The Thai Economy: First Step in a New Direction

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by

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1. Overview

In 1994, the Thai economy has started along the path of a second major restructuring of its trade and production structures. The first major restructuring occurred in the mid-1980's, when, driven by rapid growth of manufactured exports and tourism, the economy quickly transformed from an agrarian and food based economy to one based on modern industry and services. The change can be dramatically seen from Thailand's export structure. Prior to 1985, agricultural exports (including fisheries) had always been larger than manufactured exports. In 1985, the value of manufactured exports surpassed the value of agricultural exports for the first time. During that time, manufactured exports were increasing at 30-40% per annum, while agricultural exports achieved growth rates of only 5-10% per annum. As a result, by 1990, the value of manufactured exports was over 3 times larger than that for agricultural exports (Figure 1).

During this first phase of restructuring, the bulk of Thailand's manufactured exports consisted of labor intensive products, such as garments, shoes, artificial flowers and gems and jewelry. The production base for many of these industries shifted from the Asian NIC's to countries such as Thailand and other South East Asian economies as a result of changes in comparative advantage. The Asian NIC's meanwhile moved up to export more sophisticated and technologically intensive products. Recent development suggests, however, that Thailand's advantage as a production base for labor intensive manufactured products has quickly eroded through intense international competition from lower cost countries such as China, Indonesia and Vietnam. In the second half of the 1980s Thai labor intensive manufactured exports were growing at 30-40% per annum, while currently the growth rates of these products are about 10% per annum or less.

Fortunately, the declining growth rates of labor intensive manufactured exports has been more than compensated for by persistently high export growths of medium-high technology manufactured products. Exports of items such as computers and parts,

electrical appliances, electrical circuits apparatus, and vehicles and parts have been growing at 25-40% per annum since 1990. The value of medium-high technology manufactured exports has quickly caught up with that of labor intensive manufactured exports. And just as 1985 was a significant year for Thai export when the value of manufactured exports surpassed that for agricultural exports for the first time, 1993 was another significant year, when the value of medium-high technology manufactured exports first exceeded that for labor intensive manufactured exports (Table 1).

Just as manufactured exports quickly dominated agricultural exports after 1985 because of the vastly different growth rates, so too will exports of medium-high technology products quickly dominate labor intensive manufactured exports. If it is assumed that export growth trends between 1991-93 will continue, then the value of medium-high technology manufactured exports is expected to be 1.75 times that for labor intensive manufactured exports in 1996 (the last year of the 7th Plan). The share of labor intensive manufactured exports is expected to decline to only 26% of total manufactured exports in 1996 from a share of 50% in 1989, while the share of medium-high technology manufactured exports is expected to increase to 46% in 1996 from 25% in 1989 (Figure 2).

The above changes in the export structure will lead to concurrent changes in the structure of Thai manufacturing industries. The growth of labor intensive manufacturing industries will no longer be the dominant driving force for Thailand's economic development. In fact, following the experiences of other countries who have made the same transition from labor intensive exports to medium-high technology exports, labor intensive manufacturing industries in Thailand should be on the decline in a few years.

This transition from labor intensive manufactured exports to medium-high technology exports is a major new direction for Thailand. The change is likely to bring benefits as well as major challenges for the Thai economy. In the short-term, the strong growth momentum of medium-high technology manufactured exports is likely to benefit overall economic growth. This was the case in 1994, and the situation is expected to continue in 1995. For the medium term, however, the transition raises many fundamental questions concerning Thailand's future development. These will be discussed below.

2. The Thai Economy in 1994

As was expected at the end of 1993, the Thai economy has shown strong growth in 1994. This section will first highlight two major features of the economic situation in 1994 before presenting the overall economic picture for 1994. The two features to be

highlighted concern the very high export growth, which is related to the structural change discussed above, and higher rate of inflation.

2.1 Very High Export Growth

Export growth in 1994 has turned out to be much higher than the range expected by all the major forecasting agencies at the end of 1993. Signs of the very high export growth were already evident by mid-year. During the first six months, exports grew by over 23% compared to the first six months of 1993. An analysis of this unexpectedly high rate of growth by looking at detailed break down of exports revealed the rapidly changing composition of export as earlier described. Table 1 shows the major export sectors from 1988. To gain better insight into the pattern, manufactured exports were divided into labor intensive products, medium-high technology products, processed (food) products, and other manufactured exports. In 1988, the value of labor intensive manufactured exports was almost twice as large as that for exports of medium-high technology products. By 1993, the medium-high technology group had overtaken the labor intensive group. Between 1988 and 1993, the average growth rate of medium-high technology product exports was 35.7% per annum, while that for labor intensive product exports was 18.0% per annum. Over the last couple of years, the growth of labor intensive manufactured exports fell below 10% per annum, while that for medium-high technology products remained above 25% per annum. The "machinery and mechanical appliances" group is rapidly catching up with the "textile" group, and will soon likely become the most sizable export category. A major portion of this "machinery and mechanical appliances" group consists of computers and parts.

During the first nine months of 1994, labor intensive product exports grew by about 11.5% compared to the corresponding period of 1993. This is an improvement over the growth rate achieved over the last couple of years. However, for exports of medium-high technology products, the growth rate over the first nine months was extremely high, over 37% compared to the corresponding period of 1993. Looking at the overall export pattern, it is quite clear that the phenomenal growth of the medium-high technology group is the main underlying reason why Thailand achieved a very high rate of export growth this year. Over the first nine months, total exports grew by over 20% compared to the first nine months of 1993.

2.2 Higher Inflation

As with export growth, the rate of inflation in 1994 was higher than was expected at the end of last year. By November, the 12-month moving average CPI index was 5.0% above that for November 1993. This compares to an inflation rate of 3.3% for 1993, which was the lowest since 1987. It is important to understand the reasons for the jump in the

inflation rate, so that an accurate assessment can be made about future inflation outlook and the appropriate policies to deal with the situation. In this section, an analysis of the determinants of the rate of inflation in Thailand is presented, and reasons for the jump in the rate of inflation in 1994 are suggested.

Inflation Determinants

Figure 3 shows the inflation rate in Thailand (changes in the CPI) from 1961 to 1994. It can be seen that the inflation rate has varied greatly. For some years the rate was negative, and for some years the rate reached over 20% per annum. Sharp increases in the inflation rate occurred in the aftermath of the two oil shocks in the early and late 1970s. Thai inflation rates are, however, not independent of the rates in our trading partners. This is to be expected according to theory as Thailand is a relatively small open economy. In particular, as the exchange rate between the baht and US dollar has changed very little over a period of 35 years and macroeconomic management in Thailand has on average been very prudent, one can expect the inflation rate in Thailand to be similar to that in the US. This is indeed the case. Figure 4 shows the ratio of the Thai and US CPI from 1960 to 1993, when both are normalized to be equal in 1990. It is remarkable to see that after almost 35 years, the two countries' CPIs are within about 10% of each other. Thus, the inflation rate in the US is clearly an important variable explaining the Thai inflation rate.

Apart from the US inflation rate, changes in commodity prices which have a direct bearing on the Thai economy are also found to be important in determining the Thai inflation rate. Table 2 shows the regression result explaining the Thai inflation rates between 1962 and 1992. Three variables are found to be important.

1. The US inflation rate adjusted for exchange rate changes between the baht and US dollar.[1]
2. Changes in world crude oil prices.
3. Changes in rice export prices.

