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A TALE OF FOUR CITIES: COMPETITION AND BUS OWNERSHIP IN BANGKOK, JAKARTA, MANILA AND SINGAPORE

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The concept of privatization, in its largest sense, has swept across the world ... It is almost as if Adam Smith had suddenly been rediscovered. Yet privatization as a social policy cannot seriously be described as a simple selling off of publicly owned assets to nongovernmental entities. The broader and, in my view, more relevant meaning of "privatization", must refer to ... "greater reliance upon market forces" to guide production of particular goods and services. In this sense it is a concept that directly confronts and partially contradicts economic planning from the center. It means in essence that even government-owned and operated enterprises should behave as if they were private -i.e. they should strive to minimize costs and price according to efficiency principles -- the results anticipated under perfectly competitive markets. At the same time, they should strive to be innovative in the Schumpeterian sense of the "perennial gale of creative destruction" (Wilson, 1986: 1).

An examination of the history of bus transport in Southeast Asia shows that there has been a progressive encroachment of state-owned transport undertakings on the domain of privately-owned transport enterprises since the 1950s. Reviews of these state-owned bus undertakings from the mid-1970s—basic structures, incentives and business systems—have revealed that they were grossly inefficient, inadequately accountable and a drain on scarce government resources. As subsidies, transfers and net lending outstrip revenues, the performance of these state enterprises is regarded as inferior to their private sector counterparts. Hence, the argument that bus operations in Southeast Asian cities should be sold-off to private interests. But privatisation is not the only—nor necessarily the most effective—approach for increasing the efficiency of urban bus operations. Rather than apply privatisation as a 'universal fix' we need to assess a range of management and ownership options to ensure that they operate at maximum efficiency.

Before any conclusions can be drawn on improving the efficiency of state-owned transport undertakings we need to consider alternative approaches for managing resources (Fig. 1). Following Australia's Economic Planning Advisory Council (Commonwealth of Australia, 1987), the three approaches discussed are: (a) the 'in-house' approach involving the development of corporate plans that embody both the government's objectives and the state-owned transport undertaking's commercial objectives (i.e. changes in performance); (b) the introduction of competition into the activities of state-owned transport undertakings (i.e. changes in conduct involving deregulation); and (c) the privatisation approach involving the transfer of ownership from the state to the private sector (i.e. changes in ownership or denationalisation). Thus, the critical issue is to discover the rationale behind these options for promoting managerial development and enhancing accountability to government and productive efficiency, increasing the scope for entrepreneurial initiative (Rimmer et al., 1989).

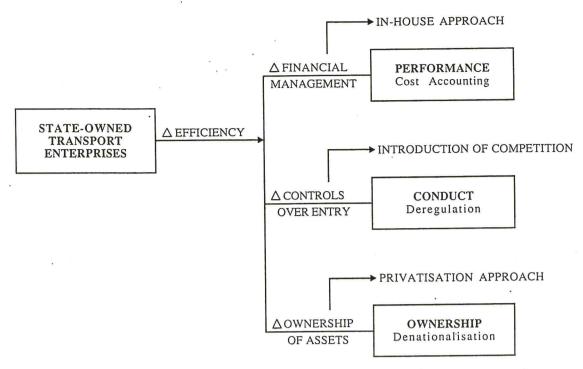


Fig. 1 Three approaches to improving the efficiency of bus enterprises

This issue is considered by examining each approach in turn with reference to a particular Southeast Asian city (Fig. 2). The 'in-house' approach is discussed in relation to the Bangkok Mass Transit Authority (BMTA) (Section 3). The introduction of competition is studied by examining the Metro Manila Transit Corporation (MMTC) (Section 4). Privatisation is considered by discussing Singapore Bus Services (1978) Ltd (SBS) and Trans-Island Bus Services Ltd (TIBS) in Singapore (Section 5). Then we are in a position to review the relative merits of the alternative approaches —corporatisation, deregulation and privatisation — in a conclusion (Section 6). We begin, however, by examining the state undertaking in Jakarta to provide an insight into the problems that beset unrestructured organisations (Section 2).

## 2. PERUSAHAAN PENGANGKUTAN DJAKARTA (PPD)

PPD epitomises many of the problems that have afflicted state-owned bus operations (Table 1). Originally, the company was formed to take over the interests of the foreign-owned Bataviasche Electrische Tramweg Mij following nationalisation (Rimmer, 1986). Troubled by a shortage of spare parts the trams were eliminated in 1962 and buses substituted. Shortage of buses and maintenance difficulties meant that PPD could not keep pace with demand, particularly during the Asian Games, and the resultant 'transport gap' was filled by private buses and microbuses offering jitney-type services on former tramway routes with pedicabs providing feeder services. As these modes did not convey the image of a modern city, there was a thrust towards modernisation and incorporation as the government took control of all stage buses in 1965. Credit for new stage buses, however, was advanced by the United States in 1969 on the condition that the new units would be operated by private companies; fourteen companies were nominated. Control of fares, tickets and labour regulations remained under government control. In 1979, the minimum requirement that all private bus companies must have fifty units led to the ownership of most of them passing to PPD which hitherto had controlled one-third of Jakarta's 2400 unit fleet. Given that the expansion of rail rapid transit has been hindered by shortage of capital and taxis numbers had not increased due to the absence of cheaper fares and multiple hiring, the government's urban



Fig. 2 Map of Southeast Asia showing the location of Bangkok, Jakarta, Manila and Singapore.

transport strategy during the early 1980s has relied on adding 1000 units (including double-decker vehicles) to PPD's fleet. These new units were intended to extend PPD's predominantly radial network, and encroach further on private enterprises operating minibuses and microbuses, by bringing all remaining private operators into a single state enterprise. Warnings that the resultant company would suffer from poor cost control have been borne out by the very low rates of return on the considerable resources invested. This condition is due to the government's insistence that PPD undertakes non-economic objectives, lack of market discipline, lack of incentives, and lack of competition.

Non-competitive objectives. As part of the Indonesian Government's concern with income distribution PPD is required to charge low fares. There is no way that the government-owned bus service can operate over a sprawling network and make money from the flat fares (February 1987) imposed (Rpl50 for ordinary buses, Rp250 for express services and Rp50 for prepurchased student fares). Revenue from passengers covers only 50 per cent of the company's total costs, resulting in an annual deficit of about \$US 30 million. The shortfall is met by the government. Consequently, there is no incentive to make these services pay. If a higher level of bus availability was attainable the percentage of full costs covered by revenue would rise from 50 per cent to 62 per cent if three-quarters of the buses were on the road (Table 2). A net reduction in staff of 5190 is estimated by using one conductor -- a strategy which would raise the full costs covered by revenue from 50 per cent to 70 per cent. The balance would have to be sought from higher levels of bus availability (e.g. 85 per cent) or increases in the flat fare to Rp 200 or Rp 250. Variations also stem from using three different costing methods: (a) direct costs excluding overheads; (b) full costs including an overhead contribution (i.e. the traditional profit/loss statement); and (c) costs including overheads but excluding vehicle depreciation and interest (i.e. where the government provides public funds for the purchase of new buses but is not required to subsidise any deficit). On all three methods single-decker routes met a higher proportion of their operating costs than their double-decker counterparts.

