An Analysis of Foreign Tourist Expenditure in Thailand*

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1. INTRODUCTION

Tourism industry, especially inbound, has long been recognized as an important industry to Thailand. Income from international tourists climbed from 3 percent of GDP in 1985 to almost 6 percent of GDP in 2001. Since the industry covers vast local participants, such as hotels, restaurants, and retail stores; its impact to the Thai economy is tremendous. Chalongphob, Somchai, and Yos (2002) estimate that every dollar earned from the tourism industry generates an increase of two dollars to Thailand's real GDP, this being the highest exports income multiplier. The inbound tourism revenue is targeted to increase 8 percent, or around 24,000 million baht, in fiscal year 2004. In 2000, 7.7 million tourists visited Thailand; this placed her as one of the top 20 ranked destination in the world. At regional level, Thailand ranks behind only China and Hong Kong as indicated in Table 1.

Table 1 also reveals that the spending pattern of the tourist varies at different destinations. For Thailand, daily expenditure per tourist is relatively low while the length of stay is relatively long.

Table 2 shows that although the tourist arrival has accelerated from 1997 onward, the revenue from the tourist influx has not increased. The reason being that the tourist tends to spend less money per day with every subsequent visit. It implies that increased tourist receipts mainly come from the rising number of arrivals. This is an alarming sign because, assuming a fixed per capita cost of tourism, the increased number of tourists may result in degradation of environment and natural resources. As a result, the marginal benefit to be gained from tourist industry is on the decline. TAT (2001a) seems to acknowledge this trend. It is making attempts to entice the tourist to increase the daily expenditure by 9.3 percent, and also promote an increased length of stay so that it can be maintained at 7.86 days during 2002-2006. It is, therefore, worth investigating the factors that affect the daily spending of a tourist.

Table 1 Tourist Arrival and Receipts in Asia's Tourist Top Destinations

Country, Year	Arrivals ('000)	Receipts (millions of $US)	Length of Stay (days)	Daily Expenditure ($US)
China, 1999	27,047	14,098	n.a	n.a
Hong Kong, 1999	11,328	7,210	3.4	187
Thailand, 1999	8,651	6,695	8.0	97
Singapore, 1999	6,958	5,974	3.2	268
Malaysia, 1998	5,551	2,456	5.5	80
Indonesia, 1997	5,185	5,321	10.6	97
Japan, 1999	4,438	3,428	8.0	97
South Korea, 1998	4,250	5,890	4.9	283

Sources: 1. Most of figures from *Thailand in Figures*, *2001-2002,* 7th ed., Alpha Research.
2. Length of stay from *Statistical Yearbook for Asia and the Pacific 2000*, United Nations.
3. Singapore and Malaysia figures from Singapore Department of Statistics.

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Table 2 Tourist Arrival and Receipts in Current US Dollars

Year	Arrivals ('000)	Receipts (million of $US)	Length of Stay (days)	Expenditure ($US)
1993	5,760	5,047	6.94	126
1994	6,166	5,774	6.98	134
1995	6,951	7,655	7.43	148
1996	7,244	8,657	8.23	145
1997	7,293	7,039	8.33	116
1998	7,842	5,855	8.40	89
1999	8,651	6,692	7.96	97
2000	9,578	7,112	7.77	96
2001	10,132	6,731	7.93	84

Source: Tourism Authority of Thailand (TAT).

What are the factors that affect tourist's daily expenditure? The investigation is divided on two fronts: (a) macroeconomic indicators and tourist's profile, and (b) analysis of categories on which the tourist dollar is spent. Lee, Var and Blaine (1996) used time series data of tourist generating countries, and found that income, price and exchange rate were significant in explaining expenditures of tourists visiting South Korea. Durbarry (2001) and British Tourist Authority (1998) also found income, price and exchange rate significant in explaining tourist receipts in the UK. The common finding in these papers is that tourist receipts rise along with income, and also as the value of the currency in the destination country goes down, there is a rise in the expenditure amount they spent. Perez and Sampol (2000) collected data of tourists from various countries visiting Balearic Islands, Spain in 1996. Their study focused on demographics such as age, occupation, type of accommodation, reservation, and tourists' opinions and its relationship to daily spending per head.

