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Trade in Services

Thammanun Pongsrikul
Somchai Ratanakomut

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RESEARCH TEAM

- Project Director** : Dr. Narongchai Akrasanee
- Principal Researcher** : Dr. Thammanun Pongsrikul
- Research Fellow** : Dr. Somchai Rattanakomut
- Research Assistants** : Mr. Noppadol Na Chiangmai
Mr. Tirapol Pokkasorn
- Coordinators** : Ms. Jaruan Chontanawat
Ms. Netrsuda Saligupta
Ms. Deunden Nikomborirak
- Support Staff** : Mr. Supote Peerapisit
Ms. Pawadee Kongtrakul
Ms. Phimchai Boukoed
Ms. Varaya Toraninpanich
Ms. Nootchanart Phumphruke

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PREFACE

Being a trade deficit country, Thailand faces a variety of different international trade and investment issues in several sectors. Issues on trade in services had been rarely addressed until they came to the forefront in discussions on the possibility of extending the scope of the General Agreement on Tariffs and Trade (GATT) to cover these traded services. As a result, Thai economists have recently paid more attention to the service sector, and TDRI has included this topic into the 1989 Year-End Conference.

Thailand has experienced a deficit balance of trade in both merchandise and services. The existence of this deficit does not imply that a limitation be imposed on service expansion. Since the service sector is in turn influenced by domestic factors; product prices, government policies, and international environment, the growth of the service sector is derived from economic growth. Therefore, it should not be too difficult for Thailand to have a surplus in traded services, since there are many potential areas for expansion, i.e., tourism, labor and air passenger services, the major sources of foreign exchange earnings, particularly from tourism. An improvement in electronic and offshore banking will also generate new business and stimulate Thailand's economic growth. Further, improvements in the transportation systems and related infrastructure will benefit both the country's domestic and international economy. Efficient transportation systems and an improvement in the service industries will lead to lower costs, which in turn will yield higher trade volumes and foreign exchange earnings and improve Thailand's balance of trade and current account.

The policy and sectoral analysis on services can make a substantial contribution towards formulating more effective policies to obtain a surplus balance in traded services and raise social welfare. With the present widespread restrictions in internationally traded merchandise, the possibility of expanding this sector has become less promising. Introducing appropriate policies to turn the position of traded services from a deficit to a surplus will thereby compensate for the expected slowdown in merchandise exports. In addition, the effect of these alternative policies will assist the policy makers to consider various options and make their choice, based on the international trade theory, applicable to the service sector.

The trade in services project is one of seven projects presented by TDRI's research program for the 1989 Year-End Conference. The main objective of this study was to analyze the role of trade in services in the economic development of Thailand. While the immediate objectives were to maintain Thailand's competitiveness in traded services and its position as an attractive place for investment, the ultimate objective is to encourage this sector to contribute the most

to the development of Thailand. To achieve these objectives, merchandise trade theories have been applied to traded services to determine the pattern and produce policy recommendations. The study comprises six chapters, of which Dr. Somchai Rattanakomut is responsible for the third and sixth chapters and Dr. Thammanun Pongsrikul takes care the rest of the report.

The completion of this project is of considerable importance to Thailand because it comes at a time when the government is planning the Seventh National Economic and Social Development Plan. Even though the study may not as comprehensive as it would like to be, the major fact findings and policy recommendations can help the planers to develop sound economic policies for the service sector, at can be considered as a stepping stone towards a further in depth study on the trade in services.

EXECUTIVE SUMMARY

Together with many other developing nations, Thailand is opening up to international trade and investment. Foreign trade and investment in various sectors have increased rapidly in recent years. Despite a rapid expansion and massive development seen recently in the service sector, each service industry faces different problems. This study has applied merchandise trade theories to traded services when investigating the industry and drawn the conclusions and policy recommendations. A summary of the major findings are as follows:

1. Present Situation of Selected Service Industries

In recent years Thailand's service industry has become well developed. Each business within that industry, however, displays different characteristics, issues, and developmental stages. Some service industries are particularly attractive to foreign investors, such as the construction, while these investors are excluded by laws and regulation from the other industries, such as banking and insurance. The difference may be concluded as follows:

1.1 Tourism

Tourism in Thailand shows the fastest growth in the service sector, and has become the major source of foreign exchange earnings. Its income grew at rate of 34 percent per year during 1986-1988, and its sectoral share increased from 40.8 percent in 1980 to 51.4 percent in 1988. The factors which significantly affected the pattern of comparative advantage in tourism were factor endowment and scale variables.

Tourism's rapid expansion has attracted many foreign investors to invest in this industry, particularly in the hotel business and tour companies. The only restriction imposed is that foreigners can not hold more than a 49 percent share in the company. Hotel and tour companies wholly owned by Thais cannot compete with these foreign companies due to limited capital and their capacity to handle large tour groups. A governmental policy to further promote the industry, i.e., the ease in emigration regulations, and improve the traffic situation in Bangkok will certainly help to stimulate the growth of tourism.

1.2 Transportation

Thailand shows a large deficit in maritime shipping, since about 90 percent of Thailand's exports and imports are carried on foreign vessels. This is partly due to a weak Thai mercantile fleet both in terms of number and speed of vessels, as well as a lack of technology and management skills. At present, the government permits more

foreign shipping companies to operate in Thailand by restricting foreign investors to holding not more than 49 percent of the total share of Thai shipping companies. The transportation industry also has insufficient infrastructure problems. The factors determining the pattern of comparative advantage in these industries are the scale and trade ratio variables.

Thailand shows a surplus in passenger fares due partly to the rise in tourism and also an increase in the transportation of horticultural, fresh and frozen exports. This freight pattern is moving towards an increasing utilization of air freight. The Thai International Airways monopolizes all domestic flights. However, air transportation is faced with the problems of insufficient planes and facilities, as well as small airports.

1.3 Banking

All commercial banking acts impose the same regulations on both Thai commercial banks and branches of foreign bank in Thailand, with the exception of branch establishment and the percentage of Thai commercial bank's shareholdings by foreigners. The amount of shares of a commercial bank held by foreigners must not exceed 49 percent of the total amount of shares sold. There is no restriction on Thai commercial banks in establishing new branches, but the government allows foreign banks only one office in Thailand. As a result, Thai commercial banks dominate the Thai financial system. Commercial banking in Thailand has developed toward a full electronic banking practices, and both on-line and off-line systems are widely used. However, even though rural and offshore banks were included in the national economic and social development plans, there is as yet no signs of the development of such financial institutions. Despite its domination of all financial activities in Thailand, the government still intends to provide protection to Thai commercial banks. The financial system of Thailand is a few steps behind those of Singapore, and the hope of replacing Singapore as a financial center for the region is not likely to be true in the near future.

1.4 Labor Services

Thailand has a large surplus in remittances from unskilled and semi-skilled labor working abroad. The major countries employing Thai labor are Singapore and countries in the Middle East. Most Thai migrant labor work on construction sites due the relatively high productivity. The labor migration is a result of the low wage rates in Thailand which encourage Thai workers to seek higher wages in foreign countries. This migrant labor has very little effect on present domestic employment, largely due to the relatively abundant supply. But these workers do face some problems abroad such as illegal work permits and adaptation to local culture.

THAILAND'S TRADE IN SERVICE

1. INTRODUCTION

1.1 Background and Justification

The service sector is one of the most important sectors in the Thai economy in terms of having a high share in the Gross Domestic Product (GDP) and in international transactions. In the context of domestic activities and broadly defined^{1/}, the service sector has accounted for more than 50 percent of the GDP since 1970 and its share has been increasing (see Table 1.1). According to Table 1.2, the total value added of the service sector increased from 84,285 million baht in 1970 to 256,014 million baht in 1987, to which wholesale and retail trade alone contributed about 30 percent. Transportation had the second highest share at 10 percent it was followed by ownership of dwellings and restaurants, each of which contributed 7 percent of service-sector value added. The overall high share of the service sector came from its high growth rates; indeed, in 1988, almost all service-sector industries (except ownership of dwellings (6.6%), public administration and defense (3.8%) and other services (9.5%)) had growth rates higher than 10 percent (Table 1.3). Table 1.4 presents the sectoral share of the GDP, for which the service sector has the highest and increasing norms. Thailand is one of only a few countries where the GDP share of services is higher than 50 percent: others are Singapore (62.9%) and Fiji (55.8%). Furthermore, the services sector has absorbed most of the labor migrating from the agricultural sector. Table 1.5 shows that the share of persons employed by agriculture decreased from 79.2 percent of the total labor force in 1971 to 68.4 percent in 1985, while the percentage share of persons employed by the service sector increased from 16.7 percent to 23.3 percent in the same period. At the same time, the share of mining and manufacturing remained about the same, which implies minimal labor absorption.

In addition to being a major source of income and employment, the service sector has also been a major source of foreign exchange earnings for Thailand. The share of traded services in GDP increased from 14.5 percentage points in 1980 to 29.2 percent in 1988, due to its high growth rates. These high growth rates also resulted in the high proportion of traded services compared to merchandise traded, which has not been below 33 percent since 1980 (Table 1.6). Despite its high and increasing share in GDP and total exports, traded services in the Thailand's Balance of Payments is faced with deficits (Table 1.7), due primarily to large deficits in investment income, transportation, and insurance. The present restrictions on

^{1/}

The service sector includes Construction, Utilities, Transportation and Communication, Wholesale and Retail Trade, Banking, Insurance and Real-Estate, Ownership of Dwellings, Public Administration and Defense, and Other Services.

On the payment side, most foreigners working in Thailand are academics, professionals, and executive managers, which again do not affect employment opportunities for Thais. This is due to their relatively small numbers and their special skills which are required by foreign firms. Therefore, the income payment of the labor service sector is small compared to the receipts, and a surplus balance from labor services continues remaining.

1.5 Insurance

Thailand at present faces a deficit balance in insurance, since Thai insurance companies occupy a relatively low market share. There are approximately 80 insurance companies operating in Thailand, of which 75 companies are classified as Thai companies. Despite their small numbers (only five companies), foreign insurance companies have the highest market share. This is because most of them are large companies with high capital formation and the capacity to take on high risk cases. On the other hand, most Thai companies are small and cannot take high risks. The Thai government at present does not allow the establishment of any new, either Thai or foreign, insurance companies. In this case Thailand will continue to show deficit balance in insurance.

1.6 Telecommunication

The telecommunication industry is relatively new to Thailand, and is under the control of state enterprise. However, the government imposes no restriction on foreign companies selling telecommunication equipment. The industry has a high potential if its infrastructure is improved and certain restrictions on utilization are eliminated.

2. POLICY APPLICATION AND ISSUES

Free trade in services was proposed during the GATT meeting at Uruguay, which led to a great deal of discussion on numerous controversial issues. For Thailand, increasing the welfare and competitiveness the policies should be recommended as follows.

2.1 Tourism

Thailand will gain by imposing a restricted policy for its tourism industry, particularly the hotel and restaurant business. Because this industry is classified as service category of mobile consumers and immobile producers. However, certain joint ventures may be permitted to stimulate the industry, and there should be no restrictions imposed on foreigners coming to Thailand. The infrastructure related to tourism should also be improved such as the accident rate, traffic congestion, taxi and bus systems.

2.2 Transportation

Trade liberalization policies for maritime transportation are also desirable for Thailand, in the short run, since the Thai maritime mercantile fleet is underdeveloped. Other long-term special measures and policies should be adopted to promote Thai fleets to become strong feeder in the route in Asia such as Singapore route. Joint ventures between Thai and foreign companies are perhaps the best solution for the development of both Thailand's maritime and air freight services. The recent improvement in airport facilities and the free trade policy on air passenger services will continue to keep Bangkok at the forefront of aviation in this region. However, the construction of new passenger and freight airports in the Provinces are essential if Thailand wishes to remain the regional center for international aviation.

2.3 Banking

A free trade policy for the commercial banking system cannot make Thailand become a financial center for the region by overtaking Singapore, since the Thai financial system lags a few steps behind that of the Singaporeans. Electronic banking is rapidly expanding and moving towards full utilization, but offshore banking has yet to be developed. A vast improvement in basic infrastructure may help to stimulate the growth of the financial system. In short run, a restricted policy is desirable.

2.4 Labor Services

The liberal policy for outgoing workers is desirable, but measures to protect Thai workers in foreign countries cannot be ignored. The restrictions imposed on foreign workers coming to Thailand are necessary with the exception of highly skilled workers and executive personnel which are at present in short supply in this country.

2.5 Insurance

The restriction policy on the insurance industry is necessary to protect the consumers. Some special policies and measures may be necessary in order to promote the industry. Joint venture seems to be a important one in the short-term.

2.6 Telecommunication

The telecommunications industry should not controlled by any government enterprise in order to enhance its scope. A free trade policy in this instance is desirable.

Table 1.1 : Share in Gross Domestic Product by Industrial Origin, 1970-1988.

Unit : Percentage

	1970-75	1976-80	1981	1982	1983	1984	1985	1986	1987	1988
Agriculture	26.1	24.6	21.4	19.1	20.4	18	16.7	16.5	16.1	16.9
Crops	17	16.1	13.9	12.2	13.3	11.6	10.4	9.9	9.8	11.2
Livestock	2.5	2.3	2.1	1.7	2.1	1.7	1.5	1.8	1.8	1.7
Fisheries	1.8	1.7	1.4	1.3	1.4	1.2	1.3	1.4	1.2	1
Forestry	1.6	1.5	1.3	1.1	1	0.9	0.9	0.8	0.7	0.6
Agricultural Services	0.9	0.9	0.9	0.9	0.7	0.7	0.7	0.6	0.6	0.5
Simple Agricultural										
Processing Product	2.3	2.1	1.9	2	2	1.8	2	2	1.9	1.8
Mining and Quarrying	2.6	3.1	2.8	3.1	2.9	3.4	4	3.1	3.1	3
Manufacturing	18.1	20.4	22.3	21.5	21.4	22.4	22.1	23.3	13.9	24.4
Construction	4.5	4.9	5	5.1	5.3	5.8	5.6	5.2	5.1	5.1
Electricity and Water Supply	1.2	1.1	1.4	1.9	1.9	1.9	2.3	2.6	2.6	2.6
Transportation and Communication	6	5.8	6	6.8	6.7	7.1	7.7	7.8	7.5	7.3
Wholesale and Retail Trade	18	17.8	8.1	7.5	16.2	15.9	15.1	15.5	15.6	15.8
Banking Insurance and Real Estate	2.6	2.8	3	3.2	3.4	3.5	3.5	3.4	3.9	4.1
Ownerships of Dwellings	5.2	3.8	3.4	3.6	3.7	3.8	4.1	4.1	4	3.6
Public Administration and Defense	4.4	4.2	4.4	4.8	4.9	4.6	4.8	4.6	4.3	3.8
Other Services	11.3	11.5	12.1	13.3	13.3	13.5	14.1	13.8	13.9	13.4
GDP	100	100	100	100	100	100	100	100	100	100

Source: NESDB, National Income of Thailand (New Series).

Table 1.2 : Value Added of Services by Industry of Origin and Its Share at 1972 Prices.

Unit : Millions of Baht
: Percentage

	1970		1975		1980		1985		1987	
	Value	Share	Value	Share	Value	Share	Value	Share	Value	Share
Construction	8,233	9.77	7,625	7.01	13,478	8.18	16,635	7.42	17,342	6.77
Electricity	1,331	1.58	2,788	2.56	4,948	3.00	8,686	3.87	11,194	4.37
Water supply	292	0.35	475	0.44	960	0.58	1,268	0.57	1,335	0.52
Transportation	9,321	11.06	11,199	10.30	17,253	10.47	22,964	10.24	26,104	10.20
Communication	731	0.87	1,246	1.15	2,792	1.69	5,207	2.32	6,599	2.58
Wholesale and Retail Trade	27,074	32.12	34,860	32.05	50,677	30.75	64,162	28.62	75,594	29.53
Banking	3,232	3.83	4,525	4.16	6,553	3.98	9,157	4.08	10,254	4.01
Insurance and Real Estate	614	0.73	779	0.72	1,733	1.05	2,615	1.17	2,996	1.17
Ownership of Dwellings	8,708	10.33	11,235	10.33	14,289	8.67	17,357	7.74	18,833	7.36
Public Administration and Defense	8,895	8.18	9,694	8.91	15,437	9.37	21,358	9.53	22,886	8.94
Education	3,701	4.39	6,195	5.70	10,902	6.62	17,006	7.58	18,974	7.41
Medical and Health	1,499	1.78	2,314	2.13	3,953	2.40	6,829	3.05	7,532	2.94
Recreation and Entertainment	1,565	1.86	2,197	2.13	2,933	1.78	3,942	1.76	4,766	1.86
Hotels	1,182	1.40	1,874	1.72	1,976	1.20	2,940	1.31	3,933	1.54
Restaurants	6,831	8.10	7,706	7.09	11,064	6.71	15,425	6.88	18,471	7.21
Personal Services	1,137	1.35	1,336	1.23	1,621	0.98	2,421	1.08	2,458	0.96
Domestic	544	0.65	628	0.58	735	0.45	1,179	0.53	1,442	0.56
Business Services	452	0.54	586	0.54	965	0.59	1,363	0.61	1,499	0.59
Non - Profit	36	0.04	46	0.04	69	0.04	91	0.04	99	0.04
Repair	907	1.08	1,448	1.33	2,463	1.49	3,625	1.62	3,703	1.45
Total Value Added	84,285	100	108,756	100	164,801	100	224,210	100	256,014	100
Gross Domestic Product, (GDP)	155,694		204,428		299,472		394,133		441,893	

Source: NESDB, National Income of Thailand, 1970-1988 (New Series).

Table 1.3 : Growth Rates at 1972 Prices, 1971-1988.

Unit : Percentage

Industrial Origin	1971	1972	1983	1974	1975	1976	1977	1978	1979
Agriculture	4.31	(1.70)	9.44	2.92	4.37	6.04	2.30	12.47	(1.83)
Crops	3.65	(3.29)	14.31	1.65	4.76	6.61	(2.72)	17.00	(2.08)
Livestock	4.02	3.26	(0.43)	8.93	5.63	9.77	10.86	12.36	4.84
Fisheries	2.69	6.42	(5.83)	(0.75)	5.72	(1.83)	23.99	(4.68)	(17.65)
Forestry	5.22	(7.62)	0.38	13.87	(2.78)	6.21	(6.30)	(9.40)	14.54
Agricultural Services	6.41	6.45	15.60	5.35	5.89	5.21	8.35	8.64	(9.65)
Simple Agricultural Processing Products	9.04	(1.50)	5.15	0.92	3.44	4.11	16.04	11.00	(1.27)
Mining and Quarrying	7.61	(0.08)	(5.33)	4.02	(9.55)	18.53	22.12	20.46	3.44
Manufacturing	11.07	13.24	15.74	6.18	5.80	15.32	14.30	8.73	8.27
Construction	1.30	(4.47)	(2.18)	(5.95)	4.04	22.68	19.32	16.81	(1.40)
Electricity and Water Supply	20.58	16.91	16.74	6.93	14.25	12.29	15.67	15.01	10.30
Transportation and Communication	2.12	4.34	8.88	6.59	0.11	6.11	10.59	7.62	14.09
Wholesale and Retail Trade	(0.30)	2.69	13.36	6.19	4.47	8.66	10.79	8.63	2.60
Banking, Insurance and Real Estate	9.41	1.78	13.92	8.36	0.32	6.22	11.87	18.47	8.89
Ownership of Dwellings	4.55	5.21	5.76	5.71	4.92	4.61	4.99	4.91	5.56
Public Administration and Defence	6.48	7.33	9.01	2.24	10.38	9.28	10.17	5.15	15.10
Services	5.84	8.07	6.39	3.33	8.37	5.83	11.13	11.29	11.02
Gross Domestic Product (GDP)	4.96	4.07	9.86	4.35	4.85	9.38	9.90	10.44	5.31
Plus: Net Factor Income Payment From The Rest of The World	(170.74)	176.82	(8.05)	(158.93)	0.61	(218.07)	53.32	194.01	57.22
Gross National Product	4.58	3.84	9.92	4.48	4.83	9.01	9.82	9.99	4.97
Per Capita GNP (Baht)	1.89	1.14	7.13	2.20	2.23	6.21	7.10	7.36	2.57

Table 1.3 : Continued

	Unit : Percentage								
Industrial Origin	1980	1981	1982	1983	1984	1985	1986	1986	1988
Agriculture	1.72	5.38	3.06	4.44	5.59	6.17	0.24	(1.98)	8.56
Crops	2.69	5.78	2.92	5.72	6.52	5.83	(4.57)	(4.57)	12.35
Livestock	1.69	2.25	7.18	3.51	5.99	7.25	16.88	5.73	5.94
Fisheries	(5.76)	26.54	(5.83)	7.02	(0.85)	3.30	8.62	(3.14)	(0.21)
Forestry	(12.80)	(10.92)	(4.99)	(0.95)	(0.14)	(3.11)	8.69	(5.85)	(4.56)
Agricultural Services	3.33	8.92	(0.45)	(15.15)	9.55	6.00	(5.17)	(1.31)	4.33
Simple Agricultural Processing Products	6.22	1.60	8.65	4.80	3.45	14.58	6.18	3.83	1.30
Mining and Quarrying	2.94	(3.52)	5.75	(1.10)	19.37	3.84	(1.98)	7.26	13.53
Manufacturing	2.88	6.29	2.54	8.40	6.76	(0.61)	9.63	13.56	12.45
Construction	4.85	6.08	(0.67)	11.16	11.15	(5.20)	(2.87)	8.13	13.71
Electricity and Water Supply	9.90	11.56	14.52	9.34	9.33	10.10	12.36	8.95	13.37
Transportation and Communication	11.78	2.97	10.03	8.04	10.34	4.05	7.17	8.31	10.82
Wholesale and Retail Trade	8.33	8.72	(1.07)	5.70	7.74	3.36	4.50	11.45	13.22
Banking, Insurance and Real Estate	1.91	0.81	9.64	14.92	9.60	2.06	1.99	27.04	18.41
Ownership of Dwellings	4.57	4.48	3.76	3.67	3.67	4.25	3.86	5.24	6.56
Public Administration and Defence	9.29	8.97	5.93	12.81	(0.72)	7.01	3.15	2.96	3.82
Services	3.75	8.80	10.15	8.52	7.75	6.65	4.81	10.36	9.48
Gross Domestic Product (GDP)	4.79	6.33	4.06	7.25	7.13	3.51	4.49	8.39	10.98
Plus: Net Factor Income Payment From The Rest of The World	(49.46)	(74.86)	875.64	(68.76)	174.54	68.08	32.00	(1.60)	7.26
Gross National Product	5.32	6.72	3.10	8.05	6.62	3.01	4.14	6.55	11.08
Per Capita GNP (Baht)	2.97	3.46	1.92	5.90	4.55	1.09	2.22	-	9.18

Source: National Income of Thailand (New Series), Table 2.

Table 1.4 : Sectoral Share of GDP

Unit : Percentage

Country	Agriculture			Industry			Services		
	1970	1980	1988	1970	1980	1988	1970	1980	1988
Newly Industrializing Economie									
Korea, Rep. of	30.6	14.6	11.2	26	41.3	47.2	43.4	44.1	41.6
Singapore	2.3	1.1	0.4	29.8	38.8	36.7	67.8	68	82.9
Taipei, China	17.7	7.8	4.7	40.9	50.6	46.8	41.4	41.6	48.5
Southeast Asia									
Indonesia	46	30.7	23.1	20.9	30.9	36.8	33.1	38.4	40.1
Lao	-	59.8	50.8	-	9	9.4	-	31.2	39.8
Malaysia	-	22.9	21.2	-	35.8	39.7	-	41.3	39.1
The Philippines	28.8	25.6	27.3	29.4	36.1	32.7	41.8	38.3	40
Thailand	30.2	20.6	16.9	25.7	30.8	32.2	44.1	48.6	50.9
Viet Nam	-	-	39.2	-	-	29.6	-	-	31.3
South Asia									
Bangladesh	-	49.4	42.5	-	14.8	16.6	-	35.8	40.9
Burma	38.3	37.2	37.2	14.7	15.2	15.3	47	47.6	47.5
India	47.4	38	30.3	21.7	25.9	30.2	30.9	36.1	39.5
Nepal	-	58.8	58.5	-	41.2	41.5	-	-	-
Pakistan	38.9	30.6	24.5	22.7	26.6	29.6	38.4	43.8	45.9
Sri Lanka	31.8	26.5	21.9	16	27.4	29.2	52.2	46.1	48.9
South Pacific									
Fiji	26.8	22.5	25.3	19.8	21.7	18.9	53.4	55.8	55.8
Norm	22.59	25.83	25.1	17.84	26.93	30.06	32.91	40.58	44.8

Source: Asian Development Outlook 1989, Table A5; Page 182.

Table 1.5 : Share of Persons Employed by Industry.

Unit : Percent

Year	Agriculture	Mining	Manufacturing	Services
1971	79.2	0.1	4	16.7
1972	72.2	0.7	7.7	19.4
1973	72	0.6	7	20.4
1974	69.8	0.3	7.4	22.5
1975	73	0.1	7.5	19.4
1976	75.8	0.2	6.2	17.8
1977	73.5	0.3	6.6	19.6
1978	73.7	0.1	6.8	19.4
1979	70.7	0.2	8.1	21
1980	70.8	0.2	7.9	21.1
1981	71.9	0.3	7.2	20.6
1982	68.4	0.3	8.1	23.2
1983	69.1	0.2	7.3	23.4
1984	69.7	0.5	7.6	22.2
1985	68.4	0.3	8	23.3
1986	66.7	0.2	7.7	25.4
1987	64.4	0.2	8.8	26.6

Source: Report from The Labour Force Survey, Whole Kingdom (Round 2) July-Sep. 1983 and (Round 3) July-Sep. 1984, National Statistical Office, Office of The Prime Minister.

Table 1.6 : Growth Rates and Shares of Traded Services
In Total Exports and GDP.