TABLE 1 OPERATIONAL STATISTICS OF PENGANGKUTAN PENUMPANG DJAKARTA, 1986-1988 (CALENDAR YEAR)

	1986	1987	1988	
Total fleet (no.)				
Single decker	1,191	1,213	1,075	
Double decker	408	400	342	
Express	155	218	240	
Express (air-con)	-	_	10	
Tourist	35	51	23	
Total	1,789	1,882	1,690	
Operational (no.)	)		£,	
Single-decker	721	687	689	
Double-decker	247	229	243	
Express	104	167	194	
Express (air-con)	_	-	10	
Tourist	16	19	14	
Total	1,088	1,102	1,140	
Vehicle availabil	lit <b>y</b> (%)			
Single-decker	60.5	56.6	64.1	
Double-decker	60.5	57.3	71.1	
Express	67.0	76.6	80.8	
Express (air-con)			100.0	
Other	45.7	37.3	60.9	
Total	60.8	58.6	67.5	
Personnel (no.)				
Driver	3,753	3,614	3,831	
Conductor	5,865	5,450	5,434	
Technicians	2,441	2,348	2,266	
Administrative	2,976	2,882	3,163	
Total	15,035	14,294	14,694	
Production (km th	nous)			
Single-decker	-		76,120	
Double-decker	. <b>–</b>	19,387	18,894	
Total	86,681	87,221	95,014	
Production (pass	. thous)			
Single-decker	_		170,772	
Double-decker	_	64,459	64,665	
Total	235,318	226,222	235,437	

Note: The total bus fleet refers to those units which are in regular services; it excludes units which have been cannibalised or placed in storage for scrapping.

Source: PPD (1986-1988)

TABLE 2 FINANCIAL EFFECTS OF POLICIES ON PENGANKUTAN PENUMPANG DJAKARTA ASSUMING 75 PER CENT VEHICLE AVAILABILITY

(Million rupiahs per month)

· ·	Existing	75 2 conductors bus/shift	per cent availa 1 conductor bus/shift	ability Rp 200 fare	Rp250 fare	- 4 
Revenue	3098	4058	4058	5032	5884	
Method 1						
Costs (excl. overheads)	5154	5250	5046	5046	5046	
Contribution to overheads	-2056	-1192	-988	-14	+838	
Covered (%)	60	77	80	100	117	
Method 2		* ************************************				
Costs (incl. overheads)	6210	6013	5809	5809	5809	
Profit/loss	-3112	-1955	-1751	<b>-</b> 777	+75	
Covered (%)	50	67	70	87	101	
Method 3						
Costs (excl. vehicle depreciation						
& interest)	4086	3913	3709	3709	3709	
Financial balance	-988	+145	+349	+1323	+2175	
Covered	76	104	109	136	159	

Source: Abstracted from Indonesia (1986: xxiii)

Lack of market discipline. Besides its social obligations the efficient operation of PPD has been further handicapped by a lack of market discipline. As a 'perum' company, PPD should be managed commercially and the government is not supposed to provide operating subsidies for enhancing the level of service, reducing fares below the level at which an operator can make a profit, protecting jobs, or protecting specific groups of people (e.g. low-income households). The only permissible form of financial support from public funds is the purchase of new buses. Excluding vehicle depreciation and interest the company covered only 76 per cent of its costs in 1985. There is a pressing need to adopt a value-for-money approach to the assessment of the US\$30 million subsidy policy. This should

include a calculation of costs and benefits, particularly as the efficient and financially-viable sole, private, city bus company (Mayasari Bakti), small bus cooperatives (Metro-mini, Kepaja and Kuantas Bima) and individually-owned minibus (mikrolet) services are not supported in this way. Although the subsidisation of government buses is, in principle, not an undesirable policy it is important that assistance is targeted towards achieving declared aims and that it is transparent. Generally, government subsidies, coupled with the rigidity of public service conditions, combine to prevent PPD minimising the costs of production or proving sufficient incentives to attain technical efficiency.

Lack of incentives. The lack of operational flexibility, brought about by the absence of appropriate incentives for all PPD employees, is low. This has been attributed to the WAP (Wajib Angkut Penumpang) system outlined in Table 3. Under this arrangement bus crews (driver and two conductors) pay a predetermined sum of money to PPD for operating a unit on a specific route and pocket the receipts (50 per cent for the driver and 25 per cent each for the conductors) -- a practice which results in an estimated annual loss of revenue to the company of \$US21 million (i.e. 40 per cent of the total income). Not only does this enable drivers and conductors to achieve incomes which are disproportionately high compared with other PPD staff, but it encourages dubious operating practices. Staff discipline is poor, with 13 per cent of drivers and conductors being absent without leave or suspended on any one day. These difficulties are aggravated by public service regulations which prevent compulsory redundancy. Also, PPD managers are lower-paid than their private counterparts because their salaries are linked to those of public officials and do not incorporate performance bonuses.

Lack of competition. PPD is not free to plan bus operations as the setting of routes, services, fares, vehicle specification and issuing of licences are the prerogative of the traffic authority, Lalu Lintas Angkutan Jalan Raya (LLAJR). Neither is PPD able to locate, own and manage bus terminals. Limited competition with the private sector has not enhanced performance. Staff efficiency, gauged in terms of number of personnel per bus (14.5), is low. Further, the standard of vehicle maintainance is unsatisfactory with only 67.5 per cent of the operational fleet in use on an average day in 1988 (a figure excluding new vehicles -- including fiftytwo double-deckers -- which have been cannibalised because of inadequate maintenance funds to provide spare parts for others). The latter has been encouraged because the buses used by PPD are over-sophisticated in relation to the available operating and maintenance skills and facilities (e.g. automatic gear boxes).

Resume. Critiques of the performance of the highly-visible PPD, therefore, have concentrated on its perceived shortcomings -- non-economic objectives, lack of market discipline, lack of incentives and lack of competition -- and operational shortcomings (long waiting times, excessive interchanging by passengers between PPD buses and congestion of terminals). A prerequisite to resolving these issues is the development of a disaggregated cost-accounting system providing information on the financial performance and costing of individual routes and services, and output for weekly and annual monitoring reports. Then recommendations can be investigated for: promoting managerial performance and efficient use of resources allocated to enterprises; enhancing accountability to government; and increasing the scope for managerial initiative. As noted, three approaches -- 'in-house', introduction of competition, and privatisation -have been mooted as the best ways of achieving these objectives. We begin with the 'in-house' approach pursued in Bangkok.

## TABLE 3 ADVANTAGES AND DISADVANTAGES OF THE WAJID ANGKUTAN PENUMPANG (WAP) SYSTEM

## Advantages

## Disadvantages

- 1. Incentive to minimise time spent waiting at bus stops
- 2. Incentive to maximise number of passengers & collect fares
- 3. Ensures PPD receives fixed amount of revenue on each route
- 4. Does not incur costs & need for supervision of ticket system

- 1. Buses stop outside official stops & even ignore traffic regulations
- 2. Incompatible with fixed service plan
- 3. Drivers try to limit number of buses operating on a route
- 4. Extend layovers & stop near exits to get full load
- 5. Stop several times to pick up passengers at stop
- 6. Reluctance to switch buses & crews between routes
- 7. Maintenance difficult because drivers' prefer to keep same bus
- 8. Financial inducements to speed maintenance
- 9.Under-reporting of buses in operation
- 10. Crew earnings high compared with other PPD employees
- 11. Attempt to increase company share has met resistance
- 12. Prevents the introduction of more sophisticated fare systems
- 13. Compensation required if WAP abolished
- 14. Without WAP there could be problems of low staff morale

Note: Items 13 and 14 were considered as advantages in the original document.

Source: Based on Indonesia (1986): xxi-xxii.

## 3. BANGKOK MASS TRANSIT AUTHORITY (BMTA)

The case for a large, state-owned urban transit system in Bangkok, as in Jakarta, is weak (Table 4). There are diseconomies of scale; a competitive system provides a broader range of price-quality options; the pricing of externalities is more likely to occur in a competitive system; and it is doubtful if transit subsidies are the best way of helping the poor as they apply to all passengers (Wilson, 1986). All of these observations are reflected in the Bangkok Mass Transit Authority (BMTA) and have prompted the government to adopt an 'in-house' approach to overcome its manifest problems. Before discussing the effectiveness of BMTA's corporate planning we need to trace the nature of the company's origins and subsequent difficulties.

