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附錄 2-2-1 Gross Domestic Product by Sector of Origin

Unit: mil.M\$ in 1970 prices

Sector	1970*	1980**	1985**	Average annual growth rate (%)		Share of GDP (%)		
				1970-1980	1980-1985	1970	1980	1985
Primary	4,575	7,426	9,369	5.0	4.8	37.1	28.3	26.2
Agriculture, forestry livestock and fishing	3,797	6,255	7,673	5.1	4.2	30.8	23.8	21.5
Mining and quarrying	778	1,171	1,696	4.2	7.7	6.3	4.5	4.7
Secondary	2,125	6,084	8,624	11.1	7.2	17.3	23.2	24.1
Manufacturing	1,650	4,875	6,534	11.4	6.0	13.4	18.6	18.3
Construction	475	1,209	2,090	9.8	11.6	3.9	4.6	5.8
Tertiary	5,152	11,900	17,261	8.7	7.7	41.9	45.4	48.3
Electricity, gas and water	229	605	933	10.2	9.0	1.9	2.3	2.6
Transport, storage and communications	581	1,803	3,153	12.0	11.8	4.7	6.9	8.8
Wholesale and retail trade, hotels and restaurants	1,633	3,529	4,757	8.0	6.2	13.3	13.5	13.3
Finance, insurance, real estate and business service	1,036	2,041	2,971	7.0	7.8	8.4	7.8	8.3
Government services	1,367	3,202	4,533	8.9	7.2	11.1	12.2	12.7
Other services	306	720	914	8.9	4.9	2.5	2.7	2.6
Less: Imputed bank service charges	117	407	883	-	-	-	-	-
Plus: Import duties	573	1,225	1,384	-	-	-	-	-
Equals: Gross Domestic Product at Purchasers' Value	12,308	26,228	35,755	7.9	6.4	-	-	-

Source: * Fourth Malaysia Plan
** Mid-Term Review

附錄 2-2-2 Gross Domestic Product by Expenditure Category

Unit: mil.M\$ in 1970 prices

	1970	1980	1985	Average annual growth rate (%)	
				1970-1980	1980-1985
Private consumption	7,310	15,345	19,929	7.7	5.4
Private investment	1,490	4,510	7,501	11.7	10.7
Public consumption	1,917	5,131	6,716	10.3	5.5
Public investment	706	2,676	3,202	14.3	3.7
Changes in stocks	357	-85	50		
Export of goods and non-factor services	5,396	11,353	16,856	7.7	8.2
Imports of goods and non-factor services	4,868	12,702	18,499	10.1	7.8
Gross Domestic Product at Purchasers' value	12,308	26,228	35,755	7.9	6.4

Source: Fourth Malaysia Plan,
Mid-Term Review

附錄 2-2-3 Balance of Payment, 1980 - 1983

Unit: mil.M\$

	1980	1981	1982	1983
Current account balance	-620	-5,406	-7,298	-6,714
Merchandise	+5,238	-29	-1,199	+1,631
Services	-5,813	-5,299	-6,021	-8,295
Transfers	-45	-78	-78	-50
Capital account balance	+1,622	+4,313	+6,684	+6,659
Official	+322	+2,916	+4,589	+4,367
Corporate investment	+2,033	+2,833	+2,940	+2,797
Commercial credit	-140	+101	+581	+1,095
Private financial capital	+939	+86	-75	+295
Errors and omissions	-1,532	-1,632	-1,351	-1,895
Overall balance	+1,002	-1,093	-614	-55

Source: Mid-Term Review,
Central Bank of Malaysia

附錄 2-2-4 Land Development Progress and Revised FMP Target by State

Unit: hectares

State	Original FMP target	Revised FMP target	Land development 1981~1983	Achievement of the original FMP target (%)	Expected land development 1984~1985
Johor	65,230	77,685	44,831	68.7	32,854
Kedah/Perlis	13,094	15,193	10,629	81.2	4,564
Kelantan	71,226	58,067	31,344	44.0	26,723
Melaka	2,470	1,672	1,077	43.6	595
Negri Sembilan	17,618	28,888	21,674	123.0	7,214
Pahang	168,992	132,677	76,374	45.2	56,303
Perak	49,404	48,845	28,513	57.7	20,332
Pulau Pinang	-	-	-	-	-
Sabah	83,805	95,721	51,701	61.7	44,020
Sarawak	16,599	16,599	4,980	30.0	11,619
Selangor/Federal Territory	16,498	17,105	8,373	50.8	8,732
Trengganu	38,525	37,192	23,738	61.6	13,454
Total	543,461	529,644	303,234	55.8	226,410

Source: Mid-Term Review

附錄 2-2-5 Distribution of Industrial Estate by State,
1983

Unit: hectares

State	Number of industrial estate	Planned area	Developed area	Saleable area	Allocated area	Un-allocated area
Johor	12	1,637.52	1,195.22	1,099.96	924.23	175.46
Kedah/Perlis	8	508.95	502.55	412.63	312.68	99.95
Kelantan	5	621.31	277.32	253.65	125.77	127.88
Melaka	7	344.84	266.66	241.02	214.02	26.52
Negri Sembilan	6	401.51	401.51	299.65	292.19	7.46
Pahang	8	1,304.5	739.07	569.31	308.89	260.48
Perak	9	746.85	715.30	558.65	503.60	55.05
Pulau Pinang	8	1,356.00	708.08	1,166.32	627.70	540.02
Sabah	7	403.34	402.34	301.56	270.96	30.60
Sarawak	6	910.71	753.18	581.42	511.97	69.45
Selangor/Federal Territory	16	2,411.65	1,733.88	1,399.49	1,176.40	223.10
Trengganu	9	609.73	364.71	536.53	212.73	323.80
Total	101	11,256.91	8,059.91	7,420.19	5,480.14	1,939.77

Source: MIDA

附錄 2-2-6 Crops by Hectarage, 1980 - 1985

Unit: hectares

	1980	1981	1982	1983	1984	1985
Rubber	2,010,000	2,006,488	1,966,400	1,990,000	2,000,000	2,012,000
Oil palm	1,609,507	1,140,538	1,212,486	1,226,585	1,306,000	1,400,000
Pepper	12,720	13,405	12,800	11,362	11,007	10,800
Cocoa	108,556	150,030	190,000	205,000	211,000	237,000
Timber	383,000	391,197	486,950	585,907	560,000	560,000
Padi	735,215	767,640	758,400	764,200	769,750	775,220
Pineapple	12,101	11,685	9,734	8,170	7,177	7,003
Tabacco	12,535	12,970	13,610	14,610	14,955	15,749
Vegetables	18,367	15,330	16,106	18,278	20,745	23,546
Orchards	93,000	87,800	89,000	90,000	92,000	94,000

Source: Mid-Term Review

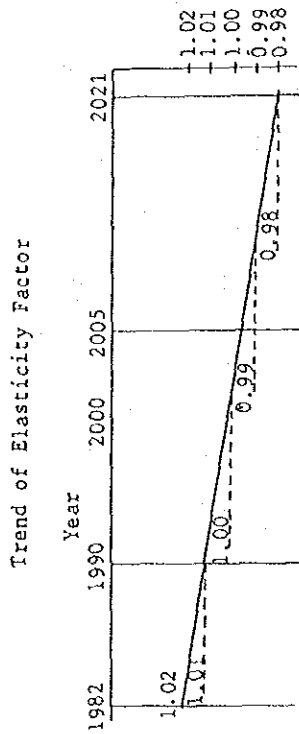
附錄 2-3-1 Registration of Motor Vehicles

Types of vehicles	1975	1980	1983	Annual rate of growth (%)	
				1975-1980	1980-1983
Bus	8,688	14,960	18,160	11.5	6.7
Taxi and hired car	9,239	18,750	26,270	15.2	11.9
Lorry and van	92,207	189,860	248,180	15.5	9.3
Private car	398,014	843,270	1,150,630	16.2	10.9
Motorcycle	722,309	1,445,630	2,029,100	14.9	12.0
Others	36,662	85,640	97,900	18.5	4.6
Total	1,267,119	2,598,110	3,570,240	15.4	11.2

Source: Mid-Term Review

附錄 2-4-1 Correlation between GDP per Capita and Travel Frequency per Passenger

Year	GDP	Population	GDP per capita	Number of Trips per Capita	Elasticity Factor	Number of Passengers*
1970	10,501	9,147	1,148			31,925
1980	22,758	11,849	1,921	7.00	1.02	82,529
1982	25,668	11,984	2,144	8.32	1.01	99,700
1990	40,867	14,502	2,818			
1991	42,840	14,823	2,890	11.14	1.00	185,174
1996	54,219	16,531	3,280	12.65	***	209,047
2000						
2001	58,603	18,434	3,722	14.21	0.99	261,851
2005	82,798	20,110	4,117	15.10		303,591
2010					0.98	
2021	180,735	28,935	6,240	17.97		520,033
Unit	Mill. M\$	'000	M\$	Trips/year	/year	'000
	Price					



- * Note: Long distance and short distance passengers
- ** Note: Elasticity factor 0.98 was obtained from the data in Japan as of 1965.
- *** Note: Elasticity factor 0.99, 1.00, 1.01 were assumed as intermediates between 0.98 and 1.02.

350,788

* Number of passengers corresponding to the M/P 2005 Population (19,517)

$$17.97 \times 19,517 = 350,788$$


$$\text{Elasticity Factor} = \frac{\text{TR}_I / \text{TR}_{I-1}}{\text{PG}_I / \text{PG}_{I-1}}$$

where: I : Year

TR_I : Number of Trips/Passenger


PG_I : GDP per capita

OD Table of the Railway Passenger (1991 Network A)
for both directions (Unit: 1,000 persons/year)




O	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
1 Kedah/Perlis	11	0	29	2	2	1	1	1	0	2	2	6	3	1	9	70	1	139
2 Pinang	8	577	33	30	13	12	2	25	5	108	47	12	114	29	18			1,044
3 Perak		278	48	33	17	1	0	32	5	94	41	11	107	5	29			708
4 Selangor			40	410	134	24	3	503	17	388	248	102	813	9	0			3,574
5 N. Sembilan/Melaka				115	39	1	6	31	3	30	18	7	160	1	3			536
6 Johor (Kluang)					131	1	5	34	3	41	22	8	613	1	13			1,460
7 Johor (J. Bahru)						6	2	13	1	18	10	3	115	1	4			508
8 Pahang (Temerloh)							5	28	3	23	17	9	36	0	25			191
9 Pahang (K. Lipis)								5	21	98	2	1	13	0	3			166
10 Pahang (Kuantan)									4	89	97	37	87	1	16			1,003
11 Kelantan (Ulu Kelantan)										216	6	1	9	0	1			296
12 Kelantan (Kota Bharu)											8	17	168	2	12			1,316
13 Trengganu (K. Trengganu)												13	89	1	8			630
14 Trengganu (Kemaman)													33	0	3			258
15 Singapore															5	25		2,397
16 Thailand																0		124
17 Janda Baik																		160
Total																		14,510

