/88 crop year. Agricultural output in 1988, supported by fairly good weather, was thus dramatically increased. Paddy production is estimated to be around 20.5 million tons, 20.1% higher than 1987 output. Other major crops also increased, with a 125.1% growth of maize, 14.0% growth of cassava, and 10.3% growth of sugarcane (Table 2.9). And, except for that of cassava, all farm gate prices rose significantly. The Paddy price increased from about 2,800 baht/ton in 1987 to 4,263 baht/ton in 1988, or a 51.4% growth; the maize price increased from 17.4 thousand baht/ton to 23.1 thousand baht/ton, or a 48.2% growth; and the sugarcane price rose from 292 baht/ton to 332 baht/ton, a 13.7% increase.

Obviously, higher agricultural prices and increased agricultural production imply better farm income. Accompanied by the steadily growing income of those engaged in export-oriented industries, the income of all classes of Thai people has been significantly improving. These factors are uplifting the purchasing power throughout the whole country. Sales of high-price durable goods soared considerably during the first nine months of this year. The number of passenger cars purchased, for example, increased by 37.8% and motorcycle sales rose by 67.9%, from the same period last year.

Public Finance

Along with the economic success of 1987 and 1988, the government's budget position has much improved since total revenue grew much faster than total expenditures. The government budget deficit was reduced from 34.4 billion baht in 1986 to only 9.9 billion baht in 1987, as total revenue rose 18.9% compared to 3.8% growth in total expenditures (Table 2.10). In fact, there turns out to be a budget surplus in 1988 as the first three-quarter figures indicate that government revenue has reached 197.0 billion baht (28.4% higher than the total revenue of the first three-quarters of 1987), while government expenditures for the same time account for only 167.4 billion baht (5.5% growth). The budget surplus for the first three-quarters is thus 29.5 billion baht.

The rapid and favorable change in the public cash balance in 1988 reflects the fact that the impetus for this strong swing in economic activities came largely from the private sector. The government benefited very much in tax revenue collected from imports, corporations, and real estate transactions. Indeed, since most of the officials directly involved, recognize that the economy could easily meet with setbacks due to infrastructure bottlenecks, the government intends to considerably accelerate its role with regard to both current and future investment expenditures over the next few years. Evidence for this involvement can be immediately seen by the commitments of some public agencies to several massive projects this year.

3. The Forecast Assumptions

While the situation in 1988 is generally known, we still had to make assumptions upon a number of crucial factors affecting Thailand's performance within the period 1989-1991, the remaining years of the Sixth Economic and Social development plan.

For the period 1989-1991 we assume the following.

1. The world economic situation, although probably slow down slightly, is assumed to substantially expand at a rate that does not much harm Thai exports. Thailand's international competitiveness is also assumed to continuously improve, resulting in an increased share of Thai products in the world market.
2. Domestic investment will maintain its high level until the end of the Sixth plan. The driving forces for high investment come from four sources, though they are not totally independent. First, there will be high investment demand in export industries. Second, a number of petrochemical industries will be initiated and will begin operating during this period. Third, during 1989-1991, a large number of projects promoted by the BOI will start operations. Fourth, investment in infrastructure will accelerate

because of the government's improved fiscal position.

3. Although a higher oil price is possible, the average oil price in 1989-1991 will still be not very high. We assume that it is \$16 per barrel in 1989, \$17 in 1990 and \$18 in 1991.
4. Direct investment increases by around 10%, 20%, and 10% in 1989, 1990 and 1991 respectively.
5. Domestic crop prices are slightly lower in 1989, compared to their very high 1988 level, and stagnate in 1990 and 1990. Agriculture production is therefore assumed to expand only slightly.
6. There will be no major exchange rate movement.

4. The Forecast for 1988 and the Rest of the Sixth Plan

Tables 4.1-4.5 show economic forecasts for 1988 through 1991. The figures for 1988 are based on the most up-to-date information available, while the figures for 1989-1991 are based on the forecast assumptions mentioned in the previous section. The following discussion focuses on three main issues, namely, the external balance, economic growth and price levels, and the external debt.

4.1 The External Balance

Tables 4.1 and Table 4.2 show Thailand's merchandise trade and the expected external position during 1988-1991.

Exports are expected to amount to 400.3 billion baht in 1988, 34.1% higher than last year's value. The fastest growing items are manufactured exports. Exports of agricultural products also record high growth because of favorable world prices that therefore stimulate agricultural export volume, partly through the use of domestic stocks. The total value of imports in 1988 also increases sharply, and is expected to be around 493.2 billion baht for the entire year, or 43.9% above last year's level. Imports of intermediate goods, raw materials and capital goods contribute most to this year's high import value. The merchandise trade deficit is expected to be around 92.9 billion baht--historically Thailand's highest. Although this trade deficit is very high, close to 1983's 89.2 billion baht deficit, the situation in 1988 is much better because almost half of this deficit is financed by a 39.7 billion baht surplus in the services and unrequited transfer accounts, while the same surplus in 1983 was only 16.6 billion baht. The current account deficit is 47.4 billion baht, about 3.2% of the total Gross Domestic Product (GDP), compared to 6.6% in 1983.