### Antecedents

At the behest of transport consultants, notably Transportation Consultants (1959) and F.H. Kocks/Rhein Ruhr (1975), a single company, the Greater City Transit Co. Ltd, was originally established in 1975 from twenty-six public and private companies to allow flexiblility in restructuring the eighty-nine existing bus routes, better meet the needs of users and improve traffic conditions. As there were legal complexities and liquidity problems in establishing this company it was transformed by a royal decree into a state enterprise, BMTA, under the Ministry of Communications. The touted benefits from the monopoly situation never materialised as BMTA was troubled from the outset by having: to operate 2700 vehicles and absorb 18,000 workers with limited preparedness and working capital; to cope with heavy flood damage in 1975 and 1983; and to purchase buses and lease depots and facilities from their former owners. Although the number of units was progressively increased to 5000 there were no economies of scale. Indeed, BMTA was unable to keep pace with daily demand for bus trips in the metropolitan and surrounding areas -- a position aggravated by Bangkok's chronic traffic congestion, noise and pollution, and the inconvenient location of bus depots and terminals inherited from the former owner.l

The resultant vacuum was filled by private companies (that survived the merger) operating conventional buses; a host of largely owner-drivers fielding minibuses; and a host of paratransit modes offering shortdistance trips by motor cycle or motorised tricycle. Commissioned by BMTA to operate on unprofitable routes, the private companies operating 600 conventional buses were eventually allocated their own fixed routes (though they were reluctant to operate in peripheral areas). They exhibited greater flexibility in management and enjoyed lower labour costs as their crews worked sixteen-hour shifts compared with twelve hours for government employees. Their efficiency, however, was not markedly greater than BMTA because they were required to observe the same regulations governing the availability of services and the low fares pegged by the government's Department of Land Transport. Similar rules and regulations have been extended to the 2200 minibuses which, at first, were illegal. Subsequently, these 'pirate' operators were permitted to serve routes not operated, or underserviced, by BMTA provided they accepted its supervision. Once legalised, however, they duplicated services on BMTA's licensed routes offering higher frequencies and service quality (their daily income from fares, ranging between 1200 and 1500 baht, is considered marginal as instalments on vehicles are about 14,000 baht per month). Since 1987, BMTA has required the growing number of minibuses, which were originally mediumsized pick-up trucks equipped with two rows of seats and a canvas roof, to modify their simple body construction and to pay operating fees.2

TABLE 4 OPERATIONAL STATISTICS OF THE BANGKOK MASS TRANSIT AUTHORITY OCTOBER 1987 AND NOVEMBER 1988

Time		D = 1	l		Λ:	<b>n</b> _00n	lition	- d	Mini	buc
Item	Regular bus		Air-conditioned BMTA Private				Minibus			
	BM		Priva		(C-1)		77		1007	1000
	1987	1988	1987	1988	1987	1988	1987	1988	1987	1988
										*
Bus routes	134	115	20	29	18	11	18	8	60	74
(no.)										
Route length	2897	2450	430	662	684	395	306	284	1598	1372
(km)										
Buses in	4541	4216	740	1132	553	444	240	239	1737	2151
operation (units)										
Bus trips	41	36	7	10	3	2	1	1	13	17
(thous. per day)										
Bus passengers	3940	3613	666	1070	228	191	76	98	859	1120
(thous.per day)						0.6	0.0	2.6	0.0	0.0
Av. route length	22	21	22	23	38	36	38	36	22	23
(km)	205	0.11	000	251	1/0	100	1.60	161	100	207
Av. bus trips	305	311	333	351	148	199	162	161	180	284
(per day)	20	2.1	33	37	13	17	10	12	12	19
Av. pass. per	29	31	33	37	13	17	10	12	12	19
route										
(thous. pass./day)		101	100	105	88	88	59	76	85	66
Av. no. pass. per	96	101	100	103	00	00	23	70	65	00
trip										

Source: Bangkok Mass Transit Authority (pers. comm.).

These fees have done little to offset BMTA's substantial losses incurred since its inception as minibuses have allegedly cost the agency 8 million baht in lost revenue per month (Table 5). The main problem, however, is that BMTA's government-imposed fare structure is well below cost. While the average fare recovery ratio was 78 per cent -- high by Western standards -- the large volume of traffic at rates below cost has resulted in substantial and continuing losses. According to Krynetr (1988), the trip cost on an old (blue) bus was 2.55 baht but the revenue per passenger was 1.74 baht -- a loss of 0.51 baht per passenger trip. The revenue from the new buses -- which are painted in a red and cream livery -- has been 3.00 baht which realises a profit of 0.45 baht passenger trip as expenses have been 2.55 baht (a flat fare of 3.00 baht has also charged on 'limited-stop express', 'twenty-four hour' and 'expressway' services but these have not broken-even because of limited patronage). The only graduated fare has been for air-conditioned services and this varies between 5 and 15 baht in 2 baht increments depending on the distance travelled (the average fare is 7.50 baht).

A major problem for BMTA has been controlling maintenance costs. Consequently, it has entered into daily leasing agreements and maintenance contracts with major bus suppliers, Hino, Isuzu and Mercedes Benz, in a bid to encourage maximum vehicle availability and market discipline. For example, the new 10 metre red bus is leased for 590 baht per day with a maintenance fee of 660 baht per day. These arrangements did not offset BMTA's deficits and its heavy reliance on subsidies from the Thai Government and the Bangkok Municipal Authority to service credits from fuel dealers and maintenance contractors. Even with these subsidies BMTA has had to rely on delaying payment of expenditures on fuel and maintenance.

TABLE 5 REVENUE, EXPENDITURE AND SUBSIDIES, 1977-1987 (million baht)

lear	Revenue	Subsidies	Expenditures	Deficits
			070 (	2/7 7
1977	622.9	-	870.6	247.7
1978	1,058.2	-	1,438.3	380.1
1979	1,421.3	_	1,898.3	477.0
1980	1,777.4	_	2,523.3	746.0
1981	2,524.5	-	3,344.3	819.8
1982	2,885.2	80.0	3,939.8	974.8
1983	3,017.8	120.0	4,214.2	1,076.5
1984	3,064.2	_	4,303.7	1,239.6
1985	3,447.7	_	4,553.7	1,106.0
1986	3,144.2	·	4,264.0	1,120.5
1987	3,217.5	<b>-</b>	4,138.2	920.7

Source: Krynetr, 1988: 4; BMTA, 1986, 1987a, 1988).

The promised economies of scale from amalgamating private and public bus companies into a single company never eventuated. Although touted as a means of overcoming low accessibility, BMTA has had less effect than a mix of public and private enterprises would have achieved. Indeed, illegal 'pirate' minibuses are often regarded by users —if not by the government and BMTA — as providing a better quality service. Clearly, more than a change in ownership is required to overcome the problems of operating buses in Bangkok's congested intestinal streets, manifestly unsuited to modern vehicles. In the city's constant 'peak' any gains from reserved bus lanes and one—way streets have been quickly evaporated by the high influx of rural migrants and growth in the private motor vehicle. The prime rationale for subsidising BMTA, however, is that it benefits the poor, yet direct subsidies to raise their real incomes would have been more effective (Table 6). For a variety of reasons, therefore, the Thai Government has adopted the 'in-house' approach for restructuring BMTA.

