Vol. 16 No. 2 Thailand Development Research Institute June 2001

TDRI Quarterly Review

Contents

Congestion during long weekend at Khao Yai National Park. See related article on page 19.

ISSN 0857-2968

Conceptualizing the Process of Cleaning up Balance Sheets in Post-Crisis Thailand*

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To anyone surveying the Thai economic scene in, say the second quarter of 1998, it was clear that the critical problem was the quality of the balance sheets. If proper valuations were done on the assets in the balance sheets, almost all financial institutions and almost all corporations would be insolvent. This arises because at the time investments in these assets were made (mostly during the bubble), an overly optimistic scenario was imagined by the investors, and by the lenders who put up the money for the project. These expectations were now known to have been false. The assets that were bought during the bubble would now be overvalued, and at that valuation, they would not be competitive. On the liability side, for companies that borrowed overseas, the jump in the debt due to the exchange rate depreciation is sometimes sufficient to make many firms insolvent. If the servicing of the capital (debt and equity) used to acquire these assets were to be at the old set of values, firms would immediately run into severe cash-flow problems, and would be unable to continue to function.

Nonetheless, the physical capital was there – indeed, in many industries, Thailand at that point had brand-new equipment, embodying the latest technology. The problem was the valuation in their owners' balance sheets. Clearly, these balance sheets would have to be cleaned up. One useful way to conceptualize this cleanup problem is to conduct the following thought experiment.

Imagine an omniscient supercomputer with detailed knowledge of the Thai and the global economy, the details including assets and liabilities of every firm. This computer would be asked to compute the general equilibrium of the economy at full employment, given information available at a certain date, say in mid-1998. This computation would yield current and future prices for outputs and inputs, and therefore the values of all the physical assets in the economy. Most of these physical assets would be under the control of some firms or households. Included in the outcomes of the calculations would be the exchange and interest rates ruling in the economy.[1]

Once that was done for the assets of all the non-financial firms, it will be found that many of them would be insolvent, or would have unhealthy debt/equity ratios. Adjustments to the liabilities would now have to be made, with the shareholders' equity naturally taking the first hit. Should that equity be reduced to a negative level, then the ownership pattern would have to be changed, after which the debts would have to be written down. Some conversion from debt to equity may have to take place. The computer will be programmed to make all these adjustments, with the following constraints imposed: the combined balance sheets of the firms must be such as to generate sufficient new investment to ensure full employment from that point on. At the equilibrium exchange rate, interest rate, wage rate and other factor prices to be calculated by the computer, some firms may have to be closed down as being unviable, under these new circumstances.

The adjustments on some of the firms' debts just described would naturally have an impact on their lenders' assets. The lenders' balance sheets will now have to be adjusted downward. A decline in the asset values would require a recapitalization of the banking system. Part of this would be diverted from household savings, channeled through the capital markets to the banks. But where the financial institutions become bankrupt, the recapitalization will in most cases have to be done by the government, on account of the deposit guarantee. This in turn will impose liabilities on the taxpayers. Some of the taxpayers will be households, but some of whom may be the corporations whose balance sheets had already been adjusted. A new adjustment would have to be incorporated in order to accommodate the new tax liabilities. This leads us naturally to the next iteration.

Once all the computations are done, the omniscient computer would have the "true" valuation of the items in everyone's balance sheets. If the task could be performed overnight, and if everyone obediently obeys the computer's instructions immediately, then the economy would just as promptly be on the new equilibrium

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* *An excerpt from a paper entitled "Picking up the Pieces: Bank and Corporate Restructuring in Post-1997 Thailand," commissioned by the Economic and Social Commission for Asia and the Pacific (ESCAP), presented at the Subregional Seminar on Financial and Corporate Sectors Restructuring in East and South-East Asia, Seoul, Korea, 30 May-1 June 2001.*

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path, which was set by design to be at full employment.[2] There would then be no recession.

In the Thailand of 1998 however, there was no omniscient computer. The adjustment was taking place in real time, and not in computer time. Company owners, managers, bankers who had lent to them, and the government that taxed them or underwrote deposit guarantees had to struggle with their own and others' ignorance to come up with some sort of "true" equilibrium valuation of assets – in a situation where it was not at all clear if there was any equilibrium. They then would had to struggle with each other, in countless meetings and in the courts, to effect transfers of ownership of various assets and eventually of bankrupt firms, at some prices. While these struggles are taking place, the clock would still be ticking, and some transactions had willy-nilly to take place, all at the current prices at the time. More to the point, some transactions would be *prevented* from taking place, because the balance sheets had not been cleaned up. The out-of-equilibrium economy would be more demand constrained than at equilibrium. It would thus be working at less than full employment level.[3] Specifically, because many borrowers' balance sheets, not have been cleaned, would show them to be insolvent, they would not be able to borrow from the banks, nor obtain new capital from equity investors. A great deal of new investments would not take place, keeping the economy depressed.

In this view therefore, the downturn in the economy and the consequent delay in economic recovery was entirely due to the delay in adjusting the wrong valuations in the balance sheets. If the adjustments were taking place in real time, the "true" balance sheet values (that is, those calculated by our omniscient computer and which assume instantaneous adjustment) would recede into insignificance. The values as they emerged from the actual cleanup process may not even move toward the "true" equilibrium value generated by the computer, but would be affected by the time taken to get there and the events that took place during the delay. With the economy in recession, the asset values would be less than the "true" computer-generated value, which was set at full employment of the economy. The more delay there is, the greater the departure from these values. It was indeed possible that the economy may get sucked into a vicious cycle, as the delay in balance-sheet cleanup caused asset values to decline, making the cleanup slower and more contentious, causing them to decline further. This was the root cause of asset price deflation, or, even worse, of the asset market freezing up into immobility altogether.

From this analysis, one strategy suggests itself. This strategy, which I shall call the neoclassical strategy (sometimes also called the market-based approach), was to mimic as much as possible the computer procedure outlined above, that is, have everyone go through the process of bankruptcy procedures, foreclosure, asset sales, debt write-downs, recapitalization and all the rest. But the government had to make sure that the adjustment processes were as speedy as possible. More concretely, in Thailand, legal reform of the antiquated bankruptcy and foreclosure laws should be rapidly implemented. This was, by and large, the route taken by the Thai government, at least when Tarrin Nimmanhaeminda was finance minister, with the support and encouragement of the International Monetary Fund. In a sense, the auctioning off of assets from the closed finance companies by the Financial Sector Restructuring Authority (FRA) described above was also in keeping with this approach.

The alternative strategy would have been to "warehouse" temporarily all the bad loans somewhere in the system, and have the banks resume their operations unaffected by the state at least of their own balance sheets, or even of their customers' balance sheets. Indeed, if the affected firms run into working capital shortage, the banks would continue to supply them with liquidity. Similarly, the central bank would also continue to supply the banks with liquidity for this exercise. This allows non-financial firms to continue investing without being unduly affected by their current debt status. The economy would thus continue ticking over and indeed start to recover immediately, completely ignoring the misaligned values of the balance sheets in the system.

After taking over the assets from the banks, the organization that serves as the "warehouse" could tackle the cleanup of the balance sheets. But by rearranging the sequence does not imply that the pace of the cleanup work could be slowed down. That work must be done expeditiously. Warehousing the bad loans should not be the excuse for postponing the cleanup process indefinitely. Else the assets would sharply deteriorate.

In this approach, there is in the beginning no loss in income and little loss in value that arises from awaiting the resolution of the debt workout, and on this ground it has much to commend it. Because of its appreciation of the problems raised by real-time equilibrating process, and the role of income rather than price adjustment, this approach is best described as Keynesian, although, as far as I am aware, the great man never pronounced anything on this subject.

However, the Keynesian approach has its own set of problems, the main one being moral hazard. First of all, the temptation would be very strong to forget the problem-loans that have been warehoused – a case of "out of sight and therefore out of mind." No one really has an interest in worrying about them, clearly not the insolvent firms; not the banks, now that the government has taken the load off them; and not the government, for trying to clean up the balance sheets also entail some very unpleasant and unpopular decisions.

Second, even if somebody does worry over the loans, there is an inherent contradiction in this approach. To keep the recovery going, borrowers cannot be penalized while the workout process is going on – they have to be supplied with liquidity to continue operations at the old level. Under such circumstances, they can use the new borrowing to acquire new assets and move them around, while stripping the pre-existing assets down to minimize repayments on the original loans.

Now, combine these moral hazard problems with the fact that the warehouse usually would have belonged to the government, which in Thailand is particularly prone to corruption, and it can be seen why there was a reluctance to apply the Keynesian approach here. Nevertheless, since the advent of the Thai Rak Thai government in January 2001, this approach is being revived. A Thai Asset Management Company (TAMC) is now being set up.