The result shows that all three variables are significant determinants of the Thai inflation rate. These three variables alone can explain 76% of the variation in the Thai inflation rate over the past 30 years. Other variable were also tried in the analysis, such as GDP growth rates, investment growth rates, or their lagged values, but were found not to be significant. Using the estimated equation in Table 2 to predict the Thai inflation rates yields a reasonable fit to the actual inflation rates (Figure 5).

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[1]. The adjusted US inflation rate is the US inflation rate plus the percentage change in the Baht per dollar rate.

Underlying Reasons for Jump in Inflation Rate in 1994

The above analysis suggests the following factors as important underlying reasons for the jump in the inflation in 1994.

1. Sharp increases in crude oil prices by about 35% during the first half of the year (Figure 6). This translate to higher production and consumption costs, as well as higher fuel import bill.
2. Increases in world rice prices as well as the prices of other major crops starting from the last part of 1993 (Figure 7). This leads to higher food prices, while at the same time benefiting farmers.

The slightly rising US inflation trend in 1994 (from 2.5% in January to about 3% in September) is not a major factor for the jump in Thailand's inflation rate in 1994. However, exchange rate changes, particularly the sharp strengthening of the Japanese yen against other major currencies is likely to contribute to Thailand's inflation. While the baht is tied to a basket of currencies, the basket is dominated by the US dollar, so as the yen appreciates with respect to the dollar, the baht depreciates with respect to the yen. Over the first 11 months of 1994, the yen appreciated by about 8.33% against the dollar compared to the first 11 months of 1993. Over the same period of time the baht depreciated by 8.12% against the yen, while appreciating by 0.64% against the dollar. In 1993, Thailand's merchandise trade with Japan (exports plus imports) accounted for 24.4% of total Thai merchandise trade. If it is assumed that export and import prices in Thailand's trade with Japan follow the yen/baht exchange rate, while prices in Thailand's trade with the rest of the world excluding Japan follow the dollar/baht exchange rate, then the above exchange rate changes would imply that the average export-import price in Thailand's total foreign trade has increased by about 1.55% in terms of the baht compared to 1993.[2] As a small open economy with a substantial foreign trade sector, this will obviously add to domestic inflationary pressure in addition to the above two factors already indicated.

Policy Response

The above analysis suggests that the jump in Thailand's inflation rate in 1994 can be well explained by external factors such as increases in commodity prices and exchange rate changes. Little evidence exists to suggest that over heating of the domestic economy has been an important cause of the jump in the inflation rate. Therefore, it is important not to

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2. Calculated as 8.12*0.244-0.64*0.756 = 1.55.

over-react on the policy front, particularly as the factors underlying this year's jump in the inflation rate may not be present next year. If commodity prices and exchange rates stabilize next year, then the Thai inflation rate is likely to jump back down again. The Bank of Thailand has adopted some mild monetary measures in 1994, such as the increase in the Bank Rate by 0.5% in September and the tightening of the extent of net foreign exposures of commercial banks in November. This seems to be an appropriate cautiously restrained approach and should be commended.

2.3 Macroeconomic Situation in 1994

Table 3 gives the macroeconomic picture for 1994 as well as the outlook for 1995. As already indicated, Thai exports show very strong growth in 1994, mainly as a result of the very high growth of medium-high technology product exports. For the whole year, merchandise exports are expected to increase by 18.7%, reaching a value of 1,094 billion baht. This is a big jump from the export growth rate of 13% achieved in 1993. Imports are expected to grow by 16.1%, reaching 1,328 billion baht. This is again a higher rate of growth than in 1993, and is accounted for by high demand for capital and intermediate goods, as well as the increase in oil prices and the continued high consumption growth. The trade deficit in 1994 is expected to be 233.9 billion baht, or 6.6% of GDP. The 1994 trade deficit is about 10 billion baht larger than that in 1993, but the deficit to GDP ratio in 1994 is less than the ratio of 7.1% for 1993. Income from tourism is expected to grow satisfactorily by 10.6% reaching 155.1 billion baht compared to 140.2 billion baht in 1993. The current account deficit for 1994 is expected to be 198.4 billion baht, or 5.6% of GDP. As with the trade deficit, the current account deficit in 1994 is larger than that in 1993 (by about 15 billion baht), but the ratio of current account deficit to GDP in 1994 is slightly less than the ratio of 5.9% in 1993.

The Bank of Thailand's private investment index shows a downward trend since towards the end of 1993, but has remained mostly in the "high activity" range. The index moved back to a slight up-trend since about the middle of 1994 (Figure 8). Overall, investment growth in 1994 is expected to be slightly higher than last year, with investment quantity growing by 8.6% in 1994 compared to 8.4% in 1993. With very strong export growth, satisfactory growth in investment, and continued high consumption growth, the Thai economy in 1994 has shown stronger growth than last year. Real GDP growth for 1994 is expected to be 8.6% (the same rate as was forecasted in December 1993), compared to the 8.2% growth achieved in 1993. All three major sectors are expected to grow faster than in 1993. Agriculture is expected to grow by 3.1% in 1994 compared to 2.3% in 1993, due to plenty of rain although some areas were hit by flooding. Industry and services are expected to grow by 11.5% and 7.5% respectively, compared to 11.1% and

7.3% in 1993. As already discussed, this year's inflation rate shows a jump up from last year, and is expected to be 5.0%.

The increase in crop prices in 1994 will benefit farm income. However, with such vast social and economic opportunity gaps between the rich and the poor, income distribution is still expected be get slightly worse in 1994. The income share of the richest 40% of the population is expected to increase to 76.87% compared to 76.74% in 1993, while that for the poorest 60% falls to 23.13% compared to 23.26% in 1993.

3. Economic Outlook for 1995

In 1995, the strong economic growth trend of the last couple of years is expected to continue. Exports of medium-high technology products are expected to retain the strong impetus contributing to high export growth. Investment is expected to pick up and overall GDP growth is expected to be higher than in 1994. In the projection, it is assumed that commodity prices and exchange rates will stabilize in 1995. Thus, the inflation rate is expected to decline.

The export value of medium-high technology manufactured products has now overtaken that of labor intensive manufactured goods, and medium-high technology manufactured exports now account for over one-third to total merchandise exports. If the growth momentum of medium-high technology manufactured exports can be maintained, and this is likely to be the case in the short-term, this will contribute to high overall export growth. For 1995, total merchandise export is expected to increase by 17.7%, reaching 1,288 billion baht. Merchandise imports are also expected to show high growth, increasing by 15.6% to 1,535 billion baht. This leaves a trade deficit of 247 billion baht or 6.1% of GDP. The trade deficit in 1995 is larger than that in 1994, but the ratio of trade deficit to GDP in 1995 is lower than the ratio of 6.6% in 1994. Income from tourism is expected to grow by 10.7%, which is similar to the growth rate achieved in 1994, reaching about 172 billion baht. The current account deficit is expected to widen to 215 billion baht or 5.3% of GDP. As with the trade deficit, the current account deficit is larger than in 1994, but as a ratio of GDP it is less than the ratio of 5.6% in 1994. With the downward trend in the ratio of current account deficit to GDP, from 5.9% in 1993 to 5.6% in 1994 and 5.3% in 1995, the ratio of long-term debt to GDP is expected to show a similar downward trend, from 29% in 1993 to 28.9% in 1994 and 28.6% in 1995.