The second area of this study focuses on major categories on which tourists spend their money (Table 3).

Table 3 indicates that total daily expenditure has been shrinking since 1993. Of all categories, accommodation, food and beverage, and local transportation are "must pay" items for almost any tourists. Factors affecting price of these items will be discussed after the empirical investigation.

Table 3 Comparison of Tourist's Daily Spending Amount as per Categories in Thailand, in Real Thai Baht

Category	1993	2000
Accommodation	814	760
Food and Beverage	536	477
Sight Seeing	185	144
Local Transport	195	232
Shopping	1,521	1,089
Entertainment	181	326
Miscellaneous	124	113
Total	3,953	2,554

Source: Calculated from TAT.

The next section discusses an estimated model of tourist expenditure and analyzes the results (Parts 2 & 3). The declining trend of some major areas of tourists' spending is then qualitatively analyzed (Part 4). Conclusion and recommendations are outlined in the final section (Part 5).

2. MODELS

The variables postulated to affect the tourists' average daily spending are price, income, length of stay, gender, frequency of visits, and travel arrangement of tourists from various countries. These data are put together into pooled cross-section time-series. The model is

$$\ln EXP_{it} = \beta_{0i} + \beta_{1i} \ln P_{it} + \beta_{2i} \ln GDP_{it} + \beta_{3i} \ln DAYS_{it} + \beta_{4i} \ln FEM_{it} + \beta_{5i} \ln REP_{it} + \beta_{6i} \ln TARR_{it} + \beta_{7i} DASIA * \ln TARR_{it} + \beta_{7i} D97 + u_{it} \quad (1)$$

where ln is natural logarithm, subscript *it* is country of origin i (i = 1 to 15) at time t (t = 1985-2001). *EXP* is the expenditure/tourist/day in real Thai baht, or in real US dollar. *P* is relative price which will be discussed later. *GDP* is the gross domestic product per capita in US dollar deflated by GDP deflator. *DAYS* is the average length of stays. *FEM* is the percentage of female tourists. *REP* is the percentage of tourists that visit Thailand more than once. *TARR* is the percentage of tourists that came with group tour. *DASIA*LNTARR* is a variable that represents Asian tourists (*DASIA*) that come with group tours. This variable accounts for a striking fact that tourists from most Asian countries come with group tours with high proportion. *D97* is a dummy variable accounted for the financial crisis in 1997 (*D97 = 1* since 1997, and otherwise zero). *u* is the error term.

A proxy of price (*P*), as perceived by an international traveler, is either the Exchange Rate Index (*EXI*) or the Price Index (*PI*). The Exchange Rate Index is country i's currency per Thai baht where the rate in 1995 is 100. A decrease in the index means appreciation of i's currency with respect to Thai baht. Consequently, the cost of tourism in Thailand is lowered in the foreign currency.

As an alternative, the Price Index accounts for cost of living in Thailand perceived by traveler from each country. It is constructed as follows:

$$\text{Price Index } (PI_i) = P_{TH} / E^*_i P^*_i$$

where P_{TH} is the Consumer Price Index (CPI) of Thailand, P^*_i is CPI of country i, and E^*_i is nominal exchange rate baht per i's currency. Similar to an increase in Exchange Rate Index, an increase in Price Index means a rising cost of tourism in Thailand perceived by visitors from that country.

Determined from the data available, the 15 countries selected are: Malaysia, Singapore, China, Hong Kong, Japan, South Korea, Taiwan, France, Germany, United Kingdom, Canada, the United States, India, Australia, and New Zealand. The GDP and price variables of all countries, except Taiwan, are taken from IMF *International Financial Statistics*. The source of Taiwan's statistics is from the website, *http://stat.gov.tw*. Data of other variables are taken from *Thailand Tourism Statistical Report* 1985-1994, and *Statistical Report* 1995-2001, published by the Tourism Authority of Thailand (TAT). It is worth noting that data of daily expenditure come from TAT annual survey at major frontier checkpoints.