Exports should slow down slightly next year, due to some decline in the world trade volume and because of a decline in agricultural exports stemming from price reductions. The total value of exports will grow by 25.7% from this year's level, reaching 503.2 billion baht. Imports in 1989 will also slow down, growing 29.5%, because demand for imported capital goods should not accelerate as much as in 1988. Nevertheless, the projected total import level for next year is still quite high,

638.5 billion baht, as high investment demand and good growth of the industrial sector are expected to continue. The trade and current account deficits in 1989 are predicted to be 135.3 billion baht (7.8% of GDP) and 85.9 billion baht (5.0% of GDP), respectively.

That import growth will continue to exceed export growth is predicted for 1990, where imports grow 23.2% and exports grow 20.1%, pushing the trade deficit up to 182.2 billion baht. This comes directly from our assumption that investment demand will maintain its high level during this period. More importantly, many investment schemes will involve the construction of large-scale factories and will need imported capital goods. These investments usually require more than one year to be able to pay back in terms of foreign exchange savings (through import substitution) or foreign exchange earnings (through exports).

A reversal might occur in 1991 when exports grow faster than imports, namely, 17.2% compared to 15.1%. The trade deficit will then show some signs of improvement.

Although the trade deficit could be very high, part of it will be offset by a surplus in the service account, which is expected to rise continuously as a result of success in tourism promotion. Tourism income will remain on high levels with a satisfactory rate of growth and will play an important role in providing resources for Thailand's industrialization in the near future.

4.2 Economic Growth and Price Level.

Being supported by the continuous expansion of exports and investments, Thailand will be able to achieve fairly high economic growth during the period 1988-1991. Tables 4.3 and 4.4 show the expected sectorial growth rates and shares of real Gross Domestic Product (GDP) and inflation rates.

In 1988, overall economic growth is estimated to be around 10.3%. The agricultural sector has very good growth, around 8.8%, compared to the last two years because crop prices have risen since late 1987 and the climate was fairly good during the 1988/89 crop year. The industrial sector grows at around 11.5% per annum, with the major exporting industries (consisting of canned and processed food and fruits, textiles, shrimp, footwear, toys, rice etc.) having the highest growth at 12.7%.

Inflation in 1988 is estimated to be around 4.9%, a considerably higher rate than last year's rate which was only 2.5%. This higher inflation rate can be attributed to two factors: the first factor due to the price increases in various primary commodities and raw materials, and the other factor involves changing consumption patterns. There is a recent tendency for Thai people to purchase more durable goods such as vehicles, electric appliances etc., whose prices are high and have been rapidly increasing.²

² Our calculation of inflation rate is based on the expected pattern of consumption derived from our general equilibrium model and, hence, may differ significantly from the rate calculated by the official weighting system.

Next year economic growth is predicted to be 8.0%, somewhat lower than this year's rate of expansion. This economic slowdown is due mainly to lower growth of the agricultural sector which is predicted to grow at only 1.9% per annum, compared to almost 9% this year. The major factor that limits agricultural production is the increasing scarcity of land especially under present conditions where land utilization has already been very high this year. Another reason for the agricultural slowdown is that domestic crop prices and weather, the most important factors determining agricultural production, are unlikely to be as favorable as they were this year. Thus, agricultural price next year will presumably decline.

Industrial growth next year will be only slightly lower than this year's rate, i.e., around 9.7%. This stems from the assumption that exports and investment maintain their fast growth. The major exporting industries will grow at 12.4% while the other industries are expected to grow 8.3% per annum.

With our assumption at the outset that in the near future there will be no dramatic change in the world trade and financial markets, 1989's economic growth pattern will continue to the end of the Sixth plan, i.e., high exports and imports, high investment, and low but positive agricultural growth. Overall growth for 1990 and 1991 are thus predicted to be 7.60% and 7.65%, respectively.

The inflation rate is predicted to be about 3.4-4.5% during 1989-1991. Three major factors will contribute to these

moderately high inflation rates. First, world inflation over the next few years will tend to be higher than the 1988 level, probably at around 5% per annum. Second, both domestic and external interest rates will certainly be pushed up, at least 1-2% higher, as a result of tighter money markets all around the world and the increasing necessity to control inflation in many developed countries. Third, the lifestyle and consumption patterns of the Thai people will continue to change, they will buy more expensive goods, and thus will enhance the weight of high-priced products in the commodity basket used to calculate price indices.

4.3 External Debts

The final issue we will focus on is Thailand's external debt forecast. As is generally known, the present debt situation is much better than it has been recently. However, as this year's trade deficit is fairly high, and future deficit expectations are also not very good, the external debt issue could again seriously concern us in the near future.