Passenger



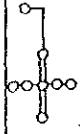
OD Table of the Railway Passenger (2005 Network A) for both directions (Unit: 1,000 persons/year)

0	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	Total
	17	0	46	2	2	2	1	0	3	0	7	4	1	10	100	2	200	
① Kedah/Prlis		13	1,441	55	48	34	28	4	64	14	204	115	23	205	64	76	2,406	
② Pinang			484	56	35	31	1	0	58	8	122	71	14	135	7	85	1,121	
③ Perak				69	673	370	58	5	1,355	44	727	627	203	1,548	21	0	7,672	
④ Selangor					127	72	1	7	57	5	37	30	9	206	1	9	745	
⑤ N. Sembilan/Melaka						234	1	5	61	4	50	37	11	754	2	35	2,079	
⑥ Johor (Keluang)							15	3	38	2	36	26	7	231	1	19	1,123	
⑦ Johor (J. Bahru)								8	69	7	39	38	16	61	1	101	444	
⑧ Pahang (Temerloh)									9	38	129	4	1	18	0	9	244	
⑨ Pahang (K. Lipis)										10	171	250	74	169	2	71	2,462	
⑩ Pahang (Kuantan)											411	17	1	18	0	2	583	
⑪ Kelantan (Ulu Kelantan)												15	25	234	3	38	2,250	
⑫ Kelantan (Kota Bharu)													26	169	2	33	1,465	
⑬ Trengganu (K. Trengganu)														49	1	11	472	
⑭ Trengganu (Kemaman)																9	81	3,896
⑮ Singapore																	1	215
⑯ Thailand																		576
⑰ Janda Baik																		
																		27,953



 OD Table of the Railway Passenger (2005 Network B) for both directions (Unit: 1,000 persons/year)

D	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	Total
0																	
① Kedah/Perlis	17	0	46	2	3	2	1	0	3	0	7	4	1	14	100	3	205
② Pinang		13	1,439	60	59	46	28	4	64	14	205	116	23	278	64	78	2,508
③ Perak			484	61	45	42	1	0	58	8	122	71	14	187	7	87	1,201
④ Selangor				1,116	924	543	58	6	1,353	44	729	628	202	2,317	21	0	9,910
⑤ N. Sembilan/Melaka					154	94	2	9	66	5	41	33	11	273	1	151	2,079
⑥ Johor (Keluang)						271	1	7	82	6	64	48	15	893	2	50	2,623
⑦ Johor (J. Bahru)							17	5	56	3	50	36	10	616	2	29	1,821
⑧ Pahang (Temerloh)								8	69	7	39	38	16	91	1	104	479
⑨ Pahang (K. Lipis)									10	41	137	4	1	25	0	10	268
⑩ Pahang (Kuantan)									10	172	251	74	251	2	73	2,594	
⑪ Kelantan (Ulu Kelantan)										420	17	1	25	0	2	604	
⑫ Kelantan (Kota Bharu)											15	28	323	3	39	2,394	
⑬ Trengganu (K. Trengganu)												26	236	2	34	1,558	
⑭ Trengganu (Kemaman)													71	1	11	506	
⑮ Singapore														13	125	5,738	
⑯ Thailand															1	221	
⑰ Janda Baik																	798
Total																	35,507



OD Table of the Railway Passenger (2005 Network C) for both directions (Unit: 1,000 persons/year)


	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	Total	
0																			
① Kedah/Perlis	18	0	78	4	5	4	2	1	5	1	18	9	2	25	104	4	278		
② Pinang		48	2,233	93	90	69	43	8	93	8	444	200	34	412	69	121	3,981		
③ Perak			874	77	56	51	1	0	71	4	207	98	17	231	10	157	1,903		
④ Selangor				1,116	924	543	57	6	1,341	18	924	703	201	2,317	35	0	11,370		
⑤ N. Sembilan/Melaka					154	94	2	9	66	5	55	39	11	273	2	151	2,150		
⑥ Johor (Keluang)						271	1	7	82	5	84	56	15	893	3	50	2,696		
⑦ Johor (J. Bahru)							17	5	56	3	66	42	10	616	3	29	1,879		
⑧ Pahang (Temerloh)								8	69	6	50	43	15	91	1	103	509		
⑨ Pahang (K. Lipis)									10	40	135	5	1	11	0	10	258		
⑩ Pahang (Kuantan)										4	226	287	74	251	3	72	2,711		
⑪ Kelantan (Ulu Kelantan)											429	22	2	10	0	1	557		
⑫ Kelantan (Kota Bharu)												422	93	426	8	50	3,635		
⑬ Trengganu (K. Trengganu)													80	274	4	38	2,322		
⑭ Trengganu (Kemaman)														71	1	11	638		
⑮ Singapore															21	125	6,045		
⑯ Thailand																2	267		
⑰ Janda Baik																	925		
Total																		42,125	

OD Table of the Railway Goods (1991 Network A)

(Unit: 1,000 tons/year)

	①	②	③	④	⑤	⑥	⑦	⑧	⑩	⑭	⑫	⑬	⑨	⑪	Total
0	-----														
① Kedah/Perlis															
② Pinang Perak				-	-	-	-	65.6	70.7	23.4	29.5		32.7		221.9
④ Selangor			-		-			204.8	316.1	59.8	74.0		13.3		668.0
⑤ N. Sembilan/Melaka															
⑥ Johor (Keluang)			-					16.2	19.7	6.9	5.3		13.8		61.9
⑦ Johor (Johor Bahru)															
⑧ Pahang (Temerloh)			6.5	61.5	14.7				1.0	0.3	0.4		0		84.4
⑩ Pahang (Kuantan)			17.3	204.7	20.7			6.7		7.4	21.7		6.6		285.1
⑭ Trengganu (Kemaman)			316.7	663.3	33.8			12.4	21.1		0		3.4		1,050.7
⑫ Kelantan (K. Bharu)															
⑬ Trengganu (K. Trengganu)			1.8	12.8	1.1			0.2	4.6	0			20.1		0.6
⑨ Pahang (Lipis)			7.5	7.1	17.7			0	1.6	0.5	0.2				34.6
⑰ Kelantan (Ulu Kelantan)															
Total	349.8			949.4	88.0		305.9	434.8	98.3	131.1	69.9				2,427.2

Goods

OD Table of the Railway Goods (2005 Network A) 

(Unit: 1,000 tons/year)

	①	②	③	④	⑤	⑥	⑦	⑧	⑩	⑭	⑫	⑬	⑨	⑪	Total
0															
① Kedah/Perlis															
② Pinang				-				100.4	104.6	42.8	34.7		52.6		335.1
③ Perak															
④ Selangor			-					317.8	508.5	100.0	72.1		16.0		1,014.4
⑤ N. Sembilan/ Melaka															
⑥ Johor (Keluang)								23.4	33.1	13.7	5.3		22.6		98.1
⑦ Johor (Johor Bahru)															
⑧ Pahang (Temerloh)			13.7	89.2	18.8				0.9	0.6	0.4		0		123.6
⑩ Pahang (Kuantan)			33.0	316.4	32.7			9.9		14.6	35.0		12.1		453.7
⑭ Trengganu (Kemaman)			319.3	1,283.5	68.2			14.5	12.7		0		8.3		1,706.5
⑫ Kelantan (K. Bharu)															
⑬ Trengganu (K. Trengganu)			3.0	14.1	1.4			0.2	3.7	0			0.1		22.5
⑨ Pahang (Lipis)			11.0	7.2	22.2			0	2.1	0.7	0.2				43.4
⑪ Kelantan (Ulu Kelantan)															
Total	380.0		1,710.4	143.3	466.2	665.6	172.4	147.7	111.7						3,797.3

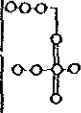


OD Table of the Railway Goods (2005 Network B)

(Unit: 1,000 tons/year)

D	①	②	③	④	⑤	⑥	⑦	⑧	⑩	⑭	⑬	⑨	⑪	Total
0														
① Kedah/Perlis														
② Pinang					24.3	16.0	210.8	104.7	109.1	43.8	39.2	55.1		603.0
③ Perak				—										
④ Selangor					173.2	50.4	541.8	339.0	546.0	105.8	98.3	12.6		1,867.1
⑤ N. Sembilan/ Melaka	12.4			670.2	0	0	286.3	0	86.2	2.2	0	2.6		1,059.9
⑥ Johor (Keluang)	6.0			29.3	0	0	243.4	0	10.0	1.5	0	1.1		291.3
⑦ Johor (Johor Bahru)	106.0			433.1	187.0	320.0		35.6	65.2	28.3	19.0	23.0		1,217.2
⑧ Pahang (Temerloh)	14.5			98.1	0	0	34.6		1.8	0.7	0.7	0		150.4
⑩ Pahang (Kuantan)	34.2			348.3	14.7	13.1	275.1	12.6		17.6	39.3	12.7		767.6
⑭ Trengganu (Kemaman)	322.3			1,305.6	13.4	12.0	245.5	15.7	15.1		0	6.1		1,935.7
⑫ Kelantan (Kota Bharu)														
⑬ Trengganu (K. Trengganu)	3.7			22.0	0	0	12.7	0.4	6.1	0		0.1		45.0
⑨ Pahang (Lipis) Kelantan (Ulu Kelantan)	11.8			5.4	2.8	2.5	20.8	0	2.2	0.6	0.2			46.3
Total	510.9			2,912.0	415.4	414.0	1,871.0	508.0	841.7	200.5	196.7	113.3		7,983.5

OD Table of the Railway Goods (2005 Network C)



(Unit: 1,000 tons/year)