As a usual starting point, data of all countries are stacked so that the ordinary least squares (OLS) estimator is employed. The least square dummy variable (LSDV), or fixed effect, adds country dummy variables to the OLS. The null hypothesis is no country's effect. The implication of using LSDV is that all tourist-originating countries are included in the sample. To justify, tourists from countries in the sample represent 78 percent of Thailand's tourist arrivals in 2001. By relaxing the equal variance assumption and using the feasible generalized least squares (FGLS) technique, each country's variance is unequal. The null hypothesis is that each country's variance is equal.

3. ESTIMATED RESULTS

The model in (1) is tested in four combinations: expenditure is either in Thai baht or in US dollars, while the price is proximated either by the Exchange Rate Index ($LNEXI_{it}$), or the Price Index ($LNPI_{it}$). All estimates overwhelmingly reject the null hypothesis that all country dummies are equal. Therefore, LSDV is preferred to the OLS. To proceed, the likelihood ratio statistics is used to justify the null of groupwise homoskedasticity. Again, the null is rejected at 99.5 percent confidence. As a result, models are estimated with country dummy variables and groupwise heteroskedastic variance. Selected estimates are reported in Table 4.

Table 4 FGLS Estimates. Dependent Variable is the Log of Daily Expenditure per Tourist in Thai Baht (1 and 2) and US Dollar (3 and 4)

Variable	1 - baht/person/day	2 - baht/person/day	3 - $/person/day	4 - $/person/day
LNEXI	0.156		0.215	
	(0.070)**		(0.078)***	
LNPI		0.182		0.264
		(0.106)*		(0.118)**
LNGDP	0.289	0.289	0.118	0.200
	(0.051)***	(0.068)***	(0.062)*	(0.082)**
LNDAYS	-0.099	-0.097	-0.176	-0.209
	(0.059)*	(0.064)	(0.066)***	(0.071)***
LNFEM	0.022	-0.024	-0.022	-0.382
	(0.053)	(0.147)	(0.070)	(0.172)**
LNREP	-0.136	-0.176	-0.291	-0.406
	(0.093)	(0.101)*	(0.108)***	(0.118)***
LNTARR	0.267	0.271	0.361	0.391
	(0.073)***	(0.074)***	(0.088)***	(0.088)***
D97	0.007	0.001	-0.493	-0.475
	(0.031)	(0.033)	(0.036)***	(0.038)***
DASIA*LNTARR	-0.288	-0.313	-0.560	-0.612
	(0.102)***	(0.107)***	(0.118)***	(0.126)***
R-squared	0.996	0.997	0.985	0.987
Adjusted R-squared	0.996	0.997	0.983	0.986
S.E. of regression	0.164	0.167	0.186	0.189
Log likelihood	120.52	115.67	88.84	86.43
Durbin-Watson stat	1.933	1.941	1.921	1.923
Sum squared resid	5.673	5.688	7.312	7.292

Notes: 1) Standard errors are in parenthesis.
2) *, **, *** indicate significant at 10%, 5%, and 1% level.
3) Statistics in the bottom part are weighted-statistics.

The gender variable (LNFEM) is not able to explain daily expenditure in most models. Although they are marginally significant in baht models (Models 1 and 2), the length of stay (LNDAYS) and frequency of visit (LNREP) are highly significant in dollar models (Models 3 and 4), and negatively affect daily expenditure amount. This makes sense in that tourists have more local information on where to stay, to buy, and to eat. The percentage of tourists that come with group tours (LNTARR) positively affects daily receipts with 1 percent significance level. However, Asian tourists that come with group tours (DASIA*LNTARR) tend to spend a much lesser amount on daily expenditure.

For macroeconomic indicator variables, both relative price (LNEXI and LNPI) and income per capita (LNGDP) are significant, and positively affects daily expenditure per tourist in all models. The effects of relative price variables are interesting and will be discussed shortly. The daily spending in Thai baht, Model 1 and Model 2, is not affected by the financial crisis (*D97*) at any conventional significance level. In contrast, the daily expenditure in US dollar, Model 3 and Model 4, is negatively affected by the financial crisis with 1 percent significance level. In short, the crisis influences daily expenditure in only US dollar, and not in Thai baht.