Unit : Percentage

Year	Growth Rates		Proportion Of Traded Services To Merchandise	Share in GDP
	Service	Exports		
1980	-	-	32.9	14.5
1981	18.1	13.79	34.2	16.1
1982	15.3	4.66	37.7	17.9
1983	13.3	-7.71	46.2	18.9
1984	8.3	19.61	41.9	19.1
1985	18.1	10.48	44.8	21.7
1986	2.1	20.75	38.2	21.3
1987	22.3	28.78	36.1	24.0
1988	34.8	33.83	36.2	29.2

Source: Bank of Thailand, (Calculated From Tables
in Various Issues).

Table 1.7 : Balance of Traded Services, 1979-1988.

	1979			1980			1981			1982			1983			1984		
	Credit	Debit	Net	Credit	Debit	Net	Credit	Debit	Net	Credit	Debit	Net	Credit	Debit	Net	Credit	Debit	Net
Total	29,163.6	40,468.4	(11,305)	43,528.8	50,792.2	(7,263)	51,399.0	66,762.8	(15,364)	59,269.0	69,808.0	(10,539)	67,136.6	73,993.1	(6,857)	72,741.6	81,773.8	(9,032)
Freight and Insurance	2,593.6	16,621.5	(14,028)	3,859.5	21,027.1	(17,168)	4,791.1	24,565.8	(19,775)	5,047.4	22,850.4	(17,783)	5,961.4	26,312.4	(20,351)	7,059.9	27,921.9	(20,862)
Freight	2,480.8	15,019.6	(12,539)	3,714.9	19,032.4	(15,318)	4,547.6	22,267.9	(17,720)	4,845.2	20,754.1	(15,909)	5,766.4	23,827.4	(18,061)	6,810.2	25,384.5	(18,574)
Insurance	132.8	1,601.9	(1,469)	154.6	1,994.7	(1,840)	243.5	2,297.9	(2,054)	202.2	2,076.3	(1,874)	195.0	2,485.0	(2,280)	249.7	2,537.4	(2,288)
Other Transportation	2,200.3	1,635.9	564	2,408.7	2,070.7	339	2,121.7	2,182.9	(61)	3,293.5	2,282.3	1,011	3,594.7	3,060.6	534	4,018.7	2,746.9	1,272
Passenger Fares	1,009.2	983.3	26	1,006.2	1,370.8	(365)	816.2	1,371.8	(556)	1,301.5	1,614.2	(313)	607.7	2,252.8	(1,645)	814.2	2,153.4	(1,339)
Port Disbursements	1,040.6	263.2	777	1,248.0	347.6	900	1,179.0	550.6	628	1,828.5	563.9	1,265	2,803.2	759.6	2,044	2,938.1	528.8	2,409
Other	150.5	389.4	(239)	155.5	352.3	(197)	126.5	260.5	(134)	193.5	104.2	59	183.8	48.2	136	266.4	64.7	202
Travel	11,232.1	4,647.9	6,584	17,765.4	4,988.9	12,777	21,455.6	6,027.3	15,428	23,878.8	6,151.1	17,728	25,050.2	7,885.9	17,154	27,317.4	7,290.5	20,027
Investment Income	4,218.8	13,323.9	(9,105)	5,316.2	17,001.6	(11,685)	5,778.9	26,505.7	(20,727)	5,641.5	30,624.2	(24,983)	5,226.6	29,159.1	(23,933)	5,210.9	35,429.9	(30,219)
Interest	3,803.5	11,312.9	(7,509)	4,921.9	14,952.5	(10,031)	5,345.4	22,036.4	(17,481)	5,127.7	25,294.3	(20,167)	4,837.6	23,974.5	(19,137)	5,076.0	28,508.3	(23,432)
- Private	328.2	7,821.2	(7,493)	1,056.8	8,725.1	(7,669)	1,586.3	12,060.3	(10,474)	1,516.7	10,631.2	(9,115)	1,555.8	9,574.6	(8,019)	1,589.3	12,303.4	(10,714)
- Public (Including Commitment Charges)	3,475.3	3,491.7	(16)	3,865.1	6,226.4	(2,361)	3,759.1	10,776.1	(7,017)	3,611.0	14,663.1	(11,052)	3,281.8	14,399.9	(11,118)	3,486.7	16,204.9	(12,718)
Profit Dividends & Other	415.3	2,011.0	(1,596)	394.3	2,049.1	(1,655)	433.5	3,669.3	(3,236)	513.8	5,329.9	(4,816)	389.0	5,185.4	(4,786)	334.9	6,921.6	(6,787)
Government, U.I.E.	1,706.5	563.8	1,143	2,529.2	734.1	1,795	2,297.6	1,608.8	689	2,300.3	1,568.5	732	2,595.8	1,461.0	1,135	2,532.2	1,230.0	1,302
Other Services	7,212.3	3,675.4	3,537	11,638.8	4,969.8	6,669	14,954.1	5,872.3	9,082	19,107.5	6,357.5	12,756	24,707.9	6,103.3	18,605	26,602.5	7,154.6	19,448
Labor Income	3,818.3	339.2	3,479	7,703.0	650.7	7,052	10,428.3	758.3	9,670	14,221.7	1,073.5	13,148	19,457.3	930.8	18,527	21,117.7	1,265.9	19,852
Premium on Direct Insurance	33.4	87.5	(54)	41.6	126.5	(85)	52.9	111.9	(59)	42.2	145.4	(103)	61.3	127.7	(66)	33.6	145.4	(112)
Claims on Direct Insurance	8.9	0.0	9	56.1	0.3	56	62.6	0.0	63	32.7	0.0	33	26.6	0.0	27	51.4	0.0	51
Premium on Reinsurance	95.2	238.1	(173)	45.7	335.5	(290)	54.5	379.7	(325)	54.1	539.8	(486)	59.4	564.4	(505)	70.4	597.3	(527)
Claims on Reinsurance	40.2	0.0	40	118.5	0.2	118	77.9	0.0	78	232.2	0.0	223	138.5	0.0	139	84.9	0.0	85
Management Fees	1.4	185.0	(184)	1.2	145.5	(144)	12.0	185.6	(174)	7.2	982.8	(976)	20.5	523.1	(503)	11.5	832.1	(821)
Agent Fees	221.5	115.5	106	611.9	156.3	456	675.9	187.0	489	676.5	229.8	447	658.2	185.5	473	644.7	231.0	414
Construction Activity	2.7	102.0	(99)	13.0	88.6	(76)	42.9	108.6	(66)	51.4	196.2	(145)	154.8	307.0	(162)	350.6	106.6	244
Advertising	62.4	25.6	37	83.1	34.5	49	127.2	43.2	84	179.6	52.6	127	192.1	78.4	114	165.4	81.3	84
Copyright & Patent Royalties	0.4	456.9	(457)	10.2	610.4	(600)	0.3	805.6	(806)	3.7	853.3	(856)	1.4	999.7	(998)	1.5	1,161.3	(1,160)
Other	2,957.9	2,125.6	832	2,894.5	2,821.3	133	3,419.8	3,292.4	127	3,615.2	2,287.9	1,317	3,937.8	2,366.7	1,551	4,070.8	2,733.7	1,337

Table 1.7 : Balance of Traded Services, 1979-1988. (cont.)

Unit : Millions of Baht

	1985			1986			1987			1988		
	Credit	Debit	Net	Credit	Debit	Net	Credit	Debit	Net	Credit	Debit	Net
Total	85,879.6	95,510.5	(9,631)	87,664.5	96,377.9	(8,713)	107,187.1	111,451.4	(4,264)	149,088.7	145,967.9	3,121
Freight and Insurance	9,237.6	29,254.3	(20,017)	9,026.1	28,326.0	(19,300)	10,049.6	38,112.6	(28,063)	11,602.4	57,381.8	(45,779)
Freight	8,972.3	26,620.4	(17,648)	8,882.9	25,778.6	(16,896)	9,907.5	34,589.8	(24,682)	11,449.7	52,199.2	(40,750)
Insurance	265.3	2,633.9	(2,369)	143.2	2,547.4	(2,404)	142.1	3,522.8	(3,381)	152.7	5,182.7	(5,030)
Other Transportation	3,579.5	3,531.8	48	2,953.8	3,320.6	(367)	8,444.8	3,781.4	4,663	12,681.7	4,401.2	8,281
Passenger Fares	814.7	2,136.5	(1,322)	355.8	2,337.3	(1,982)	5,846.1	2,950.8	2,895	9,333.7	3,764.8	5,569
Port Disbursements	2,089.1	1,280.0	809	1,900.3	898.9	1,001	1,538.9	737.5	801	2,922.1	517.5	2,405
Other	675.7	115.3	560	697.7	84.4	613	1,059.8	93.1	967	425.9	118.9	307
Travel	31,767.9	7,621.8	24,146	37,321.0	7,798.3	29,523	50,023.9	9,902.3	40,122	78,859.0	15,208.8	63,650
Investment Income	6,655.0	44,828.4	(38,173)	6,210.9	47,047.2	(40,836)	6,638.1	48,086.9	(41,448)	9,314.4	53,051.8	(43,737)
Interest	6,386.2	34,038.4	(27,652)	5,862.1	35,500.1	(29,638)	6,478.9	35,557.2	(29,078)	8,889.6	36,219.8	(27,330)
- Privates	1,876.3	14,524.5	(12,648)	2,144.4	11,914.5	(9,770)	2,193.6	10,329.1	(8,136)	1,729.4	9,775.0	(8,046)
- Public (Including Commitment Charges)	4,509.9	19,513.9	(15,004)	3,717.7	23,585.6	(19,868)	4,285.3	25,228.1	(20,943)	7,140.2	26,444.8	(19,305)
Profit Dividends & Others	268.8	10,790.0	(10,521)	348.8	11,547.1	(11,198)	159.2	12,529.7	(12,371)	444.8	16,832.0	(16,387)
Government, M.I.E.	3,888.7	1,948.2	1,941	2,995.2	1,725.4	1,270	3,192.7	2,689.1	504	3,279.3	2,338.1	941
Other Services	30,750.9	8,326.0	22,425	29,157.5	8,360.4	20,797	28,838.0	8,879.1	19,959	33,351.9	13,586.2	19,766
Labor Income	23,795.8	1,859.0	21,937	20,899.8	1,549.9	19,350	21,596.0	1,499.1	20,097	23,412.9	2,261.7	21,151
Premium on Direct Insurance	60.3	264.4	(204)	50.6	358.1	(308)	80.9	293.0	(212)	62.8	291.9	(229)
Claims on Direct Insurance	19.5	21.6	(2)	18.0	14.8	3	13.6	15.3	(2)	49.9	14.6	35
Premium on Reinsurance	52.8	651.6	(599)	60.2	813.9	(754)	45.8	1,125.1	(1,079)	54.3	1,056.4	(1,002)
Claims on Reinsurance	72.3	0.4	72	13.4	0.0	13	1.9	0.0	2	31.2	0.0	31
Management Fees	16.8	808.0	(791)	5.9	831.6	(826)	22.3	929.4	(907)	18.1	543.4	(525)
Agent Fees	789.9	344.0	446	786.3	286.8	500	1,054.3	543.6	511	1,376.2	849.8	526
Construction Activity	124.6	99.8	25	565.8	1.0	565	687.3	59.7	628	590.6	173.0	418
Advertising	258.2	133.8	124	278.1	121.6	157	267.0	185.6	81	218.1	237.3	(19)
Copyright & Patent Royalties	1.2	1,237.8	(1,237)	4.7	1,250.2	(1,246)	2.3	1,453.5	(1,451)	8.3	2,402.6	(2,394)
Other	5,559.5	2,905.6	2,654	6,474.7	3,132.5	3,342	5,060.6	2,774.8	2,292	7,529.5	4,994.5	2,535

Source: Bank of Thailand, Balance of Budgeting Section.

merchandise traded internationally will keep the proportion of services-to-merchandise-traded at about the same, or even higher since the possibility of export expansion has recently become less promising. By applying appropriate policies, the position of traded services can be improved or even become a surplus and compensate for the expected slowdown in merchandise exports due to the widespread protectionism in present international trade.

Even though Thailand's traded services have become more important both domestically and internationally, only a few studies on this sector have been conducted. The latest study entitled "The Role of Services in the Development of the Thai economy" was carried out by Yongkittikul, Wiboonchutikul, and Meenaphant (1989), and examined some of the outstanding features of Thailand's service sector, emphasizing interlinkages, relationships, supply conditions, barriers, and the regulation of services in the domestic and international context.

The study showed that the service sector was a major contributor to Thailand's GDP and employed a sizable percentage of the labor force. The domestic production of services, provided by both the private and public sectors, has grown rapidly, since the 1980s, despite widespread international trade protectionism. From an analysis of the 1975 and 1980 Input-Output tables, traded service industries had the highest linkages, and forward linkages were higher than their backward linkages. However, the trade in services is faced with numerous trade barriers, most of which are nontariff and obstruct either the sales volume or the mobility of production. As the study was only concerned with issues and problems at the macro level, did not provide sufficient detailed information to make policy recommendations.

A subsectoral study for service sector industries is found to be more suitable, since the industry's characteristics vary widely, even within each service.

The present study, therefore, was designed at a subsectoral level to emphasize the salient features of selected service industries, including transportation, banking, telecommunications, insurance, tourism, and labor services. Due to the time constraints, the study will not include only the in-depth studies of transportation, banking, tourism and labor services. Transportation is the largest industry in this sector, with a 10 percent share in value added. The industry includes land, ocean, and air transportation, each of which has different characteristics, and require separate policies. Overall, despite the low shares in the sector's value added receipts, the selected service industries have had high growth rates and the potential to become one of the major industries in the Thai economy.

1.2 Objectives

The general aims of this study were to analyze the role of traded services in the Thai economy and how to keep Thailand competitive in this sector. The specific objectives were as follows:

1. To investigate the salient features of selected industries with in the service sector.
2. To discuss the changing patterns and direction of trade in services by analyzing growth and distribution.
3. To identify both the economic and institutional factors that determine the pattern of traded services.
4. To evaluate rules, regulations, and other barriers that directly or indirectly affect present trade in services.
5. To assess the comparative advantage of the selected traded service industries.
6. To recommend policies and strategies or increasing competitiveness in selected trade in services.

1.3 Methodology

1.3.1 Theoretical and Conceptual Framework

International trade theory is mainly concerned with determining the trade patterns for goods and services bought and sold by trading countries. Merchandise trade theory recommends free trade or trade liberalization policies to improve welfare and leads to a factor-price equalization for the trading countries, except where:

- o Complete specialization exists;
- o Economies of scale exist;
- o There are market impositions, particularly tariff and non-tariff barriers; and
- o Factor-intensity reversals are present.

This theoretical framework was applied to the study by carefully evaluating the individual and characteristics of the selected service industries, before making policy recommendations. The traded services which display the same characteristics as merchandise trade, free trade, or liberalized trade policies were noted, and similarly those which have different characteristics were also listed. To do this, a conceptual definition of services was carried out.

Several scholars have provided various conceptual definitions of services but the definition given by Bhagwati was found to be the most compatible and useful for studying international trade in services. Bhagwati's definition is based primarily on the characteristics of production and consumption with respect to the mobility of service producers and users. Under this definition, services are either stable and divisible. The services were therefore classified into two broad major groups.

1. Service which do not require the physical proximity of the provider and the user. These are categorized "immobile provider" and "immobile user" and the services can be transmitted over long-distances. In other words, the services can be bought and sold without requiring the presence of either the provider and the user, for example insurance, electronic banking, data transmission, and correspondence courses in education. With the advanced technology of telecommunications and information transfer, the scope of long distance service transactions has increased and become more essential. However, even in these cases the physical proximity of the user and producer may improve efficiency and lead to lower services costs.

This first group of traded services is of the same nature as merchandise trade, and a liberal trading policy is desirable. In a second group, services fall into the categories of immediate needs, and of "immobile" users and "mobile" providers," and trade liberalization should also be adopted. A restricted trade policy should only be adopted when service applies to the category of "immobile" providers and "mobile" users.

2. Services which generally require the physical proximity of the user and producer, are included in the following categories.
 - o Consumer services for immediate needs. This category of services is less specialized in nature. However, the provider has more mobility and more opportunities, since the provision of these services requires relatively little investment in equipment and infrastructure. The services include haircutting, dressmaking, vending and lecturing services, etc.
 - o Services with an immobile user and a mobile provider. This category can involve either consumer or producer services and is more specialized than the first category. In this category of trade is feasibly only when the provider goes to the user's location, for example; construction, farming, mineral exploration, house repair, domestic services.

- o Services with an immobile provider and a mobile user. This class is generally of consumer services, which can range from low to very highly specialized service activities requiring huge investments. This class of services can include those in the first service category, since most of service providers tend to establish shops or offices such as grocery stores, hospitals, barber shops, beauty shops, tailor shops, restaurants, hotels, banks, and colleges. In this case, trade in services is only possible when the user can travel to the provider's locations. For example, a patient must go to a hospital for heart surgery, because it is a specialized service that can only be performed in that location. facility/laboratory.

1.3.2 The pattern of trade in services

Sapir and Lutz (1981)/ proved that international trade theories were applicable to most cases of trade in services, and that patterns of traded services could be satisfactorily explained by the theory of comparative advantage. The ratio of exports to imports of particular services were selected and a dependent variable was selected in order to reflect the overall economic pattern of comparative advantage. The economic factors determining the pattern of trade in services may be classified into the following categories: relative prices, factor endowment, scale, trade, human capital, and others. The model is written in a general form as:

$$(X/M)_{ik} = B_{ok} + B_{ik} ECF_{ik} + B_{jk} NEC_{jk}$$

- i = economic index
- j = non economic index
- k = service category index
- X = exports
- M = imports
- ECF = Economic factors
- NEC = Non-economic factors

1/

Andre Sapir and Ernst Lutz grouped trade theories into four categories: The Mechsher-Ohlin-Samuelson (H-O-S) model of comparative advantage; The Neo-technology theory; The Scale Economy Theory; and the Market Imperfection Theory (including both tariff and non-tariff barriers.)

1.3.3 Time Trends

The time trends of value added of selected service sectors were estimated by using the following equations.

$$VA_i = f(t)$$

VA_i = value added of selected service industry i.

1.4 Structure of the Study

The study results are reported in this volume under six chapter headings. Chapter one provides the general background of the service sector, including the salient features of the sector, objectives, and methodology; Chapter two integrated all industry findings and provides general policy recommendations; and Chapters three to Chapter six are devoted to selected service-sector industries, including transportation, banking, tourism, and labor. Each of these chapters contains at least five sections which examine (1) the pattern and direction of trade in services; (2) regulations governing trade in services; (3) the factors determining the pattern of trade in services; (4) strategies to increase competitiveness in traded services; and (5) conclusions and recommendations.

2. IMPACTS AND PROSPECTS OF TRADED SERVICES

2.1 Composition and Direction

Six service industries have been studied in this project: comprising transportation, banking, tourism, labor income, insurance, and telecommunication. Each of them has a different position in the balance of payment. According to Table 1.7, Thailand has constantly experienced a deficit in the balance of traded services during 1980-1987, with the magnitudes varying from year to year. The deficit was primarily due to the large deficit of investment income, freight and insurance. During 1981-1987, the average share of investment income, of which interest payment was the major expenditure, was 43 percent of the total service payment. The high percentage of deficit was due to large amount of external debt, most of which was interest paid by the government and state enterprises. The shares of interest paid by the private sector have decreased since 1985 because of the investment promotion policies that bring in capital formation. In addition, the development of electronic banking in Thailand and an increase in overseas branches of Thai commercial banks also lower the interest payment. In the same period, freight and insurance, most of which were paid on Thailand's imports, have constantly been in deficit. They accounted for more than three-fourths of all services paid to the rest of the world. Among them, freight has been the largest service expenditure (35%) for Thailand in 1988 (Table 2.1), and its domination in the expenditure is expected to continue and to replace interest as the largest expenditure in the balance of traded services. Furthermore, the rapid expansion of Thailand's foreign trade will stimulate the deficit balance of freight and insurance. This is due to the underdeveloped nature of maritime and air freights services, and small Thai insurance companies that cannot generate the respective receipts.

The dramatic increase in income from tourism led to a surplus balance of traded services in 1988--for the first time since 1979. The share of receipt from tourism increased from 38.51 percent of total receipts in 1979 to 52.89 percent in 1988. The increase was input due to the government policy to promote tourism using the campaign of "Visit Thailand Year" in 1987, the year of tourism. With tourism attraction and good services, its domination is expected to remain since more tourists from Asia and the Pacific have come to visit Thailand. Prior to 1975, labor income accounted for only a little more than one percent of total service receipt. Its share has risen to more than 20 percent of the total service receipt during 1981-1987, and to 15.7 percent in 1988. The second largest receipts come from labor income received from the remittances of Thai workers in the Middle East and in Singapore. The income from air passenger services has recently become significant, since its share increased from 3.46 percent of total service receipts in 1979 to 6.26 percent in 1988. The increase partly resulted from the boom in tourism of Thailand. Finally, receipts from foreign government spending used to

Table 2.1 : Share of Traded services, 1979-1988.

Unit : Percentage

	1979		1980		1981		1982		1983		1984		1985		1986		1987		1988	
	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit
Freight and Insurance	8.89	41.07	8.89	41.40	9.32	36.80	8.52	32.70	8.88	35.56	9.71	34.15	10.76	30.63	10.30	29.33	9.36	34.20	7.78	39.31
Freight	6.44	37.11	8.53	37.47	8.85	33.35	8.17	29.73	8.59	32.20	9.36	31.04	10.45	27.87	10.13	26.89	9.24	31.04	7.68	35.76
Insurance	0.46	3.96	0.36	3.93	0.47	3.44	0.34	2.97	0.29	3.36	0.34	3.10	0.31	2.76	0.16	2.64	0.13	3.16	0.10	3.55
Other Transportation	7.54	4.04	5.54	4.08	4.13	3.27	5.56	3.27	5.35	4.14	5.32	3.36	4.17	3.70	3.37	3.44	7.88	3.39	8.51	3.02
Passenger Fares	3.46	2.43	2.31	2.70	1.99	2.05	2.20	2.31	0.91	3.04	1.12	2.63	0.95	2.24	0.41	2.42	5.45	2.65	6.26	2.98
Port Disbursements	3.57	0.65	2.87	0.68	2.29	0.82	3.09	0.81	4.15	1.03	4.04	0.65	2.43	1.34	2.17	0.93	1.44	0.66	1.95	0.95
Others	0.52	0.96	0.35	0.69	0.25	0.39	0.28	0.15	0.27	0.07	0.37	0.08	0.12	0.12	0.80	0.09	0.99	0.09	0.29	0.02
Travel	32.51	11.49	40.81	9.82	41.74	9.03	40.29	8.81	37.31	10.67	37.55	8.92	36.95	7.98	42.57	8.07	46.67	8.86	52.89	10.42
Investment Income	14.47	32.92	12.21	33.47	11.24	39.70	9.52	43.87	7.79	39.41	7.16	43.33	7.75	46.94	7.08	48.71	5.19	43.15	6.25	36.34
Interest	13.04	27.95	11.31	29.44	10.40	34.21	8.55	36.25	7.21	32.40	6.98	34.86	7.44	35.64	6.89	35.76	6.04	31.90	5.95	24.81
- Privates	1.13	19.33	2.43	17.18	3.09	18.05	2.56	15.23	2.32	12.94	2.18	15.05	2.19	15.21	2.45	12.34	2.05	9.27	1.16	6.76
- Public (Including Commitment Charges)	11.92	8.63	8.88	12.26	7.31	16.14	6.09	21.00	4.89	19.46	4.79	19.82	5.25	20.43	4.24	24.42	4.00	22.64	4.79	18.12
Profit dividends & others	1.42	4.97	0.91	4.03	0.84	5.50	0.87	7.64	0.52	7.01	0.19	8.46	0.31	11.30	0.40	11.96	0.16	11.24	0.30	11.53
Government, N.I.E.	5.85	1.39	5.81	1.45	4.47	2.41	3.82	2.25	3.87	1.97	3.48	1.50	4.53	2.04	3.42	1.79	2.88	2.41	2.20	1.60
Other services	24.73	9.08	26.74	9.78	29.09	8.80	32.24	9.16	35.80	9.25	35.53	8.75	35.81	8.72	33.26	8.66	26.90	7.97	22.37	9.31
Labour Income	13.09	0.84	17.70	1.28	20.29	1.14	24.00	1.64	25.92	1.26	29.03	1.55	27.71	1.95	23.84	1.60	20.15	1.35	15.70	1.55
Premium on Direct Insurance	0.11	0.22	0.10	0.25	0.10	0.17	0.07	0.21	0.09	0.17	0.05	0.18	0.07	0.28	0.06	0.37	0.02	0.26	0.04	0.20
Claims on Direct Insurance	0.03	0.00	0.13	0.00	0.12	0.00	0.06	0.00	0.04	0.00	0.07	0.00	0.02	0.02	0.02	0.02	0.01	0.01	0.03	0.01
Premium on Reinsurance	0.22	0.59	0.19	0.65	0.11	0.57	0.09	0.77	0.09	0.76	0.13	0.73	0.05	0.66	0.07	0.84	0.04	1.01	0.04	0.72
Claims on Reinsurance	0.14	0.00	0.27	0.00	0.15	0.00	0.38	0.00	0.21	0.00	0.12	0.00	0.06	0.00	0.02	0.00	0.00	0.00	0.02	0.00
Management Fees	0.00	0.46	0.00	0.29	0.02	0.28	0.01	1.35	0.03	0.71	0.02	1.02	0.02	0.65	0.01	0.66	0.02	0.83	0.01	0.37
Agents' Fees	0.76	0.29	1.41	0.31	1.32	0.28	1.14	0.35	0.98	0.25	0.89	0.28	0.92	0.36	0.30	0.30	0.38	0.49	0.92	0.58
Construction Activity	0.01	0.25	0.03	0.17	0.08	0.16	0.09	0.22	0.23	0.41	0.42	0.13	0.15	0.10	0.65	0.08	0.64	0.05	0.40	0.12
Advertising	0.21	0.06	0.19	0.07	0.25	0.06	0.30	0.02	0.29	0.11	0.23	0.10	0.30	0.14	0.32	0.13	0.25	0.17	0.15	0.16
Copyright & Patent Royalties	0.00	1.13	0.02	1.20	0.00	1.21	0.01	1.22	0.00	1.35	0.00	1.42	0.00	1.30	0.01	1.29	0.00	1.30	0.01	1.65
Others	10.14	5.25	6.79	5.65	6.65	4.93	6.10	3.29	5.87	3.23	5.60	3.34	6.47	3.04	7.39	3.24	4.73	2.49	5.05	3.42
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source : Bank of Thailand.

be a major source--as high as 40 percent of total receipts during 1960-1964. Its share has declined since 1975 due to withdrawal of the American military bases from Thailand, to 2.20 percent of the total service receipts in 1988.