But because TAMC arrived at a different sequence from their counterparts in other countries – Malaysia and Korea are often cited as exemplars – its role is necessarily different. Much of the damage to the economy and therefore to asset values had already occurred. The firms and assets that could be kept intact had already gone through either the Corporate Debt Restructuring Advisory Committee (CDRAC) process or the bankruptcy courts. The assets that remained would only command break-up values. TAMC would therefore play more of a role an asset disposal unit, not unlike the FRA, with an additional wrinkle. Whereas the FRA was in charge of disposing of financial institutions' assets, with its buyers still having to go collect on the loans given to the debtors, TAMC will itself directly deal with the debtors, in many cases, if not in most, actually foreclosing on properties. Consequently, unlike the FRA, a key feature of the TAMC law is to empower it to grab these assets.

ENDNOTES

[1] Krugman (1999) has shown that in a simplified but similar model that multiple equilibria are possible, which could lead to a jump between equilibria characteristic of crises. For our purposes, it suffices that our omniscient computer will select the full-employment equilibrium, which will fix the exchange rate.

[2] Theoretically inclined readers may wish to compare the above thought experiment with Walras' tatonnement process.

[3] Theoretically inclined readers may notice the similarities of this argument with the group of models pioneered by Clower (1965) and Barro and Grossman (1971), but these concentrate on non-clearing labor markets, while the problem cited above concerns non-clearing real asset markets. Actually, if such an approach is taken further, and different degrees of rigidity or flexibility in the asset markets introduced, then Dornbusch's (1975) analysis of exchange rate dynamics can perhaps be adapted to cover the currency market turmoil in the year after the baht was floated.

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Pricing in Thailand's Telecommunications Sector Before and After Concession Conversion: Note on a General Approach and the Basic Economics

Songkram Grachangnetara*

For a market with given price elasticity of demand, estimates of the likely quantity and the unit price at which the market will be cleared will indicate not only the expected intersection of the demand and supply schedules, but also the implicit parameters that uniquely determine the schedules' respective shapes, their slopes and intercepts. The estimates of such parameters rest on certain basic and orthodox assumptions: that the supply curve slopes upward and represents the marginal costs associated with given quantities supplied; that the demand curve slopes downward and represents the average unit prices associated with given quantities in demand; that the market is competitive and demand is responsive to price; and that a rules-based pricing policy is practiced. For the sake of simplicity, it may also be further assumed that both the price function (the demand schedule) and the marginal cost function (the supply schedule) are linear, although the associated total revenue and total cost functions clearly are not. The total revenue function *TR(D*) is a product of the linear price function *P(D)* and the quantity *D*; the total cost function *TC(D)* has fixed costs *F* as a constant which disappears when differentiated to give the linear marginal cost function *MC(D)* or the derivative supply curve with respect to *D*. The functions are described in the Appendix.

Telecommunications firms operating under concession from Thailand's state monopolies—either the Telephone Organization of Thailand (TOT) or the Communications Authority of Thailand (CAT)—in return for a share of revenue exacted as condition for the franchise, are themselves licensed monopolies. The revenue share may be described as monopoly tax, although the market may not be conventionally monopolistic: there are substitutes for the franchisee's products and their prices are regulated by the state. Under such circumstances it will not be plausible for the franchisee firm to price its product or service by restricting quantity sold to the level where the firm's marginal cost equals its marginal revenue, which is the derivative of its total revenue function. This is the classic pricing optimum for the monopolist who seeks to exploit the difference between price and the marginal revenue due to a downward-sloping demand curve. For a given demand schedule, the supplier will adjust the marketed quantity accordingly to set the price of his product.

Two other possible pricing options need to be considered which deviate from the optimum for the firm seeking to maximize profit. One option is to price the firm's product *at marginal cost*, which from the society's viewpoint is the most efficient, being the point at which a product is sold for exactly what it costs to produce at the margin. This pricing policy may not eliminate the monopolist's 'rent' or possible excessive profits, if his marginal cost is higher than the corresponding average cost. On the other hand if the average cost should turn out in fact to be higher than the price as given by the corresponding marginal cost, then the firm will surely be making a loss. The other option is to price the firm's product *at average cost.* This pricing policy will eliminate any monopolistic 'rent' and satisfies the condition of the firm's financial viability in the long run, although it will not necessarily be optimal from society's viewpoint. But it is clear that any rational pricing decision on the part of the firm or the regulator will require at least making transparent the firm's cost structure, in addition to the expected dynamics of the market with respect to changing prices and quantities.

Because the marginal cost function is the derivative of the total cost function *TC(D)*, marginal cost pricing sidesteps the need to quantify the firm's fixed cost which is a constant term in the function. Average cost pricing on the other hand will however need to take into account the firm's fixed cost, to which there will be an upper limit if the resultant average cost at any given quantity is not to exceed the corresponding marginal cost. In excess of this limit to the fixed cost, the firm which prices its product at marginal cost will incur a loss; short of the limit, the firm will be earning monopolistic 'rent' in excess of normal profit. Ideally, the design of revenue share agreement or monopoly tax in combination with regulated pricing should be such that the monopolist's product is priced optimally from society's viewpoint at marginal cost, but that it will be no more and no less than the average cost *AC(D)*. This ideal is represented in Figure 1 in which the average cost *AC(D)* at *D* is also the point of intersection between the demand curve *P(D*) and the marginal cost curve *MC(D*) at price P_0.

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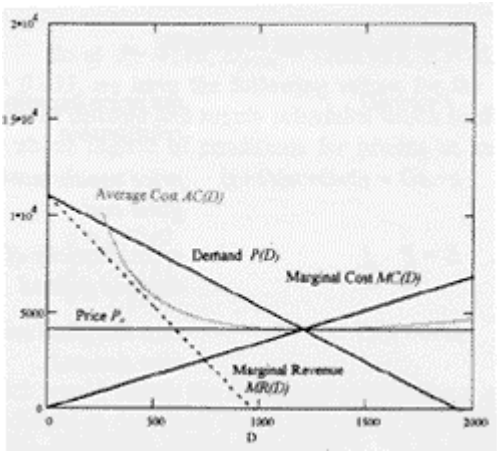

Figure 1

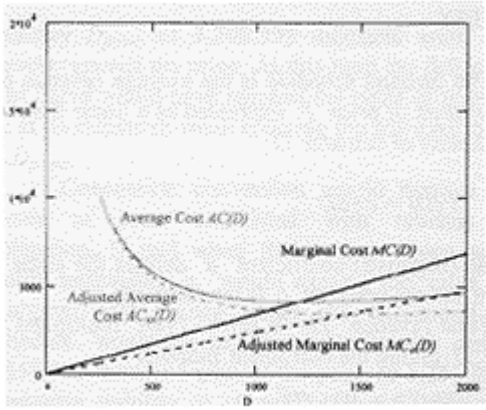

Figure 2

Consideration of the firm's average cost in this regard will necessarily take into account its fixed cost—the constant term *F* in its total cost function *TC(D)*. In reviewing any estimate of expected future prices and quantities, it is reasonable to assume that in the absence of any claim of possible financial loss the true average cost cannot be greater than the indicated price, whether or not that price represents the firm's true marginal cost. By implication, the firm's perceived fixed cost does not exceed the limit as given by pricing at marginal cost. It is also evident that any rational pricing decision on the part of the firm or the regulator requires due consideration of variable cost as well as fixed cost in making transparent the firm's cost structure affecting both its marginal cost and its average cost for any given level of marketed quantity.

The underlying rationale of the firm's pricing practice is crucial to any assessment of the impact of liberalization policy, when monopoly concessions will be revoked, free entry will be allowed, and competition encouraged. In particular, the implementation of this policy for Thailand's telecommunications sector will end revenue sharing agreements in exchange for which the concessions have been granted by the state monopolies. The question of compensation—a one-time payment against outstanding revenue shares based on expected annual earnings to the end of the concession period—requires an assessment of how the marginal and average costs will change, how the product's pricing will need to be re-set by the supplier, and how the market with given price-demand relationship—the demand schedule—will react to accommodate such changes.

Under typical telecommunications revenue share agreements based on a proportion of the gross sales, concession conversions which remove this cut of the revenue to the state monopolies will result in a progressive downward shift of the marginal cost curve together with a corresponding lowering of the average cost curve, shown in Figure 2 as dotted lines.