There are two findings from the estimates that are worth mentioning. First, the greater income tourists have, the more they spend per day. This result is confirmed by the positive elasticity of tourists' income with respect to daily expenditure. So, we should target high-income growth country. This conclusion is in line with most literatures, makes intuitive sense, and needs no further discussion. However, the second finding that the price coefficient is positive, may look odd at first glance. According to the law of demand, a change in relative price that raises the cost of holiday would result in a lower quantity of purchase. The price inelasticity would result in a proportional increase in expenditure. So the amount of spending moves in the same direction of the price change. That is, in Thailand international tourists'daily amount of expenditure may be inelastic to the cost of tourism because the amount is very low relative to their income. This result implies that tourists may perceive cost of tourism in Thailand to be rather cheap. They do not rigidly constrain their budgets in responding to a relative price change. There are at least two supporting facts. First, each country in the sample, except China, has a higher GDP per capita than Thailand's. Per capita GDP of Malaysia is almost twice and of the United States is 17 times that of Thailand. Second, after 1997, dollars amount of daily spending by tourist is significantly lowered while that of Thai baht is quite unchanged.

The above discussion leads to a qualitative investigation in factors influencing expenditure in three major categories, namely, accommodation, food and beverage, and local transportation.

4. MAJOR FACTORS AFFECTING TOURISM PRICES

This section discusses factors affecting price of services provided in three major categories, namely accommodation, food and beverage, and local transport. Expenditure in these categories constitutes a portion of tourist's living expense. This section investigates one or two factors in each of the three groups individually so that the reasons for decline in expenditure can be outlined.

4.1 Accommodation

Thailand has had continuous expansion in hotel construction since the early 1960s. An expansion in hotel industry was continued by the boost of the Board of Investment (BOI) since late 1960s. In the early 1970s, there were around 58 hotels, including 22 first class hotels, 13 second-class hotels, 17 third-class hotels and 6 for fourth-class hotels. In 2001, it was reported that there were approximately 2,600 hotels, 400 resorts and 800 bungalows (Nalin 2002). Regionally, the number of hotel rooms in Thailand is ranked second to that of Japan's (Figure 1). Consequently, the room rate in Thailand is considered the cheapest in South East Asia. According to the price hotel index (PHI) constructed by the World Travel and Tourist Council (WTTC), the average room rate in Thailand is $US 99.92 per night. These rates are lower than those in comparison with Singapore, Malaysia, Hong Kong, and Japan (WTTC 2002).

In Figure 1, the graphics reflect that the boom in the hotel construction industry has put pressure on the room rates due to the surplus of hotel rooms and asymmetric information.

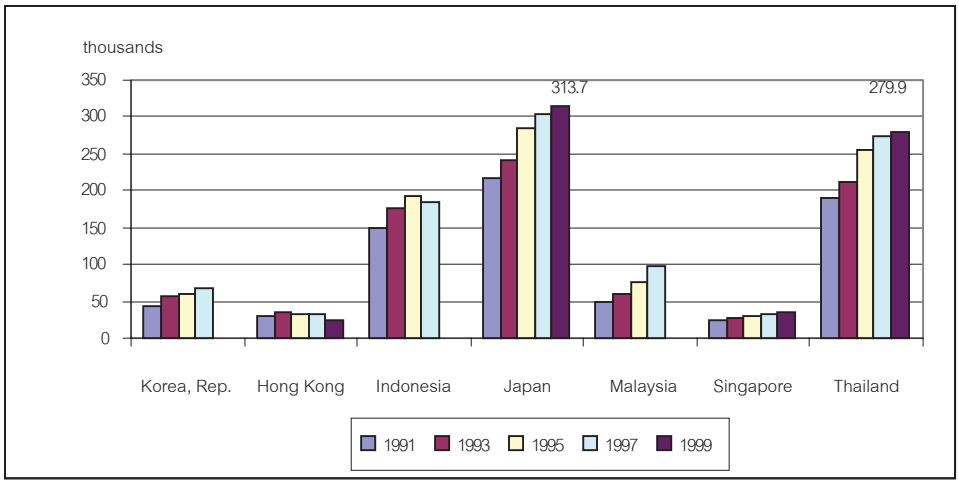
- ***A surplus of hotel rooms***

As indicated in Figure 2, the hotel business was sharply growing despite the financial crisis in 1997. A disparity between number of rooms available and occupancy rates has been increasing since then. It is believed that a fast expansion of rooms constructed has killed the hotel business in Thailand, with the exception of Phuket. The TAT recorded that the average occupancy rate is around 50 percent, and it is mainly concentrated in high-class quality hotels (Table 5). For this reason, a low level of room occupancy jeopardizes the price of the overall hotel industry.