	①	②	③	④	⑤	⑥	⑦	⑧	⑩	⑭	⑮	⑯	⑰	⑱	Total
0															
① Kedah/Perlis	-	39.6	99.7	0.4	0.3	6.2	21.6	20.9	3.6	8.9	0	8.0	209.2		
② Pinang	-	203.2	337.1	33.2	31.9	295.5	91.8	102.9	35.7	121.8	36.3	29.5	1,318.9		
③ Perak	13.5	303.9	733.9	94.1	66.2	107.4	98.0	78.6	62.1	130.4	75.6	17.7	1,781.4		
④ Selangor	78.2	207.2	356.4	133.0	35.7	528.8	318.0	508.7	100.2	277.5	121.7	16.1	2,681.5		
⑤ N. Sembilan/ Melaka	0.9	12.3	219.4	439.0	0	236.8	0	80.0	1.9	11.8	6.7	2.2	1,011.0		
⑥ Johor (Keluang)	0.5	9.2	1.7	17.8	0	201.6	0	7.1	1.3	7.0	0.8	0.9	247.9		
⑦ Johor (Johor Bahru)	5.9	127.9	68.3	420.3	166.1	262.0	28.7	60.0	26.6	79.2	12.4	21.4	1,278.8		
⑧ Pahang (Temerloh)	1.5	31.8	7.5	89.2	0	22.6	0	0.9	0.6	3.1	2.1	0	159.3		
⑩ Pahang (Kuantan)	4.1	105.8	25.8	316.4	12.3	11.7	242.5	9.9	14.6	45.1	52.1	13.2	853.5		
⑭ Trengganu (Kemaman)	6.9	323.1	40.2	1,283.6	11.3	10.4	224.7	14.5	12.7	247.4	279.8	5.7	2,460.3		
⑬ Trengganu (K. Trengganu)	1.1	11.0	7.6	80.9	4.1	2.0	80.0	1.8	16.6	4.9	4.6	0.6	215.2		
⑫ Kelantan (Kota Bharu)	0	9.5	8.9	58.1	6.0	0.8	3.4	13.3	11.8	6.1	22.0	-	139.9		
⑨ Pahang (Lipis) Kelantan (Ulu Kelantan)	1.1	7.5	3.2	7.2	2.5	2.2	19.8	0	2.2	0.5	2.1	-	48.3		
Total	113.7	1,149.2	981.8	3,883.2	463.0	423.2	1,969.3	597.6	902.4	258.1	956.3	592.1	115.3	12,405.2	

Goods

附錄 3-2-1 Required Number of Trains

Network A

Number of Trains by Section (for both directions)

Kind of train Sta- tion/ section	Passenger train					Goods train					Total
	Super express	Express	Ordinary	Kl. urban	Sub- total	Express con- tainer	Con- tainer	Car- load through	Ordinary	Sub- total	
Port Kelang	-	-	-	90 (24)	90 (24)	-	-	-	10 (6)	10 (6)	100 (30)
Kuala Lumpur	8 (6)	16 (6)	30 (8)	54 (20)	2 (2)	8 (4)	16 (10)	-	26 (16)	80 (36)	
Janda Baik	8 (6)	16 (6)	-	24 (12)	2 (2)	8 (4)	16 (10)	-	26 (16)	50 (28)	
Kuantan	8 (6)	8 (2)	-	16 (8)	-	4 (2)	14 (8)	-	18 (10)	34 (18)	
Kerteh											

(Note) 1. Required number of trains for both directions to be operated in the year 2005.
2. Figures in parentheses are for the year 1991.

Network B

Number of Trains by Section (for both directions)

Kind of train Sta- tion/ section	Passenger train					Goods train					Total
	Super express	Express	Ordinary	KL urban	Sub- total	Express con- tainer	Con- tainer	Car- load through	Ordinary	Sub- total	
Port Kelang	-	-	-	90 (36)	90 (36)	-	-	-	16 (12)	16 (12)	106 (48)
Kuala Lumpur	10 (8)	16 (8)	-	30 (12)	56 (28)	2 (2)	8 (6)	20 (16)	-	30 (24)	86 (52)
Janda Baik	10 (8)	16 (8)	-	-	26 (16)	2 (2)	8 (6)	20 (16)	-	30 (24)	56 (40)
Kuantan	10 (8)	8 (4)	-	-	18 (12)	-	4 (2)	16 (12)	-	20 (14)	38 (26)
Kerteh											
Kuala Lumpur	20 (14)	14 (10)	8 (8)	-	42 (32)	4 (2)	8 (6)	12 (8)	2 (2)	26 (18)	68 (50)
Seremban	20 (14)	14 (10)	4 (4)	-	38 (28)	4 (2)	8 (6)	8 (6)	2 (2)	22 (16)	60 (44)
Gemas	20 (14)	10 (8)	4 (4)	-	34 (26)	4 (2)	8 (6)	8 (6)	4 (4)	24 (18)	58 (44)
Kempas Baru	20 (14)	10 (8)	4 (4)	-	34 (26)	-	2 (2)	-	2 (2)	4 (4)	38 (30)
Johor Bahru	20 (14)	10 (8)	6 (4)	-	36 (26)	-	2 (2)	-	2 (2)	4 (4)	40 (30)
Singapore											

(Note) 1. Required number of trains for both directions to be operated in the year 2005.
2. Figures in parentheses are for the year 1996.

Network C.

Number of Trains by Section (for both directions)

Kind of train Sta- tion/ section	Passenger train					Goods train					Total
	Super express	Express	Ordinary	KL urban	Sub- total	Express con- tainer	Con- tainer	Car- load through	Ordinary	Sub- total	
Port Kelang	-	-	-	90 (60)	90 (60)	-	-	-	-	20 (18)	110 (78)
Kuala Lumpur	14 (12)	16 (14)	-	30 (20)	60 (46)	2 (2)	12 (10)	24 (22)	-	38 (34)	98 (80)
Janda Baik	14 (12)	16 (14)	-	-	30 (26)	2 (2)	12 (10)	24 (22)	-	38 (34)	68 (60)
Kuantan	14 (12)	8 (6)	-	-	22 (18)	2 (2)	8 (6)	16 (14)	2 (2)	28 (24)	50 (42)
Kerteh	14 (12)	8 (6)	-	-	22 (18)	2 (2)	6 (4)	8 (6)	2 (2)	18 (14)	40 (32)
Kuala Trengganu	10 (8)	4 (4)	4 (4)	-	18 (16)	-	2 (2)	4 (4)	2 (2)	8 (8)	26 (24)
Butteworth (Perai)	12 (10)	8 (6)	6 (6)	-	26 (22)	4 (4)	8 (6)	6 (6)	4 (4)	22 (20)	48 (42)
Ipoh	12 (10)	18 (14)	6 (6)	-	36 (30)	4 (4)	12 (10)	14 (12)	4 (4)	34 (30)	70 (60)
Kuala Lumpur	20 (18)	16 (16)	8 (8)	-	44 (42)	4 (4)	10 (8)	14 (12)	2 (2)	30 (26)	74 (68)
Seremban	20 (18)	16 (16)	4 (4)	-	40 (38)	4 (4)	10 (8)	8 (8)	2 (2)	24 (22)	64 (60)
Gemas	20 (18)	10 (10)	4 (4)	-	34 (32)	4 (4)	10 (8)	8 (8)	4 (4)	26 (24)	60 (56)
Kempas Baru	20 (18)	10 (10)	4 (4)	-	34 (32)	-	2 (2)	-	2 (2)	4 (4)	38 (36)
Johor Bahru	20 (18)	10 (10)	6 (6)	-	36 (34)	-	2 (2)	-	2 (2)	4 (4)	40 (38)
Singapore											

(Note) 1. Required number of trains for both directions to be operated in the year 2005.
2. Figures in parentheses are for the year 2001.

附録 3-2-2 Basic Running Time Table

1. Kuala Lumpur から下り方向の列車の基準運転時分（停車時分を除く）は下表に示すとおりである。
2. Distance * は隣接駅間の距離 (km), “ : ” 印は “ 分 : 秒 ”, 駅名欄横太線は列車種別毎の停車駅を各々示す。

New East-West Railway

Station	Distance * (km)	Passenger train				Goods train		
		Super express	Express	Ordinary	Urban	Express container	Container and car-load through	Ordinary
Kuala Lumpur	14.4	8 ^m :00 ^s	8 ^m :00 ^s	8 ^m :00 ^s	9 ^m :00 ^s	9 ^m :30 ^s	10 ^m :30 ^s	10 ^m :30 ^s
Batu Caves		10:30	11:30	11:30	13:00	11:30	14:00	14:00
Janda Baik	18.3	9:30	10:30	10:30		9:30	13:00	13:00
Bentong	53.0	22:00	23:30	23:30		28:00	38:30	38:30
Temerloh	53.0	22:00	23:00	23:00		28:00	39:00	39:00
Maran	37.0	14:30	17:00	17:00		19:30	26:00	26:00
Gembang	30.0	12:30	14:00	14:00		17:00	22:00	22:00
Kuantan	46.4	19:30	20:30	20:30		26:00	34:00	35:00
Chukai	25.6	11:00	12:30	12:30		14:30	19:00	20:30
Kerteh	34.5	15:00	16:00	16:00		19:30	26:00	27:00
Dungun	71.0	29:00	30:30	30:30		38:30	51:30	53:00
Kuala Trengganu	87.7	35:30	36:30	36:30		47:00	63:00	64:00
Jerteh	15.3	6:00	7:30	8:30		8:30	11:00	12:30
Pasir Puteh	28.5	11:00	11:00	13:30		15:00	20:00	20:00
Bachok	11.0	4:30	4:30	7:00		6:00	7:30	7:30
Kemasin	10.9	5:30	5:30	7:00		7:00	8:30	8:30
Kota Bharu								
Total	557.9	236:00	252:00	259:30	22:00	305:00	403:30	411:00

Port Kelang Line

Station	Distance (km)	Urban passenger train	Goods train
Port Kelang	9.8	6 ^m :30 ^s	6 ^m :30 ^s
Kelang	9.6	6:30	6:30
Shah Alam	8.5	6:00	6:00
Subang Jaya	5.3	4:00	4:00
Petaling Jaya	9.2	6:30	6:30
Kuala Lumpur			
Total	42.4	29:30	29:30

Northern portion of West Coast Railway

Station	Distance (km)	Passenger train			Goods train		
		Super express	Express	Ordinary	Express container	Container and car-load through	Ordinary
Butterworth	1.5						
Perai		2 ^m :00 ^s	2 ^m :00 ^s	2 ^m :00 ^s	--	--	--
Bukit Mertajam	9.9	4:00	5:00	5:00	7 ^m :00 ^s	8 ^m :30 ^s	8 ^m :30 ^s
Nibon Tebal	22.2	9:00	10:30	11:30	12:00	15:30	15:30
Parit Buntar	4.7	2:00	2:00	4:30	2:30	3:30	4:30
Bagan Serai	12.1	5:00	5:00	7:30	6:30	8:30	10:00
Taiping	29.7	11:30	12:30	14:00	15:30	21:00	22:00
Padang Rengas	18.9	7:30	9:00	10:00	10:00	13:30	15:00
Kuala Kangsar	8.5	3:30	4:30	6:00	4:30	6:00	7:00
Ipoh	49.1	20:30	22:00	22:00	27:00	35:30	36:30
Batu Gajah	12.2	6:30	6:30	7:30	8:00	10:00	11:30
Malim Nawar	18.4	7:00	7:00	9:30	9:30	13:00	13:00
Kampar	5.1	2:00	2:00	4:30	3:00	3:30	4:30
Tapah Road	16.1	6:30	7:30	9:00	8:30	11:30	14:00
Bidor	9.2	3:30	5:00	6:00	5:00	6:30	8:00
Sungkai	16.5	6:30	6:30	9:00	9:00	11:30	11:30
Slim River	20.5	8:00	8:00	10:30	11:00	14:30	15:30
Behrang	11.2	4:30	4:30	7:00	6:00	8:00	9:30
Tanjong Malim	10.7	4:30	5:30	7:00	5:30	7:30	7:30
Kuala Kubu Road	16.7	6:30	8:00	9:00	9:00	11:30	11:30
Rawang	33.1	13:30	14:30	16:00	18:30	24:30	24:30
Sungei Buloh	13.7	5:30	7:00	8:00	9:00	11:00	11:00
Kuala Lumpur	17.4	10:30	10:30	12:00	9:30	12:00	12:00
Total	357.3	150:00	165:00	197:30	196:30	257:00	272:00