Under the option of marginal cost pricing, the market price is a multiple of *(1+s)* times the firm's marginal cost where revenue share obligation is a proportion *s* of the sales. Termination of the revenue share agreement under concession conversion will lessen the price, and thus increase the quantity to a new point of intersection between the adjusted supply curve and an unchanged demand schedule as shown in Figure 3. The parameters of the demand schedule determine the net change in revenue at price P_1. The associated change in the average cost at the new market equilibrium to which demand and supply quantities will be adjusted determines the net change in the firm's profit.

In the particular case of the adjustments as illustrated in Figure 3, the adjusted average cost $AC_{xs}(D)$ is higher than the point of intersection between the demand schedule *P(D)* and the adjusted marginal cost curve *MC(D)* which gives the price P_1. The firm would therefore be making a loss by pricing quantity *D* at marginal cost. But if the level of the fixed cost were less, to the extent that the average cost is below marginal cost at quantity *D*, the firm would instead be making a profit and marginal cost pricing at P_1 would be a financially tenable proposition for the firm as well as being economically optimal from society's viewpoint.

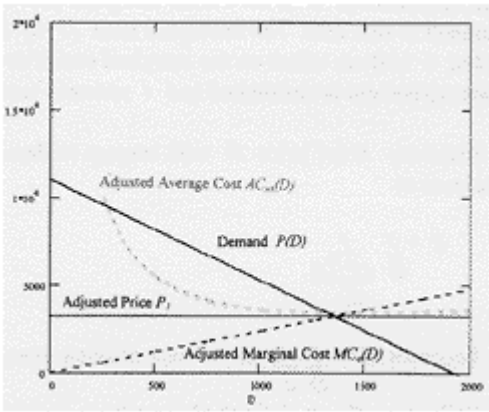

Figure 3

APPENDIX

The demand schedule is the average revenue per unit of product or price P expressed as a linear function of the quantity of demand D

$$P(D) = c+dD$$

where the (negative) coefficient d defines the slope of the curve and the constant c is the intercept.

Total revenue TR is price $P(D)$ multiplied by quantity D giving the non-linear function

$$TR(D) = cD+dD^2$$

the derivative of which is the marginal revenue *MR*, i.e.,

$$MR(D) = c+2dD .$$

Total cost *(TC)* is a non-linear function made up of the two elements of variable cost and fixed cost. The variable cost is a non-linear function of demand and the fixed cost is a constant F giving the total cost function of the form

$$TC(D)=vD^2+wD+F .$$

If there is a revenue share agreement in proportion s of the gross sales, variable cost will be raised by a multiple of $(1+s)$ and the total cost function becomes

$$TC(D)=(vD^2+wD)(1+s)+F .$$

The average cost (AC) is the total cost function divided by the quantity D

$$AC(D)=\frac{(vD^2+wD)(1+s)+F}{D} .$$

Marginal cost (MC) or the supply schedule is the derivative of the total cost function as defined above and is a linear function of demand

$$MC(D) = (2vD+w)(1+s)$$

in which the intercept w is zero if the marginal cost at zero demand is also zero. The multiplier term $(1+s)$ is reduced to 1 with no effect on the marginal cost if revenue share agreement is terminated and s assumes zero value.

Elasticity E (of price P with respect to demand D) is defined as

$$E = \frac{P}{D}\,\frac{1}{\frac{dP(D)}{dD}}$$

which becomes $E = \frac{P}{D}\frac{1}{d}$ in the case of linear demand curve $P(D) = c+dD$ as defined above whose derivative is its coefficient.

Given the following conditions:

$P=c+dD$	*the price-quantity relationship*
$c+dD = (2vD+w)(1+s)$	*price equals marginal cost*
$E = \frac{P}{D}\,\frac{1}{d}$	*price elasticity of demand defined*
$(2v0+w)(1+s) = 0$	*zero marginal cost at zero demand*

the values of the demand and supply schedules' coefficients v,w,d and of the demand intercept c can be found against any given values of P,D,E, and s. The value of the quantity of demand $D_{mr=mc}$ at which the marginal revenue equals the marginal cost is then given as

$$D_{mr=mc} = \frac{-1}{2}\,\frac{(-c+w+ws)}{(-d+v+vs)}$$

whereas the quantity of demand $D_{p=mc}$ at which price equals marginal cost is given as

$$D_{p=mc} = \frac{(c-w-ws)}{(-d+2v+2vs)} .$$

The corresponding prices at these quantities are found from the function $P(D)=c+dD$. Termination of revenue share agreements affects the above quantities and corresponding prices by changing the value of s — the proportion of the concessionaire's gross revenue going to state monopolies — to zero.

From the fact that the average cost at its minimum is equal to the marginal cost, the limit of the fixed cost F_{limit} which would allow the average cost to equal the marginal cost is set by the derived functional relationship

$$F_{limit}(D) = D^2v(1+s) .$$

At this limit to the fixed cost, the unit price for quantity D set at marginal cost would also be equal to the average cost and would ensure the minimum condition for financial viability in the long term for the firm practicing marginal cost pricing. The situation is as represented in Figure 1. If the actual fixed cost were less than this limit, the firm would be making an economic profit, i.e., in excess of the level which perfect competition would permit.

To illustrate, we may take for example the case of a hypothetical telecommunications firm with a concession from TOT for domestic long-distance calls. The revenue share agreement is 43.5 *per cent* of the gross sales. Price elasticity of demand is estimated to be -0.6. Unit price as indicated by the average revenue per unit of demand (per user per year) is 4,140 Baht, at which the quantity of demand is 1,203.935 thousand units.

So at $P = 4140$, $D_{p=mc} = 1203.935$, $E = -0.6$, and $s = 0.435$, we have the following values for the coefficients of demand and supply schedules which conform to the above regime of conditions for pricing at marginal cost:

$c = 11040$
$d = -5.731$
$v = 1.198$
$w = 0$

which would satisfy the functional relationships and the conditions as described above, and which would indicate that optimal pricing for the firm as an unregulated monopoly would have been 6,794 Baht at the quantity $D_{mr=mc}$ restricted to 740.883 thousand units. Pricing at marginal cost would however be a financially tenable proposition if the firm's fixed cost is within the limit of F_{limit} at 2,492.145 million Baht and the average cost at quantity $D_{p=mc}$ of 1,203.935 thousand units does not thereby exceed the price. At this limit the falling average cost curve would have reached the point of inflexion and be at its minimum when crossing the marginal cost curve at $D_{p=mc}$.

Concession conversion would remove the elements of costs associated with revenue sharing obligation. If and when the revenue share agreement would terminate, s would assume the value of zero. Marginal cost pricing under the unchanged demand schedule would re-set the quantity of demand to 1,358.346 thousand units at the price of 3,255 Baht. The long-term stability or otherwise of the situation would depend on the firm's average cost in relation to the marginal cost at the newly increased quantity. That would critically depend in turn on the actual level of the firm's fixed cost in relation to the limit F_{limit} and whether or not its average cost curve was falling or rising previously at quantity $D_{p=mc}$.

Recent Trends in Migration Flows and Policies in Thailand*

Yongyuth Chalamwong**

1. INTRODUCTION

The main purpose of this report is to explore the consequences of the recent economic crisis on Thailand's labor market and its international labor migration flows. In addition to reviewing the recent developments in migration policies, issues concerning international co-operation and the social integration of foreign workers are also discussed.

2. RECENT TRENDS IN THE DOMESTIC ECONOMY AND LABOR MARKET

Thailand's impressive domestic growth came to an end in 1997 when the Thai government decided to float the Baht on 2 July 1997 after 13 years of pegging it to the US dollar. The collapse of the Thai economy was triggered by both internal and external problems (see Chalamwong 1998). The crisis and turmoil forced Thailand to seek financial support from the International Monetary Fund. According to the Index of Human Development released in early December 1999, the crisis pushed almost one million Thai people back under the poverty line, making the total of 8.3 million or 13 percent of the total population (UNDP 1999b).

In 1998, per capita GDP was over 30 percent lower dollar terms than in 1997. The industrial sector contracted by 11.8 percent and the service sector by 10.4 percent. Only the agricultural sector continued to expand in 1998, which it did by 2.3 percent. The change value of Baht did lead to an improvement in the current account however: it went into surplus for the first time in many years in 1998. It is believed that the sharp decline in the Thai economy reached bottom in the third quarter of 1998.

In September 1999, the Thailand Development Research Institute (TDRI) forecasted that from 1999 to 2001 the Thai economy would continue to recover slowly with annual real GDP growth rates of 2.5, 2.4 and 3.7 percent. As a result of greater investment, the industrial sector is expected to contribute to the improvement in total GDP faster than agriculture and services. The inflation rate should continue to be low throughout the forecast period, ranging from 1.1 percent to 2.4 percent. All the external balances are expected to continue to experience positive growth rates. These forecasts are in line with a more recent survey conducted by Reuters which polled a number of independent research houses in Thailand and gave a consensus forecast of GDP growth of 4.3 percent in 1999 and 4.8 percent in 2000. The main driving force will come from external factors such as strong growth in the United States.