- ***Asymmetric Information***

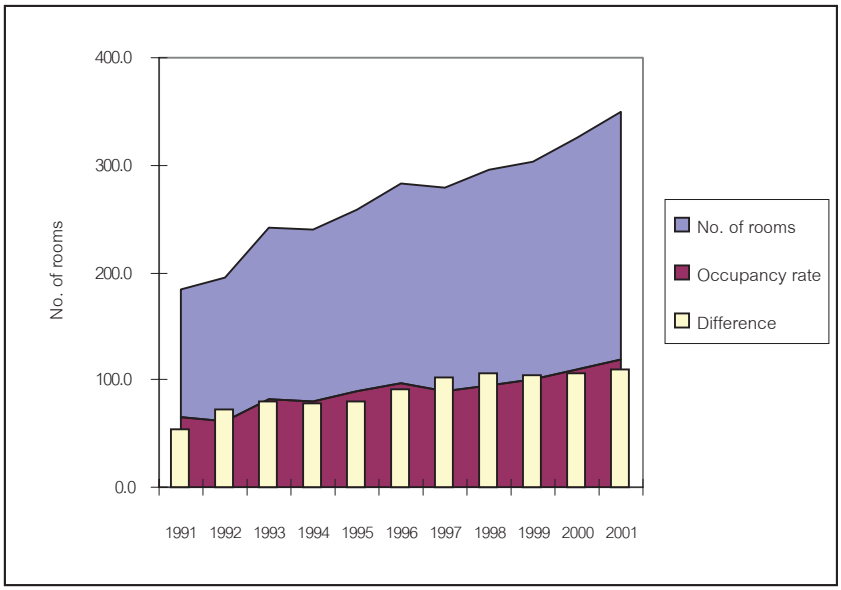
High competition causes a substantial price dampening in all hotels. But the pressure doesn't apply evenly. A major different characteristic between chain-hotel and independent hotels is the control over distribution of their information. The chains, with international and local operation, can share and effectively reduce cost of delivering information to international tourists.

Figure 1 The Number of Hotel Rooms Constructed During 1991-1999



Source: United Nations. 2002.

Figure 2 Number of Hotel Rooms and Occupancy Rates in Thailand



Source: TAT, 2001b.

Table 5 Occupancy Rate Classified by Group of Hotels

Year	Overall		1st Class Hotel		2nd Class Hotel		3rd Class Hotel	
	Total rooms	Occupancy rate (%)	Total rooms	Occupancy rate (%)	Total rooms	Occupancy rate (%)	Total rooms	Occupancy rate (%)
1997	191,287	46.58	22,848	56.86	28,613	51.28	16,973	52.08
1999	204,939	48.86	37,251	61.30	30,468	54.47	15,559	55.15
2000	215,582	50.84	40,447	64.64	28,805	56.19	15,968	55.59
2001	230,031	51.94	42,315	68.30	28,229	58.18	16,610	56.26

Notes: 1. The number of hotel rooms is based on the rooms available in 52 major travel destinations in Thailand.
2. First class hotel: single-room rates of 2,500 Bht and upper.
Second class hotel: single-room rates of 1,500-2,499 Bht.
Third class hotel: single-room rates of 1,000-1,499 Bht.
Fourth class hotel: single-room rates of 500-999 Bht.
Fifth class hotel: single-room rates of 499 Bht and lower.

Source: TAT, various years.

Local independent hotels, including all types of local fringe operators, suffer from the compounded effects of both greater number of competitors and the problem of adequate lack of potential networks for distribution of information. They have the handicap of not being able to build the hotel's awareness among overseas tourists. The problem is accentuated among small and unknown hotels. Unless independent hotels adapt to become part of a wider group, their markets will be easily lost to the chains which are much more publicly known. Independent hotels, hence, have to hinge critically upon travel agencies who potentially act as middlemen in this market. This dependency create problems to the independent hotels as they face price exploitation by travel agents. In the event the hotel denies to offer a considerable discount, travel agents can easily switch to any other hotels that offer a more attractive price and discount.