Telok Intan Line

Station	Distance (km)	Goods train
Tapah Road	28.5	22 ^m :00 ^s
Telok Intan		

Southern portion of West Coast Railway

Station	Distance (km)	Passenger train			Goods train		
		Super express	Express	Ordinary	Express container	Container and car-load through	Ordinary
Kuala Lumpur	10.8	5 ^m :00 ^s	5 ^m :00 ^s	6 ^m :00 ^s	6 ^m :00 ^s	8 ^m :30 ^s	8 ^m :30 ^s
Sungei Besi		6:30	7:30	8:30	7:30	9:30	9:30
Kajang	5.0	2:00	3:30	3:30	3:00	3:30	4:30
Bangi	37.3	15:30	15:30	15:30	19:30	26:00	28:30
Seremban	43.8	18:30	19:30	19:30	24:00	32:00	33:30
Tampin	25.4	10:00	11:30	12:30	15:00	19:30	19:30
Batang Melaka	25.4	10:00	11:00	12:30	13:30	19:00	19:00
Genas	25.3	10:00	12:30	12:30	13:30	19:00	20:00
Segamat	28.3	11:00	12:30	13:30	15:00	20:00	22:30
Labis	53.4	22:00	22:00	23:30	29:00	38:30	40:00
Keluang	54.9	22:30	22:30	23:30	30:30	39:00	39:00
Kulai	16.2	6:30	6:30	9:00	8:30	11:30	12:30
Kempas Baru	13.6	6:30	6:30	8:00	7:30	9:30	11:00
Johor Bahru	26.5	17:30	17:30	17:30	19:00	20:30	20:30
Singapore							
Total	378.4	163:30	173:30	186:00	211:30	276:00	288:30

Port Dickson Line

Station	Distance (km)	Goods train
Seremban	36.1	28 ^m :30 ^s
Port Dickson		

Pasir Gudang Line

Station	Distance (km)	Goods train
Kempas Baru	31.6	24 ^m :30 ^s
Pasir Gendang		

附録4-1-1 高速道路開通が鉄道輸送路に及ぼす影響

1. JNRのconventional line は最高速度 120km/h 前後の輸送サービスを提供している。しかしながら、この程度のサービスでは通勤輸送を除き、高速道路の開通によって鉄道輸送量の減少を免れることはできない。表1—1に示すように数十kmの輸送距離では5～15%の減少は確実に齎るようである。ただし、この計算には高速道路開通直後の輸送量を用いているが図1—2にみられるように、その後の中間的鉄道輸送の減少傾向(30%程度)に注目する必要がある。また、より長い距離の旅客や貨物輸送量の減少がこれに加わることは明らかである。

2. 最高速度 210または 240km/h の輸送サービスを提供している新幹線の場合、高速道路の開通による影響は小さい。すなわち、図2—1にみられるように、新幹線のある東海道線や山陽線の鉄道輸送量は高速道路の影響を受けていない。とくに東北線の場合、'82年の新幹線の開通後、鉄道輸送量が増加し、高速道路の交通量が減少していることは注目に値する。

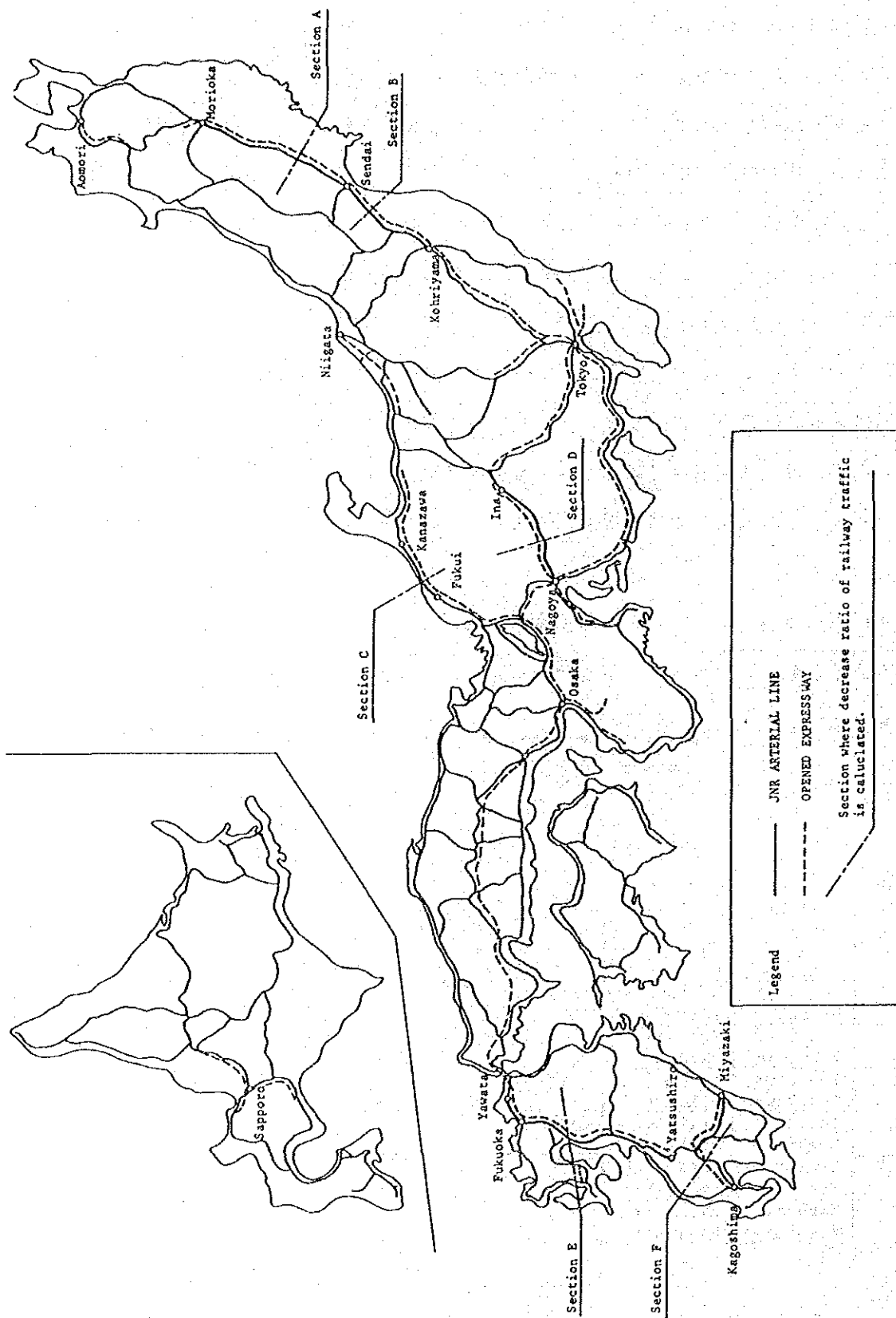
なお、山陽線の場合、大きく増えた高速道路交通量の2/3は貨物自動車である。これは貨物列車を運転しない新幹線は貨物輸送分野において影響力を持ち得ないことのと表れ

と考えられる。表 1-1 Traffic Decrease in Conventional JNR Line Affected by Highway Opening

Section	Section of conventional railway			Railway traffic decrease ratio **		
	From City, Pref.	To City, Pref.	Length (km)	Regarding the traf- fic between two prefec- tures* in O D table (A) %	Railway share in overall traffic between the sec- tion(B)%	(C): (A)x(B) %
A	Sendai, Miyagi	Morioka, Iwate	184	-14.7	(25)	3.7
B	Kohriyama, Fukushima	Sendai Miyagi	125	-8.0	(31)	2.5
C	Kanazawa, Ishikawa	Fukui, Fukui	77	-9.2	(18)	1.7
D	Ina, Nagano	Komaki, Aichi	174	-21.1	(44)	9.3
E	Yawata, Fukuoka	Yatsushiro, Kumamoto	210	-24.2	(35)	8.5
F	Kagoshima, Kagoshima	Miyazaki Miyazaki	123	-31.0	(53)	16.4
Weighted average	-	-	-	-17.2	(30)	5.2

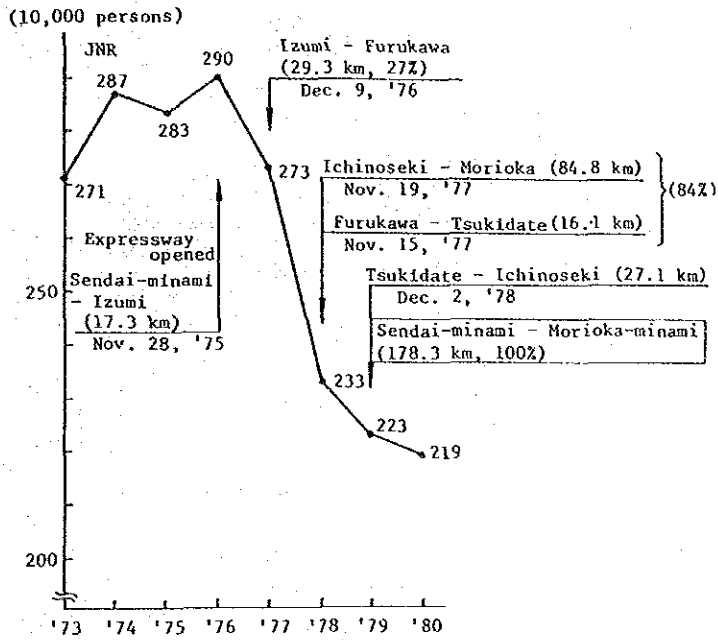
Note: * The two prefectures are adjacent: city-pairs above have the prefectural boundary line inbetween.

** The ratio is calculated, comparing the traffic in the previous year of the partial opening of expressway section, with the traffic in the following year of whole section opened.