TABLE 6 GOVERNMENT SUBSIDIES TO BMTA FROM THE THAI GOVERNMENT AND THE BANGKOK MUNICIPAL AUTHORITY

Types of activities	Million baht
Purchases of bus from former owners Purchase of new buses in 1978-79 (with interest Government subsidies Bangkok Municipal Association subsidies Government guarantees of loans	329.2 payments) 1,444.4 308.6 200.0 3,453.6
Total	5,735.9

Note: Although 329.2 million baht was allocated by the Thai Government for the purchase of buses and equipment from the former bus owners the actual cost was 370 million baht (282.4 million for vehicles; 4.6 million for equipment and 83.1 million for employee compensation). BMTA, therefore, started with a deficit of 40.8 million baht.

Source: Krynetr (1988: 6)

TABLE 7 ESTIMATE OF NON-FARE PAYING PASSENGERS ON BUSES OPERATED BY BANGKOK MASS TRANSIT AUTHORITY, 1989

Item	Total population	Bus users per day	Comments
Blind	6,000	4,800	2 trips/day by 80% blind population
Monks Postmen BMTA Employees Police Armed forces Students below Form Fare avoiders	4,000 500 500 20,000 50,000 6 687,825 35,000	1,200 225 225 4,000 20,000 279,130 70,000	30% monks use bus 45% postmen use bus 45% employees use bus 20% police use bus 40% soldiers use bus 40% students use trip 2 trips/day by fare avoiders

Source: BMTA (pers. comm.)

## Corporate planning

The 'in-house' approach used by the Thai Government for improving the efficiency of BMTA is focused on new planning and accountability mechanisms. In particular, it pays attention: to the relationship between government and the state enterprise; to the need for a disaggregated cost-accounting system; to the provision of non-commercial services. Legal and administrative frameworks have to be simplified and government control over borrowings discussed to provide the state with financial accountability and BMTA with managerial flexibility. Similarly, a cost-accounting system is a necessary but not sufficient condition for efficient operation; it is of little use unless the manager makes decisions based on it. Also, the cost to BMTA of providing non-commercial activities, outlined in Table 7, has to be made explicit (i.e. transparent). The main tool for achieving these objectives is the corporate plan which sets productivity and financial targets and provides the basis for changing the rules regarding pricing and managerial responsibility, new goals involving covering costs with revenue and making market-oriented decisions

In March 1984, corporate planning, borrowed from the private sector, became mandatory in Thailand for all fifteen state transport enterprises, including BMTA. This directive has involved the organisation in creating a plan for the period between 1987 and 1991. After detailing past performances and assumptions, the plan incorporates: (a) the broad goals agreed between the government and BMTA; (b) the medium-term strategies for major functional areas which incorporate financial targets based on forecast changes in traffic and anticipated short-term variations in demand; (c) the programs to implement policies in each of the functional areas, including the identification of particular performance criteria relating costs to output levels. Specifically, it embodies annual action plans, charts a remarkable turnaround in BMTA's fortunes that runs counter to Wilson's (1986) more jaundiced assessment that 'it will continue to exist, be unprofitable, offer low quality services but that the government will allow more of the private sector into the transit business with marginally beneficial results'.

TABLE 8 ANTICIPATED REVENUE AND EXPENDITURE DETAILED IN BMTA'S CORPORATE PLAN, FY 1987-1991

Item	Actual		Pr	ojected			
	1986	1987	1988	1989	1990	1991	
	404 COV 554 III						
				. == 0			
Fares	3017	3045	4350	4570	4994	5508	
Other	470	203	596	439	218	283	
					1		
Revenue	3487	3249	4947	5009	5212	5792	
					2621	2221	
Operations	2112	2126	2369	2626	2691	2804	
Maintainance	1003	1099	1166	1113	1216	1298	
Administration	475	206	200	219	243	272	
Central office	292	257	284	303	331	350	
Expenditure	4180	4279	4814	4783	4908	4953	
# 1 - Sec. 12 -							
Profit/loss	-1037	-1116	45	9	111	807	
Accumulated	-8161	-9278	-9329	-9814	-9202	-8395	
losses							

Source: BMTA (1987b).

As highlighted in Table 8 an annual loss of over 1000 million baht will be transformed into a surplus from 1988 with a concomitant reduction in accumulated losses. The key to the anticipated boost in revenue is a progressive increase in the flat fare rate for ordinary buses from 2 to 3 baht between 1987 and 1991 (3 to 3.50 baht for new units) and in the moving rate for air-conditioned buses from 5 to 8 baht for the first 8 km and 2 baht for each additional 4 km with the maximum rising from 15 to 24 baht. Even if the government grants these increases much will depend on the production plan being realised. This scheme envisages: an expansion in the number of buses running from 3718 in 1987 to 3954 in 1991 based on having over 90 per cent of the buses operating on any one day; a rise in the number of bus trips per day; a growth in daily passenger numbers from 1.4 million in 1967 to 1.6 million in 1991 (a figure calculated from total population in the capital and surrounding areas, the differing requirements of those over and under 15 years of age, an assumption of modal split (BMTA, joint ventures with private buses, private car, minibus, taxi, train and ferry) and an assessment of non-revenue passengers.

The future scenario, compiled with assistance from consultants, has become a valuable tool for reforming BMTA's internal management. Since this corporate plan has been in place BMTA's board and management have been expected to: (a) outline in advance their planned financial and operational goals and ways of measuring them; (b) work towards pre-set financial targets free of day-to-day operations; (c) report on success in meeting these targets and other performance indicators. It has proved less suitable, however, for defining the relationship between the government and BMTA. The level of detail is more than the government needs and many actions should be left to management. Nevertheless, the overly optimistic plan does provide government with: the opportunity to assess conformity of BMTA's mission with its own objectives; quantified targets and performance criteria; a check on assumptions about government actions relating to pricing, equity-debt approval and transfers to cover operating losses.

Clearly, the crux of BMTA's corporate planning exercise hinges on it being given primary responsibility for pricing. Although the government has made steps in this direction, Cabinet approval of price increases is still required. As yet, it has not been budged from its position of keeping prices artificially low for social reasons. Simultaneously, government has failed to reimburse BMTA fully for the cost of its community services, forcing the company to worry more about finance and debt than its service to users. While these constraints are operative there is little chance of BMTA's corporate plan being realised. Although the organisation has plans for a string of new depots and an articulated bus fleet the government has encouraged it to contract-out services as part of its general policy of increasing private involvement in both investment and operations. Already, BMTA is considering an increase in the number of routes served by private operators. Although these plans have encountered labour opposition and some reluctance on the part of bureaucrats to diminish their empires, the replacement of monopoly services by competitive contracts is seen by government as a potent means of improving productivity. By reducing the size and power of the labour force, contracting-out will cut costs, make the organisation easier to manage and increase pressures for productivity. By removing fare decisions from the public arena it will convert unprofitable activities into a source of revenue.

The Thai Government's attempts to restructure BMTA -- by changing the rules involving managerial responsibility and introducing goals to ensure that pricing covers costs -- are instructive to their counterparts in other Southeast Asian cities. Implementing the 'in-house' approach, however, has been difficult because corporate planning may become detached from day-to-day operations affected by the twin problems of congestion and 'peaking' Also, fickle governments have been unwilling to introduce the cost-based pricing and peak/off-peak pricing necessary to overcome congestion. This situation leads to over-investment in public transport and roads, and underlines Wilson's (1986) conclusion that 'Bangkok will continue to be congested and polluted whoever owns the transit assets'. This may explain why attempts at restructuring PPD in Jakarta have concentrated on narrower economic and financial aspects. Also, few governments are prepared for the necessary medium-term commitment to planning for state-owned bus operations. Indeed, it may account for the Philippines Government seeking to decouple its bus undertaking, MMTC, from the state sector.