4.2 Food and Beverage

Both macroeconomic and microeconomic factors concurrently play a key role in the food and beverage market price determination. For example, in the macro perspective, Thai baht was anchored to US dollar and the Thai government also arranged conservative monetary and fiscal policies, therefore the inflation rate in Thailand was closely related to the inflation rate in US. However, after the economic crisis in late l990's, the domestic aggregate demand became low, which resulted in high level of excess capacity in Thai economy. All these are contributing factors that have made the cost of tourism in Thailand gradually low.

Besides the macroeconomic factors, the price of food and beverage has also been affected by two main microeconomic factors:

First, it is known that Thailand is a major food supplier to the world and aims to become the kitchen of the world. The abundant food supply, therefore, benefits the local restaurant industry as the cost of food materials is low.

Second, there are a large number of restaurants. In 2001, it is reported that there were registered 15,000 restaurants in Thailand. Of these 700 were international restaurants, 400 Thai restaurants, 1,500 fast food, 500 bakery and coffee shops, and 12,000 family-owned restaurants (Nalin 2002). The restaurants and bars are growing despite the economic crisis since they cater not only to tourists but also middle to high-income Thai businessmen. The high growth appears in areas where most tourists gather, which is mostly in Bangkok. The services offered by most of these restaurants and pubs are on par with those provided by hotel restaurants and bars, and at a considerably lower price. This results in price dampening on one hand, and improvement of services among local entrepreneurs on the other.

It is interesting to note that there are a large number of international food restaurants in Thailand. There are approximately 700 international food restaurants located in Thailand. This is due to the open investment policies of the Thai Government for foreign investors. Moreover, the restriction on foreign workers in Thailand has become more flexible than previous policies. Nowadays, it appears that Thailand has comparatively higher number of international food restaurants, including franchised-restaurants, than many countries in the same region.

4.3 Local Transportation

Local transportation market in Thailand has also become more competitive due to the increase in the number of various types of passenger vehicles. Moreover, though the government is still a dominant business operator for domestic air services and railway services, the government, a public service provider, also plays a key role in regulating the ticket price for the benefit of people in general. All these factors explicitly contribute to the price competitiveness in Thai local transport market, thus the tourist's daily spending on local transport expenses accounts to less than 10 percent.

In Thailand, the road mode share of trips has also consistently increased. During 1984, for example, some 90 percent of regional passenger trips were accompanied by the road mode, about two-third of that total being by bus (Pacific Consultants International 1998).

Since the road mode is absolutely dominant accounting for over 90 percent of passenger trips, this phenomenon is explicitly consistent to the increasing number of registered vehicles in Thailand (see Table 6). The nation's registered vehicles, including motorcycles, grew substantially from 17.6 million in 1997 to 22.5 million in 2001. During the same period, the statistic data demonstrates that the number of registered sedan cars, taxis and buses have exhibited a high percentage change over from 1997-2001 (see Table 7). A higher number of registered vehicles in this group explicitly result in a higher competition in the local transport market leading to price dampening.

Although the statistics can well explain the higher competition in the local transport market, especially in the road mode, the total amount of tourist's daily spending has increased over time, from 195 baht in year 1993 to 232 baht in year 2000. Such increase should be attributed to the impact of higher gasoline price after the introduction of deregulation of oil price in 1991, as it was adjusted to the world price. Nipon et al. (1998) found that the sectors with heaviest use of oil products, especially diesel, land and air transportation, fishery, mining, agricultural services, and electricity generation and distribution, were most affected by the liberalization policy. The percentage share of cost of oil to total cost in these sectors ranged from 14 percent to 31 percent. Since the retail price is adjusted to the Singapore price, which is the world market price for Thailand, as a consequence, the transport operators suffer more from a gasoline price hike, as they are reliant on energy-consumption. The gasoline price increases can be, and often are, magnified by adverse baht currency depreciation, which consequently leads to an increase of operating cost (see Figure 3).