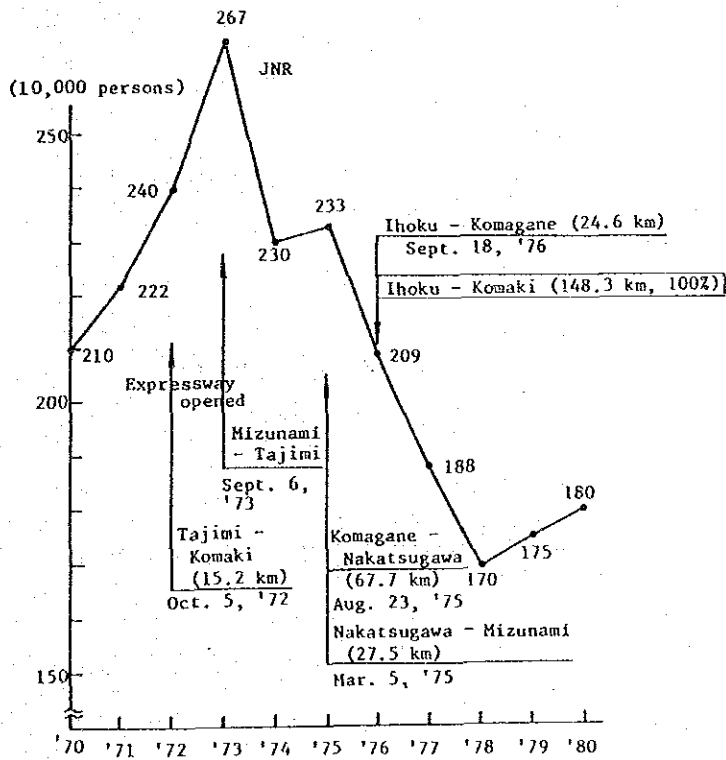


☒ 1-1 Section Where Decrease Ratio is Calculated

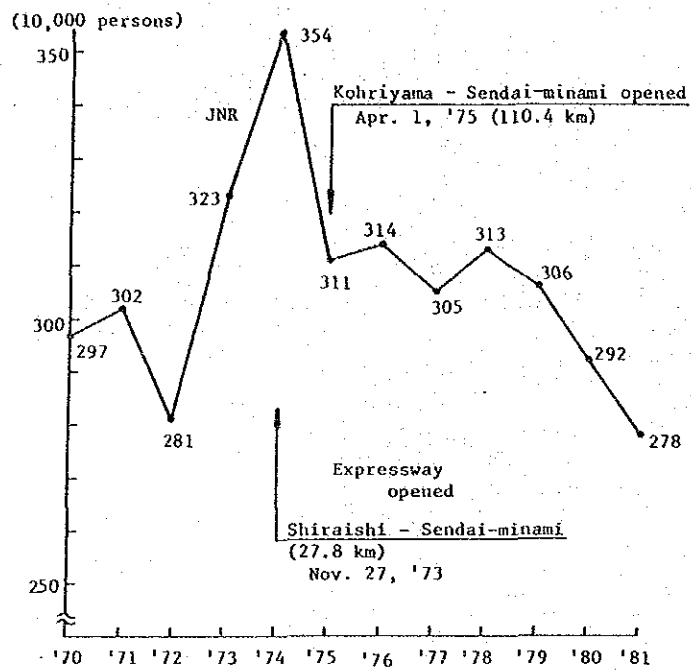
OD between Miyagi and Iwate Prefectures (JNR Ordinary train Traffic on conventional lines
The same with subsequent graphics)



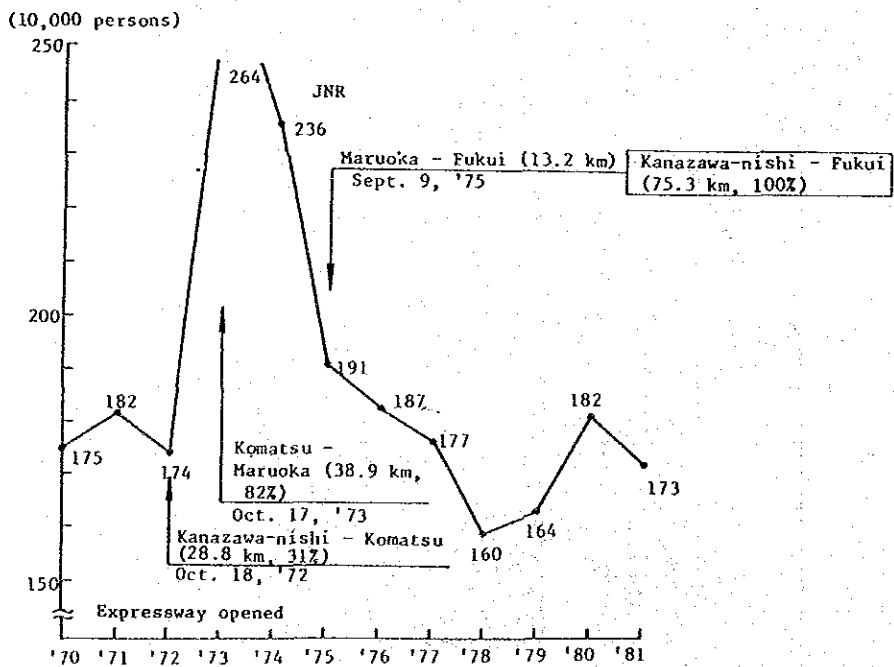
OD between Nagano and Aichi Prefectures



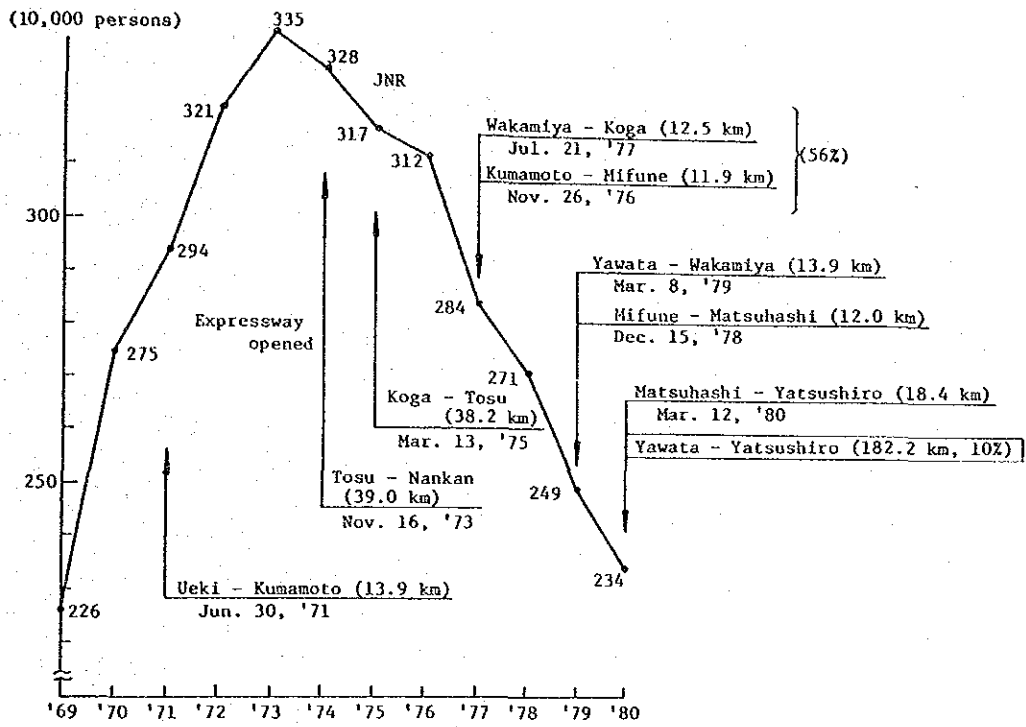
OD between Fukushima and Miyagi Prefectures



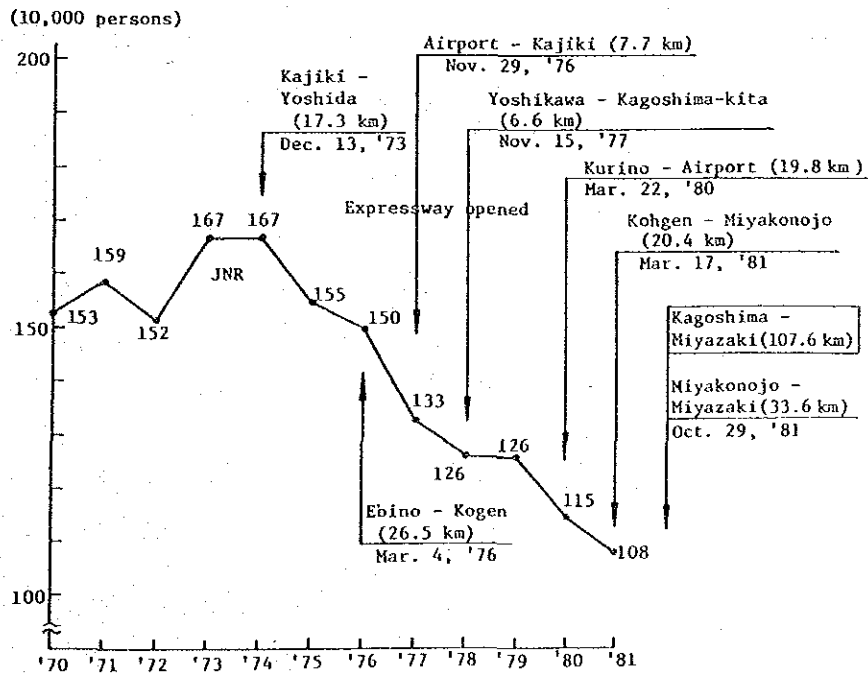
OD between Ishikawa and Fukui Prefectures



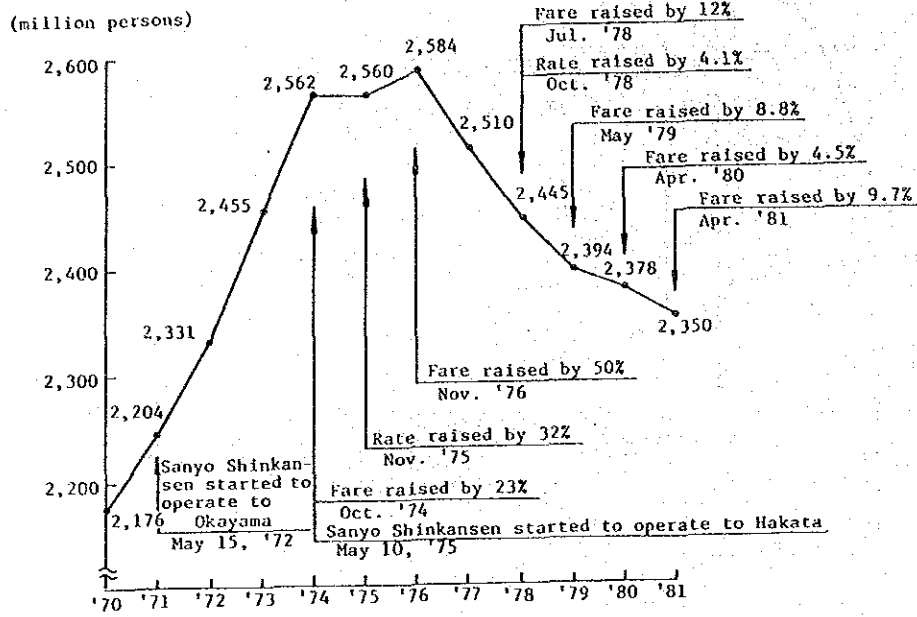
OD between Fukuoka and Kumamoto Prefectures