With strong export growth, good GDP growth momentum, and continued implementation of various large scale infrastructure and private sector investment projects, investment growth is expected to be higher in 1995. The quantity of investment is expected

to expand by 11.2% compared to 8.6% in 1994. The continued high export growth and higher investment growth in 1995, together with continued strong consumption growth from economic and demographic changes,[3] is expected to lead to higher GDP growth next year compared to 1994. Overall GDP growth is expected to reach 9.0% in 1995. Growths of industry and services are expected to be higher than in 1994, with industry expected to grow by 12.0% in 1995 compared to 11.5% in 1994, and services expected to grow by 7.9% in 1995 compared to 7.5% in 1994. With strong agricultural growth in 1994, the assumed stabilization in crop prices, and limited availability of additional land resources, agricultural growth in 1995 is expected to fall back to 2.1%.

While overall growth in 1995 is expected to be higher than in 1994, the assumed stabilization of commodity prices and exchange rates takes away the inflationary pressures from these factors that were experienced in 1994. Thus, the inflation rate is expected to fall back to 4.3% in 1995 compared to the 5.0% rate experienced in 1994.

In 1994, increase in crop prices helped to reduce the rate at which the gap between the rich and the poor has been widening. With the assumed stabilization of commodity prices and strong overall growth, the gap between the rich an the poor is expected to widen more considerably in 1995. The income share of the richest 40% is expected to increase to 77.15% in 1995 compared to 76.87% in 1994, while the income share of the poorest 60% falls to 22.85% in 1995 compared to 23.13% in 1994. While it is extremely difficult to reduce the income gap in the short or even medium-term,[4] it should be noted that Thailand is now reaching near to the top group of countries with the widest income disparities (Table 4).

4. Medium Term Issues Concerning the Recent Structural Changes

The current phase of Thailand's economic restructuring stemming from the transition from labor intensive manufactured exports to medium-high technology exports has just started. However, the process is rapidly gaining momentum given the vastly different growth rates of the two groups of exports. While the current trend translates into high growth of exports in the short-term, it raises some fundamental issues about Thailand's medium term development prospects. Two of these issues are raised in this section.

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3. See the analysis presented in the TDRI December 1993 forecast "Thai Economic Outlook: Highlighting the Differences," Macroeconomic Policy Program, December 22, 1993.

4. See for example the analysis in Sussangkarn, Chalongphob "Education, Labor Markets, and Economic Development: Policy Simulations," Research Report No. 1-2, Chai Pattana Foundation-TDRI Year End Conference on "Educational Options for the Future of Thailand." December 14-15, 1991.

4.1 What are Thailand's sustainable comparative advantages?

The rapid economic growth in Thailand since the mid-1980s was based in large part on labor intensive manufactured exports. Current trends in Thailand and the experiences of more developed countries than Thailand show clearly that comparative advantage based on cheap but trainable labor are transitory. In the modern world, with a more open and more competitive international trade system, and where most emerging nations realize the benefit of export-led growth, the transition from having comparative advantage in labor intensive production to losing such comparative advantage is taking less and less time. In the case of Thailand, the boom in labor intensive manufactured exports has lasted less than a decade.

As Thailand shifts to an export pattern based on medium-high technology products, the question arises whether Thailand really does have comparative advantage in such products, and if so, how long will such comparative advantage last? The booming exports of medium-high technology products obviously indicate that Thailand does indeed currently have comparative advantage in the production of these products. However, it is clear that, for most of the medium-high technology products that Thailand is currently exporting, Thailand is simply an assembly base. The technological development, design and brand name of these products are predominantly foreign. Thus, similar to the case with labor intensive export products, the current comparative advantage of Thailand in medium-high technology products is based on low assembly cost. Therefore the current comparative advantage in medium-high technology export products is almost certain to be transitory, and eventually other countries will be able to assemble these products just as well as Thailand but at a lower cost. When that time comes, the assembly base for these medium-high technology products will inevitably move to other countries. What then will be left of Thai manufactured exports?

Thailand should, of course, take advantage of the transitory comparative advantages as they arise. But it has to be realized that these are short-lived. Meanwhile serious thought should be given to the more sustainable types of comparative advantages that Thailand possesses, and how they can be fully exploited. The country's development needs to be patterned around these more permanent comparative advantages in order for development to be sustainable on a long-term basis. Currently, as Thailand's transitory comparative advantage in labor intensive manufacturing is about to end, and the country is beginning to benefit from the second phase of transitory comparative advantage in the assembly of medium-high technology products, it is a good time to seriously think about the more permanent types of comparative advantages that the country possesses, so that these can be fully exploited as the foundation for Thailand's development into the next century.

4.2 Will the Thai population be able to cope with the current structural changes?

It is ironic that as Thailand's comparative advantage in labor intensive manufactured exports is coming to an end and exports of medium-high technology products are booming, about 80% of the country's workforce possess only primary education or less. More serious attention has been paid to Thailand's under-investment in secondary education in the past few years, and recent improvements in the transition from primary to secondary schools have been very encouraging. In 1991, at the beginning of the 7th National Economic and Social Development Plan, only 52% of those who finished primary school go on to secondary school. The transition rate is now well over 80%, and the current policy target to reach 100% transition by 1996 may be realized. This has been achieved through concerted efforts of the Ministry of Education, and while there are still major problems in terms of educational quality, the Ministry should be commended and fully supported.

Increased transition from primary school to secondary school will not quickly affect the educational composition of Thailand's labor force, however. Most of those workers possessing only primary education or less will continue to be in the labor force for many years to come. Going by the current trends in enrollment, and assuming that a transition rate of 100% from primary to secondary school is achieved by 1996 and maintained thereafter, over 72% of Thailand's labor force will still have only primary education or less by the year 2000 (Table 5).

The current phase of structural changes in the Thai economy will create numerous problems for the vast majority of Thai workers with only primary education or less. On the one hand, they will not be accepted in factories producing medium-high technology products, as these typically require workers with secondary or vocational education. Similarly, the modern service sectors (hotels, department stores, finance) also require workers with secondary education or above. On the other hand, the production base for labor intensive manufactured products will continue to shift to countries with lower per capita income levels than Thailand, such as China, Indonesia and Vietnam, and before the end of the century hundreds of thousands of jobs in labor intensive manufacturing industries may vanish. What is making matters worse is that, given the vastly different development level between Thailand and most of her neighbors, sizable and growing numbers of illegal immigrants from these countries are entering Thailand to seek jobs. This will simply slow down increases in general unskilled wages and incomes.

Under such circumstances, these workers have the right to worry and ask about their future. What kind of jobs will they have as the country enters the 21st century, what will be their standard of living, how will the government look after them? It is essential that those in authority spend more time thinking about such questions in depth, and come up with concrete solutions and answers.

