TABLE 1

Industrial Development of the Automobile and Motorcycle Industries in Indonesia (1986-1995)

Sector	Number of establishments			Share of total manufacturing employment (%)			Share of total manufacturing gross output (%)		
	1986	1990	1995	1986	1990	1995	1986	1990	1995
Auto-mobile	64	196	259	0.84	1.43	1.47	2.85	4.45	4.38
Motor-cycle	20	33	51	0.42	0.42	0.45	1.71	1.73	3.99
Total	84	229	310	1.26	1.86	1.92	4.56	6.18	8.37

SOURCE: Central Bureau of Statistics, *Industrial Statistics*, various issues.

TABLE 2 (a)

Shares of Assemblers and Suppliers in the Automobile Industry (%)

	Automobile Assemblers		Automobile body suppliers		Automobile parts suppliers	
	1990	1995	1990	1995	1990	1995
Number of establishment	5.1	5.4	60.2	47.9	34.7	46.7
Gross Output	57.7	53.6	10.8	5.0	31.5	41.4
Employment	20.1	23.2	49.4	29.1	30.5	47.7

SOURCE: See table 1.

NOTE: Automobile Assemblers - ISIC 38431, Automobile body suppliers - ISIC 38432, Automobile parts suppliers - ISIC 38433.

TABLE 2 (b)

Shares of Assemblers and Suppliers in the Motorcycle Industry (%).

	Motorcycle assemblers		Motorcycle parts suppliers	
	1990	1995	1990	1995
Number of establishments	15.2	7.8	84.8	92.2
Gross output	61.5	45.7	38.5	54.3
Employment	36.8	36.5	63.2	63.5

SOURCE: See table 1.

NOTE: Motorcycle assemblers - ISIC 38441, Motorcycle parts suppliers - ISIC 38442.

TABLE 3(a)

Economic Performance in the Automobile Industries between 1990 and 1995 (simple average)

	Automobile assemblers			Automobile body suppliers			Automobile parts suppliers		
	1990	1995	T-test	1990	1995	T-test	1990	1995	T-test
Number of establishments	8	11		101	110		56	97	
Employment	917	1,187		166	150		156	240	*
Gross output per employee (000.Rp)	133,702	77,979		13,417	11,470		44,849	42,118	
Value added per employee (000.Rp)	45,871	29,791		5,173	4,015	*	14,942	11,123	
Total factor productivity	2.4	1.9		2.5	2.4	*	2.3	2.3	
Share of nonproduction workers (%)	35.9	30.1		16.0	18.6		21.6	18.9	
Production worker wages (000.Rp)	3,028	5,621	*	1,569	1,567		2,144	2,156	
Nonproduction worker wages (000.Rp)	4,859	9,789	*	3,110	2,232	*	4,470	6,380	*
Export share in output (%)	0	0		0	1.6		0	5.2	*
Import ratio (%)	30.1	10.6		5.1	2.7		20.8	25.4	

SOURCE: Calculations based on data from the Central Bureau of Statistics, Indonesia.

NOTE: (1) Gross output was deflated by the wholesale price index (1993=100).
(2) Value added was obtained by taking the difference between real gross output and intermediate inputs deflated by the relevant prices.
(3) Wages were deflated by the wholesale price index (1993=100).
(4) Import ratios are defined here as imports of intermediates as percentage of the total material costs.
(5) Some of the observations were not included because of missing values.
(6) * - statistical significance at a ten per cent level.

TABLE 3(b)

Economic Performance in the Motorcycle Industries between 1990 and 1995 (simple average)

	Motorcycle assemblers			Motorcycle parts suppliers		
	1990	1995	T-test	1990	1995	T-test
Number of establishments	5	4		24	38	
Employment	827	1,708	*	158	150	
Gross output per employee (000.Rp)	169,156	304,980		19,028	19,522	
Value added per employee (000.Rp)	32,647	171,008		5,594	8,337	
Total factor productivity	n.a.	n.a.		2.2	2.2	
Share of nonproduction workers (%)	32.5	18.1		15.7	17.2	
Production worker wages (000.Rp)	4,138	6,255		1,067	1,411	
Nonproduction worker wages (000.Rp)	7,747	12,776		3,525	4,453	
Export share in output (%)	0.2	1.0		0	7.1	*
Import ratio (%)	34.3	10.8		13.2	16.1	

SOURCE: See table 3(a).

NOTE: See table 3(a). n.a. - not available.