Even though income from air passenger services becomes essential, the receipts from tourism and labor income will continue to dominate the service receipt side. However, they are unable to offset the large deficit resulting from negative investment income, freight and insurance. Despite the surplus in 1988, the deficit balance is still expected unless other sources of receipts are developed or major expenditure such as freight and interest expenditure can be lowered through the development of banking and maritime shipping and air cargoes.

2.2 Pattern determination

Major factors determining the pattern of trade in services can be grouped in the following categories: factor endowment, scale, trade ratio, relative prices, and exchange rates. The factor endowment of each industry is represented by capital-labor ratio of respective industries, which GDP represents the scale variable. In this study, relative prices in the banking equation are represented by the ratio of the interest rate of Thailand to the interest rate of Japan. The relative prices in the labor equation are represented by the ratio of weighted average construction wages^{1/} in Singapore, Hong Kong, and Saudi Arabia to construction wages in Thailand. In the case of exchange rate^{2/}, it is the weighted average of the exchange rate of Japan and Malaysia to the exchange rate of Thailand. The ratio of value of manufactured imports to total import value is the trade ratio in the freight services equation. On the other hand, trade ratio in the passenger service equation is the ratio of total travel receipts to total travel payment.

Empirical results, estimated from logarithm equation, are presented in Table 2.2. The dependent variables of both the freight and passenger services equations are the ratio of service payment to service receipts. Empirical results indicate that factor endowment has no effects on the dependent variables of the freight and passenger services equations. Both GDP and the trade ratio are significantly related to the dependent variable of the equation. It is implied that a 1 percent increase in GDP will lead to a 2.53 percent decline in the ratio of freight payment to its receipts. On the other hands, a one percent increase in trade ratio results in a rise in the ratio of freight payment to its receipts of 3.6 percent. Only the scale

1/

Weighted average of wage = $\sum_{j=1}^n \sum_{i=1}^n W_{ij} (L_i/L_t) / WT$,
j = 1979,.....1987.

2/

Weighted average of exchange rate = $\sum_{j=1}^n \sum_{i=1}^n L_i (T_i/T_e) / ET$

Table 2.2 : Factors Determining Pattern of Trade in Services.

Service Sectors	Factor endowment	Scale	Trade ratio	Relative Price	exchange rate	R-squared	F-statistic
1. Transportation c/							
1.1 Freight S.	-0.42	-2.53a/	3.83b/	-	-	0.9521	33.18
1.2 Passenger S.	-0.11	0.13b/	0.09	-	-	0.8267	4.77
2. Banking	1.01a/	-1.51a/	-	-0.05	-	0.7058	4.80
3. Insurance	0.36	-0.36	-	-	-3.74a/	0.9700	53.86
4. Tourism	1.38b/	-1.48a/	-	-	-0.22	0.8674	10.90
5. Labor	-2.10	0.44	-	0.16	-1.09	0.7012	2.35
6. Communication	-4.72	1.91	-	-	-0.01	0.2248	0.48

Note: Estimated from Logarithm equation

a/ = indicate .01 significance level

b/ = indicate .05 significance level

c/ = Dependent variable = Payment/Receipts

variable is significantly related to the ratio of payment to receipts of passenger services; but its impacts on the dependent variable are rather small. An increase of one percent of GDP will lead to a small increase in the dependent variable. The relation is positive, because high GDP implies higher income, which lead to more people traveling. In the case of banking, both K/L and scale variables are significantly related to the ratio of receipts to payment of interest. The scale variables has a negative relationship with the dependent variable, since Thai economy has large foreign investment and external debt. An increase in GDP will be associated with a lower ratio of receipts to payment of interest income. A change in exchange rate leads to a decline in insurance income, since the relative insurance premium of domestic firms is relatively higher than those of foreign firms. On the other hand, the factor endowment and scale variables are significantly related to the dependent variable in the tourism equation.

2.3 Government Regulations and Policies

Government intervention in international trade in services has been generally practiced in both developing and developed countries. The intervention generally comes as protectionism in service trade, which takes many forms, and is hard to identify due to its varied nature. It is no exception for Thailand that the country imposes regulations on international trade in services to serve the objective of promoting infant service sectors. For instance, the fledgling local insurance industry can not compete with foreign competition due to its inferior spread of risk and high premium charge. However, Thailand has adopted liberalized policies for some service industries.

The Tourism Authority of Thailand (TAT), a state enterprise, is the major agency to promote tourism in Thailand through information dissemination and advertising. As far as investment is concerned, the government has adopted a liberal trade and foreign investment policies for tourism by allowing foreigners to have joint venture in the industry, particularly in the hotel business, and foreign executive personnel are allowed to work in the industry in Thailand. In addition, the emigration regulations have been relaxed for foreign tourists who visit Thailand. The liberalized policies are also adopted for maritime transportation and labor services. More foreign shipping companies have been allowed to operate in Thailand. However, the banking, insurance, air transportation, and telecommunication are heavily intervened by the government with different policy objectives and measures. Some of the protection measures are for reasons unrelated to international trade, but closely related to national stability--such as the Bank of Thailand granting protection to Thai commercial banks for the financial stability of the country. While telecommunications have been under the control of the Telephone Organization of Thailand and Telecommunication Organization of Thailand. The reservation of full right on domestic air transportation an commonly practiced in every countries.

2.4 Potential of the Services Sector

The service sector has been one of the highest-growing sectors in the Thai economy. According to Table 2.3, the service sector an average growth rate of 10.2 percent during 1981-88, which was second to only the non-agricultural sector (11.6%). Within the service sector, telecommunication had the highest average growth rate 17.8 % and it is followed by insurance (13.3%), banking (12.7%), transportation (11.8%), and tourism (11.7%). Therefore, all selected service activities studied in the report have high potential.

From our projection, the empirical results indicate that all service activities have increasing trends, except personal services. The decline in personal services is due to the exodus of Thai workers seeking jobs abroad. Table 2.4 shows that by the end of 1994 the hotel, restaurant, and tourism sector will have a value of about 167,750.87 million baht, which is the highest value, followed by the transportation sector (128,5488.40 million baht). If exports of the selected service industries are increased accordingly, Thailand may have a surplus balance in traded services. This is because the increase of service exports provide backward and forward linkages to the other sectors in the economy. To prove this, the Input-Output Model was used to compute the impacts of one percent increases in the export of traded services. The empirical results, including both forward and backward linkages, indicate that a one percent increase in service exports leads to an increase in the agricultural sector by 0.03 percent, mining by 0.04 percent, manufacturing by 0.05 percent and the service sectors by 0.89 percent. Among the service activities, other services increase by 0.23 percent, followed by transportation (0.17%) and telecommunication (0.19%).

2.5 Strategy Increasing Competitiveness

The selective policies and strategies should be recommended to strengthen the service activities due to the varying nature. However, the following recommendation may be applied to increase the competitiveness of the selected services. In the short-run, a study on the structure of labor requirement for various service industries should be performed, and curriculum and training courses on maritime business should be developed and provided to create qualified personnels for the industries. The incentive measures should be provided for the essential and good potential service industries, particularly the air freight and telecommunication. Essential and inefficient state service enterprises should be privatized or have more flexibility in management. In the long-run, the development and improvement of basic infrastructure related to the services sector should be carried out. The role of government-to-government negotiation is also essential for increasing the competitiveness of the trade in services.

Table 2.3 : Growth of GDP by sector, 1981-1988.

Unit : Percentage

Industrial origin	1981	1982	1983	1984	1985	1986	1987	1988	Average
1. Agriculture	6.6	-3.9	15.5	-6.0	-3.1	6.1	8.8	20.0	5.5
1.1 Crops	4.2	-5.7	17.3	-7.0	-7.5	2.8	10.6	26.0	5.1
1.2 Livestock	2.2	-13.1	26.3	-12.5	-12.6	24.5	12.1	0.1	4.5
1.3 Fisheries	30.8	3.3	11.2	-9.0	11.2	15.7	-5.8	5.1	7.8
1.4 Forestry	11.0	-10.5	4.3	1.8	-2.8	1.0	-0.1	2.9	1.0
1.5 Agricultural services	22.7	4.6	-13.5	9.1	8.7	-4.6	1.2	8.2	4.5
1.6 Simple agricultural processing products	5.8	9.8	10.6	-0.7	12.8	4.4	10.8	11.3	8.1
2. Non-Agriculture	19.9	7.0	8.7	11.8	6.5	9.4	13.0	16.9	11.6
2.1 Mining and quarrying	-2.7	14.2	4.9	19.9	18.0	-16.8	10.0	13.8	7.7
2.2 Manufacturing	21.1	3.9	9.3	10.9	2.9	12.0	13.7	17.4	11.4
2.3 Electricity and water supply	73.3	30.4	8.2	8.3	21.1	17.8	9.9	15.0	23.0
3. Services	17.2	11.4	8.3	7.9	5.0	6.6	11.1	13.9	10.2
-Banking	14.0	13.3	15.4	9.8	3.0	2.0	26.3	17.4	12.7
-Transportation	20.4	17.3	9.1	11.7	9.7	6.8	6.8	12.6	11.8
-Insurance	12.1	13.5	18.7	8.6	9.1	7.6	12.7	24.3	13.3
-Telecommunication	3.4	18.6	5.4	16.2	14.1	14.0	55.9	15.1	17.8
-Personal services	14.6	14.1	8.5	9.5	4.1	2.1	5.2	8.1	8.3
-Hotel, Restaurant, tourism	13.6	13.1	7.0	8.9	8.1	7.1	19.2	16.5	11.7
-Other	17.8	9.9	7.7	6.9	3.5	6.8	7.6	13.0	9.1
Gross domestic product (GDP)	15.4	7.3	9.9	6.5	4.0	7.3	11.3	15.8	9.7

Source: National Income of Thailand (New Series), Table 2.

Table 2.4 : Projection on services sector.

Unit : Millions of baht

Services	1989	1990	1991	1992	1993	1994
Banking	44,791	48,230	51,668	55,107	58,545	61,984
Insurance	12,469	13,456	14,444	15,431	16,419	17,406
Transportation	95,091	101,782	108,474	115,165	121,857	128,548
Telecommunication	14,219	15,760	17,302	18,843	20,385	21,926
Personal services	8,750	7,910	7,194	6,582	6,055	5,570
Hotel, Restaurant, and Tourism	85,254	97,758	112,079	128,359	146,739	167,751
Other services	505,746	534,727	563,709	592,690	621,671	650,653
Total	766,319	819,624	874,869	932,178	991,671	1,053,838

Source : Computed by Linear Regression.

Table 2.5 : The Impact of a One Percent Increase in Traded Service Exports

% Increased	

Agriculture	0.03
Mining and Quarrying	0.04
Manufacturing	0.05
Transportation	0.17
Telecommunication	0.19
Banking	0.14
Insurance	0.15
Tourism	0.16
Other services	0.23

Source: Susangkarn, I-O Tables (1984) ; Human Resource and Social Development Program.

Computed by $x = y(I-a)^{-1}$
x = Total Output Vector
I = Identical Matrix
a = Technical Coefficient Matrix
y = Final Demand

3. TOURISM

3.1 Tourism Patterns: Existing Situation and Trends

Tourism Growth

In recent years tourism in Thailand has grown at a very high rate. The number of international tourists increased from about 2,191,003 in 1983 to about 4,230,737 in 1988. As a result of the 1987 "Visit Thailand Year" government campaign the rate of increase of international tourists from several tourist origins was rather high. The annual growth rate for visits of tourists from Europe, East Asia and the Pacific in 1987 and 1988 was about 20 percent per year (see Table 3.1).

It has been estimated that, from 1982 onward, tourism income exceeded income from traditional rice exports and ranked as the number one foreign-exchange earner in Thailand. Tourism income increased from 21,455 million baht in 1981 to about 50,024 million baht in 1987 (see Table 3.2 and Figure 3.1). Further, the overall rate of growth of the number of tourists from 1986 to 1987 was 34 percent.

Origins of Tourists

In 1988, the majority of international tourists (about 56.97%) came from East Asia and the Pacific; about half of these (or about 28.22 of the total) came from other ASEAN member countries. About 6.50 percent of the total came from South Asia, 7.75 percent from the America, 25.24 percent from Europe and about 2.95 percent from the Middle East (see Table 3.3).

Out-Going Tourism

During the period 1981-88, the number of outgoing Thai nationals reached its peak in 1983, increasing from about 560,893 in 1981 to about 766,186 in 1983. After that, the figure decreased to a minimum of about 541,383 in 1986, which was partly the result of exit fees imposed at the airport and at the Thai-Malaysian border in the South.

The number of outgoing Thai nationals through airports increased from about 413,067 in 1986 to about 534,460 in 1988, and those traveling by land increased from 102,595 in 1986 to about 165,876 in 1988.

The revenue from international tourism in terms of dollars increased from 1,170 million US dollars in 1985 to about 1,946 million US dollars in 1987. In 1985 (about 31,767 million baht) revenue was converted into Thai baht at an exchange rate of 27.13 baht/dollar; in 1987 revenue equivalent to 50,023.9 million baht was converted at the rate of 25.71 baht/dollar (see Table 3.4). The rate of increase in the tourism balance was higher in terms of the Thai baht partly because of the baht depreciation, the increased length of stay, and average tourist expenses per day.

Table 3.1 : International Tourist Arrivals to Thailand 1983-1988 by Nationality.

unit : person

Nationality	1983	1984	1985	1986	1987	1988
The Americas	174,123	192,887	215,395	244,308	292,448	327,727
Argentina	994	1,156	1,138	1,992	1,456	1,204
Brazil	1,528	1,896	2,864	2,637	2,293	2,795
Canada	25,104	26,732	31,649	36,700	44,174	56,265
Mexico	1,818	3,710	4,162	2,704	4,141	4,715
The United State of America	140,401	155,326	171,247	196,429	235,878	257,594
Others	4,278	4,067	4,335	3,846	4,506	5,154
Europe	462,033	480,188	511,517	621,514	794,320	1,068,043
Austria	10,681	11,257	12,092	14,141	21,458	35,673
Belgium	9,765	9,647	10,487	12,321	17,112	20,167
Denmark	13,237	14,787	19,945	19,390	21,803	27,238
Finland	4,254	4,781	7,241	9,286	11,450	17,831
France	51,017	60,500	71,984	100,439	131,648	157,381
W.Germany	81,791	95,705	99,768	119,441	148,382	190,339
Italy	36,812	38,282	43,331	52,039	65,928	86,472
Netherlands	26,211	28,348	29,132	34,061	41,562	50,862
Norway	7,392	8,206	8,534	9,209	10,527	13,466
Spain	10,037	7,147	6,951	8,946	12,879	20,185
Sweden	19,374	21,047	23,193	27,546	35,953	48,864
Switzerland	23,165	25,387	30,725	37,074	45,101	60,073
The United Kingdom	143,299	133,209	124,964	147,221	184,415	279,604
East Europe	4,880	6,959	8,409	10,711	15,327	18,816
Other	14,118	14,906	14,761	19,689	30,975	41,272
Africa	17,317	15,236	11,192	13,683	18,873	24,922
Middle East	78,226	101,108	104,813	110,619	117,547	124,923
Israel	8,238	6,237	7,219	8,984	11,188	14,900
Kuwait	8,137	8,922	8,069	9,099	8,220	8,825
Saudi Arabia	32,004	37,817	41,965	56,569	58,632	54,778
Other	29,847	48,132	47,560	35,967	39,507	46,420
East Asia & Pacific	1,278,182	1,351,360	1,374,141	1,617,404	2,042,459	2,410,043
ASEAN	762,149	795,715	782,744	908,482	1,077,359	1,193,739
Brunei	1,704	1,919	2,756	3,326	4,419	4,908
Indonesia	26,387	28,061	30,443	28,281	27,979	32,331
Malaysia	576,116	592,472	554,979	652,913	765,226	867,658
Philippines	37,063	30,955	34,958	29,894	39,700	40,330
Singapore	120,879	142,308	159,608	194,068	240,035	248,514
Australia	73,295	78,334	92,813	94,662	110,747	138,443
China & Taiwan	116,211	113,136	129,095	186,272	280,488	323,729
Hong Kong	26,750	40,853	64,016	83,957	132,251	154,365
Japan	223,614	221,945	221,485	259,381	341,899	449,086
Republic of Korea	26,601	27,432	29,086	30,579	37,039	65,379
New Zealand	11,308	11,281	11,490	13,059	17,072	25,801
Other	38,254	62,664	43,412	41,012	45,604	59,701
South Asia	181,122	205,950	221,212	210,564	217,311	275,079
Bangladesh	21,484	25,659	25,075	23,629	25,321	50,281
India	108,408	120,874	128,140	119,539	117,579	127,515
Nepal	17,741	17,697	14,849	14,441	11,843	17,901
Pakistan	25,314	33,164	37,708	37,339	43,331	54,172
Sri Lanka	7,297	8,572	15,406	14,683	18,057	23,501
Other	878	784	834	933	1,180	1,709
Grand Total	2,191,003	2,346,709	2,438,270	2,818,092	3,482,958	4,230,737

Source: Tourism Authority of Thailand.

Table 3.2 : Comparison Revenue from International Tourism and Other Major Thai Exports 1981-1987

(millions of baht)

Exports	1981	1982	1983	1984	1985	1986	1987
Tourism	21,455	23,879	25,050	27,317	31,768	37,321	50,024
Textile Products	12,531	14,049	14,351	19,155	23,578	31,268	48,555
Rice	26,367	22,504	20,157	25,932	22,524	20,315	22,703
Tapioca	16,446	19,769	15,387	16,600	14,969	19,086	20,661
Rubber Integrated	10,840	9,490	11,787	13,004	13,567	15,116	20,539
Circuits	-	-	5,829	7,352	8,248	12,818	15,179
Maize	-	-	8,486	10,147	7,700	9,261	3,928
Precious Stones	-	-	6,214	6,129	6,350	8,150	11,550
Sugar	9,571	12,933	6,338	5,222	6,247	7,271	8,573
Prawns	-	-	-	-	-	4,391	5,749
Tin	-	-	5,285	5,280	5,647	-	-
Total	97,210	102,824	118,864	136,136	140,598	164,997	207,461

Source: Revenue from the Tourism Authority of Thailand.

Comparison Revenue from International Tourism and Other Major Exports

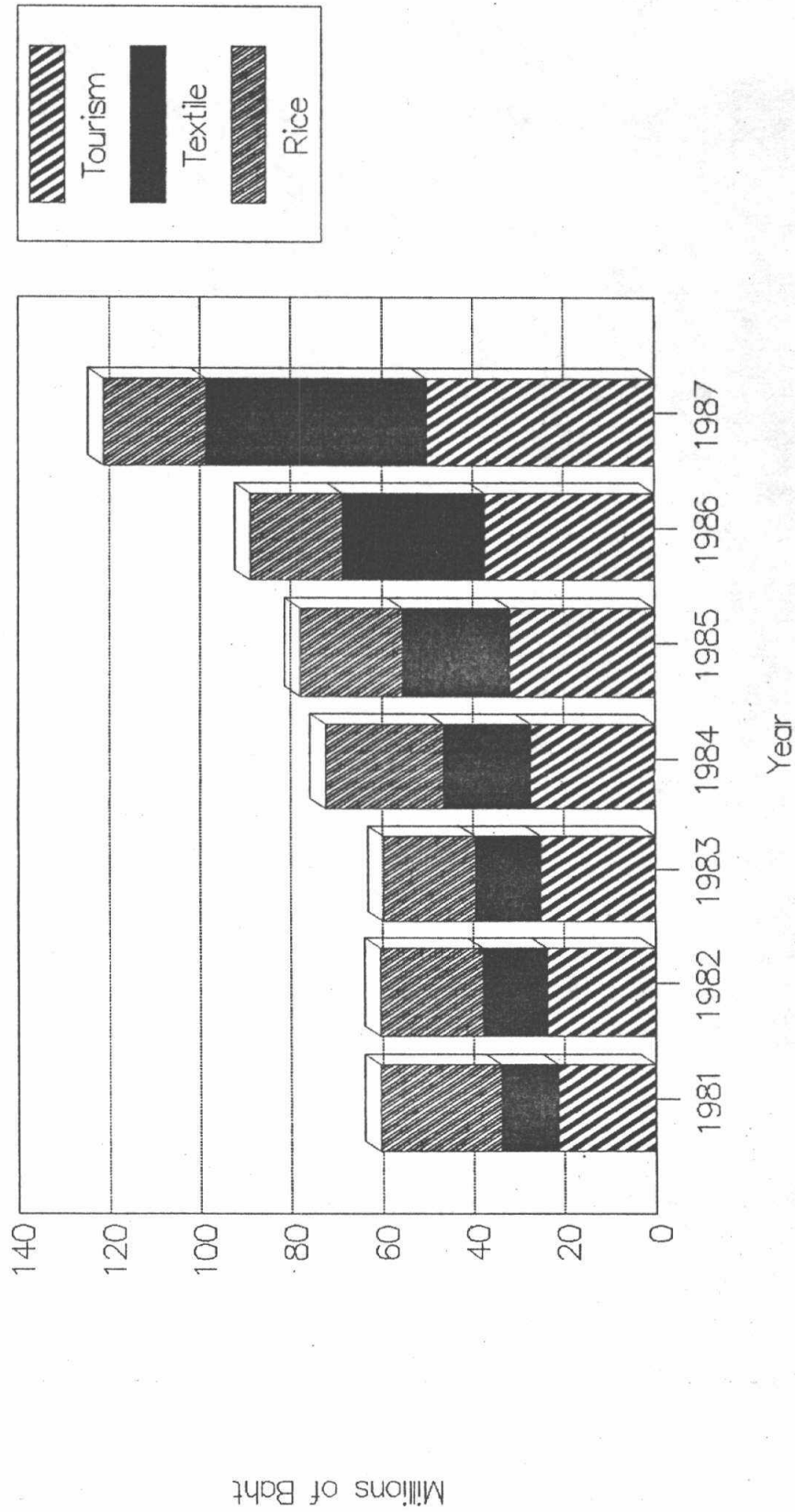


FIGURE 3.1

Table 3.3 : International Tourist Arrivals to Thailand by Nationality and Mode of Transport

unit : person

Country of Nationality	Total Jan-Dec 88	Total Jan-Dec 87	% Change 88/87	% Share 88/87	Air	Land	Sea
Grand Total	4,230,737	3,482,358	21	100.00	3,290,145	895,070	45,522
The Americas	327,727	292,448	12	7.75	313,334	8,986	5,407
Argentina	1,204	1,456	-17	0.03	1,175	27	2
Brazil	2,795	2,293	22	0.07	2,178	60	557
Canada	56,265	44,174	27	1.33	53,099	2,827	539
Mexico	4,715	4,141	14	0.11	4,667	19	29
The United State of America	257,594	235,873	9	6.09	247,121	6,178	4,295
Other	5,154	4,506	14	0.12	5,054	75	25
Europe	1,068,043	794,320	34	25.24	1,028,430	34,983	4,630
Austria	35,673	21,458	66	0.84	34,711	899	63
Belgium	20,167	17,112	18	0.48	19,779	331	57
Denmark	27,238	21,803	25	0.64	25,967	1,205	66
Finland	17,831	11,450	56	0.42	17,656	153	22
France	157,381	131,648	20	3.72	153,999	3,043	339
W.Germany	190,339	148,382	28	4.50	181,706	7,193	1,440
Italy	86,472	65,928	31	2.04	85,247	1,070	155
Natherlands	50,862	41,562	22	1.20	48,817	1,885	160
Norway	13,466	10,527	28	0.32	12,884	524	58
Spain	20,185	12,679	59	0.48	20,012	151	22
Sweden	48,864	35,953	36	1.15	45,116	3,512	236
Switzerland	60,073	45,101	33	1.42	57,126	2,781	166
The United Kingdom	279,604	184,415	52	6.61	268,318	9,795	1,491
East Europe	18,616	15,327	21	0.44	16,650	1,817	149
Other	41,272	30,975	33	0.98	40,492	619	161
Africa	24,922	18,873	32	0.59	24,594	305	23
Middle East	124,923	117,547	6	2.95	124,185	675	63
Israel	14,900	11,188	33	0.35	14,900	0	0
Kuwait	8,825	8,220	7	0.21	8,814	10	1
Saudi Arabia	54,778	58,632	-7	1.29	54,480	260	38
Others	46,420	39,507	17	1.10	45,991	405	24
East Asia & Pacific	2,410,043	2,042,459	18	56.97	1,531,482	842,800	35,761
Asean	1,193,739	1,077,359	11	28.22	346,000	825,170	22,569
Brunei	4,906	4,419	11	0.12	4,554	315	37
Indonesia	32,331	27,979	16	0.76	28,914	3,167	250
Malaysia	867,658	765,226	13	20.51	113,594	733,189	20,875
Philippines	40,330	39,700	2	0.95	38,732	1,288	310
Singapore	248,514	240,035	4	5.87	160,206	87,211	1,097
Australia	138,443	110,747	25	3.27	129,828	7,733	882
China	134,942	85,771	57	3.19	134,593	128	221
Hong Kong	154,365	132,251	17	3.65	153,770	582	13
Japan	449,086	341,899	31	10.61	445,701	3,126	259
Korea	65,379	37,039	77	1.55	64,723	645	11
New Zealand	25,601	17,072	50	0.61	23,227	2,250	124
Taiwan R.O.C.	188,787	194,717	-3	4.46	188,174	585	28
Other	59,701	45,604	31	1.41	45,466	2,581	11,654
South Asia	275,079	211,311	27	6.50	267,570	-7,329	180
Bangladesh	50,281	25,321	99	1.19	48,952	1,305	24
India	127,515	117,579	8	3.01	123,777	3,660	78
Nepal	17,901	11,843	51	0.42	17,489	396	16
Pakistan	54,172	43,331	25	1.28	52,540	1,585	47
Sri Lanka	23,501	18,057	30	0.56	23,109	377	15
Other	1,709	1,180	45	0.04	1,703	6	0

Note: Since the Immigration Division Changed its method of data collection in February 1988, some Taiwanese Tourist are included in the number of tourists from China; also, Hong Kong tourists are included in British Nationals.