Table 6 Registered Vehicle 1997-2001

Vehicle Type	1997		1998		1999		2000		2001	
	No.('000)	%	No.('000)	%	No.('000)	%	No.('000)	%	No.('000)	%
Sedan	1,812	10.3	1,974	10.5	2,124	10.6	2,111	10.1	2,281	10.1
Van	538	3.0	555	2.9	527	2.6	554	2.7	583	2.6
Pick-up	2,587	14.6	2,779	14.7	3,098	15.4	3,210	15.4	3,341	14.8
Taxi (1)	65	0.4	70	0.4	75	0.4	77	0.4	82	0.4
Tuk-Tuk	48	0.3	47	0.3	50	0.3	47	0.2	47	0.2
Bus (2)	93	0.5	97	0.5	96	0.5	101	0.5	108	0.5
Truck (3)	613	3.5	621	3.3	613	3.1	653	3.1	674	3.0
Other (4)	257	1.5	249	1.3	266	1.3	261	1.3	236	1.0
Subtotal	**6,014**	**34.0**	**6,393**	**33.9**	**6,849**	**34.1**	**7,014**	**33.7**	**7,351**	**32.5**
Motorcycle	11,650	66.0	12,464	66.1	13,245	65.9	13,817	66.3	15,236	67.5
Total	**17,664**	**100.0**	**18,857**	**100.0**	**20,094**	**100.0**	**20,831**	**100.0**	**22,587**	**100.0**

(1) Includes motortricycle, inter-province taxi, fixed route taxi and urban taxi.
(2) Includes buses in revenue-producing operation.
(3) Includes trucks in revenue-producing operation.
(4) Principally farm equipment.

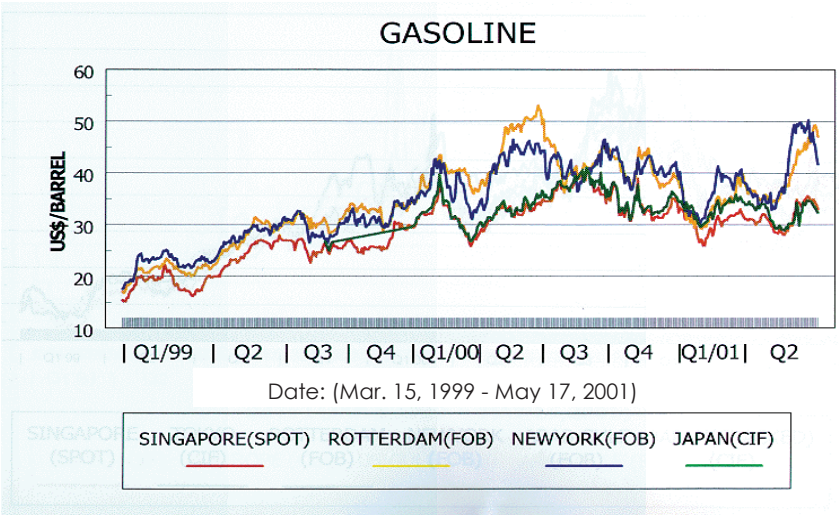
Source: National Statistical Office.

Table 7 Percent Change of Registered Motor Vehicle

Vehicle Type	1998/1997	1999/1998	2000/1999	2001/2000
Sedan	8.9	7.6	-0.6	8.0
Van	3.1	-5.0	5.2	5.2
Pick-up	7.4	11.5	3.6	4.1
Taxi	8.1	6.5	3.4	5.7
Tuk-Tuk	-1.5	6.9	-6.4	-0.9
Bus	3.8	-0.9	5.3	6.6
Truck	1.4	-1.3	6.4	3.2
Other	-3.0	6.8	-1.8	-9.9
Subtotal	**6.3**	**7.1**	**2.4**	**4.8**
Motorcycle	7.0	6.3	4.3	10.3
Total	**6.8**	**6.6**	**3.7**	**8.4**

Source: National Statistical Office.

Figure 3 Gasoline Prices Movement (Market Comparison)



Source: NEPO, 2001.