TABLE 4

Productivity Growth Analysis of the Automotive Iindustries (Percentage change between 1990-95)

		Number of establishment	Gross output per employee	Value added per employee	TFP
Automobile assemblers	Stayers	5	192.0	155.5	22.1
	Fixed effects		4.8	(2.8)	(18.5)
	Share effects		187.2	158.3	40.6
	Entrants	6	49.2	45.5	9.3
	Exits	3	(251.1)	(215.5)	(49.3)
	Total		(9.9)	(14.5)	(17.9)
Automobile body suppliers	Stayers	64	172.1	137.1	34.9
	Fixed effects		(3.8)	(11.7)	(11.6)
	Share effects		175.9	148.8	46.5
	Entrants	46	435.4	381.2	134.0
	Exits	37	(629.8)	(575.2)	(179.2)
	Total		(22.3)	(56.9)	(10.3)
Automobile parts suppliers	Stayers	31	164.7	82.3	37.6
	Fixed effects		(2.8)	(35.6)	1.5
	Share effects		167.5	117.9	36.1
	Entrants	66	543.1	451.4	127.7
	Exits	25	(680.3)	(581.1)	(128.0)
	Total		27.5	(47.4)	37.3
Motorcycle parts suppliers	Stayers	7	14.9	16.0	4.9
	Fixed effects		1.0	3.3	1.1
	Share effects		13.9	12.7	3.8
	Entrants	31	1046.0	990.9	297.1
	Exits	17	(1078.6)	(950.2)	(268.8)
	Total		(17.7)	56.7	33.2

SOURCE: Calculations on data from Central Bureau of Statistics, Indonesia.

NOTE: Negative values within paranthesis.

TABLE 5

Number of Produced Cars and Motorcycles in Indonesia

Year	Cars	Motorcycles
1990	270,526	409,062
1991	254,737	445,268
1992	175,257	488,524
1993	203,588	621,085
1994	325,021	781,089
1995	387,541	1,042,938

SOURCE: Thee (1997), Sakura Research Institute (1996).

TABLE 6

Number of establishments in the Automobile and Motorcycle Assembling Industries by Employment Size

	Automobile assemblers		Motorcycle assemblers	
	1990	1995	1990	1995
Employment				
50-99	1	2	0	0
100-199	1	1	0	0
200-499	4	4	1	0
500 and above	4	7	4	5

SOURCE: Data obtained from the Central Bureau of Statistics, Indonesia.

TABLE 7

Share of Foreign Establishments in the Automotive Sector (%)

	Automobile assemblers		Automobile body suppliers		Automobile parts suppliers		Motorcycle parts suppliers	
	1990	1995	1990	1995	1990	1995	1990	1995
Gross output	76.3	94.1	44.5	69.2	48.9	15.7	67.2	75.4
Value added	89.9	93.7	53.9	77.6	82.3	30.6	54.6	82.9
Employment	69.2	58.0	5.5	7.2	19.5	18.2	15.4	23.6
Investment	92.3	56.0	10.3	36.9	32.9	74.6	43.3	54.1
Export	n.a.	n.a.	n.a.	86.0	n.a.	40.5	n.a.	59.6
Imports of intermediate goods	83.4	96.9	0.3	78.5	26.7	15.5	3.8	69.7

SOURCE: Calculations on data from Central Bureau of Statistics, Indonesia.

TABLE 8

Comparison of Local and Foreign Establishments in the Automotive Industries

	Automobile assemblers			Automobile parts suppliers						Motorcycle parts suppliers		
	1995			1990			1995			1995		
	Domes.	Foreign	T-test	Domes.	Foreign	T-test	Domes.	Foreign	T-test	Domes.	Foreign	T-test
Number of establishments	7	4		51	5		84	13		33	5	
Employment	785	1,892		138	341		226	326		132	269	
Gross output per employee (000.Rp)	24,032	172388		39,647	97,912		37,651	70,977		9,352	86,643	*
Value added per employee (000.Rp)	13,717	57,919		13,937	25,188		7,810	32,529	*	3,502	40,252	*
Total Factor Productivity	1.9	2.0		2.3	2.6		2.3	2.7	*	2.1	3.1	*
Share of nonproduction workers (%)	29.2	31.7		21.5	22.6		18.8	19.1		17.0	19.0	
Production worker wages (000.Rp)	5,320	6,148		2,035	3,261		1,885	3,905	*	1,181	2,927	*
Nonproduction worker Wages (000.Rp)	6,870	14,898		3,947	9,693		5,388	12,566	*	2,782	14,815	
Export share in output(%)	0	0		0	0		3.8	14.3		4.2	25.7	*
Import ratio(%)	6.2	18.3		18.1	48.3	*	19.7	62.6	*	9.4	60.4	*

SOURCE: Calculations on data from Central Bureau of Statistics, Indonesia.

NOTE: * - statistical significance at a ten per cent level.