Source: Tourism Authority of Thailand.

Table 3.4 : Revenue from International Tourism 1985-1987

Country of Residence	1985		1986		1987	
	Revenue/a		Revenue/b		Revenue/c	
	Million Baht	Million U.S.\$	Million Baht	Million U.S.\$	Million Baht	Million U.S.\$
Total	31,767.86	1,170.95	37,321.01	1,420.63	50,023.89	1,945.70
North America	3,546.63	130.73	3,825.46	145.62	4,590.01	178.53
Canada	441.42	16.27	467.85	17.81	719.63	27.99
The United State of America	3,105.21	114.46	3,357.61	127.81	3,739.79	145.46
Europe	6,794.33	250.44	11,303.66	430.29	130.59	5.08
France	947.85	34.94	2,972.30	113.14	15,052.99	585.49
W.Germany	1,399.61	51.59	2,769.02	105.41	2,812.51	109.39
Italy	611.75	22.55	702.57	26.74	2,832.99	110.19
Netherlands	398.19	14.68	498.95	18.99	1,179.41	45.87
Switzerland	654.02	24.11	933.51	35.54	741.61	28.85
United Kingdom	1,086.40	40.04	1,431.66	54.50	1,003.23	39.02
Other Europe	1,696.51	62.53	1,995.65	75.97	2,106.40	81.93
Middle East	4,983.41	183.69	2,782.09	105.90	4,376.84	170.24
Asia & Pacific	16,082.42	592.79	19,134.20	728.37	3,333.14	129.64
Australia	1,566.51	57.74	2,223.28	85.01	23,848.42	927.60
China & Taiwan	1,138.17	41.95	1,882.35	71.65	2,129.57	82.83
Hong Kong	1,418.15	52.27	2,334.18	88.85	433.35	16.86
India	949.93	35.01	1,008.25	38.38	4,017.11	156.25
Japan	2,475.93	91.26	2,776.88	105.71	1,116.98	43.45
Malaysia	3,600.23	132.70	3,695.01	140.66	4,787.05	186.19
New Zealand	101.28	3.73	156.05	5.94	264.27	10.28
The Philippines	340.92	12.56	190.69	7.26	4,611.44	179.36
Singapore	1,986.80	73.23	1,924.29	73.25	2,562.16	99.66
Taiwan	-	-	-	-	3,926.49	152.72
Other Asia & pacific	2,504.50	92.31	2,933.22	111.66	2,895.11	112.61
Other Countries	361.07	13.30	275.60	10.45	304.19	11.83

Note: /a Exchange rate : U.S.\$ 1 = Bht. 27.13

/b Exchange rate : U.S.\$ 1 = Bht. 26.27

/c Exchange rate : U.S.\$ 1 = Bht. 25.71

Source: The "Tourist Consumption Expenditures and Attitudes" Survey 1985-1987 conducted by the Tourism Authority of Thailand.

Comparison of Tourism Expenditure in 1988

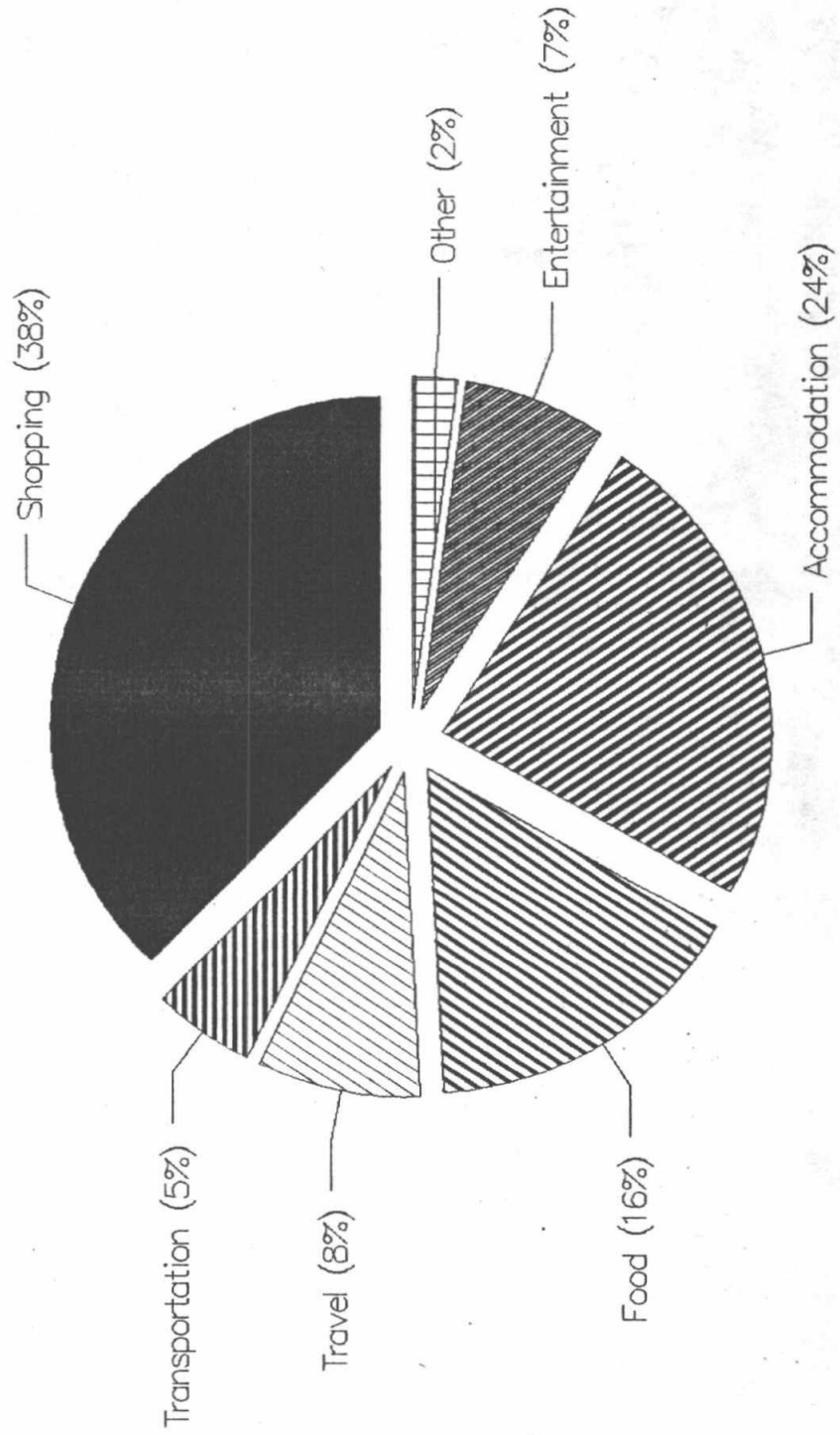


FIGURE 3.2

Table 3.5: Income from Tourism (Year 1988) .

unit : baht

Country	Tourists (person)	Average/ Length of Day	Expenditure Head/ Day	Income From Tourist
America				
Canada	50,849	9.47	2,130	1,025,579,140
The United State of America	237,309	7.94	2,910	5,483,458,531
Other	11,604	6.37	2,993	221,198,059
Europe				
France	154,724	12.38	2,147	3,920,208,599
West Germany	186,040	14.51	1,723	4,553,729,228
Italy	85,507	9.20	1,983	1,560,199,371
Netherlands	48,425	11.90	1,708	984,691,528
Switzerland	62,491	13.78	1,862	1,603,786,859
The United Kingdom	135,112	9.42	2,049	2,607,455,068
Other	233,312	10.61	2,128	5,268,652,914
Asia & Pacific				
Australia	144,651	8.66	2,480	3,107,166,721
New Zealand	23,789	10.01	2,002	476,836,812
China	33,344	10.01	2,512	838,602,430
Hong Kong	379,850	6.28	2,681	6,395,746,862
India	121,394	6.19	2,615	1,964,738,497
Japan	452,244	5.54	4,224	10,583,069,026
The Philippines	42,241	5.93	2,274	569,512,086
Malasia	843,206	3.89	2,104	6,900,318,879
Singapore	276,222	5.35	2,839	3,899,615,739
Taiwan R.O.C.	232,567	6.97	3,658	5,929,767,009
Other	306,965	7.96	2,786	6,808,160,773
Middle East	144,025	7.80	2,490	3,514,681,538
Other	24,866	8.14	3,170	641,663,604
Total	4,230,737	198.31	57,269	78,858,839,272
Average	-	7.36	2,533	-

Source: Tourism Authority of Thailand.

The Impact of Tourist Spending

Generally, an increase in tourism income would lead to a rise in real wages and hence a rise in consumption in the exporting country. Tourism promotion would increase a country's income, and this would generally result in an increase in the welfare of the people in the exporting countries.^{1/} In fact, the reality is that for this to occur tourism income must be linked to other productive sectors in the economy and depends on how tourist spending is distributed.

According to the Tourism Authority of Thailand, a very large portion of tourist spending went to shopping. In 1988, on the average, tourists spent about 38.53 percent of their spending on shopping, 24.05 percent on accommodation, 15.90 percent on food, and about 13.09 percent on domestic travel (see Figure 3.2). It was estimated that Japanese travelers (Who had the highest spending rate per day of about 4.224.05 baht) generated the highest income, about 10,583 million baht in 1988. Japanese spending was followed by that of Malaysians and the Taiwanese spending who generated tourism income was reported to be about 6,900 million baht and 6,808 million baht, respectively (see Table 3.5).

Usually, the estimated revenue from international tourism is in gross terms, so when one takes into account the import content of the income, the net impact to the economy is lower. Thus, it has been estimated that the import content of income from tourism was about 34.26 percent, and the net income accruing to the domestic economy was only 65.74 percent of the gross. Hence, the net effect on the balance of payments would actually be lower than what was stated in TAT's statistics (Indhapanya and Atikul, 1985).

Employment Impact

It has been estimated that in 1985, the ratio of tourist expense per employee for domestic tourism was about 82,566 baht/person--i.e., every domestic tourist expense of 82,566 baht would generate one person year of employment. The ratio for international tourists was 73,199 baht/person. From calculations based on the Input-Output Table, it has been roughly estimated that the employment generated by domestic tourism would be highest in the service sector (35.84%), followed by the manufacturing sector (27.45%), and the agricultural sector (5.09%). International tourism employment generated in the service sector accounted for about 42.67 percent, while the employment generated for the manufacturing and agricultural sectors was estimated at about 32.37 percent and 5.87 percent, respectively.

^{1/}

A positive shift of the North's demand curve has orthodox results: real wages and consumption increase in the South and the terms of trade improve. And if the South pursues an export policy, the South will export more, its welfare will increase and the the factor price differential will narrow (Gunning, 1984).

3.2. Some Problems in Tourism

During the Fifth-Plan period, there were hotel-room supply problems, especially in Pattaya. Slow growth in tourism demand over that period resulted in some government efforts to cut down hotel operating costs, such as reducing the electricity tariff--especially for the hotel business--and reducing competition by not granting investment promotion privileges to newcomers.

Later, during the Sixth Plan, the industry experienced shortage in the supply of hotel rooms and, in 1988, several hotels increased room rates in response to seasonal shortages. This was followed by complaints from travel agents and efforts to establish guidelines for room-rate changes; however, additional investment in the hotel business created some concern over shortage of personnel for hotel operations (Somchai Ratanakomut, 1989).

While the development of tourism in Thailand created a large amount of foreign exchange for the economy, the impact of tourism growth on the distribution of income posed some concern. Many believed that the development of Thailand's tourist industry would benefit rich domestic investors from Bangkok and foreign investors from abroad at a cost to other industries and to the Thai people. They also believed that the cost of living of people engaged in other sectors would increase as a consequence.

In addition, many felt that the development of tourism might adversely affect the cultural and economic situation, that the tourism industry would grow at the cost of women's welfare and human rights, and that the real economic gains from engaging in tourist-sector employment might not be as high and permanent as one would like to expect. Indeed, especially in Had Yai and Su-gnai Kolok, prostitutes were reported in large numbers; however, prostitution was said to play a very important role in the hotel business and other related activities in the area.

It should be noted that during the past decade not only did tourism grow at old tourist attractions; what mattered more was the spread of tourism to so-called "virgin" tourist spots. Unfortunately, the more that people poured into these tourist destinations, the less interesting they become because of environmental degradation. The Thai government did not give much consideration to these areas, especially with respect to conservation. Then, the large number of tourists who poured into Chiang Mai and spread to relatively new places (such as Chiang Rai and Mae Hong Son) demanded not only that the government invest in and supply additional infrastructure (such as better roads, electricity, water, and police security) but also demanded a careful conservation policy.

International tourists then began to pour into small tourist spots in the lower case southern part of Thailand such as Samui, Ranong, Similan, Phi Phi, and Tarutao. This created not only a shortage of government supported infrastructure but also environmental

problems. Before this, there had been other areas which deteriorated (the Rawai and Patong beaches in Phuket and several other places) -- examples pointing toward the need for slow and careful government planning.

A study of the impact of tourism on the socio-economic conditions of Samui indicated that tourism tended to result, among other things, in more unequal distribution of income (Nitida Prayong, 1987). Tourism growth in Samui resulted in hikes in land cost, migration, higher cost of living, and a widening income gap between the rich and the poor on the island.

3.3 Factors Determining Tourism Growth in Thailand

Several factors seem linked with tourism growth, especially in the case of Thailand. These include global trends in tourism, the availability of resources, the cost of traveling, and other factors. And, data available since 1979 seemed to suggest that factors like the capital-labor ratio and the relative exchange rate were important factors determining tourism income in Thailand.

World Growth in Tourism

As observed recently by UNCTAD, growth in world tourism is linked with changes in the telecommunications network.

"The administration of the world tourist industry has been radically altered by the development of world telecommunications services including data, telefax services, and dedicated international data networks that provide travel agents with instant access to information about schedules, prices, flight availability, hotel and car rentals. Data and document traffic are now both faster and more secure. Databases and dedicated programs can analyze trends in traffic and bookings, or requests for new services, which can be rapidly transmitted to company head offices or the national tourist board." (UNCTAD 1988, p.183)

UNCTAD further anticipated that

"....the effect of these changes for the tourist industry is mixed. On the one hand, the potential increase in efficiency and international contact is vital to a tourist industry that is distant from its clients. The networks create certainty and security for the client and hotel. Tourist resorts which are not able to get information into the network will find the traffic diverted elsewhere. On the other hand, the cost of participating in these networks may be high in foreign exchange, serving as an added charge against potential earnings. The networks are likely to

reinforce the market dominance of the larger hotels and tour operators, whose integrated management systems and co-ownership with airlines and network operators give them a pre-eminent position."

For Thailand, the phenomena indicated above have begun to take place. For example, how to choose among different telecommunication systems has been widely discussed recently; However, there seems to be a slow response on the part of the government.

Thailand's Resource Endowment

Another important factor seems to be related to resource availability. Indeed many economists believe that the neoclassical trade theory still has a role to play (Sapir and Lutz 1981; Brecher and Choudhri 1984; and Deardorff and Staiger 1988). It could be argued that a comparative advantage could be provided by the availability of highly skilled personnel, adequate technological support, a price-competitive wage structure and, often, the existence of a tourist infrastructure and tourist attractions.

Comparative Cost of Travel

As a rival factor to the availability of resources in determining service trade, the relative price of the service is also important.^{1/} The appreciation of the currency and the higher cost of living in many countries (such as Japan, Taiwan, Australia, and many Western European countries) makes traveling to Thailand a competitive choice for holidays.

Other Linking Factors

Langhammer points out that other factors (such as manufacturing growth, foreign direct investment and trade in goods) could be factors behind growth in traded services. That is to say, business travel, conferences, fairs, and leisure tours are by-products of the intensive international exchange of goods. Singapore is cited to support this line of argument.

In addition, the promotion of tourism-based merchandise trade has been claimed as a success; in Thailand's case, the post-1987 tourism boom seems to be partially the result of the increase in direct foreign investment.

^{1/}

In view of the factor intensities in the Philippines, commodities are aggregated into composite goods--traded and non-traded--whose relative price--the so-called "real exchange rate"--is shown to have been an important determinant, with changes in relative factor supplies being of less importance in determining real wages (Lal, 1986).

3.4 Trend Projections

There are three important elements in any discussion of tourism trends: (1) growth in the number of tourists; (2) changes in length of stay; and (3) average expenses per day. Recently, Thailand has experienced high growth in the number of incoming tourists from Asia and the Pacific. Malaysian and Japanese tourists are two important markets for Thai tourism. At the same time, there was slower growth (as was expected) in the case of Americans and Europeans.

Our simple estimates indicate that the number of international tourists will continue to increase at a high rate. The total number of tourists will increase from about 4,230,737 in 1988 to about 7,872,516 by 1993. As a result, total income from tourism will increase from about 78,858 million baht (in 1988) to about 146,739 million baht (in 1993). These estimates were based on average expenditures per day of about 2,532.54 baht (see Table 3.6 and Figure 3.3).

3.5 Strategy for Enhancing a More Favorable Tourism Balance

The most important agency dealing with tourism in Thailand is the Tourism Authority of Thailand (TAT), a government agency having public enterprise status. However, because of TAT's limited TAT resources and personnel, many tourism development tasks had to be undertaken in cooperation with other governmental agencies such as the district and provincial offices under the jurisdiction of the Ministry of Interior. For several years, the Tourism Authority of Thailand and many other governmental organizations (such as provincial governor's offices) were responsible for local tourism development programs. Tourism development plans were drafted for a number of provinces; however, the lack of authority was claimed as a factor behind slow tourism plan implementation.

Given the existing situation, it seems that a liberal tourism policy will help maintain high growth rates in tourism. Allowing outside investment as well as improving the tourism infrastructure are also important for the development of tourism in Thailand.

The General Rule of Reciprocity

The flow of tourists depends greatly highly on air transport. Thus, reciprocity arrangements among airlines in operations played a crucial role in determining the frequency and accessibility of tourist destinations. Distortions in the allocation of seats between two destinations posed (and poses) a problem for tourism growth. This may be seen in the example of passenger transportation between Japan and Thailand: the availability and the allocation of seats was one of the bottlenecks in tourist flow between Thailand and Japan.

In the past, there have been some problems related to the inflow of Malaysian tourists. In particular the imposition of the Thai exit tax in 1982 triggered some disputes between Thailand and Malaysia.

Table 3.6: Projected Income from Tourists by Year.

unit : baht

Year	Tourists	Average Length of Days	Expenditure/ Head/Day	Income From Tourists
1988	4,230,737	7.36	2,532.54	78,858,798,619
1989	4,573,861	7.36	2,532.54	85,254,456,496
1990	5,244,674	7.36	2,532.54	97,758,071,653
1991	6,013,001	7.36	2,532.54	112,079,298,467
1992	6,886,422	7.36	2,532.54	128,359,424,305
1993	7,872,516	7.36	2,532.54	146,739,717,896

Note: Computed by Linear Regression , Set $Y=a+bT+cT^2$

Given, Y= Actual Value(1970-1988) ; T = Time

Source: Tourism Authority of Thailand.

Projection of Tourism Income



FIGURE 3.3

The measure was established to save foreign exchange and to slow down the growth in the number of outgoing Thai nationals who might choose to take vacations outside of Thailand, especially to Hong Kong and Singapore.

Market-Specific Promotion for Quality Visitors

Even given the fact that foreign participation in tourism investment in Thailand was not publicly known, transnational corporations (especially those involved in hotel chains) participating in international hotel operations were usually cited as recipients of benefits from growth in tourism. However, it has been observed that domestic participation was significant, partly due to investment promotion confined to joint ventures (firms with promotion privileges import equipment which is subject to lower tariff rates).

Conservation for Long-term Income

There is some concern over the contradicting goals of maximizing income and the cost to the economy in terms of the depletion of our natural resources. Since it seems that high-yielding tourism from high-spending tourist groups might require the government to support the tourist industry (government investment in infrastructure), many are concerned that the development of this infrastructure, in some cases, will spoil the natural beauty of many attractions. In contrast, the low-yielding tourists who spend less money and stay longer tend to appreciate remoteness and natural beauty. The question, therefore, was whether the government would prefer high-yielding tourists over low-yielding tourists. So far, tourism promotion has emphasized advertisement of the attractiveness of the location with less emphasis on controlling and preserving the tourist sites.

It should be noted that even though the tourism industry has become one of the most important items on the list of foreign exchange earners, its growth does result in some serious concern over several other issues beyond our physical environment side and resource utilization. Tourism growth has implications for the socio-economic aspects of the economy, such as the cost of living and income distribution in Thailand.

The Increase in the Supply of Skilled Labor

The expansion of the number of rooms in various important tourist destinations (such as Bangkok, Chiang Mai, Chiang Rai, Phuket, Songkhla and Pattaya) will create problems for the industry. During the next three years, the existing expansion projects (totaling about 20,000 rooms) will result in an acute shortage in the supply of highly-skilled laborers. Hence, any policy to increase the supply of skilled personnel in the industry would be beneficial to the sector.

In addition, the endowment of entrepreneurial ability will clearly play a key role in providing a comparative advantage for domestic entrepreneurs.

4. TRANSPORTATION

4.1 Introduction

Transportation is one of the major traded services of Thailand and consists of sea, land, air, and other transportation. These are classified as user services and require proximity of users and producers. Users and producers in this context have two different physical characteristics: freight services and passenger services. The former is the service category of immobile user and mobile provider, since the traded service will take place only when providers go to perform their service at the user's location. On the other hand, "passenger services" belongs to the service category of immobile provider and mobile user, because users must go to the provider's location to obtain the needed service. For example, passengers must go to the airport in order to obtain air passenger services. The volume of traded services in transportation depends on the mobility, speed, safety, and reliability of the vessels traveling from one destination to another. The capital, specialization, and technology needed to produce transportation services are internationally transferable. The countries with relatively more foreign agencies in the transportation industry are likely to have a freight balance deficit in the Balance of Payments Current Account. Thailand has historically been faced with a deficit in traded services in transportation, varied from year to year depending the international trade situation. Table 1.7 shows that Thailand had a freight deficit of about 12,558.8 million baht in 1979 and that the amount rose to 40,749.5 million baht in 1988.

4.2 Transportation Patterns and Direction

Bangkok is and has been the center of all modes of transportation in Thailand. The rapid expansion in international trade led to an increasing role for all forms of transportation, with sea transportation being the most important mode, followed by air, land, and other forms of transportation, respectively. During 1980-1987, the pattern of transportation gradually changed toward increasing the role of air transportation. Due to the declining and insignificant role of land and other transportation in Thailand's foreign trade, these forms of transportation were included from the analysis.

Sea Transportation

Shipping has always been the major mode of transportation for Thailand's exports and imports. Most of Thailand's exports are primary products, and its imports are generally heavy-weight manufactured and petroleum products. The share of shipping in terms of total transporting quantity has more or less remained the same, while the share in terms of value has decreased. Shipping accounts

for an average of 96 percent of total quantity of exports (Table 4.1) and 99 percent of imports (Table 4.2). In terms of total values, the share of total shipping imports declined from 90.7 percent in 1980 to 80.6 percent in 1987, while its share in total exports fell from 80.40 percent in 1982 to 74.8 percent in 1987. The decline resulted from a drop in the export price of Thailand's primary exports.

In Thailand liner trade market is rather competitive, since there are a number of Thai and foreign shipping companies in the business. As of June 30, 1988, there were a total of 133 companies registered with the government to operate shipping businesses in Thailand, but only 41 of these owned Thai flag vessels. Most of Thailand's exportation and importation rely on foreign flag vessels, and in 1987 they accounted for about 88.8 percent of Thailand's total export and 90 percent of total imports. Table 4.5 presents the 18 major national flag vessels transporting Thailand's foreign-trade merchandise. Panama's national flag vessels (17.2%) led in exports and Singapore's flag vessels (18.3%) had the highest share in import.

The role of Thai flag vessels in the country's foreign trade is relatively small, still averaging between 10-12 percent of the total weight of foreign trade during 1983-1987 (Tables 4.6 and 4.7). In terms of freight earnings, the percentage was even worse since the share declined from 10.8 percent in 1983 to 9.0 percent in 1987. The small role resulted from numerous factors, which included the fierce market competition, the underdeveloped nature of Thai commercial navigation, and the trade agreement on transportation. Most Thai importers prefer to buy at C.I.F. prices and prefer foreign vessels, while foreign importers prefer to buy at the F.O.B. price and to hire their own vessels. Inexperience and insufficient capital formation forces Thai flag vessels to serve as feeders rather than as main vessels. As a result, the liner routes of Thai ships primarily transport goods and services in Asia, particularly on ASEAN liner routes (Tables 4.6 and 4.7). The number of vessels, years in use, and speed of the vessel are also factors making Thai navigation commerce inferior to its foreign counterparts (Tables 4.8 and 4.9).

Air Transportation

The role of air transportation in Thailand has increased constantly since the early 1980s. While air transportation accounted for approximately 14.7 percent and 8.4 percent of the total value of exports and imports in 1980, the respective percentages increased to 21.7 percent and 18.5 percent in 1987. With these high growth rates, it is expected that air transportation will play a greater role in the future. Aircraft movement increased from 52,263 flights (in 1979) to 78,522 flights (in 1988) -- of which approximately 80 percent of the total were international flights (Table 4.10). The share of the Thai Airways International Company in all international aircraft movement increased from 30.5 percent in 1987 to 41.6 percent in 1988 (Table 4.11). Air transportation consists of freight and passenger services which are carried out by both regular and charter flights.