The impact of the crisis on the production and service sectors has changed the labor market from being in shortage to surplus. The average unemployment rate jumped from 1.5 percent in 1997 to 4 percent in 1998[1] and increased slightly again in 1999 to 4.1 percent. The crisis also affected the labor force participation rate. The labor force participation rate fell by approximately 1 percent in 1998 to approximately 69 percent; it returned to 70 percent in 1999 (see Table 1). The recovery in the labor market is confirmed by an analysis of the quarterly employment data as shown in Table 2. The number of unemployment rate surveyed by the National Statistical Office dropped from 1.13 million (3.41%) in the third quarter (peak season) of 1998 to 1.04 million (3.13%) of the same quarter in 1999.

The high level of unemployment has spurred the government to seek creative solutions. The policies adopted include the promotion of labor export, limiting the number of work permits granted to alien workers, stepping up law enforcement against illegal workers and creating short-term employment in the public sector through government borrowing (e.g., loans from Miyazawa's plan, the ADB and the World Bank).

3. RECENT TRENDS IN INTERNATIONAL MIGRATION

Thailand is a net importer of foreign workers (both legal and illegal): for documented migrants it is a net export (173,600-191,700 = 18,100) whereas for

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* *OECD Proceedings. International Migration in Asia: Trends and Policies. Copyright OECD, 2001.*

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Table 1 Population and employment in Thailand, 1996-1999, Averages of Round 1 (February) and Round 3 (August)

Unit: '000

	Items	1996	1997	1998	1999
2	Population	59,898	60,500	61,099	61,704
3	Persons over 13 years old	45,756	46,567	47,149	47,854
4	Labour force	32,325	32,780	32,749	33,546
5	Employed persons	31,166	31,714	30,776	31,041
	- In agriculture	14,137	14,315	14,056	14,078
	- In non agriculture	17,029	17,400	16,720	16,963
6	Unemployed persons	498	495	1,309	1,378
	- Looking for work	115	138	440	396
	- Not looking but available for work	383	357	869	981
7	Seasonally inactive labour force	661	571	664	608
8	Persons not in labour force	27,574	27,719	28,351	28,678
	- Persons under 13 years old	14,142	13,933	13,950	13,850
	- Persons over 13 years old	13,432	13,787	14,401	14,828
10	Unemployment rate (%)	1.54	1.51	4.00	4.11
	- Looking for work (%)	0.36	0.42	1.34	1.18
	- Not looking but available for work (%)	1.18	1.09	2.65	2.93
11	Seasonally inactive labour force rate (%)	2.04	1.74	2.03	1.81
12	Participation rate	70.65	70.39	69.46	70.10

Source: Labour Force Surveys, National Statistical Office, 1999.

Table 2 Population and employment in Thailand, 1996-1999

Unit: '000

Items	1996		1997		1998		1999	
	Round 1	Round 3	Round 1	Round 3	Round 1	Round 3	Round 1	Round 3
Population	59,750	60,045	60,351	60,649	60,949	61,248	61,551	61,857
Persons over 13 years old	45,643	45,867	46,336	46,799	47,032	47,265	47,734	47,974
Labour force	31,899	32,750	32,000	33,560	32,144	33,353	32,811	33,242
Employed persons	30,099	32,232	30,266	33,162	29,413	32,138	30,025	32,056
- In agriculture	12,146	16,127	11,938	16,691	11,640	16,472	12,553	15,602
- In non agriculture	17,953	16,105	18,328	16,471	17,773	15,666	17,472	16,454
Unemployed persons	642	354	698	292	1,480	1,138	1,716	1,040
- Looking for work	120	110	180	96	403	476	476	317
- Not looking but available for work	522	244	518	196	1,077	662	1,240	723
Seasonally inactive labour force	1,158	164	1,036	106	1,251	77	1,070	146
Persons not in labour force	27,852	27,297	28,350	27,088	28,806	27,896	28,741	28,615
- Persons under 13 years old	14,107	14,178	14,015	13,850	13,917	13,983	13,817	13,883
- Persons over 13 years old	13,745	13,119	14,335	13,238	14,889	13,913	14,924	14,732
Unemployment rate (%)	2.01	1.08	2.18	0.87	4.60	3.41	5.23	3.13
- Looking for work (%)	0.38	0.34	0.56	0.29	1.25	1.43	1.45	0.95
- Not looking but available for work (%)	1.64	0.75	1.62	0.58	3.35	1.98	3.78	2.17
Seasonally inactive labour force rate (%)	3.63	0.50	3.24	0.32	3.89	0.23	3.26	0.44
Participation rate	69.89	71.40	69.06	71.71	68.34	70.57	68.74	69.29

Source: Labour Force Surveys, National Statistical Office, 1999.

undocumented migrants the estimated figure in 1998 was 932,200 (986,900-54,700). The total net migration balance, 914,100 was equivalent in 1998 to almost 70 percent of the average number of Thai unemployed. It has therefore been suggested that if the government could get rid all of the illegal immigrants out of soils, the employment situation for Thais would improve considerably.

Immigration

Documented immigrants

The legal immigrants who are granted permanent residence under the Alien Act of 1978, or permission to take up temporary employment under the Immigration Act of 1978 and the Investment Promotion Act are

semi-skilled and skilled workers. As is shown in Table 3, the number of foreign citizens in Thailand increased from 63,600 in 1997 to 69,750 in 1998 (a rise of almost 10%). These immigrant workers seemed to increase from every country except Korea which was experiencing similar economic turmoil. The largest increase in 1999 was of Taipei Chinese. The majority of the Taipei Chinese are businessmen. The countries which have continually ranked among the principal source countries are Japan, the United Kingdom, America, India, China and Australia. In general these foreigners work for the multinational corporations.

Illegal immigrants

Illegal immigrants have become visible in the Thai society after the government decided in 1995 to implement a regularization policy in order to bring them under some form of control. Given that the number of illegal immigrants has increased and that illegal workers have spread all over the country, it is clear that the government has failed to bring the problem under control. The number of illegal workers increased by almost 100 percent in four years, from 525,000 in 1994 to 987,000 in 1998 before falling to 653,000 in 1999 (see Table 4). The decline in number of illegal workers in 1999 was due to the fall in demand resulting from the crisis and increased low enforcement.

The government has also failed to control the spread of illegal workers. Before 1994, illegal workers could be found generally in farming, fishing, construction, footwear, garments and textile factories in the 4 or 5 main border provinces (see Chalamwong and Sevilla 1996). Recently, however, illegal workers have been found in almost every region in Thailand (see Table 5). This is despite the implementation of several cabinet resolutions issued between 1992 and 1999 with the aim of combating the problem. The latest cabinet resolutions were issued on 3 August 1999; these allow illegal immigrants to stay and work in Thailand for one more year. The Department of Employment, Ministry of Labour and Social Welfare hired the Migration Center at Chulalongkorn University to estimate the demand for illegal immigrants working in 3D jobs in 1999. The study indicated that the government should allow 86,895 illegal immigrants to work in 18 activities within 37 provinces (see Chantavanich 1999).

The numbers of registered and non-registered illegal workers in 1998 and 1999 are presented in Table 6. The total number of illegal workers was estimated at 987,000 in 1998. The government requested the employers to bring illegal workers under control by reporting and renewing their special permission to remain and work in the country. However after the end of the grace period less than 294,000 (equivalent to under 30% of the estimated total number of illegal workers) had received permission to stay.

Since then, the government has continued to crack down on non-registered illegal workers. By April 1999, more than 334,000 illegal workers had been arrested and deported by the immigration police. In 1999, according to the Department of Employment, the remaining non-registered illegal workers numbered approximately 564,000 and those who had been registered numbered 89,000. The total number of illegal workers in Thailand decreased then in 1999 from 987,000 to 653,000. It should be noted that the ratio of non-registered to registered workers has increased considerably from 70:30 in 1998 to 86:14 in 1999. This reflects the failure by the government to convince the employers to bring in their illegal workers to register. The authorities may have to change the emphasis of their enforcement efforts by focusing more on the employers of illegal workers rather than the illegal workers themselves.