Figure 1

Thai Merchandise Export

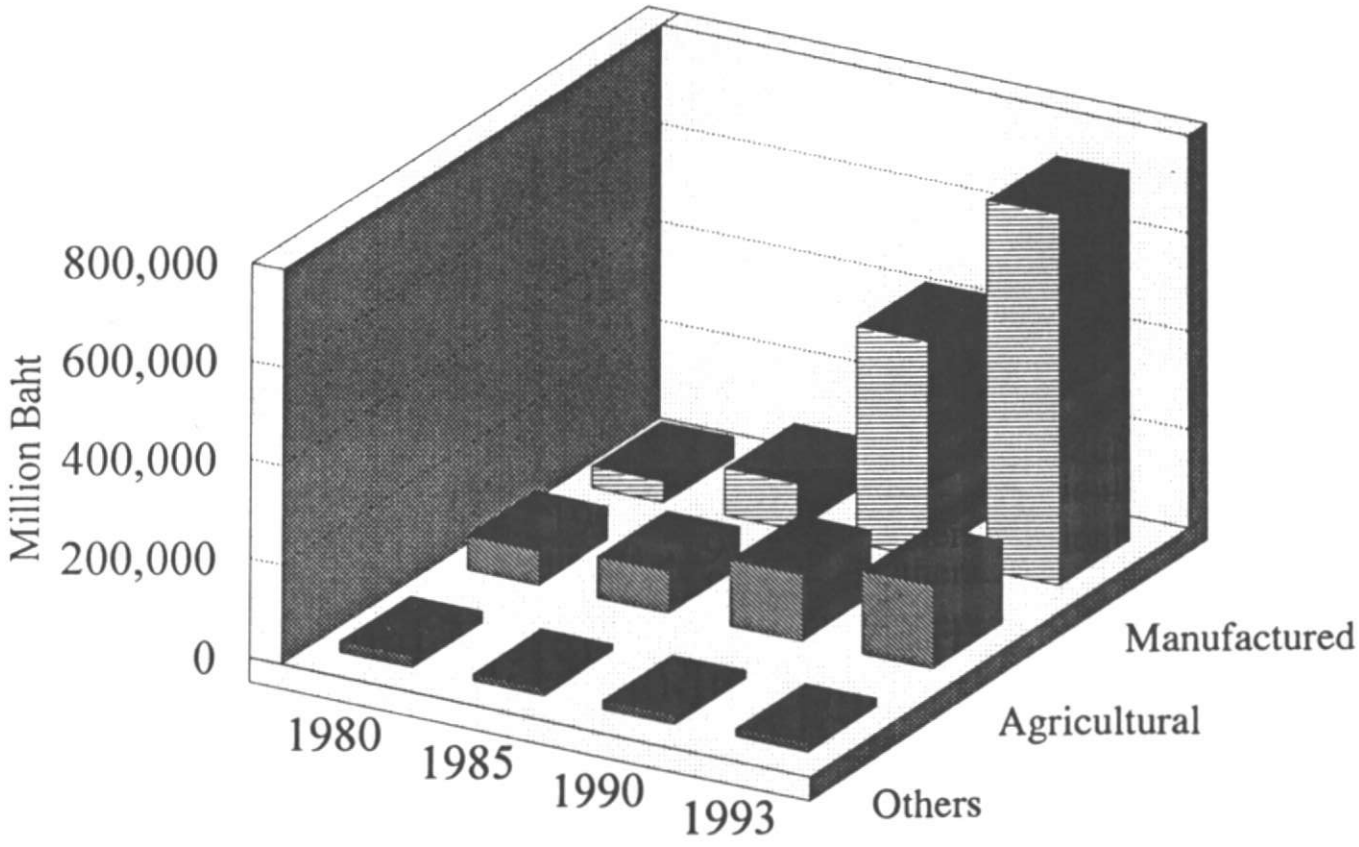
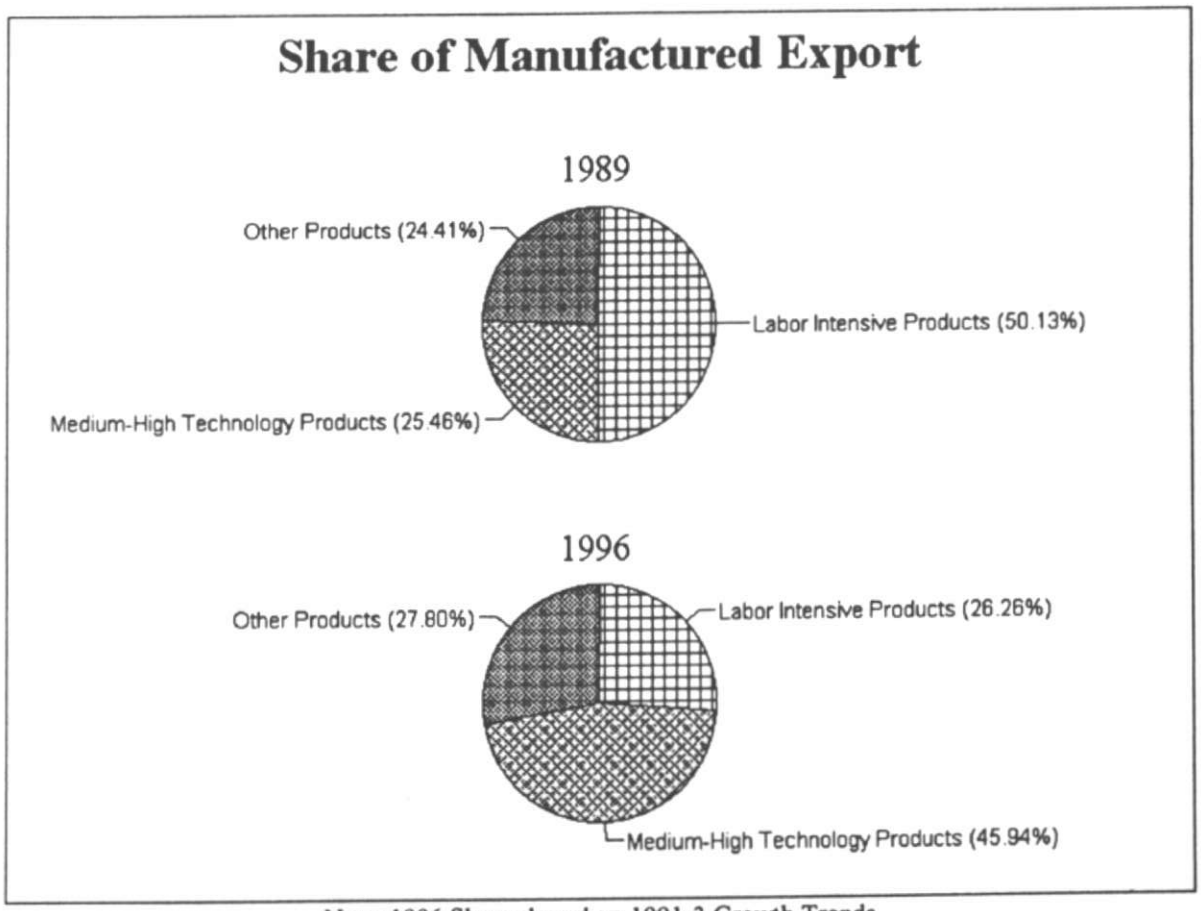