Table 4.1: Foreign Trade Quantity, Value and Share of Exports by Mode of Transportation 1980-1987.

Mode of Transportation Year	Air			Sea			Land			Others			Total				
	Quantity	Value	Share of Value	Quantity	Value	Share of Value	Quantity	Value	Share of Value	Quantity	Value	Share of Value	Quantity	Value	Share of Value		
	Share of Quantity	Share of Value	Share of Value	Share of Quantity	Share of Value	Share of Value	Share of Quantity	Share of Value	Share of Value	Share of Quantity	Share of Value	Share of Value	Share of Quantity	Share of Value	Share of Value		
1980	65,866	20,163	15	13,854,450	80.37	558,707	3.86	3,226	2.35	276	0.002	3,516	2.57	14,479,299	100	137,031	100
1981	204,119	18,659	12	16,520,959	84.26	514,492	2.98	3,203	2.07	47	0.000	2,460	1.59	17,239,617	100	154,566	100
1982	146,835	20,086	12	21,110,595	84.18	604,774	2.77	3,578	2.20	22	0.000	2,836	1.25	21,862,226	100	162,431	100
1983	94,126	12,737	9	17,013,620	86.84	666,726	3.75	5,388	3.82	19	0.000	1,444	0.97	17,774,491	100	148,671	100
1984	308,837	24,816	14	20,266,745	81.37	659,389	3.10	5,748	3.27	6,352	0.030	2,213	1.26	21,241,323	100	175,892	100
1985	158,952	28,572	15	21,737,584	80.33	777,198	3.43	7,099	3.87	5,524	0.024	2,394	1.24	22,679,268	100	193,504	100
1986	144,386	41,828	18	23,368,551	77.75	823,378	3.38	7,561	3.27	390	0.002	2,005	0.87	24,349,705	100	231,062	100
1987	280,483	65,104	22	22,506,408	74.90	674,905	2.88	8,198	2.73	242	0.001	2,165	0.72	23,444,965	100	299,759	100

Note: 1986 Data Include Unknown Transportation Mode.
Source: Department of Customs.

Table 4.2: Foreign Trade Quantity, Value and Share of Imports by Mode of Transportation 1980-1987

Year	Air		Sea		Land		Other		Total							
	Quantity	Share of Value	Quantity	Share of Value	Quantity	Share of Value	Quantity	Share of Value	Quantity	Share of Value						
	Share of Quantity	Share of Value	Share of Quantity	Share of Value	Share of Quantity	Share of Value	Share of Quantity	Share of Value	Share of Quantity	Share of Value						
1980	7,984	8.44	18,389,869	90.89	247,296	1.33	1,246	0.64	361	0.00	430	0.22	18,625,510	100	193,458	100
1981	7,793	7.82	16,972,002	98.74	208,223	1.21	1,505	0.69	429	0.00	768	0.35	17,188,447	100	218,895	100
1982	7,717	7.61	15,735,881	98.98	154,674	0.97	723	0.36	340	0.00	808	0.40	15,899,612	100	201,884	100
1983	19,483	7.84	20,031,993	99.25	130,477	0.65	952	0.40	855	0.00	945	0.40	20,182,808	100	237,076	100
1984	21,305	10.42	18,988,275	99.20	122,032	0.64	933	0.38	2,714	0.01	1,007	0.41	19,060,326	100	245,126	100
1985	25,726	10.63	18,091,757	99.25	109,361	0.60	776	0.31	724	0.00	976	0.39	18,227,568	100	251,393	100
1986	35,008	17.46	18,819,793	99.16	122,672	0.65	1,059	0.44	654	0.00	922	0.38	18,979,941	100	241,255	100
1987	23,506	18.543	22,688,602	98.366	206,865	0.983	1,686	0.504	1,966	0.009	1,094	0.33	22,920,943	100	334,854	100

Note: 1986 Data Include Unknown Transportation Mode.
Source: Department of Customs.

Table 4.3: Foreign Trade Quantity, Value and Growth Rate of Exports by Mode of Transportation 1980-1987.

Quantity : Tons
Value : Millions of Baht

Mode of Transportation Year	Air			Sea			Land			Others			Total							
	Quantity	Growth of Value	Value	Quantity	Growth of Value	Value	Quantity	Growth of Value	Value	Quantity	Growth of Value	Value	Quantity	Growth of Value	Value					
	Quantity	Growth of Value	Value	Quantity	Growth of Value	Value	Quantity	Growth of Value	Value	Quantity	Growth of Value	Value	Quantity	Growth of Value	Value					
1980	65,866	20,163	13,854,450	110,126	558,707	3,226	276	3,516	14,479,299	137,031										
1981	204,119	209,90	16,520,959	130,244	514,492	3,203	47	2,468	17,239,617	19,06	-30.03	2,468	19,06	154,566	12.80					
1982	146,835	-28.06	20,086	7.65	21,110,595	27.78	136,731	4.98	604,774	17.55	3,578	11.71	22	-53.19	2,036	-17.24	21,862,226	26.31	162,431	5.09
1983	94,126	-35.90	12,737	-36.59	17,013,620	-19.41	129,102	-5.58	666,726	10.24	5,368	50.59	19	-13.64	1,444	-29.08	17,774,491	-18.70	148,671	-8.47
1984	309,837	228.11	24,816	94.83	20,266,745	19.12	143,115	10.85	659,389	-1.10	5,748	6.68	6,352	33,332	2,213	53.25	21,241,323	19.50	175,892	18.31
1985	158,952	-48.53	29,372	15.14	21,737,594	7.26	155,439	8.61	777,198	17.87	7,099	23.50	5,524	-13.04	2,394	8.18	22,679,268	6.77	193,504	10.01
1986	144,386	-9.16	41,828	46.40	23,368,551	7.50	179,608	15.55	823,378	5.94	7,561	6.51	390	-92.94	2,005	-16.25	24,349,705	7.37	231,062	19.38
1987	260,683	80.41	65,104	55.65	22,506,499	-3.69	224,217	24.84	674,905	-18.03	8,198	8.42	242	-37.949	2,165	7.98	23,444,965	-3.72	299,759	29.76

Note: 1986 Data Include Unknown Transportation Mode.
Source: Department of Customs.

Table 4.4: Foreign Trade Quantity, Value, and Growth Rate of Imports by Mode of Transportation 1980-1987

Mode of Transportation Year	Air			Sea			Land			Other			Total							
	Quantity	Growth of Value	Quantity	Growth of Value	Quantity	Growth of Value	Quantity	Growth of Value	Quantity	Growth of Value	Quantity	Growth of Value	Quantity	Growth of Value						
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value						
1980	7,984	16,329	18,369,869	175,453	247,296	1,246	430	361	18,625,510	193,458										
1981	7,793	-2.39	17,111	4.79	16,972,002	-7.61	199,511	13.71	208,223	-15.80	1,595	20.79	429	18.84	768	78.60	17,188,447	-7.7	218,895	13.15
1982	7,717	-0.98	15,362	-10.22	15,735,881	-7.28	184,991	-7.28	154,674	-25.72	723	-51.96	348	-20.75	808	5.21	15,898,612	-7.5	201,884	-7.77
1983	19,483	152.47	18,581	20.95	20,031,993	27.30	216,598	17.09	130,477	-15.64	952	31.67	855	151.47	945	16.96	20,182,808	26.9	237,076	17.43
1984	27,305	40.15	25,544	37.47	18,908,275	-5.61	217,642	0.48	122,032	-6.47	933	-2.00	2,714	217.43	1,007	6.56	19,060,326	-5.6	245,125	3.40
1985	25,726	-5.78	26,732	4.65	18,091,757	-4.32	222,909	2.42	109,361	-10.38	776	-16.83	724	-73.32	976	-3.08	18,227,568	-4.4	251,393	2.56
1986	35,008	36.08	42,118	57.56	18,819,793	4.02	197,156	-11.55	122,672	12.17	1,859	36.47	654	-9.67	922	-5.53	18,979,341	4.1	241,255	-4.03
1987	23,506	-32.86	62,091	47.42	22,888,602	20.56	269,993	36.94	206,865	68.63	1,686	59.21	1,966	208.61	1,094	18.66	22,920,943	20.8	334,854	38.80

Note: 1986 Data Include Unknown Transportation Mode.
Source: Department of Customs.

Table 4.5: Share of Vessels in Transporting Thailand's Exports and Imports, 1987

Unit : Percentage

Order	National Flag	Percent Share In Exports	Percent Share In Imports
1	Panama	17.2	18.0
2	Thailand	11.2	10.0
3	Republic of China	10.7	4.4
4	Liberia	9.6	9.8
5	Greece	7.2	2.2
6	Singapore	6.7	18.3
7	Cyprus	5.3	1.7
8	The Philippines	3.7	1.1
9	The U.S.S.R.	3.3	7.7
10	Korea Rep.	3.2	2.1
11	Norway	2.6	0.1
12	United Kingdom	2.4	3.2
13	Japan	2.4	3.9
14	Taiwan	2.0	4.9
15	Malasia	1.5	1.7
16	Bahama	0.9	2.7
17	Lebanon	0.3	2.8
18	Netherlands	0.1	3.0
	Other Countries	9.6	3.6
	Total	100	100

Source: Department of Customs.

Table 4.6 : Share of Thai Flag Vessels In Total Exports.

Unit : Percentage

Port of Call	1983	1984	1985	1986	1987
Brunei	50.7	47.2	11.5	44.6	35.2
Indonesia	20.7	20.2	23.6	15.6	41.5
Malaysia	39.7	43.1	48.9	44.1	48.3
The Phillipines	4.6	3.9	-	-	11.2
Singapore	39.3	32.9	23.1	11.0	14.7
Assan Total	33.2	33.4	29.3	17.5	22.6
People's Republic of China	3.7	0.2	0.8	0.1	0.4
Hong Kong	41.6	31.8	32.2	16.3	13.4
Japan	19.3	24.1	26.9	29.3	27.3
Korea Rep.	1.7	0.9	3.2	6.0	11.8
Taiwan	12.0	9.6	0.9	8.2	8.9
Total of Far East	19.4	17.0	15.0	12.6	13.7
Other	0.5	1.1	1.6	0.5	0.2
Grand Total (Weight)	13.5	11.2	11.6	10.4	11.2
Share in Freight Earning	10.8	8.7	7.8	8.3	9.0

Source: Department of Customs; Collected by Thai Vavigation Promothion Committee.

Table 4.7: Share of Thai Flag Vessels in Thai Imports.

Unit : Percentage

Port of Call	1983	1984	1985	1986	1987
Brunei	19.9	35.5	22.8	0.0	0.3
Indonesia	28.9	36.3	36.7	46.9	49.5
Malaysia	19.3	10.5	9.2	7.7	12.9
The Phillipines	-	-	4.2	-	10.4
Singapore	11.8	10.8	14.2	15.9	17.4
Asean Total	15.7	13.3	14.0	11.7	14.4
People's Republic of China	0.5	0.7	0.2	2.9	-
Hong Kong	28.2	28.7	20.6	9.8	3.2
Japan	13.2	11.7	12.4	21.7	24.4
Korea Rep.	0.6	2.3	1.5	2.8	1.5
Taiwan	6.6	-	3.6	6.5	4.1
Total of Far East	10.8	9.7	9.6	13.3	13.1
Other	6.7	0.8	0.2	0.5	0.2
Grand Total	11.1	8.5	10.0	8.9	10.0

Source: Department of Customs, The Office of the Thai Maritime Promotion Commission.

Table 4.8: Number of Vessels With Thai National Flag, 1983-1987

Unit : Number/Year

Year	Total	General Cargo	Bulk Vessels	Container Vessels	Gas Vessels	Tankers
1983	153	73	5	5	16	54
1984	153	74	5	5	15	54
1985	150	67	7	7	14	55
1986	154	65	8	7	17	57
1987	153	58	10	8	18	61

Source: Research Division, The Office of the Thai Maritime Promotion Commission.

Table 4.9: Structure of Thai Flag Vessels, by Years of Use and Type and Speed of Vessel, 1987.

	Total Number	Percent	General Cargo	Bulk Vessels	Container	Gas Vessels	Tanker
Years of Use							
Less Than 5	-	-	-	-	-	-	-
6-10	9.0	5.8	1.0	-	2.0	-	6.0
11-15	12.0	7.8	6.0	1.0	1.0	-	4.0
16-20	59.0	38.5	22.0	5.0	3.0	7.0	22.0
21-25	55.0	35.9	16.0	3.0	-	8.0	28.0
26-30	15.0	9.8	10.0	1.0	2.0	1.0	1.0
More Than 30	3.0	1.9	3.0	-	-	-	-
Total	153.0	100.0	58.0	10.0	8.0	16.0	61.0
Speed (NRT Class)							
Less Than 599	80.0	52.2	15.0	2.0	-	16.0	47.0
1000-2999	50.0	32.6	28.0	6.0	5.0	-	11.0
3000-4999	11.0	7.1	9.0	1.0	-	-	1.0
5000-9999	11.0	7.1	8.0	-	3.0	-	-
10000-14999	1.0	0.6	-	1.0	-	-	-
Total	153.0	100.0	58.0	10.0	8.0	16.0	61.0
			(37.9)	(6.5)	(5.2)	(10.4)	(39.8)

Source: Research Division, Office of the Thai Maritime Promotion Commission.

Table 4.10: Commercial Aircraft Movement In Thailand.

Unit : Percentage

Year	Aircraft Movement		Total (Number)	Growth
	Int.	Dom.		
1979	0.86	0.14	52,263	7.15
1980	0.88	0.12	54,038	3.4
1981	0.86	0.14	51,330	-5.01
1982	0.85	0.15	52,810	2.88
1983	0.81	0.19	54,472	3.15
1984	0.80	0.20	56,364	3.47
1985	0.79	0.21	56,852	0.87
1986	0.79	0.21	63,070	10.94
1987	0.81	0.19	67,638	7.24
1988	0.80	0.20	78,522	16.09

Note: Int. = International, Dom. = Domestic

Source: Airport Authority of Thailand.

Table 4.11: Airlines Annual Traffic (Scheduled Flights)

Unit : Percentage

Airlines		1987		1988			
Name	State of Registry	Share of Aircraft Movement	Share of Total Passengers	Share of Aircraft Movement	Growth of Aircraft Movement	Share of Total Passengers	Growth of Total Passengers
Air France	France	0.03	0.02	0.02	5.46	0.01	-1.34
Air India	India	0.02	0.02	0.01	10.18	0.01	0.47
Finnair	Finland	0.00	0.00	0.00	17.92	0.00	65.27
Alitalia	Italy	0.00	0.00	0.01	498.57	0.01	886.89
British Airways	U.K. Kingdom	0.02	0.01	0.01	30.91	0.01	34.49
Biwan Bangladesh	Bangladesh	0.01	0.01	0.01	31.32	0.01	29.68
Royal Brunei	Brunei	0.01	0.00	0.00	-5.71	0.00	-2.63
CAAC	P.R.China	0.01	0.00	0.01	51.11	0.00	53.30
China Airlines	Taiwan China	0.05	0.05	0.04	9.93	0.04	7.47
Canadian Airlines	Canada	0.00	0.00	0.00	443.40	0.01	660.78
Cathay Pacific	Hong Kong	0.07	0.11	0.06	17.35	0.09	19.68
Garuda	Indonesia	0.02	0.01	0.01	-12.76	0.01	19.61
Gulf Air	M.E.Countries	0.02	0.01	0.02	80.35	0.01	100.52
Iraqi Airways	Iraq	0.01	0.00	0.00	5.81	0.00	15.52
India Airlines	India	0.01	0.00	0.00	-0.63	0.00	19.59
Japan Airlines	Japan	0.04	0.03	0.03	-4.91	0.03	9.22
Yugoslavia Airlines	Yugoslavia	-	-	0.00	-	0.00	-
Korean Air	Korean	0.03	0.01	0.02	-12.65	0.01	44.34
KLM	Netherland	0.03	0.02	0.02	0.69	0.02	24.08
Kuwait Airlines	Kuwait	0.01	0.01	0.01	-14.63	0.00	-39.94
Lufthansa	German FED.REP.	0.03	0.01	0.02	9.77	0.01	-2.55
Lot Polish Airlines	Poland	0.00	0.00	0.00	17.27	0.00	5.39
Malaysian Airlines	Malasia	0.02	0.03	0.01	1.96	0.02	0.57
Egypt Air	Egypt	0.01	0.01	0.01	-15.88	0.00	18.12
Lauda Air	Austria	-	-	0.00	-	0.00	-
Northwest Airlines	U.S.A.	0.01	0.01	0.01	116.38	0.02	150.47
Olympic Airways	Greece	-	-	0.00	-	0.00	-
Czechoslovak	Czechoslovak	-	-	0.00	-	0.00	-
Pakistan Inter'l	Pakistan	0.01	0.01	0.01	26.11	0.01	39.60
Philippine Airlines	Philippine	0.02	0.01	0.02	-2.70	0.02	52.20
Qantas Airways	Australia	0.02	0.01	0.02	87.27	0.01	128.82
Lao Aviation	Lao	0.00	0.00	0.00	8.65	0.00	16.67
Royal Nepal	Nepal	0.01	0.01	0.01	10.67	0.01	57.22
Royal Jordanian	Jordan	0.01	0.01	0.00	-0.63	0.01	-4.47
Taron Romanian	Romania	0.00	0.00	0.00	5.69	0.00	17.74
SAS	Scan'Countries	0.02	0.01	0.01	21.43	0.01	23.25
Sabena Airlines	Belgium	0.01	0.00	0.01	4.83	0.00	15.99
Singapore Airlines	Singapore	0.05	0.06	0.04	18.28	0.05	13.14
Swiss Air	Switzerland	0.02	0.01	0.01	0.00	0.01	12.24
Aeroflot	U.S.S.R.	0.01	0.00	0.00	7.69	0.00	16.54
Saudi Arabian	Saudi Arabian	0.02	0.03	0.02	25.00	0.02	-11.23
United Airlines	U.S.A.	0.01	0.01	0.01	37.38	0.01	48.24
Myanna Airways	Burma	0.02	0.01	0.01	-31.19	0.00	-39.27
Air Lanka	Air Lanka	0.01	0.01	0.01	0.33	0.01	31.27
Vietnam Airlines	Vietnam	0.01	0.00	0.01	112.98	0.00	58.55
Thai	Thai	0.30	0.43	0.42	90.06	0.49	59.78
Flying Tiger	U.S.A.	0.00	-	0.01	100.00	-	-
TMA	Lebanon	0.01	-	0.01	35.94	-	-
Cagolux Airlines	Luxemburg	0.00	-	0.01	206.45	-	-
Total		1.00	1.00	1.00	39.38	1.00	38.62

Source: Airport Authority of Thailand

Passenger Services

Passenger load has been the dominant air transportation activity in Thailand. In 1988, approximately 12 million passengers were transported by commercial aircraft. The role of the Thai Airways International Company (THAI) has increased. Its share in transporting passengers rose from 42.75 percent of all passengers in 1987 to 49.27 percent in 1988, due to the boom in tourism in Thailand. Furthermore, the company concentrates on receipts from passenger services. According to Table 4.12, the percentage of receipts from passenger services was approximately 70.8 percent, while air freight accounted for only 12.7 percent of total receipts of the company in fiscal year 1986/1987. This was equivalent to 20,102.7 million baht, of which approximately 1,618.79 million baht came from domestic flights.

Air Freight Services

Shipments by air are increasing rapidly because Thailand is promoting the exportation of fresh flowers and tropical fruit in addition to manufactured products. Horticultural produce shipments represent approximately one-third of all export air cargo, particularly tropical orchids and cut flowers. In addition to agricultural produce, light-weight manufactured products such as textiles, electrical, electronic and telecommunications equipment and parts are increasingly being shipped by air. Even though THAI does not have air cargo carriers, it has participated in a joint venture in freight since 1979 with Air France and Martin Air (U.S.A.). As a result, the total amount of freight increased from 112,793 tons in 1979 to 341,552 tons in 1988, of which more than 98.2 percent involved international transportation (Table 4.13). The role of THAI during 1987-1988 more or less remained the same, averaging 45 percent of total air freight (Table 4.14). In short, Bangkok has been the center of both the country's sea and air transportation.

4.3 Regulations Governing Transportation

There are two types of government regulations and measures: general and specific. General measures apply to both the goods-producing and service sectors, which include restrictions on alien businesses and occupations, emigration regulations, foreign-exchange control, and investment-promotion incentives. On the other hand, the latter deals with selected service industries: an example is the Civil Aviation Act of B.E. 2497 which regulates foreign airlines operating in Thailand.

Only rules, regulations, and other barriers to maritime and air transportation will be discussed in this next section.

Table 4.12 : Balance Sheet of Thai Airways International Company, 1986/1987.

Receipt (%)		Payment (%)	
Non-Transportation Receipts	13.8	Other Payments	15.0
Receipts from Transportation		Operational Payment	
Activity	13.8	For Transportation	75.7
- Postal	1.5	- Administration	
- Charter Transport	0.1	Activities	0.4
- Warehouse	0.7	- Grand Payment	12.0
- Ground Services	1.0	- Customer Services	10.6
- Overweight Charge	1.0	- Transportation	15.0
- Airport Services	2.2	- Operational Flight	19.0
- Freight	12.7	- Marketing	19.6
- Passengers	70.8	- Maintenance	11.7
- Extra Services Vision	0.6	- Rental Flight	
- Maintenance Services	1.1	Equipment	2.4
- Catering Services	3.7	- Net Profit	9.3
- Duty Free Shop	2.9	(Before Tax)	
- Merchandise Sale on			
Plane	0.7		
- Restuarant at Airport	0.5		
- Limousine	0.5		
Total	100	Total	100
	(28,393.7 Millions of Baht)		(26,201.2 Millions of Baht)

Source: Thai Airways International Company.

**Table 4.13: Total Freight Carried by Commercial Aircraft
In Thailand, 1979-1988.**

Year	Freight			Growth
	International (%)	Domestic (%)	Total (Tons)	
1979	99.1	0.9	112,793	21.16
1980	99.2	0.8	133,813	18.64
1981	99.1	0.9	137,141	2.49
1982	98.8	1.2	137,417	0.20
1983	98.6	1.4	144,572	5.21
1984	98.6	1.4	179,421	24.10
1985	98.4	1.6	194,166	8.22
1986	98.4	1.6	242,773	25.03
1987	98.6	1.4	291,273	19.98
1988	98.2	1.8	341,552	17.26

Source: Airport Authority of Thailand

Table 4.14: Airlines Annual Freight Services.

Unit : Percent

Airlines		1987					
Name	State of Registry	Share of Total Freight	Share of Total Mail	Share of Total Freight	Growth of Total Freight	Share of Total Mail	Growth of Total Mail
Air France	France	0.0552	0.0001	0.0622	38.84	0.0016	998.10
Air India	India	0.0042	0.0005	0.0068	99.60	0.0011	97.60
Finnair	Finland	0.0026	-	0.0021	0.49	0.0004	-
Alitalia	Italy	0.0006	0.0003	0.0052	1007.35	0.0025	777.35
British Airways	U.Kingdom	0.0101	-	0.0126	53.40	0.0000	-
Biman Bangladesh	Bangladesh	0.0145	0.0168	0.0112	-4.49	0.0188	5.54
Royal Brunei	Brunei	0.0021	0.0032	0.0010	-40.72	0.0048	41.03
CAAC	P.R.China	0.0010	0.0067	0.0012	42.50	0.0064	-10.87
China Airlines	Taiwan China	0.0486	0.2318	0.0324	-18.04	0.0471	-80.89
Canadian Airlines	Canada	0.0009	-	0.0066	805.14	0.0088	-
Cathay Pacific	Hong Kong	0.0590	0.0007	0.0530	10.57	0.0007	-5.32
Garuda	Indonesia	0.0093	0.0009	0.0066	-12.48	0.0017	84.48
Gulf Air	N.E.Countries	0.0074	0.0036	0.0087	45.07	0.0167	340.74
Iraqi Airways	Iraq	0.0062	0.0126	0.0075	49.59	0.0093	-30.22
India Airlines	India	0.0020	0.0648	0.0016	-1.29	0.0139	171.37
Japan Airlines	Japan	0.0343	0.0016	0.0324	16.41	0.0009	-45.18
Yugoslavia Airlines	Yugoslavia	-	-	0.0009	-	0.0002	-
Korean Air	Korean	0.0275	0.0005	0.0236	5.61	0.0071	1234.66
KLM	Netherland	0.0245	0.3622	0.0250	25.63	0.3555	-7.61
Kuwait Airlines	Kuwait	0.0106	0.0070	0.0075	-13.50	0.0469	533.50
Lufthansa	German FED.REP.	0.0198	-	0.0192	19.35	-	-
Lot Polish Airlines	Poland	0.0018	0.0002	0.0015	1.92	0.0037	1326.24
Malaysian Airlines	Malasia	0.0182	0.0174	0.0157	6.30	0.0207	11.83
Egypt Air	Egypt	0.0038	0.0011	0.0035	14.38	0.0027	131.23
Lauda Air	Austria	-	-	0.0006	-	0.0021	-
Northwest Airlines	U.S.A.	0.0082	-	0.0168	151.47	0.1108	-
Olympic Airways	Greece	-	-	0.0004	-	-	-
Czechoslovak	Czechoslovak	-	-	0.0000	-	-	-
Pakistan Inter'l	Pakistan	0.0161	0.0312	0.0152	16.36	0.0335	1.30
Philippine Airlines	Philippine	0.0066	0.0315	0.0059	9.42	0.0090	-73.25
Qantas Airways	Australia	0.0065	0.0004	0.0095	78.13	0.0004	-9.98
Lao Aviation	Lao	0.0002	0.0141	0.0001	-22.45	0.0085	-43.17
Royal Nepal	Nepal	0.0026	0.0098	0.0051	145.07	0.0057	-45.58
Royal Jordanian	Jordan	0.0095	0.0024	0.0072	-6.97	0.0038	51.62
Tarom Romanian	Romania	0.0007	0.0021	0.0007	15.57	0.0004	-81.52
SAS	Scan'Countries	0.0184	0.0010	0.0207	38.50	0.0015	38.82
Sabena Airlines	Belgium	0.0078	0.0024	0.0068	7.84	0.0106	321.43
Singapore Airlines	Singapore	0.0325	0.0312	0.0301	14.09	0.0285	-14.12
Swiss Air	Switzerland	0.0083	0.0001	0.0100	47.36	0.0010	890.48
Aeroflot	U.S.S.R.	0.0069	0.0004	0.0064	12.58	0.0013	243.92
Saudi Arabian	Saudi Arabian	0.0213	0.1372	0.0143	-17.15	0.1712	17.42
United Airlines	U.S.A.	0.0077	0.0001	0.0073	15.98	0.0006	509.62
Myanma Airways	Burma	0.0004	0.0174	0.0003	2.06	0.0180	-2.64
Air Lanka	Air Lanka	0.0040	0.0024	0.0059	82.73	0.0121	379.95
Vietnam Airlines	Vietnam	0.0015	0.0186	0.0012	4.91	0.0033	-83.48
Thai	Thai	0.4554	0.0259	0.4561	23.30	0.0064	-76.69
Flying Tiger	U.S.A.	0.0114	-	0.0194	108.70	-	-
TMA	Lebanon	0.0084	-	0.0045	-33.55	-	-
Cagolux Airlines	Luxenburg	0.0014	-	0.0074	553.64	-	-
Total		1.0000	1.0000	1.0000	23.11	1.0000	-5.87

Source: Airport Authority of Thailand.