OD between Kagoshima and Miyazaki Prefectures



Total Passenger Carried by JNR



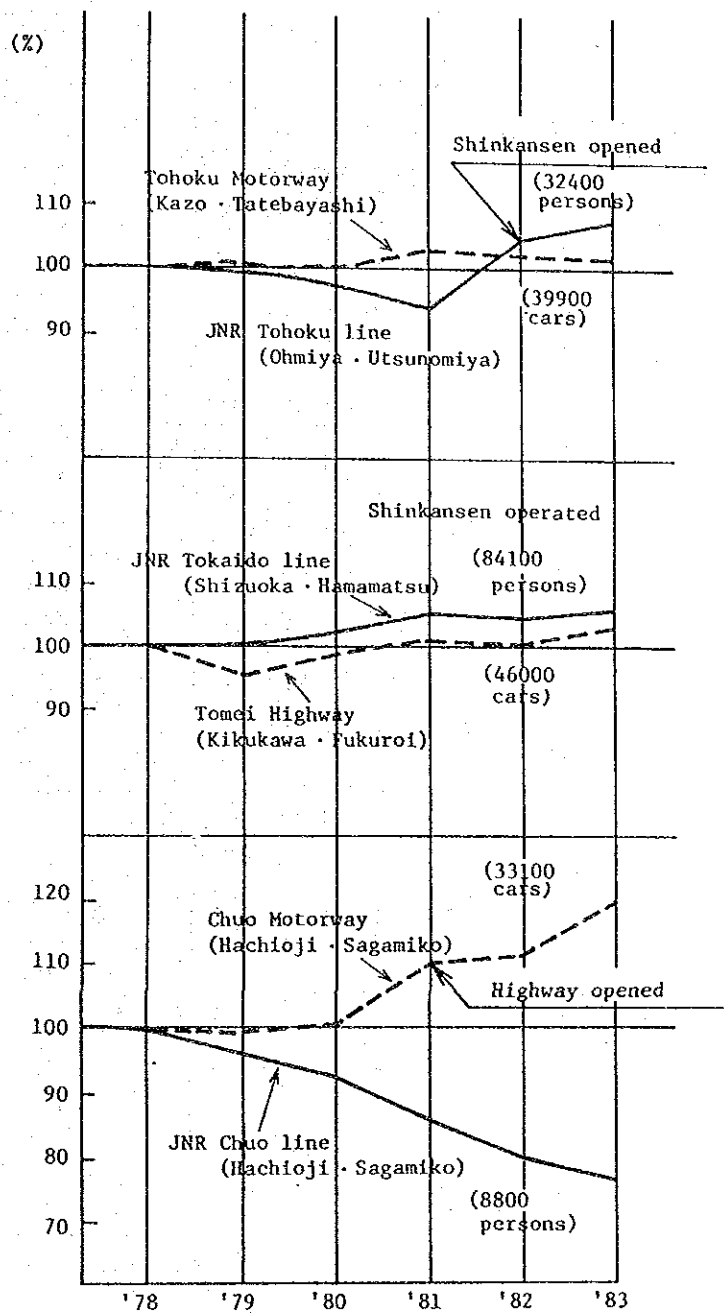


図 2-1 (1)

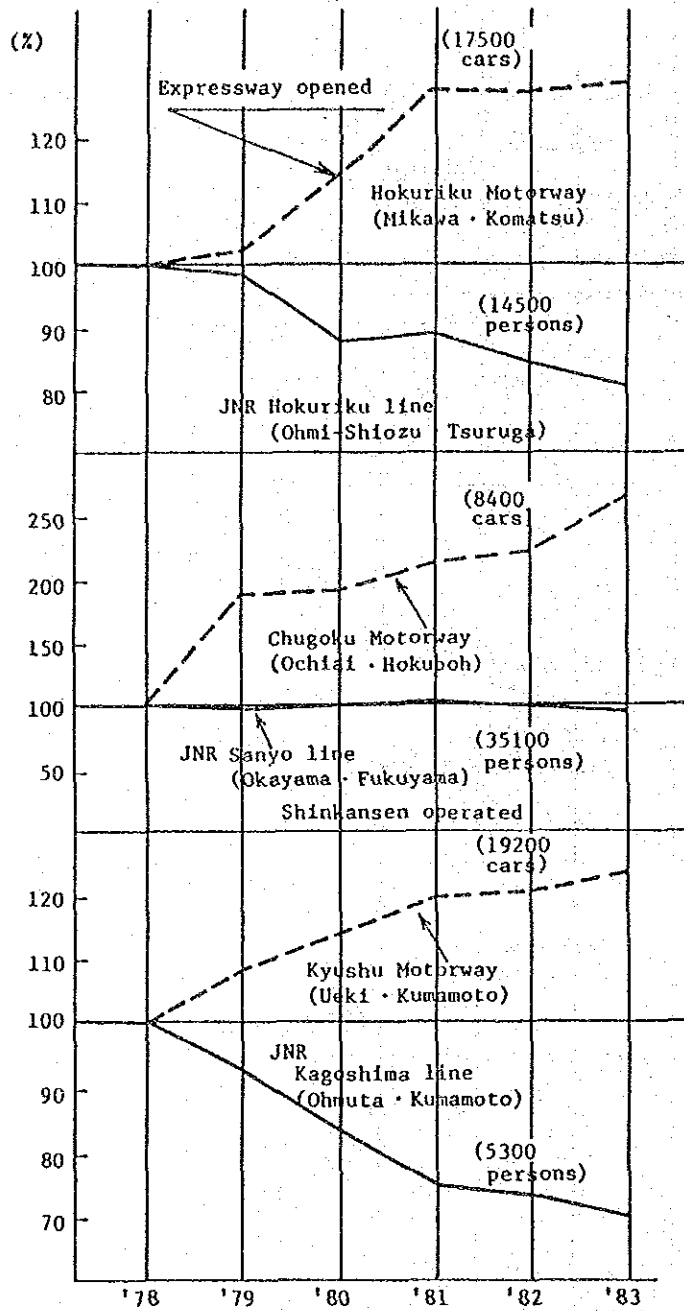


図 2-1 (2)

附錄 4-2-1 List of Railway Stations
The West Coast Railway

Name of stations	Kilometerage		Classification		Note
	Cumulative	Between	Passenger St.	Goods St.	
Butterworth	0		S	S	
Perai	1K500	1K500		D	
Bukit Mertajam	11K400	9K900	1		
Nibong Tebal	33K600	22K200	3		
Parit Buntar	38K250	4K650	4	A	
Bagan Serai	50K400	12K150	3		
Taiping	80K100	29K700	1	B	
Padang Rengas	99K000	18K900	3		
Kuala Kangsar	107K500	8K500	1	A	
Ipoh	156K550	49K050	2	D	
Batu Gajah	168K800	12K250	3		
Malim Nawar	187K200	18K400	3		
Kampar	192K300	5K100	3	A	
Tapah Road	208K300	16K000	1	B	
Bidor	217K500	9K200	3		
Sungkai	234K000	16K500	3		
Slim River	254K500	20K500	3	A	
Behrang	265K700	11K200	3		
Tanjong Malim	276K400	10K700	1		
Kuala Kubu Road	293K100	16K700	3		
Rawang-Kuang	326K200	33K100	1	S	
Sungei Buloh	339K850	13K650	3		
Kuala Lumpur	357K250	17K400	S		

Name of stations	Kilometerage		Classification		Note
	Cumulative	Between	Passenger St.	Goods St.	
Kuala Lumpur	357 ^K 250		S		
Sungei Besi	368 ^K 000	10 ^K 750	3		*
Kajang	380 ^K 500	12 ^K 500	1		
Bangi	385 ^K 500	5 ^K 000		A	
Seremban	422 ^K 750	37 ^K 250	2	B	
Tampin	466 ^K 600	43 ^K 850	1	C	
Batang Melaka	492 ^K 000	25 ^K 400	3		
Gemas	517 ^K 400	25 ^K 400	2	B	
Segamat	542 ^K 700	25 ^K 300	1	A	
Labis	571 ^K 000	28 ^K 300	3	A	
Keluang	624 ^K 400	53 ^K 400	1	C	
Kulai	679 ^K 300	54 ^K 900	3		
Kempas Baru	695 ^K 500	16 ^K 200	3	A	
Johor Bahru	709 ^K 100	13 ^K 600	2		
Singapore	735 ^K 600	26 ^K 500	S	B	

The New East-West Railway

Name of stations	Kilometerage		Classification		Note
	Cumulative	Between	Passenger St.	Goods St.	
Kuala Lumpur	0		S		
Existing K. L.	1 ^K 000	1 ^K 000	S		*
Batu Caves	14 ^K 500	13 ^K 500	3		*
Janda Baik	35 ^K 600	21 ^K 100	2		
Bentong	54 ^K 000	18 ^K 400	3		
Temerloh	107 ^K 000	53 ^K 000	1	C	
Maran	160 ^K 000	53 ^K 000	1		
Gambang	197 ^K 000	37 ^K 000	3		
Kuantan	227 ^K 000	30 ^K 000	2	D	
Chukai	273 ^K 400	46 ^K 400	1		
Paka (Kerteh)	299 ^K 000	25 ^K 600	S	C	
Dungun	333 ^K 500	34 ^K 500	1	A	
Kuala Trengganu	404 ^K 500	71 ^K 000	2	C	
Jerteh	492 ^K 200	87 ^K 700	1	A	
Pasir Puteh	507 ^K 500	15 ^K 300	1		
Bachok	536 ^K 000	28 ^K 500	3		
Kemasin	547 ^K 000	11 ^K 000	3		
Kota Bharu	557 ^K 900	10 ^K 900	S	C	

Port Kuantan Line					
Name of Station	Kilometerage		Classification		Note
	Cumulative	Between	Passenger St.	Goods St.	
Kuantan	0				
Port Kuantan	5K200	5K200		C	

Port Chukai Line					
Name of Station	Kilometerage		Classification		Note
	Cumulative	Between	Passenger St.	Goods St.	
Chukai	0				
Port Chukai	9K000	9K000		S	

Telok Intan Line					
Name of Station	Kilometerage		Classification		Note
	Cumulative	Between	Passenger St.	Goods St.	
Tapah Road	0				
Telok Intan	28K500	28K500		A	

Port Kelang Line					
Name of Station	Kilometerage		Classification		Note
	Cumulative	Between	Passenger St.	Goods St.	
Kuala Lumpur	0		S		
Petaling Jaya	9K200	9K200	4		*
Subang Jaya	14K500	5K300	4		*
Shah Alam	23K000	8K500	3		*
Kelang	32K600	9K600	4		*
Port Kelang	42K400	9K800	2	D	*