Figure 2



Note: 1996 Shares based on 1991-3 Growth Trends

Figure 3

Thai Inflation Rate

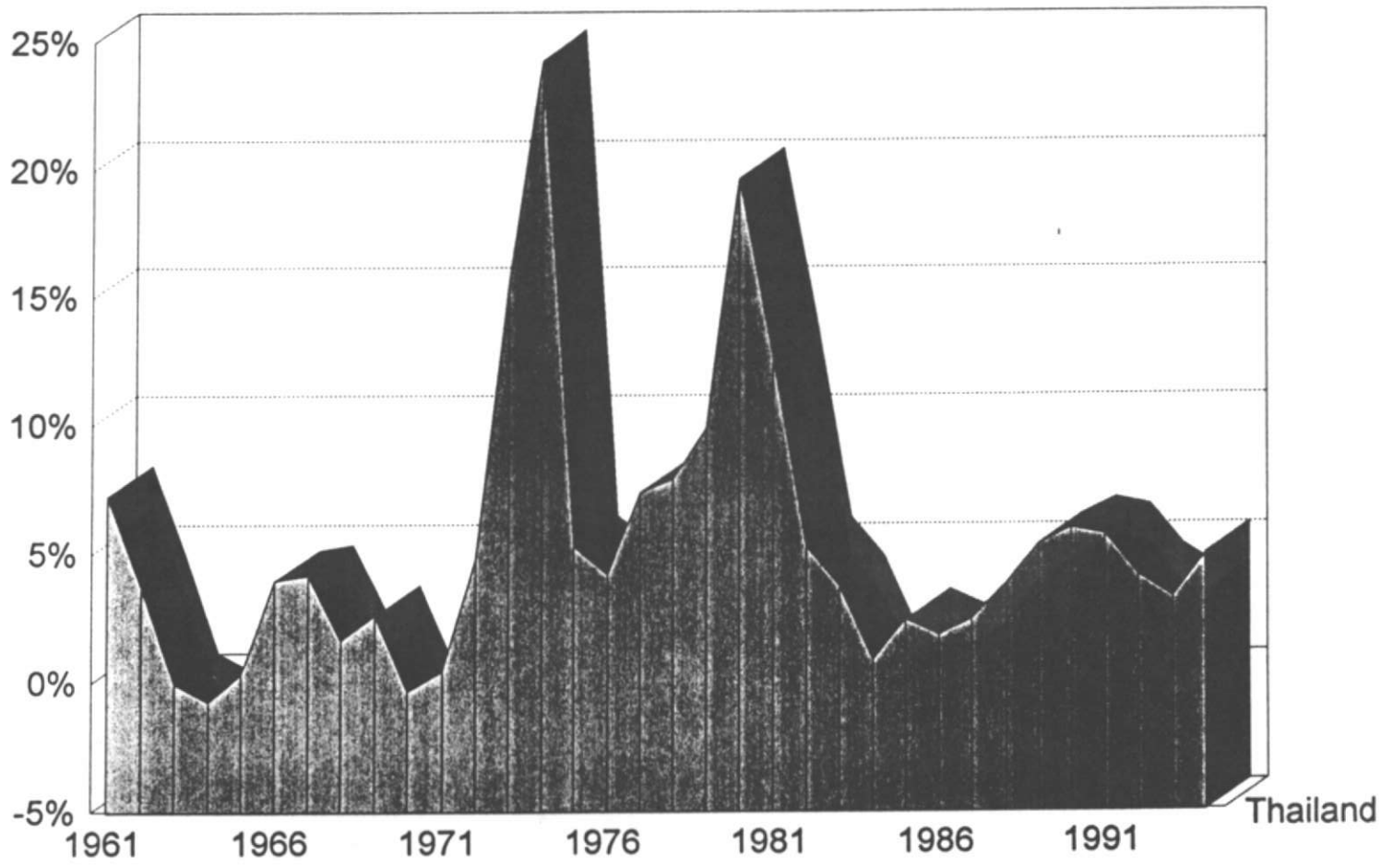


Figure 4

Ratio Thai-US CPI