The external debt forecasts are given in Tables 4.5 and 4.6. They indicate that although the trade and current account deficits are getting worse, the overall debt profile of Thailand will not be very troublesome. The ratio of debts to GDP has declined substantially from 35.9% in 1987 to 31.7% in 1988, and it will be maintained close to this level until the end of the Sixth plan, namely, 30.7% in 1989, 31.7% in 1990, and 32.6% in 1991. It is also predicted that the share of public external

1991. It is also predicted that the share of public external debts (external debts of the government and state enterprises) in the total external debt will decrease over time, from 26.6% of the GDP in 1987 to 16.8% of the GDP in 1991, while that of the private sector will increase from 9.3% to 15.9% of the GDP in the same period.

This stable external debt position is based on our important assumption that exports, the service surplus, and net foreign capital inflows will continue to rise significantly within this period. If this is not the case, Thailand's external debt position would be much worse and, consequently, would impose serious constraints upon long-term industrial development.

5. Policy Issues

The forecasts for the macroeconomic variables presented in the last section provide some insight into some problems that the Thai economy will likely encounter in the near future. First, whether the current high rate of economic expansion is sustainable. Second, the medium-term problem of the growing current account deficit is definitely of strong concern. Third, the adverse impact stemming from the increasing degree of risk and uncertainty in international trade should be cautioned and proper measures should be prepared for. Finally, income distribution is another vital issue if we are to maintain long-term stable growth.

5.1 Sustaining the high growth rate of real income

As discussed earlier, the Thai economy is predicted to expand, on the average, at a rate of 7.75% between 1989 and 1991. The driving forces will be the rapid expansion of exports and the acceleration of public and private investment. Since large and medium investment projects have already been committed by both the private and public sectors for the next three to five years, whether or not the Thai economy can sustain high economic growth is critically dependent on the export sector. How Thailand can maintain a high export growth rate under the environment of growing protectionism and a slowdown in world economic activity is the most important policy issue. Competitiveness of the export sector can be upheld or even enhanced by the following policy guidelines.

First, the bottlenecks resulting from inadequate infrastructure should be removed so that the country can take full advantage of existing opportunities in international trade. Examples of these impeding bottlenecks are electricity, telecommunications, highways, and port facilities.

Second, promising export prospects depend not only on traditional markets such as the U.S. and the EEC but also on new markets such as Japan, NICs, and Latin America. Retention of markets in the U.S. and EEC will entail delicate renegotiation of trade terms, since protectionism within these markets has gained growing momentum. Penetration into the increasingly open economies such as Japan and NICs requires strenuous efforts in

closely monitoring the updated demand situation. The markets in the Middle-East, Latin America, Africa, Australia, and South Asia ought to receive more attention, as Thailand still commands too small a market share within these regions. In addition, it is foreseen that Indochina and Burma will inevitably open up their economies before long. Thailand should try its best to benefit from its proximity.

Third, equally urgent as infrastructure matters and export markets is the investment in human resources through training programs for skilled labor. At present the lack of proficient staff and skilled labor is being felt in several fields of production. And a definite consensus has been reached among executive officers in both public and private enterprises that strong efforts be launched at educational and/or training programs. Otherwise, along the path of economic growth over the next few years, the economy could hardly avoid encountering another formidable bottleneck similar to the one currently experienced concerning infrastructure. Clear-cut examples of valuable human resource investment would be in the areas of engineering and vocational training.

Finally, the exchange rate is one of the most crucial policy measures which would immediately contribute to export competitiveness. Thus, in conducting any exchange rate policy, discreet consideration should be given to the positions of our competitors including Indonesia, Malaysia, the Philippines, and China. In the meantime, monetary policies ought to be well-coordinated and cautiously implemented so that financial

stability can be maintained.

5.2 Widening resource gaps

Although the Thai economy has performed very well in terms of achieving high economic growth, it has to rely on substantial capital inflows from abroad. The excess of investment over domestic savings is financed by foreign savings. Lately, under the favorable atmosphere of economic expansion, both public and private agencies have made massive commitments to investment projects. These commitments are for several purposes, one of which is to remove impeding infrastructure shortfalls. The colossal magnitude of this investment undertaking necessitates a huge pile of import orders, especially those for capital goods, machinery, and equipment. It is therefore not surprising to detect that the current account deficits of Thailand in the first three quarters of 1988 leapt to a level more than five times as large as the amount of the same period in 1987.

The size of the deficit as a percentage of the GDP will continue to rise until 1990 before it levels off after the completion of some public investment projects. The deficit in the current account will then improve.

The policy responses to these anticipated widening resource gaps are suggested as follows. First, mobilization and restructuring of domestic savings must be concertedly undertaken. This can be done by providing additional incentives

to savers. The policy of establishing a positive net rate of return on financial savings must be adhered to in the situation whereby inflation erodes returns on holding financial assets. The ceiling on financial institutions' interest rates should be flexible enough to guarantee sufficient incentives to savers.