Maritime Transportation Regulations

The growing recognition of the importance of promoting the national fleet led to a declaration of The Mercantile Maritime Promotion Act B.E. 2521 to establish The Mercantile Maritime Promotion Commission (MMPC) to promote and develop the Thai national mercantile fleet. According to the Act, maritime shipping was defined to cover the shipment of passenger and freight services transported by vessel over national and international seas. The definition also included navigation, maritime insurance, port, and other activities concerned with loading/unloading, transportation, and infrastructure at the port. All shipping companies operating in Thailand are required to register with the Ministry of Commerce and are subject to rules and regulations declared/imposed by the Port Authority of Thailand (PAT). The Act also limits the foreign equity of mercantile maritime companies to be not more than 49 percent of total equity. Even though PAT has the authority to manage and to impose rules and regulations for port use, the purchase of port facilities and the expansion of port infrastructure need Cabinet approval. All labor-moving activity is monopolized by the Port Labor Union, and all merchandise transported from the port must be moved by the Express Transportation Organization of Thailand (ETOT) only. Further, all loading and unloading activities to and from vessels must be carried out by PAT.

In 1981, all Thai Government-to-Government trade was required to be transported by Thai national shipping lines, except for those goods requiring special vessels beyond the capacity of the Thai fleet. Because of various problems, this requirement became ineffective in recent years and, as there are no other specific measures to promote or protect the Thai fleet, this has led to many complaints from Thai shipowners.

The Ministry of Transportation, in collaboration with the Thai Shipowners Association and the MMPC, has held several meetings with Thai shipping lines operating between Thailand and Japan. The Thai Maritime Navigation Co., Ltd., a state enterprise, initiated "The Thailand-Japan Freight Conferences" to establish joint shipping lines. This effort resulted in less than 70 percent of Thai shipowners not being allowed to join the shipping line. Therefore, the Thai government liberalized policies for the shipping industry. And now the private sector plays a major role in the industry, which has keen price competition.

The Regulation of Aviation

Air transportation has been subject to The Civil Aviation Act of B.E. 2497. According to the Act, air transportation implies the transport of passengers and freight services by commercial aircraft. The services may be categorized into two groups, air transport activities and services at the airport. The first category includes air-passenger and air-cargo services, which are carried out by the Thai Airways International Company (a state enterprise) and foreign airlines. The second category includes landing, parking rental

maintenance, warehousing, and other service provisos. These activities are under the responsibility of the Airport Authority of Thailand (AAT). The AAT has the authority to manage and impose rules and regulations concerning the use of the airport and its facilities, but improvements in and expansion of airport infrastructure needs Cabinet approval--including the purchase of aircraft by Thai Airways International.

Most civil aviation routes are based on bilateral agreements between the concerned countries, which designate specific carriers on particular routes and specify frequency of services. Thai Airways International also uses bilateral agreements to determine the number of flights and routes and the extent to which the respective foreign airlines may fly to or from their territories, and vice versa, on a reciprocal basis. Thailand reserves full rights on all in-country flights for its national airline, Thai Airways International, which is a state enterprise. There is differential treatment of international transport, since foreign air carriers are taxed on gross income while national carriers are taxed on net profit. Furthermore, national carriers are given preferential access to airport facilities and services which are under the control of the AAT.

In general, air fares are based upon agreements reached in tariff conferences of the International Air Transport Association (IATA) and are subject to the approval of the concerned governments. In general, government purchasing of discriminatory air fares is commonly practiced. All Thai government officers are required to travel on Thai carriers for all official travel at a discriminatory air fare rate. The discriminatory rates also apply to ASEAN passengers who travel between ASEAN countries; this is know as the ASEAN air fare.

4.4 Factors Determining the Pattern of Transportation

Freight and passenger service patterns are determined by different factors. This study will be confined only to maritime freight and air passenger services. The factors determining each type of services are described below.

Freight Services

Factors determining the trade pattern of freight services include relative price, factor endowment, scale, and trade variables. Relative price variables were excluded from the equation because some of the needed information was not available. The ratio of freight debit (FD) to freight credit (FC) was defined as the dependent variable (FDFC) of the equation. In general, shipping is considered to be a capital-intensive activity. A higher capital-labor ratio (KMKL) of freight service will be associated with a lower FDFC value. Thus, countries with high capital formation will have a comparative advantage in shipping. Similarly, estimated coefficients of GDP at

market prices (GDPMKN), which were included as a scale variable in the equation, are also expected to have a negative relationship with the FDFC. This is because the larger economy will lower the ratio of freight debit (FB) to freight credit (FC), which is due to higher freight credit. On the other hand, the ratio of manufactured imports to total imports (MM) is expected to have a positive relationship with FDFC. That is, the high ratio of MM worsens the current account in Thailand's balance of payments. The regression coefficients were estimated in logarithm equation form as follows:

$$\text{LDFDC} = 7.266 - 0.423 \text{ LKMKL} + 3.629 \text{ LMM} - 2.532 \text{ LGDPMKN}$$

$$(3.270) \quad (-0.733) \quad (4.838) \quad (-8.302)$$

$$R^2 = 0.952 \quad , \quad F\text{-Statistic} = 33.1551$$

The results strongly indicate that the trade ratio (LMM) and the scale variables (LGDPMKN) have a close relationship with the dependent variable, while the capital-labor ratio (LKMKL) does not significantly affect the dependent variable. This implies that the increase in capital-labor ratio of the Thai fleet does not affect the ratio of freight payments to freight receipts. The increase in import leads to higher freight payment, since more services on foreign trade is needed.

Passenger Services

The dependent variable (PSDSC) is defined as the ratio of passenger service debit to passenger service credit. It was postulated that the pattern of comparative advantage in passenger services is related to the industry's capital-labor ratio. The higher K/L will lower the value of the dependent variable (LPSDSC). Therefore, an increase in the capital-labor ratio will improve the current account in the balance of payments. For simplicity, passenger service flow was treated as a proxy of travel debits and travel credit flows (LTRDRC), which were hypothesized to have a positive relationship with LPSDSC. The scale variable is expected to have a positive relationship with FDFC. The estimated coefficients are as follows:

$$\text{LPSDSC} = -1.0631 + 0.0931 \text{ LTRDRC} - 0.107 \text{ LKMKL} + 0.126 \text{ LGDPMKN}$$

$$(-3.689) \quad (1.515) \quad (-5.538) \quad (2.408)$$

$$R^2 = 0.8267 \quad , \quad F\text{-Statistic} = 4.7705$$

The empirical results show that the impact of international airline arrangement and the capital-labor ratio do not affect passenger services in Thailand. However, the dependent variable has a close relationship with the scale variables (GDP), but this has little impact on the passenger services. The proportional change in GDP is smaller than the proportional change in passenger services.

4.5 Major Problems and Issues in Transportation

The transportation system in Thailand has good prospects, and its value added is expected to reach 128,548.43 million baht by the end of 1994. Air transportation has higher prospects than sea transportation, since it has the highest growth rates in both exportation and importation (Table 4.15). Don Muang International Airport in Bangkok has become the second largest aviation center in Asia, second only to Narita International Airport in Tokyo, and its status is expected to remain this high until the Supersonic Aviation era. In addition to freight, air passenger service also has a high growth rate, averaging 10.19 percent per year. Table 4.16 also shows that domestic passenger services (20.41%) are higher than international services (7.17%). Despite these good prospects, however, transportation in Thailand is confronted by numerous problems which are discussed below.

Infrastructure Problems

Both the international airport and the sea port situated in Bangkok face a variety of different problems.

1. The major sea port at Klong-toey cannot handle large vessels; it can accommodate only lines with containers averaging about 60,000 DWT which, by international standards, are regarded as small. Sometimes, bulk cargoes such as rice and maize have to be loaded into large vessels at Si-chang, which increases the handling cost to exporters. In addition, insufficient facilities and equipment, traffic congestion, and Bangkok's crowded port are other unsolved problems. The unorganized port leads to accidents, burglary, and missing cargo at the port. Furthermore, port expansion is impossible, and a new location is desirable.
2. Don Muang International Airport is also faced with numerous problems, since its capacity and size are both too small. The passenger terminal and check-in counter area are too small and cause congestion, particularly at peak periods. The passenger service building has recently become crowded and relatively small, since its size was underestimated. The building was designed to accommodate 16 million passengers within 15 years, an increase of 5 to 7 percent a year, but the actual percentage increase was 20 percent and the number of passengers reached 11 million in 1988; further, it is expected to reach 13 millions passengers by the end of 1989. At present, the peak capacity of the airport is about 50-60 flights per hour. This means that this capacity will not be able to handle the peak traffic in 2545, at which time peak traffic is expected to be much higher than now. And, despite the present excess capacity of the runways, a new commercial airport, separate from the military airport, is needed for the near future.
3. Thailand's domestic transportation relies heavily on road transportation. The small square footage of road surface in

Table 4.15: Growth of Air and Sea Transportation, 1980-1987.

Unit : Percent

Year	Exports				Imports			
	Air Transport		Sea Transport		Air Transport		Sea Transport	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
1981	209.9	-7.5	19.2	18.3	-2.4	4.8	-7.6	13.7
1982	-28.1	7.6	27.8	5.0	-1.0	-10.2	-7.3	-7.3
1983	-35.9	-36.8	-19.4	-5.6	152.5	20.9	27.3	17.1
1984	228.1	94.8	19.1	10.9	40.1	37.5	-5.6	0.5
1985	-48.5	15.1	7.3	8.6	-5.8	4.6	-4.3	2.4
1986	-9.2	46.4	7.5	15.5	36.1	57.6	4.0	-11.6
1987	80.4	55.6	-3.7	24.8	-32.9	47.4	20.6	36.9
Average	56.7	25.1	8.3	11.1	26.7	23.2	3.9	7.4

Source: Department of Customs.

Table 4.16: Growth Rates of Passenger Services

Unit : Percentage

Year	Domestic	International	Total
1979	23.05	16.77	17.21
1980	14.83	11.85	12.08
1981	18.47	5.97	6.91
1982	13.29	7.73	8.20
1983	22.32	1.21	3.06
1984	28.09	4.33	6.80
1985	20.32	2.66	5.03
1986	13.74	3.10	4.62
1987	29.95	15.10	17.42
1988	20.01	2.77	20.60
Average	20.41	7.17	10.19

Source: Airport Authority of Thailand.

relation to total traffic causes urban traffic congestion and air pollution, particularly in Bangkok, the largest city. Traffic congestion in Bangkok also affects international air and sea transportation, since vehicles must pass through Bangkok. Regulations governing the time trucks may travel in Bangkok also causes higher exportation and importation cost. Improving the infrastructure for transportation in Bangkok will ease the transportation of Thailand's foreign trade. However, constructing roads and expressways is not a desirable approach for solving the permanent traffic problem in Bangkok and in the country as a whole.

Problems in Maritime Transportation

In addition to infrastructure problems, maritime transportation is also faced with the following problems.

1. There is a shortage of refrigerated containers, particularly 12-foot containers. This causes many chilled and frozen products to be left at the port, and makes it difficult or impossible to export to foreign importers on time--especially to Japan, Hong Kong, and other Asian countries.
2. PAT reserves the loading/unloading rights at the berth. Problems arise since PAT has obsolete cranes and other facilities, which take more time than should otherwise be the case. This raises the cost of exportation. However, PAT must obtain approval from the Cabinet to improve its insufficient facilities.
3. All merchandise-moving labor services are monopolized by the Port Labor Union (PLU), which has the bargaining power to determine labor service charges and working hours. This several times has led to labor shortages at peak periods due to limited members.
4. The Express Transportation Organization of Thailand, a state enterprise, monopolizes the transport of imports out of the port. The organization has often been short of trucks to serve customers and its service has been slow.
5. Thai national fleets are underdeveloped and inexperienced in the maritime business. Most Thai shipping companies are operated strictly as family businesses, which results in insufficient capital funds and inexperience in marketing. The government now imposes no special measures for the promotion or protection of Thai shipowners; they must be on their own to compete with foreign shipping companies and some have been crowded out by fierce competition. If all nations continue the liberal shipping policy, Thailand's exports will face no problems. In contrast, if foreign shipowners begin to favor their countries' exportation/importation, Thai exports will be penalized through shipment delays. Furthermore, although the Department of the harbor offers a diploma course and training courses in Maritime transportation and its business, there is no university in

Thailand offering degree in this field. With limited resources, the Department can not do very much. The Thai Maritime Navigation Co., Ltd., a state enterprise, is very weak and operates at a loss.

Problems in Air Transportation

Even though Thai Airways International (THAI) monopolizes air transportation in Thailand, it still has many problems.

1. Thai Airways International Company is presently experiencing a shortage of passenger planes which causes many flights to be delayed from their original schedule. PAT must get the Cabinet approval to buy new planes or to release old planes.
2. Exporters face space shortages for air freight. All space is reserved year-round by agents and associations. The situation is worse for horticulture exporters because freight rates discriminate in their favor. As a result, agents give higher priority to other exports over the horticulture exports. Furthermore, since Thai International Company concentrates on passenger service receipts, air cargo is only a secondary objective of the company. In addition, the company presently does not have any cargo carriers, and most cargo is carried in the excess space of passenger carriers. However, THAI is part of a joint venture with Air France and Air Martin (USA) in freight services.

4.6 Policies and Measures

To solve the problems facing air and maritime transportation, the following policies and measures should be adopted:

Educational Measures

The government should establish a maritime business curriculum at the vocational and university levels to create qualified personnel for the industry. Presently, most Thai shipowners have no knowledge and little experience in maritime business. They got their experience and learned by doing, many of them suffering losses and being forced out of the business. With qualified personnel in the business, the Thai maritime industry will be improved and become competitive in the international market. Furthermore, a low-cost maritime business training program should be provided by relevant governmental agencies, academic institution, and private organizations.

Infrastructural Measures

A study on the possible construction of a new commercial airport should be carried out again. The government has realized the necessity and began constructing a new deep sea port at Laem Chabang in Chonburi in October 2, 1986. A new industrial estate of 450 hectares was established, along with an Export Processing Zone,

adjacent to the Laem Chabang Commercial deep sea Port. It consists of light, intermediate and export-oriented industry zones. The deep sea port will improve the crowded situation at the Klong-toey port.

To remain as a center for aviation, the construction of a new commercial airport seems to be unavoidable, since the Don Muang International Airport no longer can be expanded. The new airport should be separated from the military airport, and should have modern, highly efficient facilities to handle the heavy air traffic of the future. In the long-run, airports for passenger and cargo services should be separated. The new passenger airport should remain in Bangkok, since major government and private offices and tourist attractions are situated in the city. The cargo airport may be in Chonburi or in another near by province. For instance, the Utha-Pao airport is expected to become an international cargo airport when the Eastern Seaboard Project is completed.

As Bangkok will remain the center for business and transportation, a new transportation system should be established to supplement the new airport and deep sea port. A road that does not pass through Bangkok must be constructed, and domestic transportation should utilize more railways connecting roads to various destinations. A domestic transportation system which relies only on roads is not desirable for future transportation in Thailand, especially for passenger services in urban areas. The construction of a center for mass transportation in Bangkok connecting to trains coming from the suburbs and nearby provinces is essential in the near future, since road and express way construction are limited and led to severe air pollution in Bangkok.

Flexibility and Incentive Measures

The state enterprises involved in the transportation industry (such as THAI and PAT) should have more flexibility in managing their organizations and improving their facilities and equipment, so that they can compete with foreign companies. Furthermore, special incentives may be granted to promote private parties at early stages of investment; for instance, incentives may be granted to entrepreneurs who want to create air cargo companies, a service which is almost ignored by THAI. Also, incentives may be provided to promote Thai Maritime companies and container producers, with specific emphasis on the production of refrigerated and 12-foot containers.

4.7 Strategies for Increasing the Competitiveness of Transportation

Selective policies and strategies will be recommended to strengthen the transportation industry due to its varying nature.

Maritime Transportation

Trade liberalization measures should be adopted for Thailand's maritime transportation industry, since it falls into the service category of immobile user and mobile providers. Foreign importers

usually reserve the right to hire vessels to transport their imports. Furthermore, Thailand does not have a comparative advantage in maritime transportation and the industry is presently underdeveloped. However, it is necessary to provide special privileges to help the Thai fleet develop and operate as a container feeder on Asian routes such as the Thailand-Singapore route.

To achieve this objective, the government should adopt both long-run and short-run strategies. In the short-run, investment promotion privileges should be granted to maritime and related industries. In addition, training courses on the maritime and shipping businesses should be provided for Thai shipowners and interested persons; special investment incentives should be granted to Thai shipowners who understand the business and who are willing to improve their companies; more flexibility has to be given to related state enterprises; and studies on the transportation infrastructure should be carried out at the same time.

In the long-run, maritime, business, and engineering curriculum should be developed at the vocational and university levels. More new deep sea ports with modern facilities and industrial estates should be constructed. Finally, a new and more balanced domestic transportation system should be developed.

Air Transportation

Because Thailand has a comparative advantage in air transportation, the Thai government should reserve full rights in domestic flights for THAI and adopt a trade liberalization policy for international flights. However, more flexibility in managing and improving freighters and equipment should be given to enable THAI to compete in the international market. To maintain Don Muang as the hub airport, AAT must have more authority and flexibility to manage and improve the airport's organization and facilities. In addition, it is necessary to improve transportation connections between Bangkok and the new airport. These improvements will enable Don Muang International Airport to remain a center for Asian aviation.

4.8 Conclusions and Recommendations

1. Maritime transportation has been the dominant mode of transportation in Thailand's international trade, but recent changes in the trade structure have increased the role of air transportation in both freight and passenger services. The former is due to a rise in air transport of fresh horticulture and light-weight manufactured products, while the latter is a result of the tourism boom in Thailand. Don Muang International Airport is the second largest center for aviation in Asia, second only to Narita International Airport of Japan. With appropriate policies and expansion, Bangkok will remain the center for aviation until the supersonic aviation era.

2. Despite the high growth rate, Thailand's transportation industry faces numerous problems. Infrastructure problems occur in both air and maritime transportation. The government is constructing a new deep sea port at Laem Chabang to solve the maritime problems, but there is no specific plan to build a new international airport. Shortages of facilities and equipment, air cargo carriers, and refrigerated containers delay exportation and leave many merchandises at the sea port. The Port Labor Union sometimes also causes transportation delays due to labor shortage. These problems make Thailand's transportation compete poorly in the market.
3. To improve competitiveness, the government should provide a short training course on the maritime and shipping business for Thai shipowners and interested persons. Furthermore, investment privileges should be available for Thai shipowners who understand the maritime business and shipping, and who are willing to improve their organization. More flexible management for AAT, PAT, and THAI should be provided. In the long run, curricula on the maritime and shipping business should be formally established at the vocational and university levels. A new commercial airport and deep sea port with modern facilities and equipment are desirable.
4. A study of Thailand's transportation structure and related infrastructure should be carried out to determine the linkages between domestic and international transportation in order to avoid Bangkok's traffic congestion. A feasibility study on constructing mass transportation in Bangkok should be carried out.

5. BANKING

5.1 Introduction

Banking service is, by its nature, heterogeneous. In general, banking is classified as a user service that requires physical proximity of users and providers; thus it belongs to the service category of immobile provider and mobile user. Users must go to the bank to obtain banking services such as general commercial banking and offshore banking. However, the technological advances in computers and telecommunications has led to the development of electronic banking, which does not require physical proximity of providers and users. Banking services, which include transportation and information provision, can be accomplished through telebanking, Automatic Teller Machines (ATM), and Electronic Fund Transfers at the Point of Sale (POS).

Commercial bank transaction volumes depend upon relative interest rates, the image and the reputation of the bank, and convenience of access to banking services. Banking services originally comprised only savings mobilization and credit extension; however, the services presently offered include other banking facilities such as rediscounting, advice on letters of credit, bill collection, and packing credit. Thailand's present banking system consists of both regular banking and electronic banking systems. Electronic banking was first established in Thailand by the Siam Commercial Bank in the early 1980s, and now both on-line and off-line systems operate in Thai banking systems. However, electronic banking has not been fully developed and utilized due to its high cost. For example, home banking and office banking are not widely used because of the high cost; only ATM cards are widely used in Thailand. According to the Than-Setthakit survey of June, 1989, Thai commercial banks have installed 965 ATM machines, of which Bangkok Bank accounts for 25 percent (or 237 machines). Table 5.1 presents figures which show that approximately 89,743,000 ATM cards have been issued by Thai commercial banks; Bangkok Bank and the Siam Commercial Bank had the highest share at 8.21 percent of all ATM cards--or each issued 1,300,000 ATM cards. The role of electronic banking has increased rapidly in the last few years and it is expected that Thailand will soon experience a new era of fully electronic banking. In addition to Thai banks, there are a number of foreign bank branches operating in Thailand, but their shares of the Thai banking system are relative small. Even though Thai commercial banks have the largest share of total financial transactions in the country, Thailand still suffers a net deficit in interest earnings in the current account due to its high foreign debt.

Table 5.1: Number and Share of ATM machines and cards by Banks
as of June 1989.

Unit : Numbers

Banks	ATM Machine		ATM Cards
	Numbers	Share	Numbers
Bangkok Bank Ltd.	237	25	1,300,000
Krung Thai Bank Ltd.	178	18	1,100,000
The Siam Commercial Bank Ltd.	148	15	1,300,000
The Thai Farmers Bank Ltd.	147	15	1,000,000
The Thai Military Bank Ltd.	68	7	n.a.
The Bank of Ayudhya Ltd.	67	7	300,000
The Bank of Asia Ltd.	29	3	69,000
The Thai Danu Bank Ltd.	27	3	50,000
The Union Bank of Bangkok Ltd.	17	2	80,000
Bangkok Metropolitan Bank Ltd.	16	2	60,000
Nakornthon Bank Ltd.	11	1	17,000
First Bangkok City Bank Ltd.	11	1	n.a.
The Siam City Bank Ltd.	6	1	n.a.
The Laem Thong Bank Ltd.	3	0	3,000
Total	965	100	5,279,000

Source: Than-Setthaket Survey; June, 1989.

5.2 Patterns and Direction of Banking

Thailand has many types of financial institutions, all of which have long operated in Thailand except for the finance companies which have operated only since the late 1960s. Among the financial institutions, commercial banks are the largest and the most important institution in terms of total assets, total savings mobilized, and total credit extended (Table 5.2). The second largest group comprises the finance companies. Each type of financial institution has a different definition of savings as presented in Table 5.3. The financial institutions which have an increasing role in mobilizing household savings and extending credit are the commercial banks, the life insurance companies, and the savings cooperatives. The roles of the rest constantly decline. Only the patterns and direction of banks and financial companies are discussed in this section.

Commercial Banking

Commercial banking first came to Thailand as a branch of a foreign bank, and the first Thai bank was established in 1906. At the end of 1988, there were 15 Thai banks and 14 foreign banks'branches in Thailand. Thai commercial banks have approximately 30 overseas offices and have played a major role in the economic development of Thailand by mobilizing household savings and extending credit; in fact, their role in both areas has increased. Their shares in total savings increased from 70.5 percent in 1980 to 73.3 percent in 1987 (Table 5.3); while their share of in total credit increased from 69.52 percent in 1980 to 76.14 percent in 1987 (Table 5.4). The role of commercial banks has increased because high economic growth has raised personal income and savings, and also because of the establishment of electronic banking in the 1980s. ATM services have been widely used for financial transactions in Thailand, particularly withdrawal services amounting to approximately 76 percent of total ATM transactions. Furthermore, some finance companies are faced with numerous management problems.

Time deposits have been the major source of commercial bank funds, accounting for 62.2 percent of all deposits in 1987; they were followed by savings deposits (31.4%) and demand deposits (6.4%) (Table 5.5). With the small interest differential between time and savings deposits, savings deposits increased their share of total deposits during 1980-1987 because they are more flexible. On the lending side, the business and industrial sectors in Thailand have relied heavily on direct credits--particularly loans and overdrafts from commercial banks. The shares of rediscounted bills and overdrafts (loans) more or less remained the same. At the end of 1988, overdrafts accounted for 59.79 percent while rediscounted bills accounted for only 25.83 percent of the total use of commercial banks funds (Table 5.6). The proportion of loans increased during 1987-1988 due to rapid economic and export expansion. Most bank loans are extended to the manufacturing sector. Approximately 25.8 percent of all bank loans in 1988 were extended to the manufacturing sector; 18.9 percent to the wholesale and retail trade; 8.4 percent to foreign trade; but only 6.6 percent to the agricultural sector (Table 5.7). The loan to manufacturing and to foreign trade sector is expected to increase.

Table 5.2 : Salient Features of Financial Institutions in Thailand (at end-1987).