5. CONCLUSION AND POLICY IMPLICATION

Generally, tourist arrivals seem to be a widely used as an indicator of the health of inbound tourism industry. However, the health of the industry depends not only on the number of tourist arrivals per se. The contributions to the host country are also affected by the amount the tourists' spend. Recently, the tourists' daily expenditure in Thailand, which is a direct measurement of revenue per tourist, shows a declining trend due to the falling of relative price. A possible reason is that the cost of tourism in Thailand is relatively cheap. Investigations into categories of tourist spending indicate a high competition in hotel industry, abundant supplies and proliferating restaurant industry, and cheap and competitive cost of local transportation services. The large public investment in the extensive network of roads and highways has not only provided easy access to the major tourist locations, but has also helped to reduce the traveling time and cost. Since the markets are likely to be competitive, whether it is intended or not, the government should neither worry nor adopt any intervening measures. At least, competition in the Thai tourism industry is likely to sustain the growth of total receipts in local currency. Still, government should take actions to boost tourist daily spending.

An intuitive action is to induce tourists from the high-income countries. A supplementary action comes from the finding that overseas tourists do not tightly constrain their daily expenditure while staying in the Kingdom. Given unconstrained budget, more activities, attractions should be encouraged. A policy to become a fashion hub may contribute to extra spending. Also, the One-Tambon-One-Product (OTOP) goods, which government uses as a tool to increase revenue and create job in local, especially rural community, should be promoted to the tourist. Niche markets are also worth pursuing. A plan to become an international convention center is not achieved by only adding an airport but by building a convenient transportation system. The distribution of benefits and cost of the programs should also be seriously considered. A newly introduced long-stay program may constrain medical services to the local population. In effect, any policies aimed to induce extra tourist spending should receive a careful consideration because the health of the industry depends on the net contributions of foreign tourists to the host country, not the tourist expenditure per se.

REFERENCES

British Tourist Authority. 1998. *The Economic Effects of Changing VAT Rates on the Tourism and Leisure Industry, Final report*. London: British Tourist Authority.

Chalongphob Sussangkarn, Somchai Jitsuchon, and Yos Vajragupta. 2002. Globalization of Thailand: economics impacts and restructuring for sustainability. Paper presented at the 2002 TDRI Year-end conference on Meeting the Challenges from Globalization, Ambassador City, Jomtien, Chonburi, December 14-15.

Durbarry, Ramesh. 2001. "Tourism Expenditure in the UK: Analysis of Competitiveness Using a Gravity-Based Model." Discussion Paper Series 2000/1. Christel DeHaan Tourism and Travel Research Institute, University of Nottingham. http://www.nottingham.ac.uk/ttri/durbarry.html

Lee, Choong-Ki, Turgut Var, and Thomas W. Blaine. 1996. "Determinants of Inbound Tourist Expenditures." *Annals of Tourism Research* 23 (3): 527-542.

Nalin Phupoksakul. 2002. *Snap Shot of Hotel Industry in Thailand*. Washington D.C.: Commercial Services, Department of Commerce.

National Energy Policy Office (NEPO). 2001. Determination of Oil Price in Thailand. Unpublished.

National Statistical Office (NSO). *Statistical Yearbook*. Various years. Bangkok: NSO.

Nipon Poapongsakorn et al. 1998. *The Economic Impact of the Liberalization of Oil Market*. Bangkok: Thailand Development Research Institute.

Pacific Consultants International. 1998. *The Study on Airport Development Master Plan in the Kingdom of Thailand*. Submitted to Japan International Cooperation Agency (JICA) and the Ministry of Transport and Communications. Progress report (2): Volume 1.

Perez, Eugeni Aguiló, and Catalina Juaneda Sampol. 2000. "Tourist Expenditure for Mass Tourism Markets." *Annals of Tourism Research* 27 (3): 624-637.

Tourism Authority of Thailand (TAT). 2001a. *A Study of Action Plan for National Tourism Industry Development during 2002-2006*. Bangkok: TAT. (in Thai)

_____. 2001b. *The Situation of Hotel Industry in Thailand*. Bangkok: TAT. (in Thai)

United Nations. 2002. *Statistical Yearbook for Asia and the Pacific 2001*. New York: United Nations.

World Travel and Tourism Council (WTTC). 2000. *The Hotel Price Index*. http://www.wttc.org/compMon/xls/priceComp/hotelprice.xls