

Appendix

Table 1
Data Statistics of BMTA during 1989 – 2007

Year	Buses	Officers	Fuel Used	Trips	Passengers
1989	4,813	22,614	131,614,854	14,867,281	1,646,171,457
1990	4,832	22,582	131,091,153	14,734,535	1,572,903,197
1991	5,287	22,219	127,203,043	14,145,334	1,499,634,937
1992	4,425	23,508	136,864,526	14,589,855	1,491,041,300
1993	4,825	23,380	151,815,736	14,790,577	1,382,292,804
1994	4,836	22,892	151,012,420	13,952,315	1,279,830,156
1995	4,752	22,923	147,277,164	13,460,557	1,233,548,107
1996	4,624	23,628	151,024,053	13,443,020	1,217,078,986
1997	4,235	22,753	154,083,770	13,658,926	1,223,673,887
1998	4,098	21,693	154,452,859	13,895,179	1,161,041,255
1999	4,267	21,552	161,142,920	13,774,649	1,069,094,238
2000	3,796	20,238	157,382,338	12,805,982	1,028,989,458
2001	3,670	20,238	153,073,668	12,040,864	938,289,414
2002	3,655	19,964	150,7325,24	11,652,313	874,074,107
2003	3,606	19,376	148,182,854	11,513,059	865,169,065
2004	3,578	19,033	140,483,588	11,103,249	756,008,001
2005	3,579	18,607	140,739,649	11,165,492	713,625,667
2006	3,579	18,448	137,075,259	10,953,606	644,732,672
2007	3,535	18,206	135,060,739	11,102,981	613,201,577

Source: BMTA Annual Report during 1989 – 2007.

Table 2
Data Statistics of BMTA and Private Operators in 2007

Company	Buses	Officers	Fuel Used	Trips	Passengers
BMTA	3,535	18,206	135,060,739	11,102,981	613,201,577
Wangsakarnkij	5,725	948	8,391,697	289,775	29,385,596
Sahakhonsong Thonburi	5,647	868	5,178,779	368,478	38,537,003
Union Bus Service Group	100	311	257,010	12,188	4,307,000
Minibuses	1,069	2,138	19,509,250	2,309,040	936,444,252

Source: BMTA Annual Report (2007), Wangsakarnkij Company, Sahakhonsong Thonburi Company, Union Bus Service Group Company and one of the minibus operators.

Table 3
The Target Inputs and Number of Trips of Inefficiency Years of BMTA
during 1989 – 2007 under CRS Model

Year	Target Bus	Target Officer	Target Fuel	Target Passenger
1990	4,770	22,429	159,999,845	14,734,535
1991	4,583	21,605	152,860,044	14,145,334
1994	4,545	21,919	144,593,149	13,952,315
1995	4,391	21,277	138,163,938	13,460,557
1996	4,288	21,379	140,052,295	13,443,020
1997	4,094	21,718	148,961,641	13,658,926
1999	4,215	21,291	151,811,497	13,774,649
2000	3,776	19,992	142,345,811	12,805,982
2001	3,551	18,798	133,841,087	12,040,864
2002	3,436	18,191	129,522,121	11,652,313
2003	3,395	17,974	127,974,233	11,513,059
2004	3,274	17,334	123,418,960	11,103,249
2005	3,340	17,365	123,708,745	11,165,492
2006	3,299	17,005	121,172,004	10,953,606
2007	3,346	17,233	122,805,739	11,102,981

Source: Calculated by author.