The sectoral distribution of the illegal workers who were granted permission to stay in 1998 is set out in Table 7. The majority of the illegal workers were concentrated in agriculture and related activities (32.2%) and construction (30.7%) followed by housemaids (13.6%). These activities have not been popular among

Table 3 Nationality of aliens who received work permit in whole kingdom, 1997-1998

Nationality	Number (Persons)				Change
	1997	% Share	1998	% Share	(1998-1997)
Japanese	10,224	16.1	11,368	16.3	11.2
British	7,903	12.4	8,934	12.8	13.0
American	7,128	11.2	8,023	11.5	12.6
Chinese	5,964	9.4	6,648	9.5	11.5
Indian	6,237	9.8	6,937	9.9	11.2
Filipino	2,117	3.3	2,397	3.4	13.2
Australian	2,480	3.9	2,764	4.0	11.5
German	2,340	3.7	2,607	3.7	11.4
Taiwanese	1,106	1.7	1,463	2.1	32.3
Vietnamese	1,291	2.0	1,326	1.9	2.7
Korean	636	1.0	595	0.9	-6.4
French	356	0.6	391	0.6	9.8
Others	15,800	24.8	16,298	23.4	3.2
Total	**63,582**	**100.0**	**69,751**	**100.0**	**9.7**

Source: Year book of employment statistics 1998, Department of Employment, 1999.

Table 4 Illegal migrant workers in Thailand, 1987-1999

Year	Illegal migrants
1987	40,000
1994	525,000
1996	717,000
1998	986,889
1999	652,878

Sources: Estimates, Ministry of Interior (1987, 1996), National Security Council (1994), Ministry of Labour and Social Welfare (1998-99).

Table 5 Illegal migrant workers by region, 1998

Region	Total	% Share	Registered	% Share	Non-registered	% Share
BMA+Central	408,020	41.34	24,690	27.48	383,330	42.73
East	107,797	10.92	9,355	10.41	98,442	10.97
West	59,822	6.06	11,729	13.05	48,093	5.36
North	186,038	18.85	16,131	17.95	169,907	18.94
Northeast	49,838	5.05	209	0.23	49,629	5.53
South	175,374	17.77	27,748	30.88	147,626	16.46
Total	**986,889**	**100.00**	**89,862**	**100.00**	**897,027**	**100.00**

Source: Alien Occupational Control Division, Department of Employment, 1998.

Table 6 Non-registered and registered illegal migrant workers in Thailand, 1998 and 1999

Status	1998		Estimated	
	Workers	% Share	Workers	% Share
Non-registered	693,237	70.24	563,780	86.35
Registered	293,652	29.76	89,098	13.65
From:				
Myanmar	256,492	25.99	81,722	12.52
Laos	11,594	1.17	2,174	0.33
Cambodia	25,566	2.59	5,202	0.80
TOTAL	**986,889**	**100.00**	**652,878**	**100.00**

Sources: Alien Occupational Control Division, Department of Employment, 1998. Ministry of Labour and Social Welfare, May 1999.

Table 7 Sectoral distribution of illegal migrant workers, 1998

Activities	Registered workers	% Share
Agricultural	28,974	32.2
Construction	27,626	30.7
Fishery	6,945	7.7
Continuing business from fishery	5,883	6.5
Mining	1,381	1.5
Sea transportation	1,178	1.3
Manufacturing	5,688	6.3
Home maid	12,187	13.6
Total	**89,862**	**100.0**

Source: Department of Employment, 1998.

even low educated Thais since the booming of the industrial and service sectors. This picture has changed little since the outbreak of the crisis. A large number of low educated workers have opted to remain unemployed rather than take up 3D jobs. Many scholars believe that if the government could sharply reduce the number of low-paid illegal workers, then the local wage rate would rise thereby rendering the 3D jobs more attractive to unemployed Thai workers.

Emigration

Documented emigrants

As Table 8 indicates, Thai workers continue to seek better opportunities abroad. The lack of job opportunities and the fall in incomes as result of the economic crisis have acted as push factors; high wage levels in the countries of destination have acted as a pull

factor (see Chalamwong 1998). The number of workers going overseas increased from just under 184,000 in 1997 to nearly 200,000 in 1998, an increase of 4.3 percent. There has been a slight change in the relative importance of the destination countries. The ASEAN share declined by approximately 6 percent, due in particular to sharp falls in those going to Brunei and Singapore. The principal destination country in East Asia is Chinese Taipei. The number going there rose by 6,000 in 1998 to 107,000. East Asia therefore accounted for nearly 64 percent of the total flow. Since the outbreak of the crisis the proportion of female workers among those going abroad has increased. The male-female ratio was 7.4:1 in 1997 but fell to 5.2:1 in 1998. The proportion of females increased in all destinations except those in the West.

Undocumented emigrants

It is difficult to estimate the number of undocumented Thai emigrants. Based on the sketchy information indicated in Table 9, the number of illegal Thai workers abroad declined in 1998. This is probably due to stricter law enforcement in many countries (such as Japan and Singapore) and reduced job opportunities in other destination countries (such as Korea).

With regard to Japan, Ito (1999) found out that trend of irregular (overstaying) Thai migrants has been declining since 1992, from just over 55,000 in that year to 37,000 in 1998. The number of persons refused entry fell sharply from 5,200 to less than 400 over the same period. Furthermore, the number of detected unlawful entries dropped from almost 3,000 in 1994 to just over 1,200 in 1998. Nearly 500 Thai illegal immigrants were deported from Japan in 1997 (see Kondo 1999).

Remittances

Since 1990, the contribution of remittances from Thai workers abroad has increased every year, from THB 24,907 million to THB 58,845 million in 1998. This sharp increase is largely attributable to the

Table 8 Number of Thai workers going abroad by country of destination and sex, 1996-1999

	1996			1997				1998				1999[2]			
Countries	**Total**	**Male**	**Female**	**Total**	**Growth Rate**	**Male[1]**	**Female[1]**	**Total**	**Growth Rate**	**Male**	**Female**	**Total**	**Growth Rate[3]**	**Male**	**Female**
Middle East & Africa	22,607	93.4	6.6	17,421	-22.94	93.2	6.8	18,128	4.06	90.5	9.5	9,565	9.48	91.8	8.2
Saudi Arabia	1,825	89.5	10.5	1,510	-17.26	91.5	8.5	1,561	3.38	89.6	10.4	728	-9.23	90.0	10.0
Gatar	1,226	98.1	1.9	1,387	13.13	99.4	0.6	887	-36.05	98.4	1.6	646	50.93	98.7	1.3
Bahrain	232	50.9	49.1	237	2.16	62.4	37.6	368	55.27	59.0	41.0	213	6.50	57.3	42.7
Kuwait	885	92.2	7.8	1,010	14.12	87.9	12.1	986	-2.38	81.9	18.1	477	10.16	90.2	9.8
United Arab Emirates	951	90.9	9.1	847	-10.94	89.1	10.9	1,298	53.25	90.2	9.8	643	21.78	83.8	16.2
Libya	1,900	99.4	0.6	1,250	-34.21	99.9	0.1	1,545	23.60	99.9	0.1	764	-0.91	97.6	2.4
Israel	14,908	93.8	6.2	10,780	-27.69	93.7	6.3	10,644	-1.26	90.3	9.7	5,882	11.70	93.0	7.0
Others	680	90.3	9.7	400	-41.18	89.7	10.3	839	109.75	92.8	7.2	212	-31.39	88.4	11.6
East-Asia	110,516	79.9	20.1	114,975	4.03	83.0	17.0	122,327	6.39	81.7	18.3	64,894	9.97	82.1	17.9
Japan	10,118	37.5	62.5	10,099	-0.19	40.5	59.5	10,790	6.84	37.8	62.2	3,026	-44.45	50.1	49.9
Chinese Taipei	96,097	87.1	12.9	100,916	5.01	90.2	9.8	106,828	5.86	89.0	11.0	59,747	17.36	86.3	13.7
Hong Kong (China)	4,301	18.7	81.3	3,960	-7.93	11.3	88.7	4,709	18.91	17.0	83.0	2,121	-20.05	15.5	84.5
ASEAN	**50,425**	**91.9**	**8.1**	**49,011**	**-2.80**	**94.1**	**5.9**	**45,671**	**-6.81**	**88.3**	**11.7**	**21,271**	**-13.37**	**84.4**	**15.6**
Singapore	17,601	97.6	2.4	17,770	0.96	93.8	6.2	17,069	-3.94	97.4	2.6	11,679	18.17	96.1	3.9
Malaysia	9,363	75.5	24.5	8,860	-5.37	72.8	27.2	9,031	1.93	70.1	29.9	3,428	74.99	56.5	43.5
Brunei	20,714	95.6	4.4	17,671	-14.69	98.6	1.4	15,246	-13.72	89.1	10.9	4,260	-58.80	85.0	15.0
Others	2,747	82.6	17.4	4,710	71.46	83.7	16.3	4,325	-8.17	87.7	12.3	1,904	-19.73	84.4	15.6
Non-Asian OECD countries	**1,888**	**64.7**	**35.3**	**2,264**	**19.92**	**69.5**	**30.5**	**5,609**	**147.75**	**75.4**	**24.6**	**1,891**	**-92.30**	**72.2**	**27.8**
United States, Europe & Australia	1,326	60.3	39.7	1,238	-6.64	59.4	40.6	2,624	111.95	73.9	26.1	1,672	38.99	73.0	27.0
Others	562	75.3	24.7	1,026	82.56	86.1	13.9	2,985	190.94	76.8	23.2	219	4.29	71.7	28.3
Total	**185,436**	**84.7**	**15.3**	**183,671**	**-0.95**	**88.1**	**11.9**	**191,735**	**4.39**	**83.9**	**16.1**	**97,621**	**-16.46**	**83.4**	**16.6**
% by region															
Middle East	12.2			9.5	-22.20			9.5	-0.32			9.8	3.63		
East-Asia	59.6			62.6	5.03			63.8	1.92			66.5	4.19		
ASEAN	27.2			26.7	-1.87			23.8	-10.73			21.8	-8.52		
Non-Asian OECD countries	1.0			1.2	21.07			2.9	137.33			1.9	-33.78		