Second, long-term financial saving instruments should be restructured in such a way that they can tap adequate funds for long-term investment. Domestic savings ought to be restructured so that the long-term portion rises to conform with the long gestation periods of investment projects. This implies that long-term savers should be satisfied with a higher rate of return to compensate for the loss of liquidity of their assets. Fiscal incentives should be given to favor savings in long-term financial assets. The successful development of the capital market is another condition for reducing the size of the resource gap. The capital market must perform so efficiently that it becomes a major source of funds for investors, gradually replacing the indirect financing supplied commercial banks. The financial instruments should be developed in such a way that savers find it convenient to transfer their savings from money markets to capital markets and vice versa. Moreover, foreign investors are to be encouraged to participate more in our domestic equity markets.

Third, as reliance on foreign savings is more or less unavoidable, the immediate issue is on the management of the country's external debt. While private enterprises are encouraged to resort to foreign creditors, public agencies should

be directed to depend more on domestic financing. The rationale for such a recommendation is that an adjustment of the external private debt is likely to be more flexible than that of the public debt. Liberal market forces will help quicken the proper transition of the country's debt service profile should the prime responsibility lie within the hands private corporations. And assigning public agencies to tap funds from local sources will certainly serve to further the development of domestic capital markets. In this regard, it is noted that some large private corporations have successfully made some progress in reducing their debt leverage by hinging more on equity markets. This should pave the way for state enterprises to adjust their corporate financial structure by way of domestic capital markets. A lower debt/equity ratio will strengthen financial status of public enterprises.

5.3 Increasing risks and uncertainties in the external environment

The importance of external trade on the domestic economy can be represented by the ratio of foreign trade to national income. Exports amounted to only 15% of the GDP in 1970, while the figure is projected to be as high as 32% by the end of 1991. The exposure ratio will double within two decades. Although exports are generally viewed as an engine of growth, there has been a growing awareness of the overexposure of the Thai economy to world trade fluctuations.

In the light of an increasing degree of protectionism, volatile terms of trade, and fluctuations in interest and exchange rates, a conservative policy of holding a larger amount of international reserves should be pursued. The increasing uncertainty of the international environment necessitates holding reserves larger than a level equal to three-months of imports.

5.4 Income distribution and regional disparities

If the long-term trend of economic growth is to be maintained, the current pattern of income distribution and regional disparities has to be improved. This is so because the manufacturing sector can be safely cushioned whenever exports suffer from any slumps abroad. More even income distribution will strengthen domestic purchasing power and facilitate further and smoother market development for the manufacturing and service sectors.

TABLE 2.1
EXPORT GROWTH 1971-1988

YEAR	Exports	Growth (%)
1970	14,772	
1971	17,275	16.94
1972	22,491	30.19
1973	32,226	43.28
1974	49,799	54.53
1975	45,907	-7.82
1971-75	167,698	25.45
1976	60,797	32.44
1977	71,198	17.11
1978	83,065	16.67
1979	108,179	30.23
1980	133,197	23.13
1976-80	456,436	23.74
1981	153,001	14.87
1982	159,728	4.40
1983	146,472	-8.30
1984	175,237	19.64
1985	193,366	10.35
1981-85	827,804	7.74
1986	233,383	20.69
1987	299,853	28.48
1988	402,223	34.14
1986-88	935,459	27.65

NOTE: -Exports exclude non-monetary movements.

-1988 Figure is TDRI forecast.

-All growth rates are annual rates of growth.

TABLE 2.2
EXPORTS BY MAJOR SECTOR

ITEM	1980	1981	1982	1983	1984	1985	1986	1987	1988Q2
EXPORT (Million of Baht)									
1. AGRICULTURE	62,506	72,998	73,150	66,484	78,292	73,398	79,397	83,259	45,371
2. FISHING	5,547	6,632	7,636	8,225	8,684	10,590	14,853	18,163	9,019
3. FORESTRY	70	143	102	109	104	365	620	819	428
4. MINING	15,420	11,814	9,824	6,806	7,588	10,126	6,283	5,851	2,514
5. MANUFACTURING	43,065	54,743	63,025	61,358	76,095	95,615	129,170	188,031	122,355
6. SAMPLE AND OTHER UNCLASSIFIED GOODS	3,798	2,632	2,122	1,340	1,312	1,518	1,772	2,967	1,115
7. RE-EXPORT	2,791	4,039	3,689	2,150	3,162	1,754	1,288	763	399
8. TOTAL EXPORT	133,197	153,001	159,728	146,472	175,237	193,366	233,383	299,653	181,201
SHARE									
1. AGRICULTURE	46.93	47.71	45.80	45.39	44.68	37.96	34.02	27.77	25.04
2. FISHING	4.16	4.33	4.78	5.62	4.96	5.48	6.36	6.06	4.98
3. FORESTRY	0.05	0.09	0.06	0.07	0.06	0.19	0.27	0.27	0.24
4. MINING	11.58	7.72	6.15	4.65	4.33	5.24	2.69	1.95	1.39
5. MANUFACTURING	32.33	35.78	39.46	41.89	43.42	49.45	55.35	62.71	67.52
6. SAMPLE AND OTHER UNCLASSIFIED GOODS	2.85	1.72	1.33	0.91	0.75	0.79	0.76	0.99	0.62
7. RE-EXPORT	2.10	2.64	2.31	1.47	1.80	0.91	0.55	0.25	0.22
8. TOTAL EXPORT	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
GROWTH									
1. AGRICULTURE		16.8%	0.2%	-9.1%	17.8%	-6.3%	8.2%	4.9%	9.7%
2. FISHING		19.6%	15.1%	7.7%	5.6%	21.9%	40.3%	22.3%	3.4%
3. FORESTRY		104.3%	-28.7%	6.9%	-4.6%	251.0%	69.9%	32.1%	12.6%
4. MINING		-23.4%	-16.8%	-30.7%	11.5%	33.4%	-38.0%	-6.9%	-22.7%
5. MANUFACTURING		27.1%	15.1%	-2.6%	24.0%	25.7%	35.1%	45.8%	48.2%
6. SAMPLE AND OTHER UNCLASSIFIED GOODS		-30.7%	-19.4%	-36.9%	-2.1%	15.7%	18.7%	67.4%	-31.0%
7. RE-EXPORT		44.7%	-8.7%	-41.7%	47.1%	-44.5%	-26.6%	-40.8%	19.5%
8. TOTAL EXPORT		14.9%	4.4%	-8.3%	19.6%	10.3%	20.7%	28.5%	31.1%