## 4. METRO-MANILA TRANSIT CORPORATION (MMTC)

A radical change in transport policy in the Philippines followed the change in government. The Aquino government is seeking to privatise the transport sector and dispose of its state-owned bus operation -- the Metro-Manila Transit Corporation (MMTC). This is a new departure as the Marcos government had thought there was 'too much competition', promoted a stateowned bus undertaking and raised barriers to entry. Contraryto expectations, the measures had the reverse effect and boosted competition within the highly contestable urban passenger transport market with its private and informal sectors. Any subsequent privatisation under the Aquino government does not mean an end to the government's role. Indeed, it is important to distinquish between those matters best left to the private sector and those handled by government. For example, routing and scheduling should be commercial decisions. Conversely, the government's task is to facilitate easy entry and exit and to intervene in case of 'market failure' to ensure peripheral areas of Manila are served. Before discussing the contemporary scene, however, it is important to outline the reasons for creating MMTC in the first place.

TABLE 9 OBJECTIVES AND RESULTS OF ESTABLISHING THE METRO-MANILA TRANSIT CORPORATION

Results
Competition and service duplication heightened by a new, large company, MMTC
MMTC could operate on any route without a franchise, yet franchises for private operators controlled by Board of Transportation
Economies of scale of overhead or operations not achieved
With consistently large deficits and poor productivity MMTC has developed neither a strong financial base nor efficient operations
Acquisitionofbusesfrom manufact- urers in seven different foreign countries went against the aim of fleet standardisation

Source: Derived from Roschlau, 1985: 240, 242.

## Genesis

MMTC was established by Presidential Decree No. 492 in 1974 and began operations by leasing new buses at subsidised rates and during the following year commenced operations with sixty units. Originally known as the Manila Transit Corporation, its inception was prompted by the inability of a legion of independent bus operators to provide the commuting public with adequate and responsive services. Toleration of destructive competition and other structural economies in public utility operations had discouraged the integration and consolidation of resources, management and operations to achieve economy and efficiency. Hence, MMTC was set up to attain the five policy objectives outlined in Table 9. An examination of MMTC's subsequent history suggests that none of these objectives were achieved — the contrary occuring in most cases. Not surprisingly, MMTC's financial performance was poor (Rimmer, 1986, 1988).

A cumulative deficit of more than 140 million pesos was incurred during MMTC's first four full years of operation that was variously attributed to its role in pioneering services in areas neglected by the non-corporate enterprise. This loss was equivalent the total capital cost of purchasing 4800 jeepneys with a seating capacity of more than 75,000 passengers — more than double the number of seats provided by MMTC's fleet of 700 buses and 3383 workers (Roschlau, 1985: 243). With six to ten employees per bus MMTC's productivity was low — a situation aggravated by absenteeism and a large number of personnel present in the depots but not working. Contrary to the intent of establishing MMTC the number of buses

running in Manila declined between 1976 and 1980 and patronage plummeted 40 per cent as private operators, forcibly grouped into consortia, feared a government take over and withdrew investment. Conversely, the number of jeepneys doubled and boosted their share of public transport trips to 85 per cent. The decline in capital investment prompted the MMTC to initiate a different leasing program in 1980 offering new buses to the private sector at a preferential rate. When seven of the fourteen bus consortia defaulted on the leases MMTC assumed control of their operations. These arrangements did little to help the financial position of MMTC.

The net loss experienced by MMTC rose from 10 million pesos in 1976 to 49 million pesos in 1979. These losses were variously attributed to the company's role in pioneering new services in areas neglected by private bus corporations and high maintenance costs -- a reflection of the polygot nature of the fleet. Despite the comparative newness of MMTC's units the proportion of the company's fleet in service declined from three-quarters to one-half. As MMTC was considered as one of the consortia it was felt that it should operate under the same conditions as its private counterparts and not be further expanded. By 1980 the combined effect of unprofitable services, low fleet utilisation and unprofitable leasing operations resulted in MMTC losing 33 million pesos on a total revenue of 88 million pesos. The government, however, decided to retain MMTC on strategic and social grounds. With its own company it was able to field buses in the case of strikes by private buses and jeepneys and provide services to areas with low income families which were unprofitable to the private sector. Nevertheless, MMTC's management structure was drastically overhauled.

MMTC's bus fleet was rationalised into three models and 422 new units were ordered. These comprised: an experimental purchase of twenty-two double-decker units, and 400 buses on favourable terms from Japan (100 air-conditioned and 300 standard units). With the expected attrition of existing units it was thought that MMTC would field 600 units after 1981 of which 100 air-conditioned buses would be operated as 'love buses' at a premium fare of four pesos per trip. Cost savings, reduction of unprofitable routes and increasing load factors were expected to reduce losses to 9 million pesos on an anticipated revenue of 98 million pesos. A small profit was anticipated in 1982. An analysis of MMTC's productivity and financial performance between 1983 and 1987 highlights that these targets were not realised.

MMTC's production statistics suggest that a marked deterioration in operations occurred between 1983 and 1987 (Table 10). Over this period there was a decline in the total fleet from 639 to 509. A similar trend was evident in the operational and available fleets and average number of buses run though there was some fluctuation which was reflected in fleet, maintenance and utilisation efficiency ratios. Conversely, the load factor, average revenue per bus day and revenue per kilometre all increased — a reflection of the sharp deterioration in the number of buses fielded. Only eight of the twenty-one double deckers, for example, were in service in 1989. Indeed, the Government has plans for increasing the public and private bus fleet in Manila from 1508 to 3208. The only drawback is the availability of finance.

In 1981, MMTC was provided with buses through a favourable Japanese 180 million peso loan from the Overseas Economic Cooperation Fund (OECF). Only 3 per cent interest was payable for the first ten years, after which the principal was due. Denominated in United States dollars the loan has been affected by the floating of the Filipino peso and the appreciation of

TABLE 10 METRO MANILA TRANSIT CORPORATION OPERATING STATISTICS, 1983-1987

Item	1983	1984	1985	1986	1987	
Fleet data						
Total fleet	639	582	555	520	509	
Operational fleet	485	452	483	392	359	
Fleet efficiency (%)	76	78	87	75	71	
Available fleet	451	420	407	355	312	
Maintenance efficiency	93	93	84	91	81	
Average bus run	411	379	369	310	284	
Utilisation efficiency	91	90	91	87	91	
Load factor (%)	55	57	58	62	70	
Kms run/bus day	206	226	225	215	201	
Total kms run (000)	30,956	31,336	30,258	24,379	20,872	
Average revenue/bus/day	1,171	1,801	2,081	2,001	2,296	
Revenue/km (pesos)	5.6	•		26 9.2	9 11.40	

Source: ADB (1989: Table 6)

the Japanese yen. The principal that has to be paid from 1991 until 2011 is now almost 900 million pesos. Although MMTC is now recovering its operating costs and paying the 3 per cent interest there is no way that it can derive sufficient income from its aging fleet. Not surprisingly, the Ministry of Transportation and Communications are trying to work out a domestic financing arrangement for procuring new buses for MMTC and the remaining six private consortia from the local motor car industry.

The Aquino government, however, has not learnt from past lessons. Its basic argument is that there is a need to put more buses on the main arteries because they are more efficient in carrying a greater number of people. In the government's mind the real problem is that these main arteries are clogged with jeepneys; many of these vehicles are not adhering to their franchised routes and others invaded the capital from the provinces (colorum). Hence, the policy is to remove the jeepneys, introduce more buses (including air-conditioned units), implement the second phase of the Light Railway System (LRT-II) and privatise MMTC. Also, the government has advocated a gradual policy of deregulation in urban public transport.