Table 4
The Target Inputs and Number of Passengers of Inefficiency Years of BMTA
during 1989 – 2007 under CRS Model

Year	Target Bus	Target Officer	Target Fuel	Target Passenger
1990	4,598	21,607	125,756,903	1,572,903,197
1991	4,384	20,600	119,898,952	1,499,634,937
1992	4,359	20,482	119,211,873	1,491,041,300
1993	4,041	18,989	110,517,203	1,382,292,804
1994	3,741	17,581	102,325,100	1,279,830,156
1995	3,606	16,945	98,624,753	1,233,548,107
1996	3,558	16,719	97,308,012	1,217,078,986
1997	3,577	16,810	97,835,288	1,223,673,887
1998	3,394	15,949	92,827,678	1,161,041,255
1999	3,125	14,686	85,476,322	1,069,094,238
2000	3,008	14,135	82,269,861	1,028,989,458
2001	2,743	12,889	75,018,202	938,289,414
2002	2,555	12,007	69,884,054	874,074,107
2003	2,529	11,885	69,172,077	865,169,065
2004	2,210	10,385	60,444,422	756,008,001
2005	2,086	9,803	57,055,865	713,625,667
2006	1,885	8,856	51,547,726	644,732,672
2007	1,792	8,423	49,026,749	613,201,577

Source: Calculated by author.

Table 5
The Target Inputs and Number of Trips of Inefficiency Companies of BMTA
and Private Operators in 2007 under CRS Model

Company	Target Bus	Target Officer	Target Fuel	Target Trip
Wangsakarnkij	100	311	257,010	289,775
Sahakhonsong Thonburi	100	311	257,010	368,478

Source: Calculated by author.

Table 6
The Target Inputs and Number of Passengers of Inefficiency Companies of BMTA
and Private Operators in 2007 under CRS Model

Company	Target Bus	Target Officer	Target Fuel	Target Passenger
BMTA	732	3,816	16,762,468	628,119,428
Wangsakarnkij	715	663	6,047,867	290,297,718
Sahakhonsong Thonburi	438	478	4,045,401	273,942,143

Source: Calculated by author.

Table 7
The Target Inputs and Number of Trips of Inefficiency Years of BMTA
during 1989 – 2007 under VRS Model

Year	Target Bus	Target Officer	Target Fuel	Target Passenger
1990	4,769	22,484	160,396,475	14,734,535
1991	4,574	21,908	155,007,186	14,145,334
1994	4,531	22,203	148,007,000	13,952,315
1995	4,359	21,513	145,772,644	13,460,557
1996	4,353	21,489	145,692,962	13,443,020
1997	4,153	21,505	151,133,832	13,658,926
1999	4,234	21,387	158,506,647	13,774,649
2002	3,614	19,396	145,611,179	11,652,313
2003	3,594	19,094	142,936,674	11,513,059
2004	3,535	18,206	135,065,886	11,103,249
2005	3,544	18,341	136,261,321	11,165,492
2006	3,535	18,206	135,060,739	11,102,981

Source: Calculated by author.

Table 8
The Target Inputs and Number of Passengers of Inefficiency Years of BMTA
during 1989 – 2007 under VRS Model

Year	Target Bus	Target Officer	Target Fuel	Target Passenger
1990	4,830.	22,339	131,050,477	1,572,903,197
1993	4,436	21,498	135,590,759	1,382,292,804
1994	4,328	21,039	135,199,438	1,279,830,156
1995	4,289	20,848	133,950,809	1,233,548,107
1996	4,177	21,345	136432,926	1,217,078,986
1997	4,060	21,814	146,161,744	1,223,673,887
1998	3,986	21,103	150257,660	1,161,041,255
1999	3,993	20,172	140119,966	1,069,094,238
2002	3,613	19,480	148,778,487	874,074,107
2006	3,556	18,334	136,233,406	644,732,672

Source: Calculated by author.

Table 9
The Target Inputs and Number of Trips of Inefficiency Companies of BMTA
and Private Operators in 2007 under VRS Model

Company	Target Bus	Target Officer	Target Fuel	Target Trip
Wangsakarnkij	100	311	257,010	289,775
Sahakhonsong Thonburi	100	311	257,010	368,478

Source: Calculated by author.

Table 10
The Target Inputs and Number of Passengers of Inefficiency Companies of BMTA
and Private Operators in 2007 under VRS Model

Company	Target Bus	Target Officer	Target Fuel	Target Passenger
BMTA	1,104	2,517	21,783,468	613,201,577
Wangsakarnkij	100	311	257,010	29,385,596
Sahakhonsong Thonburi	100	311	257,010	38,537,003

Source: Calculated by author.