[1] Calculated from number of Thai workers traveling to work overseas through Don Muang labor check-point.
[2] January to June 1999.
[3] Percentage change from January to June 1999 in comparison to the same period in 1998.

Source: Department of Employment, Ministry of Labour and Social Welfare, Year book of employment statistics 1997, pp. 45-47.

Table 9 Undocumented Thai emigrants

Country	1997	%	1998	%
Japan[1]	38,191 (22,138)	34.0	37,590 (21,119)	36.3
Korea[2]	8,200	7.3	2,528	2.4
Taiwan[3]	5,342	4.8	5,342[6]	5.2
Malaysia[4]	36,121 (5,549)	32.1	36,121[6]	34.9
Singapore[4]	5,000	4.4	2,400[7]	2.3
Greece & Israel[4]	4,000	3.6	4,000[6]	3.9
Others[5]	15,600	13.9	15,600[6]	15.1
Total	112,454	100.0	103,581	100.0

Note: Number in parentheses were female.

Sources:
1 Number of overstayers, from Watanabe (1998, Table 6).
2 Number of overstayers, from Park (1998, Table 5).
3 Number of illegal workers, from Lee (1998, Table 10).
4 Estimated by Department of Employment, Ministry of Labour and Social Welfare.
5 Number of registered illegal immigrants, from Pillai (1998, Table D).
6 Assumed to be the same figure as in 1997.
7 From Atipas (1999, p. 6).

depreciation of the Thai currency. The volume of remittances received by June 1999 was THB 25,448 million; it is therefore expected that the end of year figure will be the same as that of 1998 (see Table 10).

Warmsingh (1999) surveyed 461 return migrants in rural villages in Thailand and found that all migrants remitted money and goods to their families at least once after migrating. Thai families are becoming increasing dependent upon remittances. Warmsingh estimated that migrants remitted at least 60 percent of their earnings. The majority of Thai laborers in Malaysia and Singapore remit less than THB 10,000 (USD 250) a month, those in Japan approximately THB 35,000 (USD 875), and those in Chinese Taipei approximately THB 15,000 (USD 375). This amount of money is much more than could be earned locally (i.e., USD 75 a month). The study also found that in all but a few exceptional cases the remittances received by families were spent economically and productively.

4. RECENT DEVELOPMENTS IN MIGRATION POLICY

Controlling illegal migrants

In the past, the government focused on controlling and making use of the several hundred thousand illegal migrants by implementing the existing laws and regulations. At the same time, the government tried to prevent new inflow of workers, a task which is rendered difficult by the length of the border which stretches for thousands of kilometers. However, judging from the rising trend in the number of illegal workers from neighboring countries during this period, as shown in Table 4, the government has not been successful. The Ministry of Labour and Social Welfare reported on 1 May 1999 that it estimated the number of unregistered illegal immigrants at 898,000 while the number of registered illegal migrant workers was only 89,000. The

Table 10 Workers' remittances in Thailand, 1980, 1985, 1990-1999

Year	Remittances		
	Millions of THB	Growth (%)	% of exports of goods
1980	7,703	–	5.8
1985	23,796	208.9	12.4
1990	24,907	4.7	4.3
1991	26,018	4.5	3.6
1992	28,620	10.0	3.5
1993	30,995	8.3	3.4
1994	32,188	3.8	2.9
1995	42,235	31.2	3.1
1996	45,777	8.4	3.3
1997	51,910	13.4	2.9
1998	58,845	13.4	2.7
1999*	25,448	-56.8	2.6

* January to June 1999. Since the liberal of the exchange currency has occurred in March 1991, the actual revenue from the Thai workers in overseas might be more than the amount of money sent through banking system. Indeed, due to the fact that workers could bring their money liberally with them (up to USD 5,000), there are less workers who transfer money through banking system.

Source: *Bank of Thailand.*

growing number of unregistered foreign workers reflects the lack of progress since the 1996 regularization program.

The illegal workers have both positive and negative impacts on Thai society. The positive impacts include helping the country to solve problem of labor shortages in 3D jobs, stimulating new investment along the border areas, encouraging Thai workers to secure higher level of employment through undertaking the appropriate training. The foreign workers fill the vacant positions in fisheries and related activities, rice milling, other back-breaking activities and services. Employers may be saving USD 0.3 billion per year in labor cost from hiring illegal immigrants (see Sontisakyotin 1998).

Hiring undocumented migrants can create all kinds of social problems. These negative impacts include those on social and national security, economic and politics. With million illegal migrants scattered around the country, no one can deny that it will increase crime and more stateless babies will be born. Their families compete for public health and schooling with Thai citizens. Further, contagious diseases such as venereal diseases, tuberculosis, malaria, elephantiasis and HIV/AIDS are believed to be carried by large number of illegal migrants. Hiring cheap labor distorts wages rates and deters Thais from entering the labor market which in turn results in increased demand for illegal immigrants. In addition, hiring illegal workers for low wages and low welfare standards could attract the attention of international organizations who monitor labor and human rights issues thereby damaging the country's reputation.

Recent initiatives with regard to illegal immigrants (July 1999)

As the term of employment of registered illegal migrant workers approached expiration (due 4 August 1999), the government decided to grant another one-year extension for the employment of 86,500 of them. In July 1999, the National Committee on Employment, chaired by Prime Minister Chuan Leekpai, agreed with the conclusions of a review on illegal migrant workers' employment conducted by a Sub-committee headed by the Deputy Prime Minister Korn Dabaransi. The sub-committee requested the Ministry of Labour and Social Welfare to conduct a survey to estimate the demand for manual laborers among labor intensive industries in 76 provinces. The results revealed that the business operators were demanding a total of slightly over 303,000 illegal migrant workers. Demand was highest in the fisheries; the agricultural sector, construction and the clothing industry also reported considerable demand.

On the basis of this information, the government decided on 3 August 1999 to grant 86,895 foreign workers of Myanmar, Laotian or Cambodian nationality permission to stay until 31 August 2000. Potential employers were given 90 days within which to report to the provincial authorities bringing with them the documents of the illegal immigrants which they wanted to employ. They were also required to pay a THB 1,000 deposit charge for each worker. Though registered these foreign workers would retain their illegal status. They would be employed in 18 labor-intensive activities categorized into 5 groups. The first group, comprised of fisheries and related activities, rubber plantations, market gardens, palm plantations, coffee plantations, sugar cane plantations, pig farms and shrimp farms was allocated almost 85 percent of the total. With the exception of construction, which was allocated 8 percent, the other sectors received only tiny proportions.

This present policy is supposed to be a final extension for the limited number of illegal migrant workers to which it applies. Unregistered alien workers will be arrested and deported by the immigration and border patrol police after the end of 90 days grace period. The immigration police had already deported over 350,000 unregistered illegal migrants by May 1999. The Ministry of Labour and Social Welfare has announced that the government hopes to keep the number of illegal migrant workers below 200,000.

Outcomes of the recent deportation policy

It is too early to evaluate the effectiveness of the recent strict enforcement of the laws against illegal workers. The recent reports have indicated that many have become stranded in the Moei River (which divides Thailand and Myanmar) and in jungle surrounding on Thai territory. Repatriations to Myanmar have been blocked by Rangoon's decision in October 1999 to close its border with Thailand following the seizure of the Burmese Embassy in Bangkok by five armed dissidents.