## Competition?

The Aquino Government has recognised that deregulation will reduce transport costs as heightened competition will bring the best out of operators. Its targets, however, are taxi services and inter-urban buses (though both sets of operators oppose the move). If franchise restrictions are removed from taxis there will be more private investment to overcome their shortage and dilapidated state. Before inter-urban buses are deregulated in late 1989 safety checking stations will have to built. Also, steps have been undertaken to streamline the systems and procedures of franchising. These have now been made transparent and convenient for operators of public utility operators through the development of a decentralised system of regional offices with the power to issue uncontested applications. Nevertheless, the 'quasi-judicial' framework for examining contested applications will be retained though the outcome will hinge on technical and economic grounds rather than highly-legalistic

TABLE 11 A COMPARISON OF BUS AND JEEPNEY OPERATIONS WITHIN METRO-MANILA, 1984

Characteristics	Bus	Jeepney	
Routes (no.)	149	640	
Route coverage (km)	287	571	
Total route length (km)	3,148	6,661	
Average route length (km)	21.1	10.5	
Number of units running	4,368	29,216	
Round trips (no. in 16 hrs)	2.7	5.2	
Average kms running (in 16 l	nrs) 115.9	107.8	
Average daily load factor (pass kms/seat kms)	57.2	54.1	
Average no. of passengers (vehicle/day)	656	237	
Load factor	56	54	
Average trip length of passengers (km)	8.8	3.8	

Source: JICA (1984).

arguments. There is, therefore, no concentrated effort to deregulate the urban transport system in a way which allows the mix of buses and jeepneys to find their own level.

At first sight, it is expected that buses in a 'free-for-all' would concentrate on long hauls and jeepneys on feeder services (Table 11). Such a distinction is somewhat artificial as buses and jeepneys overlap between 5km and 7.5km, although in some areas they do not compete on an equal footing. Jeepneys, for example, are banned from Manila's major circumferential route, EDSA (Epifanio de los Angeles Avenue), and from South Super Highway and Roxas Boulevard. Where they are untrammelled by regulation as, for instance, on Ramon Magsaysay Boulevard and Espana they offer high frequencies -- over 5000 jeepneys per hour. Of the total bus routes, 88 per cent are covered by jeepneys. Paradoxically, the shortfall in buses has seen the jeepneys reinvade EDSA. Rather than allow jeepneys the freedom of the streets the Aquino Government has chosen to persist with its 'big bus' policy by seeking to privatise MMTC.

An examination of MMTC's balance sheet reveals that its net worth declined between 1983 and 1987 (Table 12). The slow build up in assets was offset by a decline in the company's current liabilities. Indeed, its debt equity ratio had increased from 8.1 to 11.0 over the period. No doubt these figures persuaded the government to recommend privatising MMTC through the Assets Privatization Trust. Contrary to the perception that government favours competing with the private sector, it prefers that the latter should take the lead in supplying urban transport services with its own role being confined to providing the conditions necessary for investment — a belated recognition that government is the most expensive and less-efficient provider of these services. Yet no one has shown any willingness or capability to buy MMTC as a whole. Hence, there is a need in the Philippines to comprehend how the Singapore Government has packaged its privatisation deals.

TABLE 12 BALANCE SHEET OF METRO MANILA CORPORATION,
DECEMBER 31, 1983-1987
(million pesos)

	1983	1984	1985	1986	1987	Av.growth rate
Assets						
Current assets Property, plant	114	125	242	228	181	9.5
& equipment	242	220	191	161	210	-3.9
Non-current assets	219	246	185	218	255	4.2
Other assets	24	14	11	11	11	-21.0
Total assets	598	605	628	618	658	2.4
Liabilities & net wort	h					
Current liabilities	86	76	71	67	101	5.3
Long-term liabilities	426	290	280	246	243	
Other liabilities	20	178	216	246	258	36.1
Net worth	66	62	62	60	55	<b>-4.</b> 5
Total liabilities						
& net worth	598	605	628	618	658	2.4
Current ratio	1.3	1.7	3.4	3.4	1.	.8
Debt-equity ratio	8.1	8.8	9.1	9.4	11.	.0

Source: ADB (1989 Table 7)

# 5. SINGAPORE BUS SERVICE (1978) LTD (SBS) & TRANS-ISLAND BUS SERVICES LTD (TIBS)

The Singapore Government's sale of transport assets to the private sector is contrary to conventional wisdom. Such disposals have been regarded as largely irrelevant to developing countries because: of their restricted capital markets and limited inter— and intramodal competition; the economic performance of their bus operations will not be improved by the shift in ownership from the public to the private sector; private interests would be unlikely to purchase these assets as they have made economic losses at prices deemed fair (Wilson, 1986). Bus operations in Singapore are an exception. As illustrated by Singapore Bus Service (1978) Ltd (SBS) and Trans—Island Bus Services Ltd (TIBS), privatisation, in its narrowest sense, has involved the transfer of ownership of assets to the private sector (i.e. denationalisation). This government has continued to exercise its regulatory powers. Before discussing the nature and effect of these controls relevant aspects of the Republic's history are examined.

TABLE 13 FINANCIAL PERFORMANCE OF TRANS-ISLAND BUS SERVICES LTD, 1982-1986

	12 months 31.5.82- 30.6.83	18 months 1.7.83- 31.12.84	12 months 1.1.85- 31.12.85	9 months 1.1.86- 30.9.86	
Performance (\$000)					
Total revenue Operating expenses General and Admin- istrative expenses	2,077 2,137 267	42,005 32,705 1,203	35,275 27,535 1,272	31,498 20,127 1,113	
Profit/loss after taxation	<b>-</b> 703	318	460	3,121	
Production (no.)					
Bus Trunk services Feeder services	120 5 0	250 9 4	310 12 6	325 13 5	

Source: TIBS, 1987.

## History

SBS and TIBS dominate bus operations in Singapore. Bus services which are also supplied by a number of other companies and private individuals. With a workforce of over 7600, SBS is the largest operator with some 2400 buses on 219 routes. It provides an island-wide network of scheduled services together with TBS which employs over 1200 workers and fields 362 buses on 27 routes. SBS was formed in 1973 following the merging of three bus consortia whereas TIBS was established in 1983 to provide 'healthy competition' to SBS and to enhance the efficiency and performance of bus services. Government played a key role in the reorganisation of SBS by providing managerial expertise until the company was floated on the Singapore Stock Exchange in 1978 when its shares were oversubscribed twenty-seven times. TIBS, however, was not listed on the second market of the Singapore Stock Exchange until 1986. A strict comparison between SBS TIBS is not possible as the latter's financial and operating statistics have been affected by company restructuring (Table 13). Hence, they are considered separately.