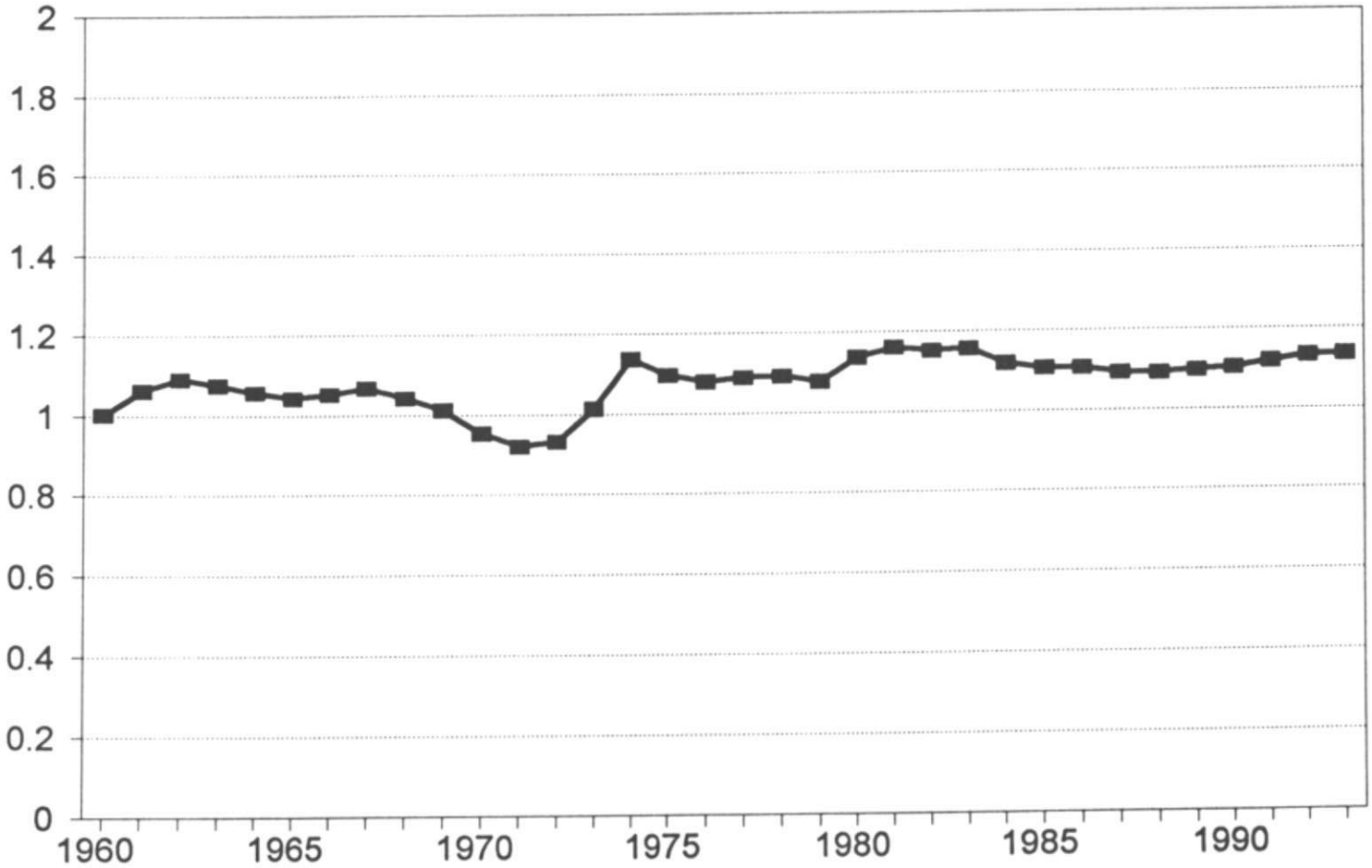


Figure 5

Actual and Predicted Inflation Rate

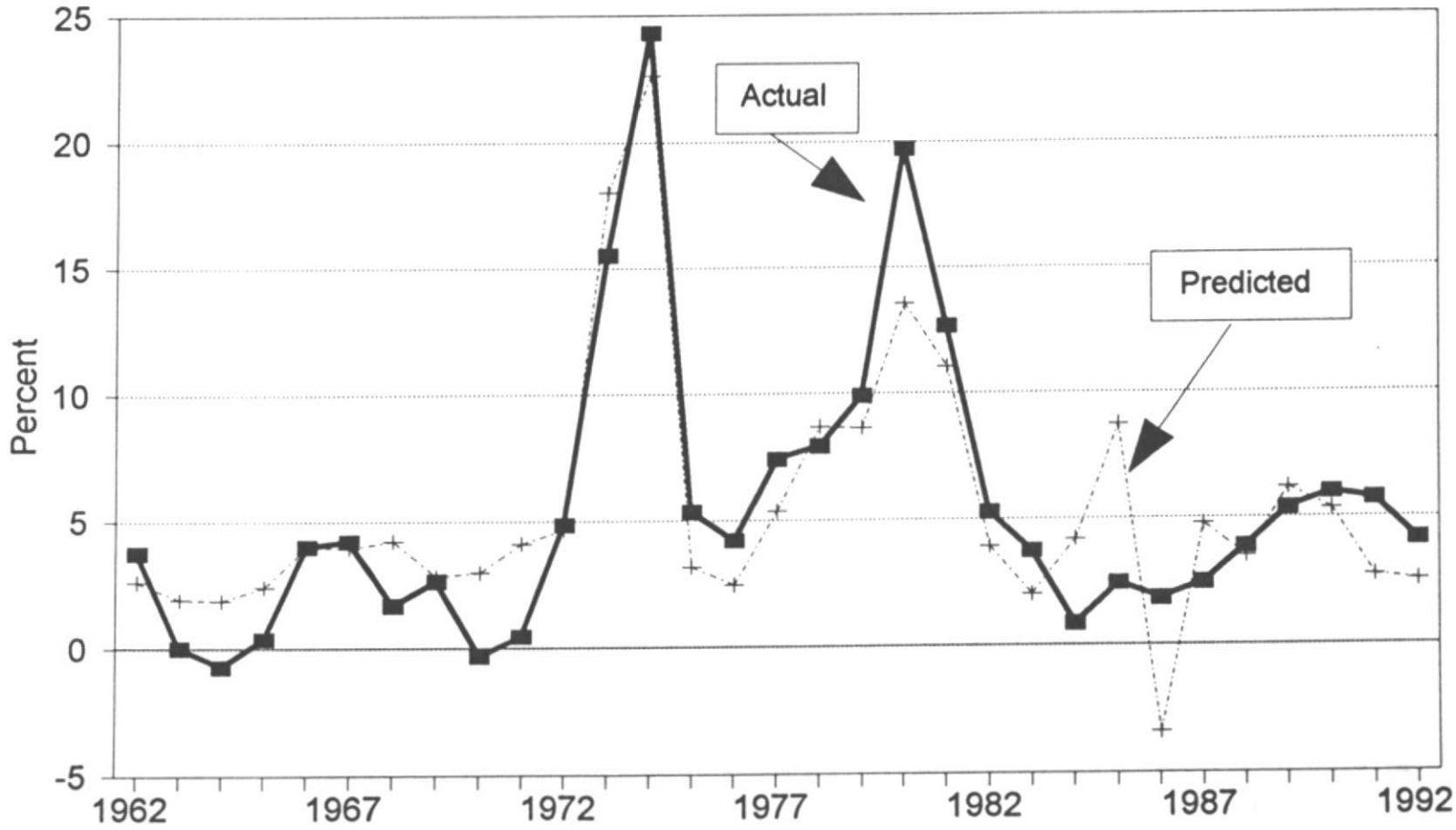


Figure 6
Crude Oil Price in World Market (Oman)