Unit : Millions of Baht

Institutions	Operations Began	No. of Branches	No. of Deposits Equivalent	Borrowing	Households Savings Mobilized	Capital Account	Credit Investment Extended	Total Assets
1 Commercial Banks	1888	30	1,986 c/	73,124	588,729	51,469	672,907	920,096
2 Finance Companies	1969	94	36	36,641	80,272	10,885	116,182	159,955
3 Life Insurance Companies	1929	12	732	59	20,413.8 e/	459	7,652	24,952
4 Agricultural Cooperatives	1916	(1157)	-	(5,952.1)	(2,506.7)	(3,790.9)	(8,097.5)	(11,248.1)
5 Savings Cooperatives	1946	(732)	-	(602.9)	(19,658.9)	(20,360.5)	(21,563.3)	(24,348.8)
6 Pawnshops	1866	336	-	(3,300.0)	-	(1,400)	(4,800.0)	(5,400.0)
7 Credit Foncier Companies	1969	21	-	1,989	1,989	596	2,441	3,835
8 Government Savings Bank	1946	1	170 d/	99,218	96,898	5,555	3,635	111,533
9 BAAC	1966	1	70	19,641	4,525	2,067	25,105	33,595
10 Industrial Finance Corp. of Thailand	1959	1	6	12,146	-	(3,011)	8,680	22,353
11 Government Housing Bank	1963	1	2	7,838	7,834	2,183	12,671	15,441
12 Small Industries Finance Office b/	1964	1	-	-	-	57	42	58
Total	2,387	3,302	1,002,083	148,054	803,026	107,836	863,776	1,333,014

Note: a/ Figures in parentheses are estimated

b/ At End-September 1987

c/ Not Including Head Offices of 16 Thai Banks and 14 Foreign Banks in Thailand

d/ Including 4 Amphur (District) agencies

e/ Preliminary Figure

Source: Bank of Thailand.

Table 5.3 : Household Savings at Financial Institutions
(as percentage share of total).

unit : percentage

Institutions	Definition of Savings	1980	1981	1982	1983	1984	1985	1986	1987
1 Commercial Banks	Deposits	70.57 (27.42)	70.25 (21.09)	70.78 (27.76)	73.20 (29.50)	75.40 (20.25)	74.35 (14.82)	72.70 (11.54)	73.31 (16.53)
2 Finance Companies	Promissory Notes etc.	12.63 (27.25)	13.75 (32.47)	13.92 (28.31)	12.06 (8.50)	9.28 (-10.17)	9.54 (19.66)	8.51 (1.76)	7.51 (1.95)
3 Life Insurance Companies	Life Insurance Reserve	2.33 (26.19)	2.45 (28.14)	2.46 (26.98)	2.48 (26.34)	2.55 (20.19)	2.62 (19.33)	2.51 (9.66)	2.54 (16.83)
4 Agricultural Cooperatives	Deposits & Capital funds	0.41 (17.85)	0.38 (13.35)	0.35 (17.83)	0.32 (13.55)	0.32 (15.59)	0.32 (19.99)	0.31 (10.23)	0.31 (14.99)
5 Savings Cooperatives	Deposits & Capital funds	1.59 (30.64)	1.67 (27.54)	1.69 (28.78)	1.76 (29.87)	1.88 (24.41)	2.02 (25.51)	2.25 (26.99)	2.47 (27.01)
6 Pawnshops	-	-	-	-	-	-	-	-	-
7 Credit Foncier Companies	Notes payable	0.85 (46.97)	0.99 (41.70)	1.01 (28.96)	0.69 (-14.5)	0.44 (-25.09)	0.35 (-9.22)	0.32 (6.75)	0.25 (-11.49)
8 Government Savings Banks	Deposits, Saving certificates etc.	10.40 (15.80)	9.51 (11.19)	8.90 (18.71)	8.71 (22.56)	8.76 (17.46)	9.22 (22.43)	11.68 (44.58)	12.07 (19.37)
9 BAAC	Deposits	0.55 (15.04)	0.45 (-0.7)	0.43 (22.27)	0.40 (16.44)	0.38 (10.41)	0.42 (30.60)	0.53 (41.09)	0.56 (23.74)
10 Industrial Finance Corp. of Thailand	-	-	-	-	-	-	-	-	-
11 Government Housing Bank	Deposits	0.67 (111.48)	0.55 (-0.07)	0.46 (5.12)	0.38 (5.52)	0.99 (200.16)	1.16 (36.94)	1.19 (16.07)	0.98 (4.82)
12 Small Industries Finance Office	-	-	-	-	-	-	-	-	-
Total		100	100	100	100	100	100	100	100

Note: Figures in Parentheses are Annual Growth Rates (%).

Source: Bank of Thailand.

Table 5.4 : Credit Extended by Financial Institutions : Outstanding Amounts at Year end.

Institution	Unit : Percentage																	
	1980	1981	1982	1983	1984	1985	1986	1987	(1980-1987)									
	%	%	%	%	%	%	%	%	%	%	%							
Commercial Banks	69.52	12.23	69.01	16.22	69.18	17.81	72.67	33.99	74.61	18.26	74.98	9.69	74.55	4.36	76.14	23.76	72.58	17.04
Finance Companies	17.46	15.57	17.74	18.94	18.35	21.60	16.41	14.08	14.93	4.76	14.11	3.18	14.02	4.28	13.15	13.63	15.77	12.01
Life Insurance Companies	0.86	30.81	0.91	24.62	0.94	20.85	0.92	25.29	0.97	21.76	1.02	14.79	1.00	2.47	0.87	4.96	0.94	18.19
Agricultural Cooperatives	1.24	2.24	1.14	7.52	1.06	9.02	0.88	5.77	0.84	9.40	0.85	10.34	0.92	14.10	0.92	20.80	0.98	9.90
Saving Cooperatives	1.28	27.59	1.41	28.68	1.54	28.52	1.53	26.95	1.69	27.27	1.91	23.15	2.41	32.63	2.44	22.35	1.78	27.14
Pawnshops	0.89	14.83	0.85	12.15	0.73	0.78	0.65	14.43	0.67	17.73	0.66	7.83	0.82	-1.44	0.54	6.01	0.70	9.04
Credit Foncier Companies	0.77	29.37	0.79	21.16	0.82	20.61	0.66	2.68	0.47	-18.39	0.41	-5.02	0.36	-5.95	0.28	-7.75	0.57	4.59
Government Savings Banks	0.36	-1.66	0.57	86.68	0.47	-2.12	0.59	60.25	0.19	-62.61	0.20	15.00	0.22	12.34	0.41	129.86	0.38	29.62
BAAC	3.96	13.90	3.84	13.46	3.63	11.31	3.10	8.74	3.08	14.55	3.11	18.32	3.17	6.81	2.84	8.66	3.34	10.97
Industrial Finance Corp. of Thailand	1.05	34.50	1.17	29.95	1.08	9.29	0.89	4.66	0.96	23.89	1.13	26.76	1.10	1.86	0.98	8.58	1.05	17.69
Government Housing Banks	2.58	65.77	2.55	15.86	2.19	0.83	1.68	-1.95	1.58	8.60	1.61	10.90	1.62	6.00	1.43	6.88	1.91	14.09
Small Industries Finance Office	0.03	-19.60	0.02	-27.85	0.01	-24.66	0.01	-21.71	0.01	-7.27	0.01	-0.49	0.01	14.29	0.00	8.62	0.01	-9.83
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source : Bank of Thailand.

Table 5.5 : Sources of Funds of Commercial Banks (At Year End).

Unit : Millions of Baht

	1980	1981	1982	1983	1984	1985	1986	1987
Sources of Funds								
Capita account	19,488	21,472	24,596	28,056	36,291	42,445	44,097	57,469
Deposits	217,115	260,185	324,303	407,597	496,223	555,546	627,153	752,508
Demand	28,324	29,625	26,238	25,737	27,939	25,777	33,596	46,146
(13)	(12)	(9)	(7)	(6)	(5)	(5)	(6)	
Savings	28,127	38,634	61,685	95,474	106,036	117,063	164,090	234,143
(13)	(15)	(19)	(24)	(21)	(21)	(20)	(31)	
Time	157,672	188,672	231,406	282,879	358,433	409,482	425,926	464,279
(74)	(73)	(72)	(70)	(72)	(74)	(68)	(62)	
Other	2,893	3,227	2,964	3,508	3,915	3,284	3,541	6,000
Borrowings	42,356	50,221	46,654	61,906	78,936	65,836	59,619	71,300
From BOT	16,711	20,157	20,919	23,337	24,276	26,103	33,632	42,031
From banks abroad	25,646	30,064	25,735	38,539	46,660	39,733	25,987	29,269
Other	21,057	22,270	28,174	38,600	35,811	38,018	37,622	38,764
Total	300,016	354,148	423,728	528,159	638,360	701,845	768,669	920,101

Source : Bank of Thailand.

Table 5.6 : Use of Funds: Overdraft, Rediscount, and Investment.

Unit : Millions of Baht

Item	1982	1983	1984	1985	1986	1987	1988
Rediscount	82,691 24.39	114,720 26.31	133,143 24.90	140,827 24.37	153,414 24.28	206,493 26.96	243,773 25.83
Overdraft	199,502 58.84	265,267 60.84	318,390 59.55	355,073 61.45	366,732 58.06	435,756 56.89	564,270 59.79
Investment	56,890 16.78	55,975 12.83	83,070 15.53	81,844 14.17	111,493 17.65	123,610 16.14	135,659 14.37
Total	339,083 100	435,962 100	534,603 100	577,785 100	631,638 100	765,859 100	943,702 100

Source: Bank of Thailand.

Table 5.7 : Bills, Loan and Overdrafts of Commercial Banks classified by purposes.

Line	Unit : Percentage															
	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Agriculture	1.93	1.90	3.41	4.28	5.16	5.38	5.43	5.61	6.22	7.22	7.39	7.76	7.43	7.23	6.67	6.50
Mining	0.91	0.79	0.73	1.16	0.54	0.67	0.63	0.76	0.70	0.62	0.59	0.59	0.63	0.58	0.50	0.53
Manufacturing	16.29	18.55	19.88	18.25	19.42	18.39	17.31	18.35	22.60	21.15	21.53	22.01	23.15	22.76	23.45	25.83
Construction	5.09	4.72	4.61	4.54	4.89	5.23	5.12	5.30	5.05	5.24	5.29	5.43	5.56	5.57	4.60	4.32
Real Estate Business	4.70	4.76	4.08	3.79	3.13	2.73	3.03	3.01	2.70	2.76	2.97	3.48	3.67	3.78	4.48	6.27
Imports	17.82	17.88	15.05	13.87	12.69	11.39	13.32	13.24	9.73	7.82	8.39	7.48	6.46	5.90	5.67	5.30
Exports	9.53	11.64	12.28	13.00	10.68	11.10	12.88	11.09	10.10	9.45	7.77	8.25	8.50	9.13	8.79	8.31
Wholesale and Retail Trade	23.82	19.72	19.51	21.39	22.91	23.93	22.38	22.05	22.79	24.95	24.58	23.45	23.09	23.24	20.27	18.94
Public Utilities	1.18	1.15	1.11	1.36	2.14	2.46	2.27	3.01	2.31	1.84	1.59	1.55	1.80	1.73	1.83	1.58
Banking and Other Financial																
Business	5.46	6.89	6.50	6.07	5.71	5.96	6.29	6.46	4.94	5.49	6.24	6.29	6.01	6.08	9.11	6.33
Services	4.52	4.47	4.27	4.22	4.42	3.92	3.50	3.69	4.66	5.22	4.78	5.03	5.09	5.20	5.21	5.68
Personal consumption	8.69	7.49	8.50	7.86	8.27	8.82	7.77	7.39	6.21	8.25	8.87	8.67	8.60	8.79	9.42	10.30
Other	0.06	0.03	0.06	0.02	0.04	0.02	0.08	0.05	-	-	-	-	-	-	-	-
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Note: * Including interbank transactions.
Source: Bank of Thailand.

Thai commercial banks dominate the Thai financial system in both loans and deposits, whereas their shares have been stable for years. According to Table 5.8, Thai banks account for more than 95 percent of total loans and 97 percent of total deposit, in Thailand. Among them, the Bangkok Bank has the highest share in both total deposits (29%) and loans (32%) (Table 5.9). The shares of Thai Farmers Bank and the Krung Thai Bank increased during 1979-1988, but the Thai Farmers' share increased more than Krung Thai's. Furthermore, Thai banks play a significant role in Thailand's exports and imports. More than 93 percent of all export credit and 90 percent of all import credit during 1982-1988 was extended by Thai banks (Table 5.10). Most export credits came from rediscounting export promissory notes. Indeed, at the end of 1988, Thai banks rediscounted about 88.8 percent of all export promissory notes. The expansion of the role of foreign banks led to a decline in the share of Thai banks in rediscounting from 93.55 percent in 1984 to 88.6 percent in 1988 (Table 5.11). At year-end of 1988, the Bank of Tokyo Ltd., which is the largest foreign bank in Thailand, had mobilized deposits amounting to 3,663 million baht and had extended credit amounting to 9,495 million baht (Table 5.12). The role of the Japanese banks in Thailand, especially the Bank of Tokyo and The Mitsui bank, has increased since 1986 because foreign investment, loans, and grant-aid from Japan have increased more than any other country. For example, foreign investment from Japan to Thailand was 3,268 million baht in 1987, in comparison to foreign investment from the U.S. in the same year, which was only 791 million baht. Furthermore, Japan is the major importer of several Thai exports.

Finance and Security Companies

The first Thai finance company began operation in 1969, and many more have been established since then. By the end of 1987, there were 94 finance and security companies operating in Thailand: 22 of these were finance companies and 72 were finance and security companies dealing in both types of business; however, only 11 companies out of the 72 companies dealt only in the securities business. Finance company funds are generally obtained from borrowing, the insurance of promissory notes, and stockbroking (Table 5.13). Most of the credit they grant is short-term in nature, usually taking less than one year to reach maturity. Now, more finance companies are involved in granting hire-purchase financing, mostly for automobile purchases, because the Bank of Thailand has lowered the minimum down payment from 30 percent to 25 percent of the total value and has extended the maximum term-payment period from 42 months to 48 months. This created more flexibility for the leasing business. The role of finance companies in the Thai financial system has declined partly due to their own problems and partly due to improved commercial bank services.

Table 5.8 : Growth and Share of Commercial Banks in Thailand, 1979-1988.

Unit : Millions of Baht
: Percentage

Year	Loan				Deposit				Asset			
	Thai Banks		Foreign Banks		Thai Banks		Foreign Banks		Thai Banks		Foreign Banks	
	Share	Growth	Share	Growth	Share	Growth	Share	Growth	Share	Growth	Share	Growth
1979	93		7		97		3		94		6	
1980	94	16	6	10	97	25	3	16	94	19	6	13
1981	94	17	6	6	98	24	2	8	95	22	5	8
1982	95	17	5	(5)	98	24	2	13	95	20	5	3
1983	95	32	5	38	98	25	2	25	95	24	5	24
1984	96	19	4	4	98	21	2	19	96	21	4	9
1985	96	9	4	6	98	11	2	10	96	8	4	9
1986	96	4	4	(7)	98	11	2	20	96	8	4	(8)
1987	96	21	4	31	98	18	2	2	96	21	4	41
1988	95	22	5	49	98	19	2	24	96	20	4	25

Source: Calculated from Statistical Data on Commercial; Bank in Thailand.

Table 5.9 : Deposit and Loan Shares in Banks Incorporated in Thailand, 1979-1988.

Unit : Percentage

Bank	1979		1980		1981		1982		1983		1984		1985		1986		1987		1988	
	Deposit	Loan	Deposit	Loan	Deposit	Loan	Deposit	Loan	Deposit	Loan	Deposit	Loan	Deposit	Loan	Deposit	Loan	Deposit	Loan	Deposit	Loan
Bangkok Bank Ltd.	35.55	41.92	35.60	40.47	35.97	40.81	35.92	40.75	36.10	39.73	34.71	38.17	32.80	36.00	30.47	35.19	28.65	33.28	29.24	31.62
Krung Thai Bank Ltd.	15.17	12.61	14.16	14.32	14.14	11.43	14.77	13.14	14.30	11.91	13.42	10.94	13.31	11.11	13.77	11.50	15.35	13.05	15.77	12.87
The Thai Farmers Bank, Ltd.	12.17	11.25	13.35	12.23	14.25	14.31	13.42	12.60	13.21	13.40	14.13	14.19	14.46	13.79	14.71	13.70	14.43	13.20	13.83	13.04
The Siam Commercial Bank Ltd.	6.09	5.89	6.14	5.76	5.92	5.78	6.55	6.60	7.12	7.07	8.16	7.93	8.86	8.57	9.24	8.72	9.73	8.35	9.09	8.48
The Bank of Ayudhya, Ltd.	5.97	5.39	5.50	4.79	5.05	4.43	4.96	4.46	4.88	4.54	4.97	4.82	5.15	4.85	5.37	5.00	5.42	5.86	5.73	6.39
Bangkok Metropolitan Bank, Ltd.	4.32	4.49	4.25	4.43	4.19	4.57	4.02	4.57	4.09	4.53	3.88	4.57	3.77	4.25	3.93	4.22	3.64	3.91	3.49	3.80
First Bangkok City Bank, Ltd.	3.36	3.59	3.35	3.11	2.97	3.32	2.95	2.74	2.59	2.84	2.64	2.77	2.71	3.53	2.74	2.94	3.21	3.73	3.15	3.89
The Bangkok Bank of Commerce, Ltd.	4.14	3.38	4.87	3.77	5.21	4.01	5.02	3.79	4.95	3.71	4.51	3.78	4.38	3.73	4.34	3.81	3.87	3.40	3.51	3.19
The Siam City Bank, Ltd.	3.97	3.17	3.73	2.90	3.50	2.89	3.33	2.78	3.35	2.86	3.46	3.19	3.82	3.44	3.78	3.54	3.48	3.38	3.55	3.92
The Thai Military Bank, Ltd.	2.15	2.74	3.21	2.84	3.21	2.83	3.39	3.14	3.65	3.58	4.29	4.14	4.68	4.64	5.30	5.19	5.85	5.41	6.14	5.70
The Bank of Asia Ltd.	2.19	1.86	2.19	1.83	2.12	1.88	2.09	1.90	2.21	2.01	2.14	2.08	2.19	1.95	2.27	2.05	2.30	2.45	2.34	2.79
The Union Bank of Bangkok Ltd.	1.91	1.68	1.73	1.40	1.63	1.48	1.64	1.24	1.59	1.52	1.69	1.55	1.73	1.66	1.72	1.70	1.89	1.65	1.65	1.82
The Thai Danu Bank Ltd.	1.04	0.94	1.02	1.03	0.95	1.05	0.95	1.05	0.95	1.04	0.98	0.98	1.05	1.10	1.14	1.14	1.15	1.12	1.23	1.31
The Laem Thong Bank Ltd.	0.66	0.65	0.65	0.68	0.62	0.69	0.57	0.67	0.52	0.58	0.45	0.57	0.39	0.55	0.44	0.55	0.40	0.47	0.39	0.46
Maharatthabank Ltd.	0.29	0.42	0.28	0.45	0.37	0.53	0.42	0.59	0.49	0.58	0.59	0.60	0.72	0.65	0.78	0.77	0.83	0.75	0.91	0.91

Source: Bank of Thailand.

Table 5.10 : Share of Credit for Exportation and Importation given by Commercial Banks in Thailand 1982-1988.

Unit : Percentage

Classification	1982	1983	1984	1985	1986	1987	1988
Exports							
Thai Banks	94.75	94.39	94.76	93.17	93.29	94.7	95.66
Foreign Banks	5.25	5.61	5.24	6.83	6.71	5.3	4.34
Total	100	100	100	100	100	100	100
Imports							
Thai Banks	89.73	93.07	93.84	93.4	93.37	94.42	89.61
Foreign Banks	10.27	6.93	6.16	6.6	6.63	5.58	10.39
Total	100	100	100	100	100	100	100

Source: Bank of Thailand.

Table 5.11 : Value of Rediscount Promisory Notes Purchased by The Bank of Thailand.

Unit : Millions of Baht

Type of Promisory Notes	1984	1985	1986	1987	1988
Export Promisory Notes					
Thai Banks	93.55	90.96	90.64	89.16	88.6
Foreign Banks	6.45	9.04	9.36	10.84	11.4
Total	100	100	100	100	100

Source : Bank of Thailand.

Table 5.12 : Deposits and Loans of Banks Incorporated Abroad, 1979-1988.

Unit : Millions of Baht

Bank	1979		1980		1981		1982		1983		1984		1985		1986		1987		1988	
	Deposit	Loan	Deposit	Loan	Deposit	Loan	Deposit	Loan	Deposit	Loan	Deposit	Loan	Deposit	Loan	Deposit	Loan	Deposit	Loan	Deposit	Loan
The Bank of Tokyo Ltd.	489	2,545	749	2,567	762	2,927	1,040	3,040	1,121	3,451	1,345	3,119	1,863	4,167	2,713	3,259	2,431	4,778	3,663	9,495
The Chase Manhattan Bank, NA	671	2,422	912	2,564	985	2,740	1,036	3,704	1,368	4,409	1,825	4,492	1,774	3,478	1,860	3,098	1,376	3,670	1,612	3,615
The Mitsui Bank Ltd.	682	2,562	895	2,919	1,115	2,640	1,245	2,786	1,378	3,327	1,799	3,800	1,700	4,343	1,992	3,428	2,281	5,376	3,499	9,334
Bank of America NT & SA	719	1,215	694	1,862	847	2,164	918	272	1,459	3,262	1,663	2,967	1,636	2,492	1,369	1,993	1,213	2,419	1,044	2,229
United Malayan Banking Corp., Ltd.	440	1,467	305	1,343	208	1,513	209	1,429	372	1,727	343	1,772	414	1,362	578	1,505	569	1,512	430	996
Banque Indosuez	344	753	491	933	441	1,021	536	1,049	642	1,331	770	1,637	904	1,514	890	1,468	1,011	1,826	1,519	2,857
Standard Chartered Bank	741	973	764	988	832	1,013	909	1,071	1,118	1,140	1,060	986	1,141	918	1,264	1,195	1,130	1,249	1,296	1,782
The Hongkong and Shanghai Banking Corp.	518	722	552	804	603	854	661	696	809	1,109	1,172	1,218	1,371	1,437	1,544	1,585	1,760	1,777	1,797	2,500
Deutsche Bank (Asia)	78	580	117	678	143	762	162	837	235	1,034	360	1,320	339	1,402	819	1,551	1,113	2,486	1,360	4,066
Bharat Overseas Bank Ltd.	291	294	242	327	298	391	393	362	366	427	376	555	491	692	671	899	728	707	653	877
The International Commercial Bank of China	116	379	179	309	184	358	205	408	255	415	228	443	209	364	371	395	371	392	417	440
Citic Bank NA	219	284	217	254	220	224	182	193	217	185	209	447	499	1,839	780	1,917	1,092	3,215	1,507	5,235
Security Pacific Asian Bank	105	150	156	170	140	144	141	158	167	170	179	189	218	227	281	266	299	276	371	638
Four Seas Communications Bank Ltd.	98	149	113	180	136	128	159	91	206	160	239	108	234	83	256	108	252	113	239	197

Source: Bank of Thailand.

Table 5.13 : Finance Companies: Main Sources and Uses of Funds (At Year End)

Unit : Millions of Baht

	1980	1981	1982	1983	1984	1985	1986	1987
Sources of Funds								
Capital account	7,312	7,333	8,074	9,358	9,029	8,956	97,111	10,885
Borrowings	55,036	67,572	84,295	93,166	99,850	107,040	114,124	133,575
Commercial banks	6,825	6,721	7,750	11,621	19,816	17,179	21,808	30,678
Local P/N payable	46,431	59,561	75,497	77,174	74,405	84,011	88,179	96,934
Other borrowings	1,779	1,291	1,048	4,372	5,630	5,850	4,337	5,964
Other liabilities	2,445	1,991	2,581	2,882	9,270	14,964	16,007	15,495
Total	64,793	76,897	94,950	105,406	118,149	130,960	139,843	159,955
Uses of Funds								
Cash and balances at banks	2,507	32,247	3,646	2,388	2,339	2,137	2,557	3,260
Investment in securities	5,375	5,882	8,157	8,510	8,729	10,836	15,035	22,887
Thai Government sec.	3,317	3,762	5,740	5,755	5,724	8,343	11,762	17,801
Listed and authorized sec.	1,318	1,216	1,340	1,443	1,594	1,409	1,830	2,558
Other sec.	741	904	1,076	1,312	1,411	1,084	1,443	2,528
Loans and receivables	54,978	65,390	79,515	90,711	95,030	98,053	102,246	116,182
Assets for sale	388	416	642	613	1,394	1,117	1,372	4,731
Other assets	1,545	1,962	2,990	3,184	10,657	18,817	18,632	12,895
Total	64,793	76,897	94,950	105,406	118,149	130,960	139,843	159,955
No. of Companies	112	112	112	109	104	100	98	94

Source: Bank of Thailand.

Table 5.14 : Overseas Offices of Thai Banks.

	Bangkok Bank Ltd.	Krung Thai Bank Ltd.	Thai Farmers Bank Ltd.	The Siam Commercial	Bangkok Metropolitan	The Thai Military	First Bangkok City
Hongkong	1				c) 1	c) 1	c) 1
Western District	a) 1						
Kowloon	a) 1						
Central District	a) 1						
Causeway Bay	a) 1						
Japan							
Tokoy	1						
Osaka	1						
Singapore	1						
United Kingdom							
London	1		1	1			
Malasia							
Kuala Lumpur	1						
Taiwan							
Taipei	1						
Indonesia							
Jakarta	1						
Kota	a) 1						
USA							
New York	1	1	1	b) 1	b) 1		
Los Angeles	1		b) 1	1			
San Francisco					b) 1		
West Germany							
Hamburg	1		1				
Peoples Republic of China							
Beijing	c) 1						

Note: a) Sub Branches
 b) Agencies
 c) Representative Offices

Source: Bank of Thailand.