Trans-Island Bus Services Ltd. TIBS (1986, 1987a,b) had its origins in a government decision to allow a second bus company to compete with SBS on an equal footing. Hitherto, SBS had monopolised scheduled services which were supplemented by the City Shuttle Service operated by Singapore Shuttle Bus (Pte) Ltd. SSB and NTUC Comfort. A series of fare rises following an increase in the price of diesel fuel in 1981 prompted the Singapore Government to allow a second company to run against SBS to establish industry costs. In 1982, TIBS was incorporated and took over from SBS twelve bus services operating with an initial fleet of 37 vehicles in the Woodlands-Yishun areas that included two new towns. At the time, these routes were perceived as a 'mixture of meat and bone'. Until 1987, administrative staff and workshop personnel were provided by Trans-Island

Management and Engineering Services Pte Ltd (TIMES) and TIBS was only responsible for the drivers and conductors operating the bus fleet; a similar arrangement existed with SSB (TIMES and SSB were family companies owned by Ng Ser Miang, Managing Director of TIBS). Since then TIBS has terminated its management arrangement and taken over all assets required for managing the bus operations. It has also acquired shuttle services operated by SSB. There has been no change to TIBS' distance-related adult fare structure ranging from 40 to 80 cents for adults on trunk services and 15 cents for feeder services (30 to 50 cents on the City Shuttle). Nevertheless, TIBS has been profitable after its initial six months of operation — a pattern following the experience of SBS.<sup>3</sup>

Singapore Bus Service (1978) Ltd. SBS (1980-1987) runs a number of loss-making services (Table 14). Nevertheless, it has remained financially viable and accorded concessionary bus travel to students and senior citizens in the form of a monthly pass. Also, it has issued an annual dividend of 7.5 per cent to its shareholders as after-tax profits have continued to increase. Its success has been attributed to the employment of new and bigger capacity buses and development of modern interchanges complete with coin-changing machines and colour-coded queueing systems. This is underpinned by the company's ability to maintain high levels of bus availability -- from 88.8 per cent in 1983 to 91.5 per cent in 1987. The average daily occurrence of breakdowns was maintained at 0.7 per cent during this period (i.e. a reflection of a strict preventative maintainance program and restrictions on overloading). Consequently, while operating one of the world's largest bus organisations, SBS has been able progressively to improve the quality of service. Accident rates declined from 1.7/100,000 km in 1983 to 1.0/100,000 km in 1987. Similarly, the number of complaints decreased over the same period from 3.7 to 2.6 per million passengers. But, unlike its counterparts in Bangkok, Jakarta and Manila, SBS does not experience similar problems of congestion (except at CBD bus stops) and has the benefit of bus-only lanes.

Having mastered day-to-day problems SBS is now looking to future improvements in productivity and quality. Increasing productivity is tied to technological developments with an emphasis on further computerisation, automation and mechanisation. Quality gains are focused on human resource management with an emphasis on making staff 'people conscious' through its 'Think Customer' campaign, particularly as labour-intensive organisations have a history of being insensitive in this area. The attention to productivity and quality is promoted by the government's dictate that competition between SBS and TIBS should be in terms of performance. If the buses do not perform to expectation the government has the option of introducing a third company. Basically, however, the Singapore Government is against total deregulation and the ensuing competitive free-for-all because it is anticipated that: costs will increase; the quality of service will suffer; and road space will be at a premium. A surfeit of buses would restrict traffic flows on roads and around stops. As a means of ensuring that commuters' needs are well-served, both of the performancebased companies are required to seek government approval through the Public Transport Council (comprising operators and grass-roots representatives) if they wish to vary rates. (Cash and concession rates were last revised in April 1981 and January 1982 respectively.) The Council, as provided in its charter, also has to take the financial viability of the companies into account in its deliberations (i.e. it is a reactive rather than a proactive body).

TABLE 14 TRAFFIC, FINANCIAL AND PRODUCTIVITY STATISTICS FOR SINGAPORE BUS SERVICES (1978) LTD, 1983-1987

	1983	1984	1985	1986	1987	
m .cc.						
Traffic	2393	2502	2610	2619	2607	
Av. daily fleet (no)	43.4		47.2		50.4	
Place km/day (mill)	745.7			843.1	880.4	
Ridership (mill)	29.9	31.3			30.4	
Load (per cent)	29.9	31.3	30 • 4	29.3	30 • 4	
Financial (\$Smill.)						
Total revenue	315.5	312.5	328.7	330.1	353.2	
Total expenditure	305.8	302.7	314.4	285.9	300.6	
Profit after tax	5.8	5.9	9.0	30.1	36.5	
Total value added	202.3	203.5	210.6	222.9	246.3	
Value added per work	er 0.0	19 0.02	23 0.02	25 0.026	0.03	
P <b>rod</b> ucti <b>v</b> ity						
Unit yield per 100						
place-km (\$S)	1.	99 2.	00 1.9	1.80	1.90	
100						
Unit cost per 100	•	0.0 1	0 / 1	01 157	1.60	
place-km(\$S)	1	.93 1	.94 1.	81 1.57	1.00	
					-	

Source: SBS (1987).

The Public Transport Council, together with the Registrar of Motor Vehicles, regulates the service and financial performance of bus transport. As part of their required service performance, bus operators must: to adhere to schedules with a tolerance of plus or minus 3 minutes; to maintain load factors within 20 per cent of licensed seating capacity per hour; keep the waiting time of passengers within ten minutes. In addition, limit waiting time during the peak period to fifteen minutes; they must: reduce travel time by encouraging semi-express services; ensure scheduled times are kept; guarantee that accessibility to the bus system is within five minutes or less for most of the population (80 per cent of all services have peak headways of ten minutes of less); provide a shelter at each stop, particularly within the Central Business District. With both bus companies being listed on the stock exchange they are expected to provide a reasonable rate of return to their shareholders by operating efficiently on a commercial basis without a state subsidy.

Both SBS and TIBS are required to submit their buses to mandatory sixmonthly inspection to ensure proper maintainance, to limit lifespan of their buses to twelve years and to put a ceiling on their scheduled bus fleets to keep costs down. Also, the licensing and training of bus drivers and conductors is mandatory. Bus fares in Singapore are reasonably high compared with those in other Southeast Asian capitals because the government, as a policy, does not subsidise the operators of public transport. Indeed, the appeal of privatisation is that it promises to improve efficiency by: removing government constraints on financial independence; imposing the discipline of financial markets on transport organisations by forcing them to compete for funds; and developing a more flexible approach to managing resources and service innovation.5

The fast, reliable and comfortable services provided Singaporeans by SBS and TIBS at 'arm's length' from the government are seen as models of private organisations operating successful public transport companies. This experience has prompted the government to privatise the Mass Rapid Transit system because it offers the best guarantee that its operation would be kept highly efficient (Singapore Government, 1987). Also, a private enterprise is seen as being more responsive to the needs of the public. Consequently, the Singapore MRT Ltd (SMRT) was formed in 1987. Although SMRT is not expected to recover the capital cost of constructing the MRT system it is expected to meet its running costs (fares currently range from \$\$0.50 to \$\$1.40). This arrangement typifies the Singapore Government's overall policy of allowing the private sector to operate in areas where the government's direct participation is not essential. It is also easier to monitor, supervise and regulate a private organisation compared with a public monopoly.6

## 6. CONCLUSION

What lessons can we draw from these case studies? As epitomised by Jakarta's PPD, state-owned bus enterprises in Southeast Asian cities have been beset with fuzzy objectives, over-regulation, shortage of financial resources, lack of performance criteria, and poor public image and non-commercial attitudes. In 1989, the company plans to have a loss of Rp 1.8 billion and discharge over 2000 employees (Pos Kota 27 February 1989). Given its apparent problems, which path should Jakarta's PPD follow to overcome these shortcomings and replace its current arrangements with more cost-efficient transport — the corporatisation approach taken by BMTA, the competitive experience of MMTC or privatisation as in Singapore?

BMTA's corporatisation approach has resulted in the inclusion of strategic objectives, increased autonomy, the specification of operational standards and performance measures and improved corporate image into its corporate plan. The result, however, is not regarded by the government as being entirely satisfactory. Instead of following BMTA's corporatisation approach in every detail, PPD has the opportunity to wind up the existing company and introduce a new one offering better services and more appropriate fares. An autonomus public corporation, however, is unlikely to be favoured by the Indonesian government. If a new company is not feasible for PPD, possibly the best option would be to use the existing framework and, as in Bangkok, vary charges according to new buses and air-conditioned units. Of course, PPD could allow some of its routes to be taken over by private buses but there is a danger that the new enterprises will not survive — minibuses appear to be a better proposition.