Source : Bank of Thailand Monthly Bulletin, June 1988 and July 1988, table 34.

Note : 1988 growth rates are calculated based on half year figure.

Table 2.3
Imports By Sector

ITEM	1980	1981	1982	1983	1984	1985	1986	1987	1988Q2
IMPORT (Million of Baht)									
CONSUMER GOODS	15,799	18,263	17,905	22,308	22,692	23,966	24,466	33,781	16,685
INTERMEDIATE PRODUCTS AND RAW MATERIALS	48,473	58,084	53,060	66,474	69,613	75,772	84,333	119,775	82,347
CAPITAL GOODS	46,401	56,985	48,192	69,814	73,607	75,404	78,318	105,688	85,649
OTHER IMPORTS	78,013	83,414	77,459	78,013	79,243	76,027	54,243	75,096	42,054
- FUEL AND LUBRICANTS	58,733	85,100	60,785	57,065	57,353	58,719	32,354	44,771	18,240
TOTAL IMPORTS	188,686	216,746	196,616	236,609	245,155	251,169	241,358	334,340	226,735
SHARE (%)									
CONSUMER GOODS	8.37	8.43	9.11	9.43	9.26	9.54	10.14	10.10	7.36
INTERMEDIATE PRODUCTS AND RAW MATERIALS	25.69	26.80	26.99	28.09	28.40	30.17	34.84	35.82	36.32
CAPITAL GOODS	24.59	26.29	24.51	29.51	30.02	30.02	32.45	31.81	37.77
OTHER IMPORTS	41.35	38.48	39.40	32.97	32.32	30.27	22.47	22.46	18.55
- FUEL AND LUBRICANTS	31.13	30.04	30.91	24.12	23.39	22.58	13.40	13.39	8.04
TOTAL IMPORTS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
GROWTH RATE (%)									
CONSUMER GOODS		15.60	-1.96	24.59	1.72	5.61	2.09	38.07	9.73
INTERMEDIATE PRODUCTS AND RAW MATERIALS		19.83	-8.65	25.28	4.72	8.85	11.30	42.03	48.03
CAPITAL GOODS		22.81	-15.43	44.87	5.43	2.44	3.86	34.95	90.43
OTHER IMPORTS		6.92	-7.14	0.72	1.58	-4.08	-28.65	38.44	19.79
- FUEL AND LUBRICANTS		10.84	-6.66	-6.09	0.50	-1.11	-42.96	38.38	-15.47
TOTAL IMPORTS		14.87	-9.29	20.34	3.61	2.45	-3.91	38.52	50.24

Source : Bank of Thailand, Monthly Bulletin, Table 31.

Note : 1988 growth rates are calculated based on half year figures.

Table 2.4
World Oil Price Movement
(\$/barrel)

YEAR	MONTH	OMAN	BRENT	West Tex.
1987	JANUARY	17.54	18.43	
	FEBUARY	17.12	17.31	
	MARCH	17.35	17.89	
	APRIL	17.24	18.33	
	MAY	17.31	18.78	
	JUNE	17.50	18.85	
	JULY	17.99	19.84	
	AUGUST	17.56	18.98	
	SEPTEMBER	17.19	18.37	
	OCTOBER	17.38	18.73	19.78
	NOVEMBER	17.10	18.05	18.93
	DECEMBER	15.55	16.98	16.68
1988	JANUARY	15.90	16.78	17.13
	FEBUARY	15.43	15.90	16.78
	MARCH	13.43	14.28	15.68
	APRIL	15.45	17.00	18.38
	MAY	15.60	16.88	17.68
	JUNE	14.08	15.63	16.58
	JULY	12.80	14.38	14.88
	AUGUST	13.48	14.98	15.58

Source : PATT's Oilgram Price Reports.