5.3 Regulations Governing Selected Financial Institution

The Bank of Thailand, which was established in 1942 by the Bank of Thailand Act B.E. 2485, assumes the central banking function for Thailand. In addition to managing the public debt and administering exchange control, the Bank supervises all commercial banks, finance companies, security companies, and credit fancier companies, each of which must comply to different regulations and Acts.

The Commercial Banks

All commercial banks operating in Thailand are regulated under the Commercial Banking Act B.E. 2505, the Commercial Banking Act (No.2) B.E. 2522, and the Emergency Decree Amending the Commercial Banking Act B.E. 2505, B.E. 2528. Under the Acts and Decree, the Bank of Thailand is authorized to prescribe maximum interest rates on deposits and loans, the cash reserve ratio, the ratio of capital funds to risk assets, and so on. The Bank also supervises all commercial banks, obtains regular reports from them, and examines their operations on a regular basis. At present, commercial banks have been permitted to extend their scope of business into many areas; for example, since 1987 the Bank of Thailand has allowed them to undertake the business of recommending insurance companies to: insure collateral assets, provide loan syndication services, give advice on mergers and acquisitions, and provide custodian service.

All the commercial banking Acts impose the same regulations on both Thai commercial banks and branches of foreign banks in Thailand, except in two cases: branch establishment and the percentage of a commercial bank's shareholdings by foreigners. The regulations (such as leverage, asset types, interest rates, procedures, and conditions) are prescribed by the Bank of Thailand and the Ministry of Finance. According to Commercial Banking Acts B.E. 2505 and B.E. 2522, Thai commercial banks must register as a limited public company and be approved by the Finance Minister. Thai commercial banks are not restricted from establishing new branches as long as they have available capital and capacity. They must, however, obtain a license from the Bank of Thailand, without the Minister's approval. As a result, Thai banks had approximately 2,004 branches by the end of 1987. The Minister will allow foreign bank branches to have only one office in Thailand, and permission is considered on a one-to-one basis. As of December 31, 1988, Thai commercial banks have approximately 30 overseas offices, comprising 17 branches, five subbranches, four agencies, and four representative offices. The Bangkok Bank has the highest number of overseas offices (17 offices), followed by the Thai Farmers Bank (4 offices), the Siam Commercial Bank (3 offices), the Bangkok Metropolitan Bank (three offices), and the Krung Thai Bank, the Thai Military Bank, and the First Bangkok City Bank (each with one overseas office).

The amount of commercial bank shares held by persons of Thai nationality must be not less than three-fourths of all shares sold. Foreign banks which wish to have a branch in Thailand must obtain a

license from the Minister of Finance. Such a license may be granted, conditional on compliance in certain areas with given conditions. The foreign banks must maintain assets in accordance with criteria regarding amount, type, procedures, and conditions. Assets must be acquired with (1) money brought in from the bank's head office and/or any other branch outside of Thailand; (2) various reserves (including reserves for the diminution of the values of assets and reserves for the repayment of debts); or (3) net profits of the branch--in respect to each accounting period--which have been transferred to the head office account and which may only be permitted to be remitted abroad provided that all accumulated losses incurred in the previous accounting periods shall first be deducted therefrom).

Finance Companies

All finance companies are regulated in accordance with the Act on The Undertaking of Finance Business, Securities Business and Credit Fancier Business B.E. 2522, and The Emergency Decree Amending The Act on The Undertaking of Finance Business, Securities Business and the Credit Fancier Business, B.E. 2522, B.E. 2526. In order to establish a finance company, one must obtain approval and a license from the Ministry of Finance. Foreign finance companies may not be established, except those established prior to the declaration of the Act B.E. 2522. The Bank of Thailand has the authority to supervise and regulate all finance companies, and the extent of a finance company's foreign equity is not limited. Finance companies mostly obtain funds by issuing promissory notes and through borrowings from commercial banks, since they are not allowed to mobilize any kind of deposit from the public. Also, their promissory note interest rates are subjected to ceilings set by the Bank of Thailand. The face value of a promissory note must be at least 10,000 Baht in Bangkok and in the two nearby provinces, and at least 5,000 Baht elsewhere.

5.4 Factors Determining the Pattern of Banking

Banking patterns are expected to be determined by relative interest rates, factors endowments, and scale variables, and most bank earnings come from interest. Thus, the ratio of interest credit (IC) to interest debit (ID) was defined as the dependent variable (ICID) of the equation. Modern banking is considered to be a capital-intensive industry. The country with a high capital-labor ratio in banking has a comparative advantage in banking, and the variable K/L is expected to have a positive relationship with respect to the dependent variable (ICID); a higher K/L is associated with larger interest receipts. The value of the Gross Domestic Product (GDP) represents the scale variable of the equation. An increase in GDP of a country with a large foreign debt volume will lower the ratio of ICID. On the other hand, the country gaining a large amount in foreign loans will have the opposite result. The relative interest rates affect the banking pattern. A country with high interest rates will have a deficit of interest earnings and vice versa. The ratio of the interest rate in Thailand to the interest rate in Japan (TJI) is

treated as an independent variable in the equation. The variable TJI is expected to have a negative relationship with the dependent variable (ICID), since the interest rate in Thailand is higher than in Japan.

Both linear and logarithmic equations were estimated using the Least Square Estimation, but the logarithm equation gave better results as follows:

$$\text{LICID} = 9.6382 + 1.0045\text{LKL} - 1.5146 \text{LGDPN} - 0.0481\text{LTJI}$$

(2.3932) (2.3338) (-3.3826) (-0.1695)

$$R2 = 0.7058 , \quad F = 4.7981$$

The results indicate that the capital-labor ratio and the scale variable (GDP) are indeed among the factors which determine the comparative advantage pattern in banking, while the relative interest variable does not significantly affect the pattern. This also implies that Thai banks presently have the comparative advantage over foreign banks operating in Thailand, and a higher GDP will associate with a lower ratio of interest earnings to interest payments because of the large volume of international debts. Finally, the scale variable has a larger effect than the capital-labor ratio, since the former has a higher elasticity value (1.51%) than the latter (1.00%). This means that if the proportion of GDP increases one percent, the ratio of ICID will decline more than one percent. On the other hand, a one percent increase in the capital-labor ratio leads to a one percent increase in the ratio of interest earnings to interest payments. That is, it is a case of unitary elasticity.

5.5 Issues and problems of Banking

The banking industry in Thailand developed dramatically after electronic banking was established, and the value added of the industry is expected to reach 61,983.78 million baht in 1994. Despite this high growth, the industry is faced with some controversial issues.

Banking Regulations

The banking industry is characterized by heavy government intervention, which had led to certain limitations being placed on foreign bank branches operating in Thailand. First, foreign banks are not allowed to establish more than one office in Thailand; second, foreign banks have been precluded from establishing remote ATMs or from joining ATM pools; third, foreign banks are also not allowed to access the discount window of the Bank of Thailand. This discrimination has led to a call for free competition in the banking business, since it will benefit to the consumers and investors.

The High Cost

Most Thai commercial banks are faced with an underutilization of the electronic banking machines for both off-line and on-line operations. The former is due to the small number of banking transactions, while the latter is due to the high cost of establishing and using telebanking, home, and office banking. Full utilization of electronic banking machines will lower commercial bank operating costs and the cost of consumer use.

Financial Infrastructure

The basic infrastructure for banking is insufficient in Thailand, especially telephone service: it takes six months to one year (or more in some crowded business areas) to receive a new telephone. This is a major barrier to the development of full electronic banking and Fax services. Moreover, there should be more types of promissory notes and other banking notes, especially check books and ATM cards. The lack of offshore banking units (OBU) in Thailand is another obstacle to the development of the banking system. Indeed having OBUs to stimulate investment is essential.

Strategy Increasing Competitiveness of Banking Services

Since banking is a service category of an immobile provider and a mobile consumer, restricted policy is desirable for the present banking industry. When banking has been developed into a fully electronic banking system, a trade liberalization policy should be adopted to improve the country's welfare, because electronic banking is a service group which does not require physical proximity of the user and provider. Thus trade theory can be directly applied to this case of traded services.

It will not take too long for the banking industry to achieve full electronic-banking capability. However, government assistance would stimulate the development. To improve the competitiveness of Thai commercial banking, the government should improve the basic financial infrastructure and the strength of the financial system. The strategy should start with privatization of the Telephone Organization of Thailand (TOT) and other related communication systems to improve the basic telecommunications system. Finance and security companies should also be strengthened. In addition to investing in infrastructure, investment in human capital is necessary. More promissory notes and banking notes should be allowed in order to increase the volume of transactions. And developing Offshore Banking Units and a Rediscount Office is necessary for future financial markets in Thailand.

The liberalization or free competition policy for banking in Thailand will benefit customers, since they will receive higher interest rates for their deposits and pay lower interest rates for loans. In addition, it will stimulate and enhance investment funds. However, the free competition will not help Thailand to become the

financial center of Southeast Asia or to be able to compete with Singapore's financial market. However, an appropriate development will make Thailand to become a financial center for Laos, Cambodia, and Burma.

5.6 Conclusions and Recommendations

1. Banking services are playing an important and an increasing role in the Thai economy. The industry is dominated by Thai commercial banks, whose role in banking services in Thailand has remained more or less unchanged, except for their role in rediscounting in export promissory notes. Even though the role of foreign banks' branches in comparison to Thai banks has remained unchanged, the role of Japanese banks' branches when compared to other foreign banks' branches has increased. This is due to the greater amount of foreign investment and Grant-Aid coming from Japan to Thailand in the last few years.
2. Banking in Thailand is developing toward an electronic banking system, but the system is presently not yet fully electronic banking. However, this evolution will not be too long in coming.
3. Present government banking policy is biased against foreign banks' branches, and a policy of free competition may enhance and improve the banking business in Thailand so that it can become an important Southeast Asian financial center. However, it will take some time for Thai banking to become competitive with Singaporean banking; improving the basic financial infrastructure and establishing Offshore Banking Units will increase the competitiveness of the Thai banking system.
4. A study on the impacts of free competition policy for Bank should be conducted, and a measure to increase types of promissory notes is essential.

6. LABOR SERVICE

6.1 Migrant Labor: Existing Situation and Trends

Most Thai out-migrants go to the Middle East, especially to Saudi Arabia, where over 90 percent of all workers going to the Middle East have gone to work. However, the trend in the number of workers going to the Middle East has declined due to a mass reduction in the demand for construction as well as the shift in demand toward higher skilled workers. Other important destinations are Libya, Kuwait and Iraq. However, the demand for labor in these other countries was relatively small when compared to Saudi Arabia.

The Significance of Income from the Migrating Labor Force

In 1987, labor income for Thai workers accounted for about 20.15 percent of total service income, or 21,596.0 million baht. In 1988, even though labor income increased by about 10 percent over the previous year, its share in total service income dropped to about 16.20 percent because of a large jump in tourism income (see Table 6.1).

Before 1980, labor income represented only a small portion of total income, accounting for only about 5.9 million baht in 1968. However, it increased to about 29.4 million baht in 1972, the year before the first oil shock. In 1973, the income figure jumped to about 113.5 million baht, an increase of almost 300 percent. After the first oil crisis, in 1979, as a result of a very high rate of growth, labor income was reported at about 3,818.3 million baht.

Since 1980, the trend of increasing labor income has continued due to the continuous outflow of Thai labor; indeed, labor income increased from 7,703 million baht in 1980 to about 23,412.9 million baht in 1988. As a percentage of service income, its contribution during most of the 1980s was significant, and its share in total service income rose to a peak of about 29.03 percent in 1984, an absolute amount of 21,117.7 million baht.

Thai Migrant Worker Destinations

At first, the outflow of Thai workers went to a small number of destinations in the Middle East. At present, importers of Thai workers cover several countries in the Middle East (including Libya, Iraq, Qatar, Bahrain, the United Arab Emirate, Kuwait, Oman and Yemen) and several other countries in Asia. And, recently, other countries in Asia such as Singapore, Brunei, Malaysia, Japan and Taiwan have become attractive destinations for Thai workers (see Table 6.2).

During 1986-88, the absolute amount of labor inflow into Singapore was declining while labor flows into other Asian

Table 6.1 : Traded Services Balances 1968-1988

(Millions of baht)

Year	1. Travel (%)	2 Personal services	Total
1968	1,256 (13.63)	6 (0.06)	9,210
1969	1,768 (18.83)	3 (0.03)	9,385
1970	2,170 (21.49)	25 (0.24)	10,095
1971	2,209 (22.31)	36 (0.36)	9,900
1972	2,718 (24.00)	29 (0.25)	11,323
1973	3,394 (26.67)	114 (0.89)	12,723
1974	3,805 (24.33)	265 (1.69)	15,634
1975	4,482 (27.08)	375 (2.26)	16,552
1976	3,990 (28.51)	485 (3.46)	13,993
1977	4,607 (31.18)	912 (6.17)	14,772
1978	8,895 (40.20)	2,112 (9.54)	22,124
1979	11,232 (38.51)	3,818 (13.09)	29,164
1980	17,765 (40.81)	7,703 (17.69)	43,529
1981	21,456 (41.74)	10,428 (20.28)	51,399
1982	23,879 (40.28)	14,222 (23.99)	59,269
1983	25,050 (37.31)	19,457 (28.98)	67,137
1984	27,317 (37.55)	21,118 (29.03)	72,742
1985	31,768 (36.99)	23,796 (27.70)	85,880
1986	37,321 (42.57)	20,900 (23.84)	87,665
1987	50,024 (46.66)	21,596 (20.14)	107,187
1988	74,300 (51.40)	23,413 (16.19)	144,530

Source: Balance Payments Section, Bank of Thailand.

Table 6.2 : Thai Worker Outflows Classified by Country of Destination

unit : person

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988
Bahrain	306	380	10	198	970	928	1,123	1,156	1,532
Jordan	33	-	580	1,833	232	1,515	235	147	415
Kuwait	958	631	611	2,573	2,617	1,200	4,405	3,216	3,952
Libya	6,497	10,189	9,034	5,084	7,215	7,401	9,231	9,216	13,386
Qatar	1,017	1,538	2,825	1,020	821	746	1,649	1,813	1,981
United Arab Emirate	757	59	310	161	540	839	1,698	2,328	1,158
Oman	-	-	-	109	736	189	544	214	349
Egypt	-	-	-	-	-	-	-	-	-
Iran	-	-	-	-	799	-	-	-	-
Israel	-	-	362	-	-	-	-	-	-
Labanon	-	-	-	-	-	-	-	-	-
Saudi Arabia	9,990	9,862	88,271	51,955	48,395	42,664	67,743	64,134	66,154
Yemen	215	-	20	-	4	76	146	652	221
Iraq	988	1,979	3,140	1,472	5,900	6,101	8,116	4,434	2,756
Total Middle East	20,761	24,638	105,163	64,405	68,229	61,659	94,890	87,310	91,904
United States of America	-	-	-	1,971	448	-	913	1,837	3,240
Singapore	723	1,594	1,975	240	2,921	3,387	7,267	6,243	5,262
Malaysia	-	73	199	1,437	2,214	1,861	1,138	884	1,238
Japan	-	150	41	-	325	359	-	1,367	3,942
Brunei	-	261	960	-	494	2,160	2,596	3,300	6,792
Other	-	24	181	429	390	259	5,639	5,047	6,579
Total	723	2,102	3,356	4,077	6,792	8,026	17,553	18,678	27,053
Grand Total	21,484	26,740	108,519	68,482	75,021	69,685	112,443	105,988	118,957

Source: Office of Overseas Employment Administration, Department of Labour

destinations were increasing. However, Singapore is one place in Asia with a large number of Thai workers, although the number of Thai workers in Singapore is still very small when compared with the number in Saudi Arabia. Another important ASEAN destination seems to be Brunei, where there has been a high demand for workers in construction. Even though the rate of increase in recent years might be high, the absolute number is still very small, and there have been many problems relating to working conditions.

Characteristics of Migrating Workers

Before migration, most migrant occupations were in the agricultural sector, representing the productive work force of their families. However, out-migration did not result in a significant reduction in farm productivity. For example, Sangthanapruk (1988) indicated that 28 out of 76 or about 36.84 percent of all migrant households had lower output, i.e. 13.16 percent rented their land; 2.63 percent left their land idle; and 21.05 percent were faced with drought.^{1/} Pitayanon (1986) reported that 47 out of 88 migrant households (or about 53.4%) reported no change in household production; households reported that there was a slight reduction in household production; while 22 households (or 25%) reported that there was a substantial reduction in production.^{2/}

Research indicates that the most important factor supporting out-migration was family wealth. The migrant family had to have at least "Naw Saw 3" in order to guarantee the loan needed to pay for migration, a travel cost often quoted to be about 30,000 baht. Migrating workers usually came from villages with a single rice planting season, where the difference between their present income and their expected income from migration was large. The majority of migrants contacted brokers and not the Department of Labor or provincial labor agencies. Easily accessible villages had a higher chance of supplying migrant workers because access facilitates recruitment by brokers in many ways.^{3/}

^{1/} Hongpha Sangthanapruk, "The Consequences of Overseas Migration on the Rural Labor Market: Udonthani," M.A. Thesis, Faculty of Economics, Thammasat University, 1988. The excerpt of this thesis was published in the Thammasat Economic Journal, Volume 7 No. 2 June 1989, pp. 105-128.

^{2/} UNESCO, "Middle East Interlude: Asian Workers Abroad: A Comparative Study of Four Countries, Part 5" by Sumalee Pitayanon (Bangkok, 1986), p. 297.

^{3/} Ibid. Hongpha Sangthanapruk (1989). Sumalee Pitayanon reported the average expense of about 33,700 baht from her 1982 survey.

The Significance of Remittances

In 1988, Thailand received of about 23,412.9 million baht in labor income, while the payment-of-labor factor to foreign labor accounted for only about 2,261.7 million baht or about 10 percent of labor income receipts. That is, Thailand's labor service balance was in surplus, with the labor receipts far exceeding labor factor payments (see Table 6.3).

In 1988, over 90 percent of the labor income from the Middle East came from Saudi Arabia. In 1988 the total income from the Middle East reported by the banking system was about 9,125.0 million baht, which was over one-third of total remittances in that year. The real figure would be higher if the money and valuable personal effects carried home when the workers returned to Thailand were included. Total remittances reported by the banking system from other ASEAN countries amounted to about 640 million baht, remittances from European countries in 1988 was about 1,000 million baht, and remittances from other countries--including the United States--were about 12,519 million baht (see Table 6.4).

The 1988 survey indicated that labor income from abroad was usually spent on house construction, televisions, radios, stereos, electric fans, and other appliances such as electric rice cookers. In only a few cases was income was used to buy land, tractors, and motorcycles.^{1/}

6.2 Some Problems Related to Migrating Workers

The major problems faced by migrating workers are working conditions, employment terms and wage payments. Most laborers were sent by private labor agents. Only a small percentage of the labor was sent by employment companies and the Thai Labor Department.

It is argued that problems relating to migrant workers tend to be generated by brokers and not by labor agents. In such cases workers were not in a position to investigate the employer's background, job description, actual wage, and these brokers usually do not pay enough attention to working conditions.^{2/}

Migrant workers have had to pay high fees and travel costs, and at the same time have had to face the uncertainties and unknown conditions awaiting them in the countries of destination.

^{1/}

Ibid. Hongpha Sangthanapruk (1989). Also see survey results reported by Sumalee Pitayanon in UNESCO (1986), page 299.

^{2/}

Wattachak Weekly, 24-30 September 1989.

Table 6.3 : Net Receipts and Share from Abroad (Transfer by Bank System) Classified by Coun

Unit : millions of baht

Country	1980		1985		1988	
	Receipt	Share	Receipt	Share	Receipt	Share
Bahrain	0.10	0.00	58.70	0.00	11.85	0.00
Cyprus	0.70	0.00	1.60	0.00	0.47	0.00
Jordan	1.60	0.00	2.40	0.00	1.60	0.00
Kuwait	29.60	0.01	707.50	0.05	41.58	0.00
Libya	21.20	0.00	263.60	0.02	13.77	0.00
Qatar	22.20	0.01	52.00	0.00	30.97	0.00
United Arab Emirate	14.60	0.00	56.10	0.00	69.11	0.01
Oman	16.20	0.00	18.30	0.00	6.73	0.00
Egypt	3.80	0.00	2.90	0.00	1.63	0.00
Iran	8.80	0.00	1.50	0.00	0.33	0.00
Israel	181.10	0.04	1.40	0.00	5.48	0.00
Labanon	0.70	0.00	4.20	0.00	2.83	0.00
Saudi Arabia	3,875	0.89	11697.50	0.83	8911.46	0.86
Syria	0.10	0.00	0.04	0.00	0.22	0.00
Yemen	11.60	0.00	1.90	0.00	0.31	0.00
Iraq	47.20	0.01	62.00	0.00	26.59	0.00
Total Middle East	4,234	0.98	12931.64	0.92	9124.93	0.88
Singapore	107.30	0.02	609.00	0.04	420.32	0.04
Malaysia	0.00	0.00	145.50	0.01	83.68	0.01
Brunei	0.00	0.00	56.80	0.00	98.61	0.01
Hong kong	-	-	273.40	0.02	389.30	0.04
Taiwan	-	-	26.30	0.00	260.10	0.03
Total Far East	107.30	0.02	1113.00	0.08	1252.01	0.12
Total(Middle+Far East)	4341.30	1.00	14042.60	1.00	10376.94	1.00
Other	3,469		9,753		13,059	

Notes: 1) The money which is personally carried by workers cannot be accounted for
2) Money being sent outside the banking system cannot be estimated

Sources: 1) Office of Overseas Employment Administration, Department of Labor
2) Balance of Payments Section, Bank of Thailand

Table 6.4 : Traded Service Balances.

unit : millions of baht

	1980		1985		1988	
	Receipts	Payments	Receipts	Payments	Receipts	Payments
Personal services	7,703	651	23,796	1,859	23,413	2,262
Total	43,529	50,792	85,880	95,511	144,530	145,076

Source: Balance Payments Section, Bank of Thailand

One example is the recent labor dispute between Thailand and Singapore, which caused the Thai government to arrange emergency transport to bring back about ten thousand Thai workers in order to avoid Singaporean punishment. However, most of these workers were later sent back after rounds of negotiations and protests from their private employers in Singapore. Under existing arrangements, the private demand for labor in Singapore is satisfied through a 60:40 quota system. That is, a 60 percent quota is allocated for new workers to be sent by labor agencies which pay a normal fee and the other 40 percent is to be sent free of charge. This quota arrangement was applied to the returned workers who were forced to return during the Thai-Singapore labor dispute early in 1989.

6.3 Factors Determining International Migration

There seem to be two main factors contributing to the international migration, of Thai workers: (1) labor shortages in the importing countries; and (2) the wage differential between Thailand and the destination country.

Labor Shortage in Importing Countries

The existing demand for labor from the Middle East and other Asian countries is temporary in nature. The demand for labor is a result of a labor shortage and depends highly on the economic conditions of the destination country. A significant outflow to Middle Eastern oil-exporting countries was observed after the first oil shock in the early 1970s. With an ample labor supply, semi-skilled and unskilled Thai workers, along with laborers from many other developing countries, were able to fill this gap between supply and demand.

Wage Differentials

The motive for migration is obviously the gap between wages in Thailand and the income expected from working in the foreign country. Empirical results, however, fail to indicate a significant effect on the flow of worker income into Thailand. In fact, the wage statistics indicated that there were large differences between the wages of skilled and unskilled workers (see Table 6.5).

6.4 Projections and Trends

In the very near future it is expected that income from labor, which contributes a sizable sum to foreign exchange earnings, will still be an important item in the Thai balance of payments. While total remittances from the Far East are expected to rise, remittances from the Middle East are expected to fall. Our estimates predict that labor income from the Far East will increase from 1,357.06 million baht in 1989 to about 1,764.62 million baht in 1993. The drop in

labor income from the Middle East is expected to be very large, from 7,393.382 million baht in 1989 to an expected 4,290.895 in 1993. As a result, by the year 1993 the projected total labor income from these two important sources will be about 6,055.52 million baht, a reduction of about 40 percent from the present level.

6.5 Strategy for Enhancing More Favorable Service Income

It is expected that in the "medium-term" future, Thailand will experience a slower rate of out-migration because of the increase in the domestic demand for labor. Foreign investment--especially from Japan, Taiwan, The Republic of Korea, Hong Kong and Singapore--has come to Thailand with a higher level of technology and this resulted in a higher demand for science and technology personnel. And recently, there have been attempts to solve this labor shortage by trying to reverse the "brain-drain" process.^{1/}

Given the existing situation, Thailand should emphasize three main policy stances: (1) maintaining a liberal stand as far as migration is concerned; (2) intervening to protect migrant worker benefits; and (3) improving of labor skills. Improving labor skills, especially, will not only help raise the income of the migrant workers abroad but will also help support Thailand's industrialization process because, with better skills to offer, workers (who would rather stay home) would be able to earn higher wages than in our country.

^{1/}

This was investigated by Chira Hongladarom and others, and it was concluded that the project had a potential for success. See Dr. Chira Hongladarom, Dr. Vatchareeya Thosanguan, Dr. Atchana Watananukit, Weerapong Sirikornvujtipong and Anong Palangtanasukit, Return of Talent, A Pilot project, "Thai talent in the United States A Preliminary Report." Workshop on Migration For Development Bangkok, Thailand. 13-15 September 1989. Human Resources Institute, Thammasat University.

Table 6.5 : Projection Receipts From General Labor Exports.

(Millions of Baht)

Projection					
Year	Far East/a	Share	Middle East/b	Share	Total
1989	1,357	0.16	7,393	0.84	8,750
1990	1,470	0.19	6,440	0.81	7,910
1991	1,576	0.22	5,619	0.78	7,195
1992	1,674	0.25	4,908	0.75	6,582
1993	1,765	0.29	4,291	0.71	6,056

Note: a/ Computed by Linear Regression, Set $Y=a+bT+cT^2$,
Given Y=Actual Value; T=Time

b/ Sum of Projection Receipts from Middle East not Included Saudi Arabia,
 $Y = a+bT$ and Projection Receipts from Saudi Arabia = $\text{Log}(y)=a+bT$

Source: Office of Overseas Employment Administration, Department of Labor.

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