Perhaps then, following the Filipino experience, PPD should pin its faith in deregulation and hope that scheduled services charging low fares will slowly deplete the strength of the microbuses and minibuses — a situation that MMTC has yet to achieve. If it cannot survive on an equal footing then the private buses should be allowed to take over. There are arguments, however, that deregulation permitting the entry of private sector buses would lead to a high casualty rate among these enterprises and to the formation of cartels which are more concerned with self-preservation. If this is the case, perhaps minibuses should be allowed to take over given their continuing success in Manila. The only drawback for the administration is that they do not accord with its desire to give Jakarta an international image.

This raises the question of whether the Jakarta government should endeavour to eschew free competition and follow Singapore's example. While privatisation without competition is not considered an ideal strategy, both companies in Singapore have not only been profitable but have provided a high standard of service. But selling public monopolies to the private sector does not necessarily mean more efficiency in either supplying the same level of service or reducing public debt (except in the short-run). Although private monopolies have better-defined objectives, better incentive mechanisms and more highly tuned performance measures there would be still problems with regulation.

As this discussion highlights, there is no 'universal fix' for improving the efficiency of state-owned bus enterprises. We need to recognise that the treatment of a specific enterprise is dependent upon: a diagnosis of its market situation; the structure of the industry (single outputs or multiple outputs); history; availability of public funds for capital investment and subsidies. Given the diverse character of state-owned bus enterprises in Bangkok, Jakarta, Manila and Singapore it is unlikely that a single approach will suffice. Bus operations in all cities could introduce 'in-house' measures in government enterprises but the introduction of competition and privatisation will depend on the nature of the particular enterprise and government. Although competition may not be applicable to all cities and all enterprises it can be introduced into some activities through a greater reliance on market forces (e.g. contracting-out). Gains from competition would be expected to strengthen those arising from changes in ownership.

## NOTES

- 1. Other than the initial fleet of buses derived from the private sector in Bangkok, subsequent purchases by the government have involved: (a) 2300 new conventional buses and 200 air-conditioned units in 1978-79 valued at 1144.4 million baht with interest payments of 308.6 million baht; (b) 1240 conventional buses and 400 air conditioned units were leased in 1980-81; and (c) an additional 900 conventional and 100 air-conditioned buses were leased in 1988. Basically, these units were replacements for the inherited buses of which some 600 still remain in service. By the end of 1988, some 4900 buses were in operation.
- 2. Since July 1987, when the minibuses came under the BMTA's supervision, the operators have increased their revenue but have experienced higher costs from operating fees, vehicle instalments and maintainance costs.
- 3. The City Shuttle Services were intended to cater for increased demand for public transport in and around Singapore's city area following the implementation of the Area Licensing Scheme in 1975. As the services were not as well patronised as envisaged the routes were later extended to nearby housing areas of high demand. Currently, there are eighty-eight buses operating on six routes.
- 4. In addition to SBS, TIBS and the City Shuttle, supplementary public transport services are provided by private hire bus (Scheme A) and school bus (Scheme B) operators during peak hours. Although they are independent of scheduled services provided by SBS and TIBS some of the supplementary services are integrated with them for better operational efficiency. Now, Scheme B has less impact now because of the performance of the scheduled operators.
- 5. With the advent of the Mass Rapid Transit(MRT) system in Singapore new opportunities have arisen for SBS and TIBS in providing shuttle services. The MRT will carry an estimated 35 per cent of all line haul passengers and the bus companies 20 per cent when it is fully-developed, Three-quarters of the MRT passengers, however, will rely on buses to complete their journey. All three organisations, SBS, SMRT and TIBS, are represented on the Integrated Transit Committee designed to bring about the most efficient transport system for Singapore. The immediate task is to develop a throughticketing machine.
- 6. A consultant was appointed to organise bus and rail integration in Singapore but the government has abandoned this effort and has allowed competition to keep public transport organisations efficient.

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### REFERENCES

ADB (1989). Country Paper on Transport Policy: Philippines, Regional Seminar on Transport Policy, unpublished paper, Asian Development Bank and Economic Development Institute of the World Bank, 21-28 February 1989, Manila.

. :

BMTA (1986, 1987a, 1988). Annual Reports, Bangkok, Bangkok Mass Transit Authority.

BMTA (1987b). Ongkarn Konsong Monchon Krungtep: Plan Wisah Hakij BE2530-2534, [Bangkok Mass Transit Authority: Corporate Plan, 1987-1991], Bangkok, Bangkok Mass Transit Authority.

Commonwealth of Australia (1987). Efficiency in Public Trading Enterprises, Council Paper No. 24, Canberra, Australian Government Publishing Service.

Indonesia (1986). Consultancy Services for Jakarta Urban Transport Project: Perum PPD Study May 1986 for Directorate General of Land Transport, Department of Communications, Jakarta, Pamintori Cipta Ltd - BIEC International Inc. - PT Seecons in association with Colin Buchanan and Partners - T.P.O'Sullivan and Partners.

JICA, (1984). The Metro Manila Transportation Planning Study (JUMSUT): Final Report, Part II: Metro Manila Public Transportation, Tokyo Japan International Cooperation Agency.

Kocks, F.H./Rhein Ruhr (1975). Bangkok Transportation Study: Final Report September 1975, Volume 1: Summary, Dusseldorf, F.H.Kocks KG/Rhein Ruhr.

Krynetr P., (1988). Bangkok Mass Transit Authority: A Case Study of Monopoly versus Competition, unpublished paper presented at CODATU, Indonesia.

PPD (1986-1988). Laporan Pelakasanaan Anggaran Tahun Perum PPD, Jakarta, Pengangkutan Penumpang Djakarta.

Rimmer, P.J. (1986). Rikisha to Rail Transit: Urban Public Transport Systems and Policy in Southeast Asia, Sydney, Pergamon.

Rimmer, P.J., (1988). 'Buses in Southeast Asian Cities: Privatisation without Deregulation', in J.S.Dodgson and N. Topham (eds), Bus Deregulation and Privatisation: An International Perspective, Aldershot, Avebury: 185-208.

Rimmer, P.J. with Abdul Rahim Osman and Dick, H.W. (1989). 'Priming the Parastatals: Improving the Efficiency of State-owned Transport Enterprises', unpublished paper presented at the Asian Transport Policy Seminar sponsored by the Asian Development Bank and Economic Development Istitute of the World Bank, Manila, February 1989.

Roschlau, M.W., (1985). Public Transport in the Provinces: A Study of Innovation, Diffusion and Conflict in the Philippines, unpublished Ph.D. thesis, The Australian National University, Canberra.

SBS (1980-1987). Singapore Bus Service (1978) Ltd, Annual Reports, Singapore, Singapore Bus Service Ltd.

Singapore Government, 1987. Report of the Public Service Divestment Committee, Ministry of Finance, Singapore, Government Printer.

TIBS (1986). Trans-Island Bus Services Ltd, Annual Report, Singapore, Trans-Island Bus Services Ltd.

TIBS (1987a). Trans-Island Bus Services Ltd, Annual Report, Singapore, Trans-Island Bus Services Ltd.

TIBS (1987b). Trans Island: Trans-Island Bus Services Ltd, Singapore, Trans-Island Bus Services Ltd.

Transportation Consultants Inc., (1959), Urban Transportation Facilities in the Bangkok Metropolitan Area, Bangkok, Ministry of Communications.

Wilson, G.W. (1986). Privatization in Transportation: the Case of Thailand, unpublished paper presented at the Fourth World Conference on Transport Research, Vancouver, Canada.