Note : All prices are the mid-month prices.

Table 2.5
Average import oil price (\$/barrel)

1988	Month Average	Avg. from January	Quantity
JANUARY	17.65	17.65	722.05
FEBUARY	17.36	17.51	680.54
MARCH	16.90	17.36	455.91
APRIL	15.31	16.79	726.19
MAY	16.32	16.66	991.90
JUNE	15.08	16.42	640.46
JULY	16.70	16.47	910.70
AUGUST	14.73	16.23	817.91
SEPTEMBER	13.81	15.90	934.71

Source : Calculated from Monthly Reports on production, imports and import price, Ministry of Commerce.

Table 2.6
Some indices of Domestic Investment

	1987	1987 (8 months)	1988 (8 months)	Growth Rate (8 months)
Imported Capitals				
- Current Price		82,590.0	151,186.0	83.06
- Constant (1985) Price		66,102.6	112,468.1	70.14
Approved Construction Areas				
- Bangkok		4,708.0	8,129.0	72.66
- Others		2,642.0	3,829.0	44.93
BOI Projects Application	209,029.0		268,788.0	92.88
BOI Projects Approved	67,290.0		148,600.0	231.25
BOI Projects Operation	18,577.0		10,555.0	-14.77

Source: Bank of Thailand, 'The first 9 month economic situation, 1988'.
BOI investment data from an unpublished report of Bank of Thailand.

Note: Approved Construction Areas are 9 months figures.
Growth rates of BOI investment figure are estimated by assuming
that figure for 1988 whole year are 1.5 time those of 8 months.

Table 2.7
Foreign Investments Promoted by BOI
by Country

	Applications			Approved			Start operation		
	1986	1987	1988(8 mnt)	1986	1987	1988(8 mnt)	1986	1987	1988(8 mnt)
Total Investment	59,680.0	209,029.0	268,788.0	34,610.0	67,290.0	148,600.0	20,809.0	18,577.0	10,550.0
Foreign Investment	35,486.8	163,082.0	184,881.4	15,230.3	49,571.2	115,745.3	15,970.3	12,160.1	8,361.0
- Japan	8,110.8	46,746.5	92,559.7	6,593.1	24,363.4	58,298.2	7,463.5	5,623.1	3,098.0
- Taiwan	2,957.3	14,641.9	39,515.4	939.8	7,699.6	11,671.4	1,182.6	399.0	434.2
- USA.	13,997.7	19,214.1	22,947.0	1,087.1	4,431.3	11,100.5	2,249.2	1,562.8	1,864.3
- Europe	16,292.0	33,131.2	17,909.3	5,185.0	6,900.6	19,772.8	1,615.8	1,113.2	1,370.1
- Hong Kong	1,933.7	7,035.0	13,330.3	1,178.1	3,143.9	6,043.5	188.4	2,467.2	1,940.2
- Other	1079.0	15533.6	15390.5	1030.7	3228.9	8194.7	905.7	3197.6	1479.3
	Approved/Application (%)			Operating/Approved (%)					
	1986	1987	1988(8 mnt)	1986	1987	1988(8 mnt)			
Total Investment	57.99	32.19	55.29	60.12	27.61	7.10			
Foreign Investment	42.92	30.40	62.61	104.86	24.53	7.22			
- Japan	81.29	52.12	62.98	113.20	23.08	5.31			
- Taiwan	31.78	52.59	29.54	125.84	5.18	3.72			
- USA.	7.62	23.06	48.37	210.78	35.27	16.79			
- Europe	31.83	20.83	110.41	31.16	16.13	6.93			
- Hong Kong	60.92	44.69	45.34	15.99	78.48	32.10			
- Other	95.52	20.79	53.25	87.87	99.03	18.05			

Source : Bank of Thailand

Table 2.8
Electricity Use (Fiscal year)

					(GWH)
Fiscal Yr.	Residential	Business Industrial	Other	Total	
PEA					
1980	1235.9	766.6	2170.5	546.8	4719.8
1981	1335.7	831.8	2499.3	569.4	5236.2
1982	1485.4	924.1	2809.5	652.0	5871.0
1983	1781.5	1110.4	3048.1	774.4	6714.4
1984	2060.8	1286.3	3272.1	853.1	7472.3
1985	2329.5	1450.2	3882.1	941.0	8602.8
1986	2578.1	1600.8	4187.6	990.8	9357.3
1987	3197.9	1832.6	4869.4	1108.6	11008.5
1988	3454.6	2194.7	5766.6	1267.0	12682.9
MEA					
1984					9420.0
1985					10093.8
1986					10661.0
1987	2546.5	3555.8	5063.7	937.8	12103.8
1988	2697.0	4171.7	5745.1	1018.2	13632.0
TOTAL					
1984					16892.3
1985					18696.6
1986					20018.3
1987	5744.4	5388.4	9933.1	2046.4	23112.3
1988	6151.6	6366.4	11511.7	2285.2	26314.9
GROWTH RATES (%)					
1985					10.68
1986					7.07
1987	13.10	10.70	15.60	19.40	15.46
1988	7.09	18.15	15.89	11.67	13.86

Source: MEA, PEA (Preliminary).