Port Dickson Line					
Name of Station	Kilometerage		Classification		Note
	Cumulative	Between	Passenger St.	Goods St.	
Seremban	0				
Port Dickson	36K100	36K100		S	

Pasir Gudang Line					
Name of Station	Kilometerage		Classification		Note
	Cumulative	Between	Passenger St.	Goods St.	
Kempas Baru	0				
Pasir Gudang	31K590	31K590		D	

Note: In the column "classification",

1,2,3,4 ; Stations classification shown in Fig. 4-3-4

A,B,C,D ; Stations classification shown in Fig. 4-3-5

S ; Stations not included in the model of 4-3-2 (1)
in the report

In the column "Note",

* ; Stations only for the KL urban transport

附録4-5-1 Rawang-Kuang工場のレイアウト

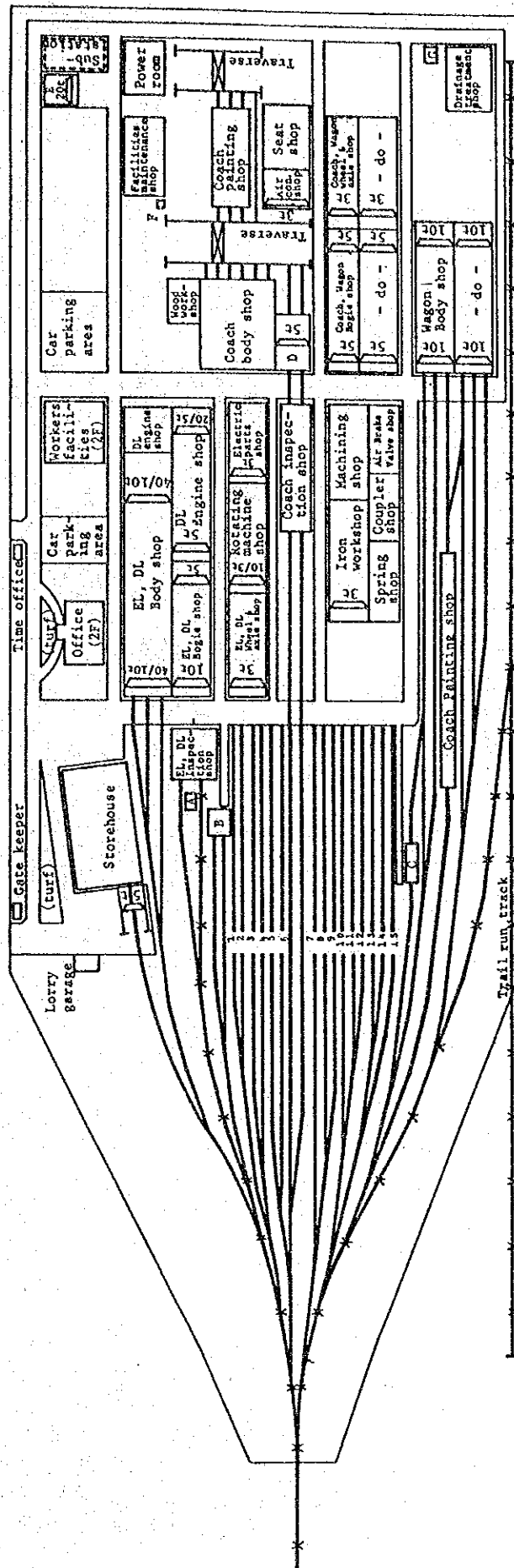
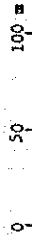
1991年時点の工場レイアウトは次頁の通りであり、4ケースとも共通である。

2005年に西線が開業し、全線が標準軌化された場合、工場レイアウトの変更点は次の通りである。

- ① 電気/ディーゼル機関車体場後端のディーゼル機関職場は電気部品場に転用する。
- ② 木工職場は客車車体場に転用する。
- ③ 構内軌道は標準軌に変更する。
- ④ 電気/ディーゼル機関車整備室への入出場線は電化する。

メーター軌が存続する場合の工場レイアウトは1991年のままで2005年でも変更点はない。

附錄4-5-1 A Layout for Rawang-Kuang Workshop (As of 1991)



- Where:
- EL; Electric Locomotive
 - DL; Diesel Locomotive
- Track: No. 1 - 4 Standard gauge track
 No. 7 - 15 Meter gauge track
 Others Double gauge track
- A: Fuel, water & sand supplying facility
 - B: Shunting locomotive garage
 - C: Wagon tank washing shop
 - D: PC mounting, dismounting shop
 - E: DL engine testing shop
 - F: Oil store
 - G: Incinerator
 - H: Electric line

附錄 6-2-1 Economic Analysis for Malaysia Railway Project

** ECONOMIC ANALYSIS FOR MALAYSIA RAILWAY PROJECT **

(MIL. M\$)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
BENEFIT													
TOTAL BENEFIT					161.9	171.8	180.9	192.0	203.8	399.7	425.1	450.4	
TIME SAVING					27.2	28.5	29.9	31.5	33.3	88.8	94.1	99.9	
PASS. FOR WORKS					25.0	26.2	27.5	29.0	30.6	82.6	87.5	92.8	
PASS. FOR LEISURE					2.1	3.2	2.3	2.4	2.6	6.9	7.3	7.7	
GOODS					0.1	0.1	0.1	0.1	0.1	-0.7	-0.7	-0.7	
COST SAVING													
WITH THE PROJECT COST					134.7	143.3	150.9	160.4	170.5	310.9	331.0	350.5	
RAILWAY					94.9	97.3	101.3	104.0	106.8	217.9	221.4	226.8	
ROAD					85.0	87.1	90.7	92.9	95.2	197.7	200.6	205.3	
WITHOUT THE PROJECT COST					9.8	10.2	10.7	11.1	11.6	20.2	20.8	21.5	
RAILWAY					229.5	240.6	252.2	264.5	277.3	528.8	552.4	577.3	
ROAD					15.3	16.0	16.7	17.4	18.1	77.3	80.6	84.1	
AIR FLIGHT					91.4	95.3	99.3	103.6	108.1	224.5	232.7	241.4	
COASTAL SHIP					115.6	121.9	128.6	135.6	143.0	217.3	229.2	241.7	
					7.2	7.4	7.6	7.9	8.2	9.6	9.9	10.2	
INVESTMENT													
INVESTMENT DIFF	276.1	513.3	665.2	724.3	316.1	-1376.1	309.3	351.5	333.7	484.0	-221.9	7.5	-1.0
WITH THE PROJECT INV.	276.1	513.3	665.2	724.3	316.1	-1116.7	320.6	363.4	346.1	497.0	30.9	29.8	19.4
RAILWAY	276.1	513.3	665.2	724.3	316.1	-1132.3	319.9	362.6	345.3	496.2	17.9	28.8	18.3
ROAD					15.6	15.6	0.7	0.7	0.7	0.8	13.0	1.0	1.1
WITHOUT THE PROJECT INV.					259.4	11.3	11.8	12.4	13.0	252.9	22.4	23.4	
ROAD					196.2	6.5	9.0	9.4	9.9	226.7	18.1	18.9	
AIR FLIGHT					30.0	1.6	1.7	1.8	1.9	19.3	3.1	3.2	
SEA					33.1	1.1	1.1	1.2	1.2	6.9	1.2	1.2	
CF FOR EIRR													
EIRR	-276.1	-513.3	-665.2	-724.3	-316.2	1538.0	-137.5	-170.7	-141.7	-280.2	621.7	417.7	454.4
	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08

** ECONOMIC ANALYSIS FOR MALAYSIA RAILWAY PROJECT **

(MIL. M\$)

CASE I

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
BENEFIT													
TOTAL BENEFIT	478.8	508.7	537.3	569.4	602.4	638.0	864.6	872.4	881.0	890.7	901.6	1377.3	1445.2
TIME SAVING	106.1	112.7	120.1	129.1	138.8	149.3	227.7	233.7	240.4	247.9	256.4	347.5	366.7
PASS. FOR WORKS	98.6	104.7	111.5	119.9	128.8	138.5	211.2	216.7	222.9	229.9	237.7	322.9	340.6
PASS. FOR LEISURE	8.2	8.7	9.3	10.0	10.7	11.5	17.6	18.1	18.6	19.2	19.8	26.9	28.4
GOODS	-0.7	-0.7	-0.7	-0.8	-0.8	-0.8	-1.1	-1.1	-1.1	-1.1	-1.1	-2.3	-2.4
COST SAVING	372.7	395.9	417.3	440.3	463.6	488.8	637.0	638.7	640.6	642.8	645.2	1029.8	1078.6
WITH THE PROJECT COST	230.6	234.8	241.4	245.2	249.9	254.0	360.3	360.7	361.1	361.5	362.0	452.9	458.1
RAILWAY	208.4	211.9	217.8	220.9	224.8	228.2	340.6	340.9	341.4	341.8	342.2	423.6	427.8
ROAD	22.2	22.9	23.6	24.3	25.1	25.8	19.7	19.7	19.7	19.7	19.7	29.4	30.3
WITHOUT THE PROJECT COST	603.3	630.7	658.7	685.5	713.5	742.7	997.3	999.4	1001.7	1004.3	1007.1	1482.7	1536.7
RAILWAY	87.7	91.4	95.3	99.4	103.7	108.1	141.5	141.5	141.5	141.5	141.5	203.6	210.9
ROAD	250.4	259.8	269.7	279.8	290.4	301.4	356.7	358.8	361.1	363.7	366.5	591.2	613.2
AIR FLIGHT	254.0	268.7	282.6	295.0	307.9	321.3	456.0	456.0	456.0	456.0	456.0	673.4	697.6
COASTAL SHIP	10.4	10.7	11.0	11.3	11.6	11.9	13.1	13.1	13.1	13.1	13.1	14.5	15.0
INVESTMENT													
INVESTMENT DIFF	-13.7	170.1	400.8	536.8	298.6	482.7	-255.5	274.6	527.8	355.2	717.7	-447.9	180.2
WITH THE PROJECT INV.	10.8	195.7	457.5	565.1	524.4	522.2	-10.7	307.0	544.8	589.6	744.2	31.1	288.1
RAILWAY	9.7	194.6	456.3	564.0	507.6	520.3	306.7	306.7	544.4	577.8	743.6	16.1	286.0
ROAD	1.1	1.1	1.2	1.1	1.0	1.9	0.3	0.3	0.3	11.8	0.6	15.0	2.0
WITHOUT THE PROJECT INV.	24.5	25.6	56.7	28.3	225.8	39.5	244.8	32.4	17.0	234.4	26.5	479.0	107.9
ROAD	19.8	20.7	21.7	22.1	219.3	32.7	202.3	13.0	13.9	231.2	23.1	412.4	65.9
AIR FLIGHT	3.4	3.6	33.6	4.8	5.1	5.3	36.9	19.3	3.1	3.2	3.4	60.0	39.9
SEA	1.2	1.3	1.3	1.3	1.4	1.4	5.6					6.6	2.1
CF FOR EIRR	492.4	338.5	136.5	32.6	303.8	155.3	1120.1	597.7	353.2	535.5	183.9	1825.2	1265.1
EIRR	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08