Industrial and business operators in the Tak border province have resisted attempts by the authorities to root out and expel illegal immigrant workers. They have demanded that the authorities stop repatriating Myanmar workers since it seriously affects business in the province, particularly the garment and food industries. Almost all the factories in Tak have been shut down since 1 November 1999 due to labor shortages. The government had rejected a proposal to extend the duration of the permission to stay granted to undocumented workers in 1996. In fact, in the Tak province only 2,000 workers in the construction and agriculture sectors benefited from the 3 August 1999 decision (see Anjira and Spamart 1999).

The Immigration Police classified the illegal workers into three groups. The first group, the most urgent sought, are those suspected of trafficking workers into Thailand. The second group is of those who enter and exit the country frequently, causing a disturbance. The third group is composed of those coming to Thailand illegally to take up employment. In the case of this third group, the police will not prosecute immediately but will instead give time to make the necessary adjustments (see Chaiyaporn 1999).

The Thai Chamber of Commerce has petitioned the Labour Ministry to remove the ban on the

employment of illegal immigrants. They have complained that there are not enough Thais to fill the vacancies left by foreign workers. They also proposed that the government allow Myanmar nationals to be employed in Thailand as cross-border workers. The Ministry has accepted the petition and will respond to it in the first half of 2000.

5. INTERNATIONAL CO-OPERATION

In order to prevent illegal migration and illegal employment, the government has sought to conclude with origin countries bilateral and multilateral agreements including those concerning formal and informal information exchange between agencies dealing with immigration. The government already benefits from the formal exchange of information on international crime as well as with regard to maritime safety.

The most significant breakthrough thus far comes from the International Symposium on Migration: Towards Regional Co-operation on Irregular/Undocumented Migration held in Bangkok in April 1999. It was attended by Ministers and representatives from the Governments of Australia, Bangladesh, Brunei, Cambodia, China, Indonesia, Japan, Korea, Laos, Malaysia, Myanmar, New Zealand, Papua New Guinea, the Philippines, Singapore, Sri Lanka, Thailand and Vietnam as well as Hong Kong (China). Together, the 18 countries and the one Special Administrative Region unanimously approved "The Bangkok Declaration on Irregular Migration." It is as yet to soon to evaluate the effectiveness of the declaration.

6. INTEGRATION OF FOREIGN WORKERS

In order to investigate the extent of foreigners' integration and the means by which it occurs a very good database is required. Unfortunately, a good data on the personal background and situation of foreign workers is not available. Since 1995, when Thailand started to register illegal migrants, personal records of each worker granted a work permit have been collected in paper form by the Immigration Office; these have never been made available to the public. Information concerning wage rates, the existence of employment discrimination on the basis of nationality has been monitored by the relevant agencies and scholars however. Further, it is known that in theory at least foreign workers (both documented and undocumented) are protected by labor protection laws. The social security system (such as health insurance, accident compensation and employees' provident fund) is also available to foreign workers. In practice, the extent of labor protection and access to the social security system made available to foreigners is limited.

As has been noted earlier, foreigners' access to the labor market is subject to restrictions concerning the sector and their qualifications.

Subject to certain conditions set out in various acts such as the Immigration Act, the Board of Investment Act and other related regulations, foreign workers are permitted to bring over dependent members of their family.

In order to facilitate the foreign workers' integration the Ministry of Education allows both public and private schools to offer courses in language and culture. Many foreign businessmen and factory workers take advantage of this possibility. Many foreigners who are interested in coming to work in Thailand have the opportunity to learn about Thai society in their own countries, for example, in many countries schools and colleges offer courses in Thai language and culture.

According to Articles 7 and 8 of the Nationality Act, 1965 (revised 1992), children born in Thailand of illegal immigrants, foreign diplomats or professionals are automatically granted nationality.

ENDNOTE

[1] The average between round 1 (low season) and round 3 (peak season) of the Labour Force Survey.

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Determining Entrance Fees to National Parks

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INTRODUCTION

The entrance fees to national parks can be important tools for a sustainable use of forest resources. They are tools that can transfer resources from the rest of the economy to natural parks. This resource can be used for national park management and hence ensure a continued recreational service that national parks will provide to future generations. The entrance fees can also be used to transfer benefits from wealthier park visitors to lower-income visitors. The entrance fees can be used to eliminate congestion inside some national parks that is a major cause of the environmental deterioration during the peak seasons, and to promote visits during the low season. For the entrance fees to national parks to perform these tasks, one needs to pay greater attention on how the entrance fees are determined.

On the contrary, when lack of attention is given to the determination of the entrance fees, undesirable outcomes are inevitable. Setting an entrance fee too low is a politically attractive strategy, but this low entrance fee tends to damage national park management in the long run. Lack of sufficient revenue resulted from the low entrance fee will put a limit to national park management, hence the quality of park recreational services cannot be maintained. This inappropriate entrance fee will allow some wealthy visitors to benefit from a national park at the expense of low-income visitors. Congestion, over-utilization and environmental degradation during peak periods are partly results of inappropriately low entrance fees. Lastly, determining the entrance fee in a manner that discriminates between the local and foreign visitors will raise the park revenue, but may unnecessarily jeopardize the image of the overall tourism industry of the country.

Given that an entrance fee to a national park is a double-edged sword, it is vital that the public begins to pay greater attention to how entrance fees are determined in Thailand. This article intends to illustrate how the entrance fees to national parks can be determined so that it can perform its function as a tool that helps maintain a *sustainable* and *fair* utilization of national park resources.

HOW TO DETERMINE AN ENTRANCE FEE

The traditional concept often used when pricing public goods[1] is the British museum approach. The argument goes like this. Once the museum is established, each additional person who visits the museum will not incur an additional cost to the museum. Because an additional visitor does not incur an additional cost to the museum, there is no economic reason to collect an entrance fee, at least from the marginal cost concept. This British museum concept of pricing may work well if the subject is a pure public good. But in reality, such pure public goods are rarely observed, and in many cases, particularly national parks, some form of pricing is essential. The following are a few strategies that can be used for pricing or determining entrance fees to national parks.

Marginal cost pricing

This British museum argument seems to make sense under some strict textbook conditions that a commodity is purely a public good but it generally fails to yield practical solutions. For instance, in the case of national parks that generally provide public goods to the visitors in the form of scenic views, this public good cannot generally be consumed in isolation. Very often there is a close complementarity between national park scenic views and some other private goods such as roads or parking spaces; that is, in order for a visitor to enjoy the scenic view there is a need for him/her to take a ride on a paved road and park his/her vehicle in the parking lot. Although an additional visitor will not reduce the amount of scenic views consumed by others, this additional visitor will consume road and parking spaces. For this reason, there is a need to collect an entrance fee from the visitors so that sufficient resources can be transferred to national parks for providing a sufficient level of park services. This concept of national park pricing is often known as marginal cost pricing.

Services that are considered essential inside national parks include, for instance, roads, parking space, safety, restrooms, or waste treatment facilities. Some national parks may include higher cost services such as

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nature study centre or other forms of educational services that are demanded by the visitors. Because an increase in the number of visitors to a national park will imply an increase in the level of these services, there is an economic justification to collect an entrance fee so as to cover these expenses.

Marginal benefit pricing

Marginal benefit pricing, on the other hand, aims to set an entrance fee to a national park according to the level of recreational benefits each park provides. Larger national parks that are endowed with richer resources or more attractive sceneries such as Khao Yai National Park or Doi Inthanon National Park may impose a higher entrance fee compared to smaller national parks with fewer attractions.

The rationale for setting an entrance fee according to the level of recreational services is to allow larger or more popular national parks to generate extra revenue that can be used to cross-subsidize smaller or less popular national parks that may not generate sufficient revenue to cover their operational costs. This extra revenue may also be used to help establish new national parks as well.

Adis (1998) employs the Contingent Ranking Method to determine an entrance fee and finds that, by pricing national parks according to the level of recreational benefits they generate, an entrance fee should be set at 40 Baht per person for Doi Inthanon National Park, 20 Baht per person for Mae Sa Waterfall, and no entrance fee should be collected at Doi Suthep (as is currently practiced at Doi Suthep). A study conducted by the Japan Bank for International Cooperation (JBIC), using the Double Bounded Contingent Valuation Method, suggests that the entrance fees to Khao Yai National Park and Kho Samed National Park should be raised from 20 Baht per person to 50 Baht per person (JBIC 2001).