- Note:
1. Breakdown data of MEA electricity supply before 1987 are classified differently and therefore not reported here.
 2. 1987 growth rate from table 3.2 of "Prospects for Thai Economic Development," paper presented at the TDRI 1987 Year-end Conference.

Table 2.9
Production and Prices of Major Crops

	1984	1985	1986	1987	1988
PRODUCTION (1,000 ton)					
Paddy	19,988	20,599	19,026	17,072	20,502
Major crop	17,275	17,930	16,826	15,272	18,042
Second crop	2,713	2,669	2,200	1,800	2,460
Rubber	629	722	790	910	970
Maize	4,500	5,350	4,300	2,310	5,200
Casava	20,000	19,263	15,255	19,554	22,307
Sugarcane	25,053	24,000	24,450	27,191	30,000
GROWTH RATE (%)					
Paddy	2.8	3.1	-7.6	-10.3	20.1
Major crop	2.0	3.8	-6.2	-9.2	18.1
Second crop	8.8	-1.6	-17.6	-18.2	36.7
Rubber	7.2	14.8	9.4	15.2	6.6
Maize	15.4	18.9	-19.6	-46.3	125.1
Casava	5.3	-3.7	-20.8	-28.2	14.0
Sugarcane	7.4	-4.2	1.8	11.3	10.3
	1984	1985	1986	1987	1988
FARM GATE PRICE (Baht/Ton, Jan.-Sep.)					
Paddy				2,816	4,263
Rubber				17,357	23,144
Maize				1,819	2,696
Casava				790	573
Sugarcane				292	332
GROWTH RATE (%)					
Paddy					51.4
Rubber					33.3
Maize					48.2
Casava					-27.5
Sugarcane					13.7

Source: Bank of Thailand, 'The first 9 month Economic Situation, 1988,' except the 1988 estimate of major rice production from The Statistical Center, Ministry of Agriculture and Cooperative.
Note : 1988 figures are estimates.

Table 2.10
Government Finance (Calendar Year)
(Million Baht)

YEAR	Total Revenue	growth rate	Total Expend.	growth rate	Deficit
1970	18,793		25,135		(6,342)
1971	19,355	2.99	27,225	8.32	(7,870)
1972	21,535	11.26	28,637	5.19	(7,102)
1973	26,950	25.15	32,728	14.29	(5,778)
1974	39,120	45.16	35,239	7.67	3,881
1975	39,636	1.32	45,178	28.20	(5,542)
1976	43,602	10.01	57,656	27.62	(14,054)
1977	54,064	23.99	66,110	14.66	(12,046)
1978	65,208	20.61	77,509	17.24	(12,301)
1979	78,675	20.65	89,456	15.41	(10,781)
1980	95,557	21.46	120,973	35.23	(25,416)
1981	111,843	17.04	133,444	10.31	(21,601)
1982	115,980	3.70	157,017	17.67	(41,037)
1983	143,436	23.67	167,088	6.41	(23,652)
1984	148,242	3.35	182,228	9.06	(33,986)
1985	160,652	8.37	200,028	9.77	(39,376)
1986	169,925	5.77	204,279	2.13	(34,354)
1987	202,021	18.89	211,988	3.77	(9,967)
1987Q4	48,654	24.38	53,197	8.51	(4,543)
1988Q1	59,413	27.61	54,691	6.93	4,722
1988Q2	69,447	33.19	52,721	6.67	16,726
1988Q3	68,102	24.58	60,034	3.12	8,068
1988Q1-Q3	196,962	28.43	167,446	5.45	29,516

Source : Bank of Thailand Monthly Bulletin, Table 23 and 24

Note : Total expenditures exclude those financed by external loans and grants.

Table 4.1
Trade, Current Account and Current Account Finances (Million Baht)

	1988	1989	1990	1991
MERCHANDISE:				
Exports	400258.1	503245.9	604482.5	708301.2
agriculture	94919.7	103393.2	116879.5	121710.8
major export industry	214320.0	291428.5	364918.0	447712.8
others	91018.4	108424.2	122685.0	138877.6
Imports	-493193.8	-638542.8	-786707.3	-905257.3
TRADE BALANCE	-92935.7	-135296.9	-182224.8	-196956.1
(AS % OF GDP)	-6.3	-7.9	-9.3	-8.9
SERVICES RECEIPTS				
Travel	62163.2	71945.9	80678.2	91979.1
Remittances	34588.4	34588.4	34588.4	34588.4
Investment Income	7304.2	7669.4	8052.9	8455.5
Other Services	20510.3	24382.6	26894.2	29680.8
SERVICES PAYMENTS				
Investment Income	-50339.9	-55060.4	-57813.4	-62212.3
Other Services	-34464.0	-39965.0	-43923.9	-48373.4
NET SERVICES	39762.2	43560.9	48476.4	54118.1
BALANCE OF GDS & SERVICES	-53173.5	-91735.9	-133748.3	-142838.0
TRANSFERS	5815.2	5814.7	5814.1	5813.6
CURRENT ACCOUNT BALANCE	-47358.3	-85921.3	-127934.2	-137024.4
(AS % OF GDP)	-3.2	-5.0	-6.5	-6.2
DIRECT INVESTMENTS	24974.7	27472.1	32966.6	36263.2
PUBLIC NET BORROWINGS	-22800.5	21576.4	22396.7	22432.6
PRIVATE NET BORROWINGS	45184.1	36872.8	72571.0	78328.6