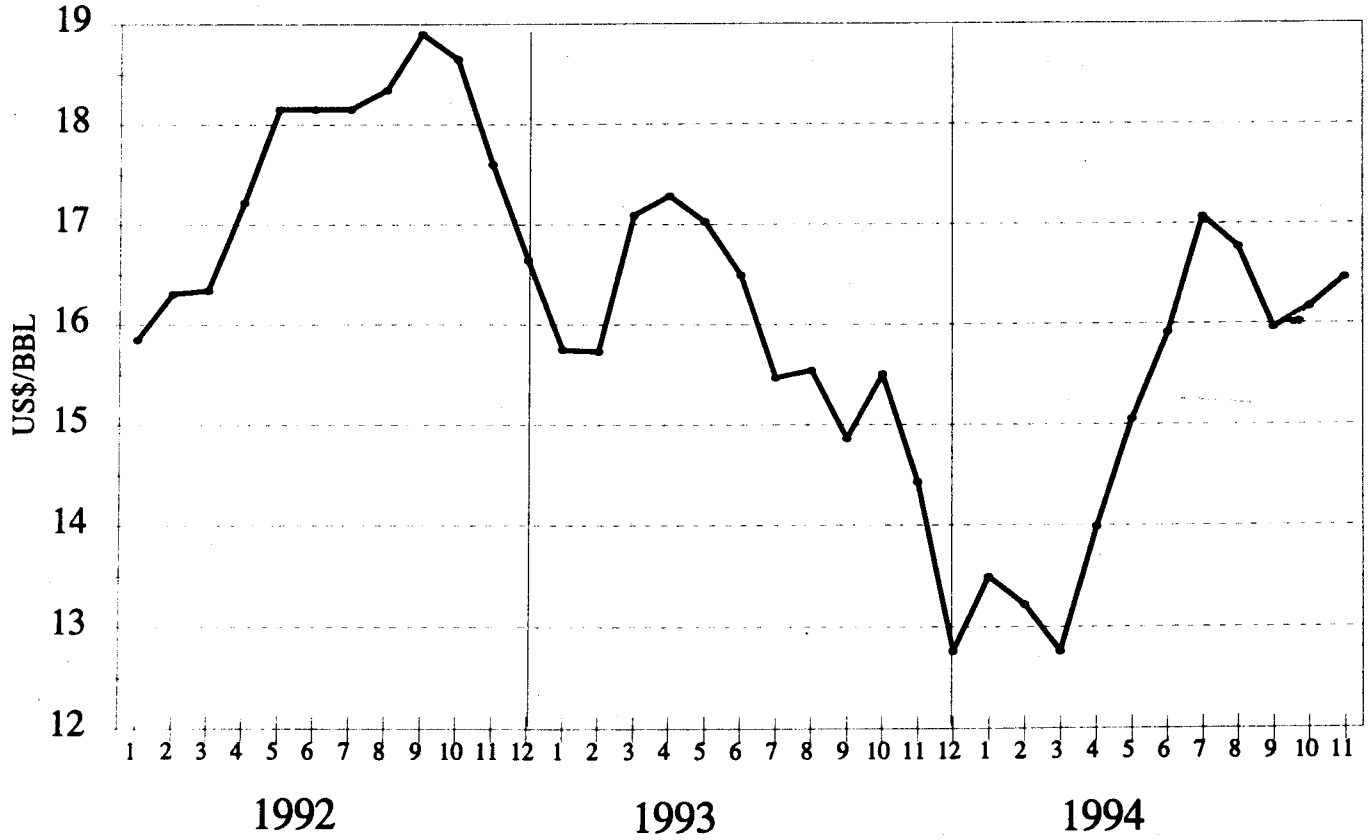


FIGURE 7
MAIN CROP PRICE INDEX IN WORLD MARKET

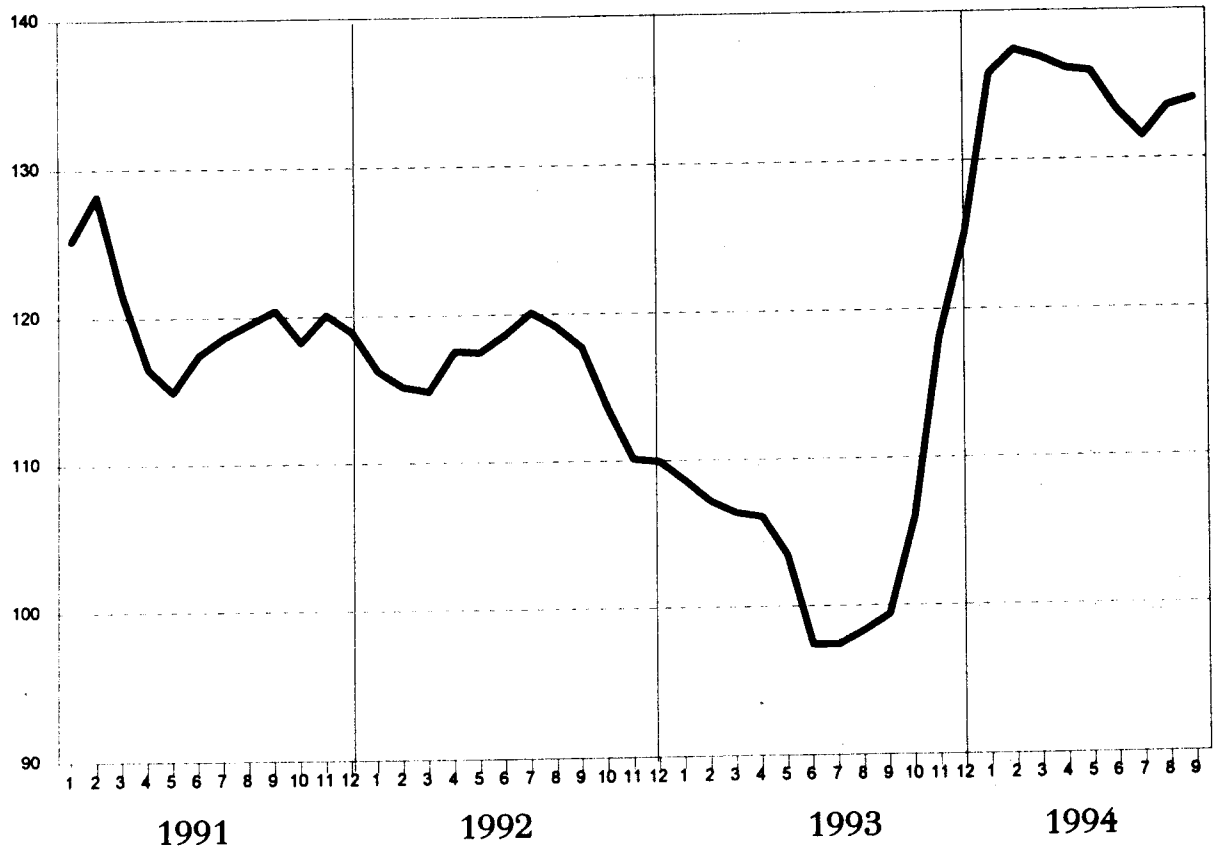
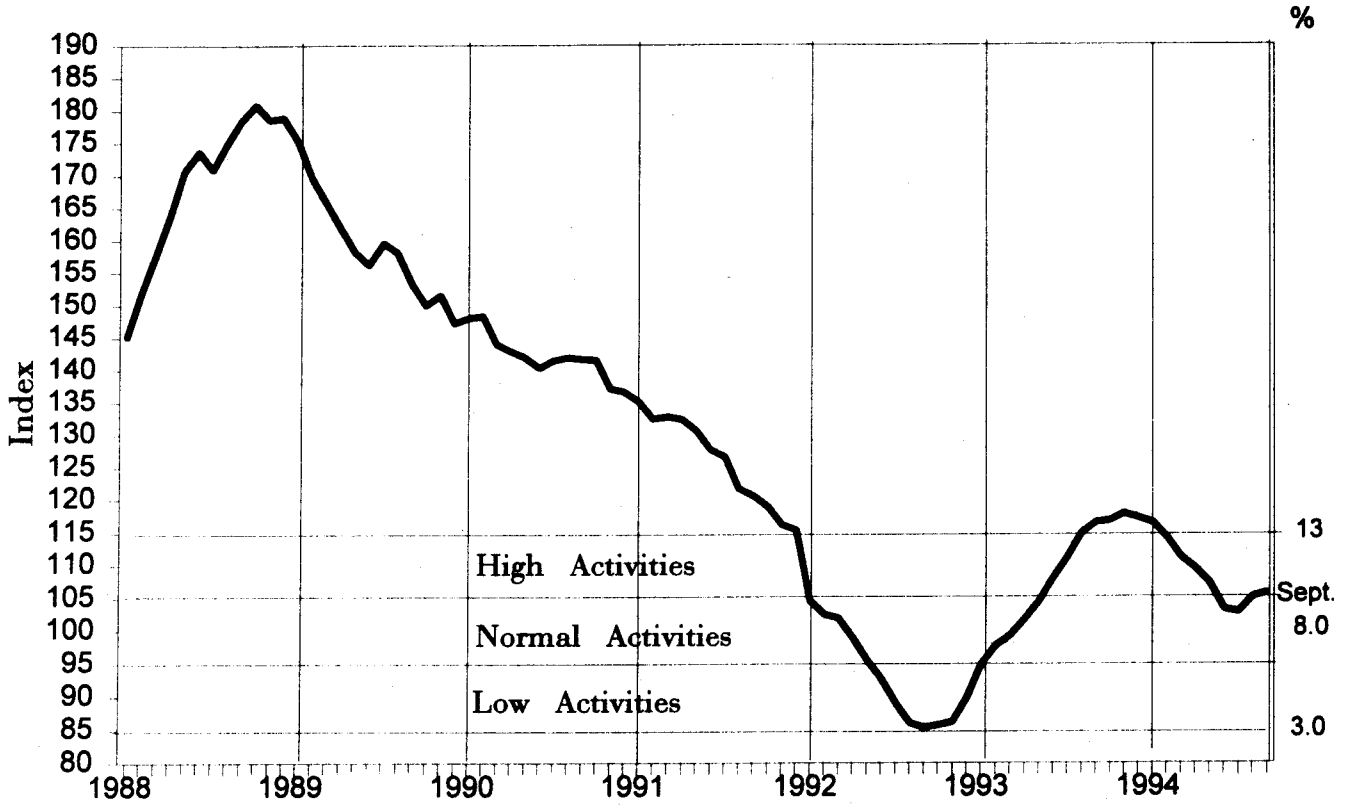


Figure 8
Private Investment Index



Source: Key Economic Indicators, Bank of Thailand.