Congestion pricing

The third rationale for collecting entrance fees to national parks is to help national parks overcome crowdedness during the peak visit periods. In Thailand, Doi Inthanon National Park in Chiang Mai Province can become very crowded during the high seasons such as New Year or Songkran festivals. Marine national parks such as Kho Samed also experience a high visit rate during the summer season as well. High visit rates observed in many national parks create congestion problems among the visitors. This congestion poses two problems for national park management. First, it tends to result in environmental degradation and hence shortens the life span of national parks. Second, it tends to reduce the overall satisfaction of visitors when national parks become congested.

Paitoon (2000) adopts the Dichotomous Choice Contingent Valuation Method and finds that the satisfaction of a visitor from visiting Kho Samed will firstly increase as the number of visitors on Kho Samed increases. But after a certain level, too many visitors (congestion) will begin to lower one's recreational satisfaction. (See Figure 1). Although an increase in the number of visitors may lower the level of satisfaction of an individual visitor, the greater number of visitors on the Island will also generate greater utilization and benefits. The question concerning this congestion problem is therefore the trade-off between the loss of individuals' satisfaction when the number of visitors increases and the gain from having a larger number of visitors benefiting from the Island. Figure 2 shows the final outcome of the overall recreational satisfaction when the number of visitors increases on Kho Samed. To maximize the overall satisfaction of all the visitors, the study suggests that the visit rate on Kho Samed during the peak period needs to be reduced by about 25 percent. To achieve this optimum visit rate, the study proposes that the entrance fee to Kho Samed be set at 40 Baht per person for long weekends, 27 Baht per person for weekends, and 16 Baht per person for weekdays.

This type of congestion pricing is desirable, as it tends to achieve dual objectives: to reduce congestion so as to help mitigate the pressure on the environment during the peak seasons, and to maximize the overall benefit from national park utilization.

Pricing differential

A price differential strategy or price differential is desirable when it is properly designed. In the case of determining entrance fees to national parks, a price differential strategy means setting different entrance fee levels for different types of park uses or different park users.

The congestion pricing technique above that sets the weekend entrance fee higher than the weekday fee is an example of a price differential strategy. Other forms of price differential can also be considered for Thai national parks. Establishing a day pass fee vs. an annual pass fee vs. lifetime membership fee is a tool that may be used to differentiate between "casual" and "serious" park visitors. If casual visitors tend to utilize national parks in a more damaging manner than serious or professional park visitors, then an entrance fee for a day pass for a single visit has to be set at a level higher than that of an annual pass fee or lifetime membership fee.

For social objectives, the entrance fee for handicap visitors and senior citizens can be set lower than the normal fees. And to ensure that low-income visitors will have the opportunity to visit national parks, free access may be allowed on some special holidays such as Labour Day or Children's Day. For educational reasons, school children visiting national parks on school trips may be allowed free entrance as well.

Figure 1 The individual recreational satisfaction

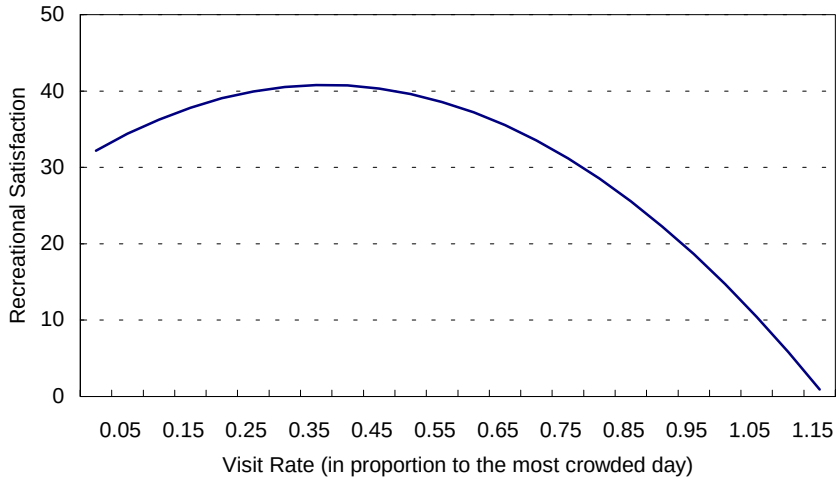
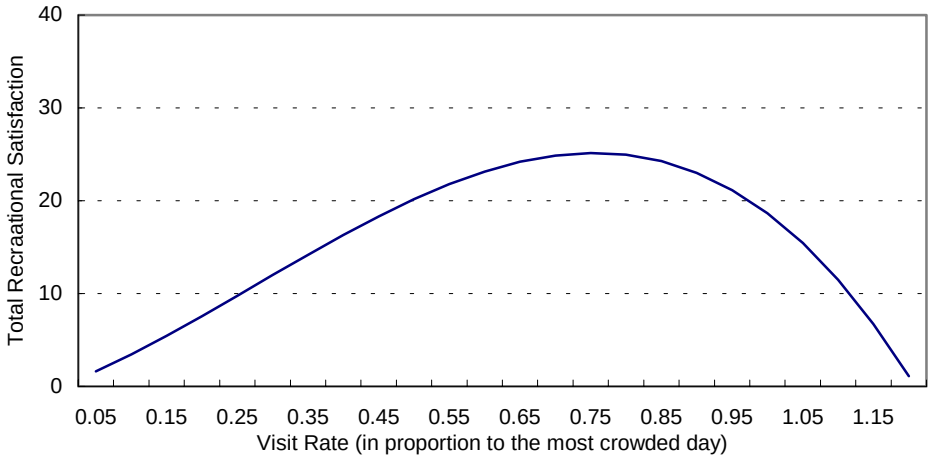


Figure 2 The overall recreational satisfaction



Lastly, since foreigners tend to have high willingness-to-pay to visit some national parks, there is a tendency to impose a higher entrance fee for foreigners, as is currently practiced in Thailand (a foreigner is charged 200 Baht while a local Thai is charged 20 Baht). While this pricing strategy may help raise the revenue, it may unnecessarily jeopardize the image of the overall tourism industry of Thailand.

A more diplomatic pricing strategy that ought to be considered for foreigners may be to impose the same basic entrance fee as for local Thais at the gate, but special services may be offered to foreigners at a higher price. For example, some national parks may provide English guided tours at a price higher than normal guided tours. English information booklets may be provided at a higher price compared to the booklets printed in Thai. These strategies ought to raise extra revenue for national parks without necessarily creating an unpleasant feeling as setting an entrance fee for a foreigner 10 times higher than for a local Thai, which is currently practiced.

ENTRANCE FEES IN THAILAND AND RECOMMENDATION

Currently, the way entrance fees to national parks in Thailand are determined indicates that some efforts have been given to designing an entrance fee structure so as to reflect some of the strategies described above. For instance, an entrance fee to an inland national park is currently priced at 20 Baht per person, while that to an exotic marine national park is priced at 40 Baht per

The current entrance fee structure to Khao Yai National Park.

person. Children are charged at half price compared to adults. Vehicles are also priced separately depending on size. The latest innovation in the Thai entrance fee structure was to charge foreigners 200 Baht per person while the local Thais are paying 20 Baht per person.

This indicates that there are rooms to improve the structure of entrance fee to national parks in Thailand. This article recommends that the entrance fee structure of the national parks in Thailand be adjusted in the following manner:

- The overall level of an entrance fee should be increased from 20 Baht per person to around 50 Baht per person.
- Larger, more attractive and easily accessible national parks should be priced higher than smaller, less attractive and remote national parks.
- A more aggressive price differential strategy should be adopted, particularly the price differentials during long weekends, weekends and weekdays. This is to help reduce congestion, increase the overall satisfaction and reduce environmental degradation. Annual passes and lifetime membership should also be explored.
- Both local Thai and foreign visitors should pay the same entrance fee, but special services should be arranged for foreign visitors, which should be provided at a relatively higher price.
- Entrance fee exemptions for the handicapped, elderly, or school children visiting national parks on school trips should be introduced.

Setting an entrance fee at an appropriate level requires analytical tools such as economic and statistical techniques in order to carry out an in-depth analysis on the consumer preferences toward national park recreational services as demonstrated in Adis (1998), Paitoon (2000) and JBIC (2001).

The benefit in adopting these recommendations is to better provide a mechanism that efficiently transfers part of the national park recreational benefits from visitors to the national park in the form of an increase in revenue. This revenue can then be used to maintain a continued flow of recreational services and hence sustainable utilization of national parks in the long run.

ENDNOTE

[1] Public goods are strictly defined as commodities that are non-rival in consumption and non-excludable. For example, national defence is one of the public goods because the marginal cost of an increase in consumption is zero and one consumer cannot exclude others from consuming the goods.

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