Table 4.2
Trade, Current Account and Current Account Finances (Growth Rates)

	1988	1989	1990	1991	G86-91
MERCHANDISE :					
Exports	34.14	25.73	20.12	17.17	25.30
agriculture	27.55	8.93	13.04	4.13	10.61
major export industry	39.76	35.98	25.22	22.69	34.19
others	28.88	19.12	13.15	13.20	21.27
Imports	43.92	29.47	23.20	15.07	29.82
TRADE BALANCE	109.76	45.58	34.69	8.08	64.91
(AS % OF GDP)	-6.29	-7.88	-9.27	-8.93	
SERVICES RECEIPTS	20.72	11.26	8.39	9.65	13.29
Travel	23.20	15.74	12.14	14.01	19.79
Remittances	20.00	0.00	0.00	0.00	3.55
Investment Income	10.00	5.00	5.00	5.00	3.26
Other Services	18.77	18.88	10.30	10.36	15.07
SERVICES PAYMENTS	7.96	12.05	7.06	8.70	9.03
Investment Income	4.86	9.38	5.00	7.61	5.70
Other Services	12.81	15.96	9.91	10.13	14.48
NET SERVICES	61.41	9.55	11.28	11.64	26.83
BALANCE OF GDS & SERVICES	170.32	72.52	45.80	6.80	-
TRANSFERS	-0.27	0.00	0.00	0.00	-0.06
CURRENT ACCOUNT BALANCE	242.19	81.43	48.90	7.11	-
(AS % OF GDP)	-3.20	-5.00	-6.51	-6.21	
DIRECT INVESTMENTS	430.00	10.00	20.00	10.00	40.20
PUBLIC NET BORROWINGS	-	-194.63	3.80	0.16	-
PRIVATE NET BORROWINGS	-	-18.39	96.81	7.93	-

Note : G86-91 is average annual growth rate within the Sixth Plan period.

Table 4.3
Real GDP Growth by Sector and Inflation Rate

	1988	1989	1990	1991	G86-91
Agriculture	8.83	1.89	2.60	1.86	2.46
- crops	10.12	0.59	2.15	1.35	1.84
- other agriculture	6.92	3.87	3.26	2.60	3.40
Industries	11.50	9.68	9.36	9.46	10.09
- major exporting	12.71	12.36	11.12	11.55	12.63
- other industries	10.88	8.27	8.40	8.29	8.77
Services	9.88	8.73	7.80	7.95	8.50
Total	10.29	8.00	7.60	7.65	8.12
Inflation Rate	4.86	4.51	4.34	3.43	3.91

Note : G86-91 is average annual growth rate within the Sixth Plan period.

Table 4.4
Share of Real GDP by Sector

	1988	1989	1990	1991
Agriculture	15.56	14.68	13.99	13.24
- crops	9.39	8.74	8.30	7.81
- other agriculture	6.17	5.93	5.69	5.43
Industries	35.71	36.27	36.86	37.48
- major exporting	12.32	12.82	13.24	13.72
- other industries	23.39	23.45	23.62	23.76
Services	48.73	49.06	49.15	49.28
Total	100.00	100.00	100.00	100.00

TABLE 4.5
STOCK OF EXTERNAL DEBTS AND DIRECT INVESTMENTS (Million U.S. Dollar)

	1987	1988	1989	1990	1991
PUBLIC SECTOR	12957.00	12041.32	12911.34	13818.08	14733.70
PRIVATE SECTOR	4543.00	6357.62	7844.43	10782.52	13979.61
TOTAL DEBTS	17500.00	18398.94	20755.76	24600.61	28713.31
DIRECT INVESTMENT	5699.63	6183.22	6703.84	7263.27	7864.65

TABLE 4.6
STOCK OF EXTERNAL DEBTS AND DIRECT INVESTMENTS (percent of GDP)

	1987	1988	1989	1990	1991
PUBLIC SECTOR	26.59	20.77	19.09	17.78	16.75
PRIVATE SECTOR	9.32	10.97	11.60	13.88	15.89
TOTAL DEBTS	35.91	31.74	30.69	31.66	32.64
DIRECT INVESTMENT	11.70	10.67	9.91	9.35	8.94