Table 1. Merchandise Export Items

(Millions of Baht)

	1988	1989	1990	1991	1992	1993	1993 Jan-Sep.	1994 Jan-Sep.
Labor Intensive Products								
Textiles	64,053	105,181	92,267	119,351	123,478	129,568	96,979	106,384
Footwear	9,658	13,524	20,213	23,798	25,639	27,936	20,029	23,916
Furniture and Parts	6,635	9,746	11,511	13,626	15,069	16,738	12,316	14,315
Rubber Products	4,413	5,464	6,548	7,116	9,151	11,373	8,459	9,282
Travel Goods	3,540	5,464	6,548	7,116	9,151	8,974	6,701	7,718
Sport Equipments and Related	426	1,222	2,583	4,102	6,974	6,801	5,201	5,649
Leather Products	1,783	1,448	2,199	2,678	3,500	4,257	3,021	4,033
Artificial Flower and Related	2,038	2,867	2,426	2,271	2,396	2,598	1,947	1,854
Precious Stones and Jewellery	23,683	28,393	34,858	35,903	36,582	41,030	29,676	32,333
Toys and Games	2,429	4,218	5,964	7,800	8,780	7,928	5,351	6,132
Total Labor Intensive Products	118,658	177,527	185,117	223,761	240,720	257,203	189,680	211,616
Average Growth 1988-1993 (18 0%)		49 61	4 28	20 88	7 58	6 85	-	11 56
Medium-High Technology Products								
Machineries and Mechanical Appliances	16,494	31,154	45,431	57,455	70,423	90,802	64,142	84,762
Electrical Applicances	6,274	18,851	32,523	47,875	60,356	62,634	45,491	64,521
Electrical Circuits Apparatus	29,888	26,521	32,785	44,209	56,702	75,622	55,547	76,317
Electric Cable	1,899	3,545	4,565	4,821	6,842	10,365	7,941	8,515
Transformers, Generators and Motors	1,175	2,073	2,997	4,947	6,498	10,382	7,514	11,516
Clocks, Watches and Parts	1,364	2,484	4,887	7,556	8,533	7,266	5,261	7,061
Optical Applicances	848	1,123	1,565	2,566	5,075	7,838	5,463	8,297
Vechicals, Parts and Accessories	3,770	4,431	5,541	6,885	8,730	16,532	10,986	16,409
Total Medium-High Technology Products	61,712	90,182	130,294	176,314	223,159	281,441	202,345	277,398
Average Growth 1988-1993 (35.7%)		46 13	44 48	35 32	26 57	26 12	-	37 09
Process Products	37,388	43,345	34,390	36,086	58,905	52,332	40,206	44,882
Growth Rate		15 93	-20 66	4 93	63 24	-11 16	-	11.63
Other Manufactured Products	47,881	43,100	90,594	117,027	111,602	161,581	112,676	134,179
Growth Rate		-9 99	110 19	29 18	-4 64	44 78	-	19 08
Total Manufactured Products	265,639	354,154	440,395	553,188	634,386	752,557	544,907	668,075
Growth Rate		33 32	24 35	25 61	14 68	18.63	-	22 60
Agricultural Products	104,530	118,508	100,003	109,278	123,810	110,695	82,493	90,535
Growth Rate		13 37	-15.61	9 27	13 30	-10 59	-	9.75
Fishery Products	20,826	28,538	32,507	43,704	48,793	55,689	38,729	48,046
Growth Rate		37 03	13 91	34 44	11 64	14.13	-	24 06
Others of Total Exports	12,575	15,115	16,908	19,459	17,655	16,921	12,031	12,137
Growth Rate		20 20	11 86	15 09	-9 27	-4 16	-	0 88
Total Exports	403,570	516,315	589,813	725,629	824,644	935,862	678,160	818,793
Growth Rate		27 94	14 24	23 03	13 65	13 49	-	20.74

Table 2. Regression Explaining Thai Inflation Rate: 1962-1992

Dependent Variable = Thai Inflation Rate

	Parameter	t-Value
US Inflation (Adjusted)	0.38876	3.396
Oil Price Increase	0.07591	3.000
Rice Export Price Increase	0.06227	2.636
Constant	1.80139	2.237
Multiple R	0.8861	
R Square	0.7852	
Adjusted R Square	0.7613	
Standard Error	2.7982	
F-Statistic	32.8953	
No. of Observations	30	

Table 3. Economic Outlook for 1994 and 1995

	1993	1994	1995
OECD Growth (%)	1.2	2.6	2.9
OECD Inflation (%)	3.4	3.5	3.3
Economic Growth (Real GDP%)			
Agriculture	2.3	3.1	2.1
Industries	11.1	11.5	12.0
Services	7.3	7.5	7.9
Tatal	8.2	8.6	9.0
Inflation Rate (CPI %)	3.3	5.0	4.3
Total Investment Quantity (% increase)	8.4	8.6	11.2
Merchandise Export			
Value (Billion Baht)	921.4	1094.1	1288.2
Value (% Increase)	13.0	18.7	17.7
Merchandise Import			
Value (Billion Baht)	143.7	1328.0	1535.3
Value (% Increase)	12.1	16.1	15.6
Trade Balance			
Value (Billion Baht)	-222.3	-233.9	-247.1
% of GDP	-7.1	-6.6	-6.1
Income from Tourism			
Value (Billion Baht)	140.2	155.1	171.6
% Increase	13.9	10.6	10.7
Current Account Balance			
Value (Billion Baht)	-183.2	-198.4	-215.1
% of GDP	-5.9	-5.6	-5.3
Long-Term Foreign DEBT/GDP Ratio (%)	29.0	28.9	28.6
Income Destribution (Income Shares)			
Richest 40%	76.74%	76.87%	77.15%
Poorest 60%	23.26%	23.13%	22.85%

Note OECD Data from OECD Economic Outlook. Thai Data for 1993 are from NESDB's National Accounts and Bank of Thailand, except for long-term debt to GDP ratio and income distribution, which are from TDRI.

Table 4. Income Shares of the Richest 40% and Poorest 60%
(Low and Middle Income Countries)

Country	Year	Share of Richest 40%	Share of Poorest 60%
Brazil	1989	84.3	15.7
Guatemala	1989	81.6	18.4
Honduras	1989	81.1	18.9
Panama	1989	80.1	19.9
Chile	1989	79.1	20.9
Thailand	**1994**	**76.9**	**23.1**
Colombia	1991	76.2	23.8
Mexico	1984	75.8	24.2
Dominican Republic	1989	75.3	24.7
Malaysia	1989	74.1	25.9
Costa Rica	1989	72.7	27.3
Venezuela	1989	71.4	28.6
China	1990	66.2	33.8
Nepal	1984-5	61.3	38.7
Poland	1989	59.1	40.9
Bulgaria	1992	58.4	41.6
Hungary	1989	56.4	43.6

Source: World Bank, World Development Report 1994 and TDRI estimate for Thailand.

Note: Selected countries all use same income share measurement concept.

Table 5
Workforce Share by Education

Educational Level	1990	1995	2000
Primary or Below	83.04	79.55	72.87
Lower Secondary	6.42	7.89	11.44
Upper Secondary	2.46	3.22	4.18
Vocational	2.77	3.10	3.86
Technical Vocational	1.26	1.63	2.23
University	4.06	4.61	5.43
TOTAL	100.00	100.00	100.00

Source: TDRI Projections.