CASE I

EIRR

** ECONOMIC ANALYSIS FOR MALAYSIA RAILWAY PROJECT **

(MIL. MS)

CASE I

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
BENEFIT													
TOTAL BENEFIT	1514.0	1587.4	1663.0	1744.5	1828.7	1902.0	1995.9	2097.0	2202.7	2318.5	2435.2	2566.0	2681.5
TIME SAVING	387.2	409.5	433.5	459.4	487.6	518.1	551.4	587.5	626.9	669.9	716.9	768.3	824.6
PASS. FOR WORKS	359.7	380.3	402.5	426.6	452.6	480.9	511.7	545.1	581.6	621.3	664.8	712.3	764.4
PASS. FOR LEISURE	30.0	31.7	33.5	35.5	37.7	40.1	42.6	45.4	48.5	51.8	55.4	59.4	63.7
GOODS	-2.5	-2.5	-2.6	-2.7	-2.8	-2.9	-2.9	-3.0	-3.1	-3.2	-3.3	-3.4	-3.5
COST SAVING	1126.7	1177.9	1229.5	1285.0	1341.1	1383.9	1444.6	1509.5	1575.8	1648.6	1718.3	1797.8	1857.0
WITH THE PROJECT COST													
RAILWAY	466.1	473.3	482.5	490.1	499.8	525.6	536.2	545.7	556.9	565.0	579.7	588.4	621.3
ROAD	434.9	441.0	449.2	455.8	464.4	489.0	498.5	506.7	516.7	523.5	537.0	544.4	575.9
WITHOUT THE PROJECT COST	31.3	32.3	33.3	34.4	35.5	36.6	37.8	39.0	40.2	41.5	42.8	44.1	45.4
RAILWAY	1592.8	1651.2	1712.0	1775.2	1840.9	1909.5	1980.8	2055.2	2132.7	2213.6	2298.1	2386.2	2478.2
ROAD	218.4	226.2	234.3	242.7	251.3	260.3	269.6	279.2	289.1	299.5	310.4	321.2	332.7
AIR FLIGHT	636.3	660.4	685.6	712.0	739.7	768.7	799.2	831.2	864.8	900.3	937.6	977.0	1018.5
COASTAL SHIP	722.7	748.7	775.7	803.6	832.5	862.5	893.6	925.7	959.1	993.6	1029.4	1066.4	1104.8
	15.4	15.9	16.4	16.9	17.4	18.0	18.5	19.1	19.7	20.3	20.9	21.6	22.3
INVESTMENT													
INVESTMENT DIFF	2.0	103.7	-6.2	-190.8	385.5	-202.8	116.8	-56.1	-257.3	286.5	-487.5	15.6	-122.8
WITH THE PROJECT INV.	84.3	189.7	83.0	129.9	504.9	73.0	206.7	38.3	114.6	467.3	26.0	187.5	57.3
RAILWAY	82.2	187.5	80.8	118.7	502.3	68.5	204.7	36.2	100.9	464.8	9.1	183.5	53.1
ROAD	2.1	2.1	2.2	11.2	2.6	4.5	2.1	2.1	13.6	2.4	16.9	4.0	4.1
WITHOUT THE PROJECT INV.	82.3	86.0	89.2	320.7	119.4	275.8	89.9	94.4	371.9	180.7	513.5	171.9	180.1
ROAD	68.8	71.9	74.6	274.2	90.2	262.4	76.0	80.0	300.5	95.8	488.9	146.3	153.5
AIR FLIGHT	11.4	11.8	12.3	44.2	26.8	10.9	11.3	11.8	68.7	48.9	20.7	21.5	22.3
SEA	2.1	2.2	2.3	2.4	2.4	2.5	2.6	2.7	2.7	36.0	4.0	4.1	4.3
CF FOR EIRR	1512.0	1483.7	1669.2	1935.3	1443.2	2104.8	1879.1	2153.0	2460.0	2032.0	2922.7	2550.4	2804.3
EIRR	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08	14.08

** ECONOMIC ANALYSIS FOR MALAYSIA RAILWAY PROJECT **

(MIL. M\$)

CASE I

	2025	2026	2027	2028	2029	2030
BENEFIT						
TOTAL BENEFIT	2829.8	2981.5	3150.6	3324.5	3518.3	3719.5
TIME SAVING	886.3	954.1	1028.5	1110.4	1200.5	1299.8
PASS. FOR WORKS	821.5	884.1	953.0	1028.7	1112.0	1203.7
PASS. FOR LEISURE	68.5	73.7	79.4	85.7	92.7	100.3
GOODS	-3.6	-3.8	-3.9	-4.0	-4.1	-4.2
COST SAVING	1943.5	2027.4	2122.0	2214.1	2317.8	2419.7
WITH THE PROJECT COST						
RAILWAY	631.0	647.7	658.4	676.7	688.6	707.9
ROAD	584.2	599.4	608.6	625.3	635.6	653.3
WITHOUT THE PROJECT COST	46.9	48.3	49.8	51.3	52.9	54.6
RAILWAY	344.5	356.8	369.6	382.8	396.4	410.6
ROAD	1062.4	1108.9	1158.0	1210.2	1265.5	1324.3
AIR FLIGHT	1144.6	1185.8	1228.5	1272.7	1318.5	1366.0
COASTAL SHIP	23.0	23.7	24.4	25.2	25.9	26.7
INVESTMENT						
INVESTMENT DIFF	323.8	-16.8	-207.0	-161.3	-275.3	-3129.1
WITH THE PROJECT INV.	543.9	199.6	193.2	61.4	126.9	-4440.8
RAILWAY	539.7	195.2	179.7	56.5	120.0	-4413.9
ROAD	4.2	4.4	13.4	4.9	6.9	-26.8
WITHOUT THE PROJECT INV.	220.1	216.4	400.1	222.7	402.1	-1311.7
ROAD	161.2	168.8	373.6	195.3	373.6	-1145.8
AIR FLIGHT	54.5	37.5	21.9	22.8	23.7	-93.5
SEA	4.4	10.2	4.6	4.7	4.8	-72.4
CF FOR EIRR	2506.0	2998.3	3357.5	3485.8	3793.6	4848.5
EIRR	14.08	14.08	14.08	14.08	14.08	14.08

** ECONOMIC ANALYSIS FOR MALAYSIA RAILWAY PROJECT **

(MIL. M\$)

CASE II

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
BENEFIT													
TOTAL BENEFIT						162.1	172.0	181.0	192.1	203.9	399.7	425.1	450.3
TIME SAVING						27.2	28.5	29.9	31.5	33.3	88.8	94.1	99.9
PASS. FOR WORKS						25.0	26.2	27.5	29.0	30.6	82.6	87.5	92.8
PASS. FOR LEISURE						2.1	2.2	2.3	2.4	2.6	6.9	7.3	7.7
GOODS						0.1	0.1	0.1	0.1	0.1	-0.7	-0.7	-0.7
COST SAVING													
WITH THE PROJECT COST						134.8	143.5	151.1	160.6	170.6	310.8	330.9	350.4
RAILWAY						94.7	97.1	101.2	103.9	106.7	217.9	221.5	226.8
ROAD						84.9	86.9	90.5	92.7	95.1	197.7	200.7	205.3
WITHOUT THE PROJECT COST						9.8	10.2	10.7	11.1	11.6	20.2	20.8	21.5
RAILWAY						229.5	240.6	252.2	264.5	277.3	528.8	552.4	577.3
ROAD						15.3	16.0	16.7	17.4	18.1	77.3	80.6	84.1
AIR FLIGHT						91.4	95.3	99.3	103.6	108.1	224.5	232.7	241.4
COASTAL SHIP						115.6	121.9	128.6	135.6	143.0	217.3	229.2	241.7
						7.2	7.4	7.6	7.9	8.2	9.6	9.9	10.2
INVESTMENT													
INVESTMENT DIFF	276.1	513.3	665.2	724.3	316.1	-1376.1	309.3	351.5	333.7	484.0	-222.1	7.5	-4.0
WITH THE PROJECT INV.	276.1	513.3	665.2	724.3	316.1	-1116.7	320.6	363.4	346.1	497.0	30.7	29.8	19.4
RAILWAY	276.1	513.3	665.2	724.3	316.1	-1132.3	319.9	362.6	345.3	496.2	17.7	28.8	18.3
ROAD						15.6	0.7	0.7	0.7	0.8	13.0	1.0	1.1
WITHOUT THE PROJECT INV.						259.4	11.3	11.8	12.4	13.0	252.9	22.4	23.4
ROAD						196.2	8.5	9.0	9.4	9.9	226.7	18.1	18.9
AIR FLIGHT						30.0	1.6	1.7	1.8	1.9	19.3	3.1	3.2
SEA						33.1	1.1	1.1	1.2	1.2	6.9	1.2	1.2
CF FOR EIRR													
EIRR	-276.1	-513.3	-665.2	-724.3	-316.2	1538.1	-137.3	-170.5	-141.6	-280.0	421.8	417.6	454.3
	13.45	13.45	13.45	13.45	13.45	13.45	13.45	13.45	13.45	13.45	13.45	13.45	13.45

** ECONOMIC ANALYSIS FOR MALAYSIA RAILWAY PROJECT **

(MIL. M\$)

CASE II

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
BENEFIT													
TOTAL BENEFIT	478.7	508.6	537.6	569.6	602.7	636.5	692.8	701.4	710.2	720.9	732.8	746.0	760.9
TIME SAVING	106.1	112.7	120.1	129.1	138.8	149.3	162.3	169.1	176.7	185.2	194.7	205.4	217.3
PASS. FOR WORKS	98.6	104.7	111.5	119.9	128.8	138.5	150.5	156.8	163.8	171.7	180.5	190.3	201.4
PASS. FOR LEISURE	8.2	8.7	9.3	10.0	10.7	11.5	12.5	13.1	13.7	14.3	15.0	15.9	16.8
GOODS	-0.7	-0.7	-0.7	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8
COST SAVING	372.6	395.8	417.5	440.6	463.9	487.2	530.5	532.3	533.5	535.7	538.1	540.6	543.6
WITH THE PROJECT COST													
RAILWAY	230.7	234.9	241.1	244.9	249.6	255.5	258.2	258.5	259.7	260.1	260.5	261.1	261.7
ROAD	206.5	212.0	217.5	220.6	224.5	229.7	231.6	231.9	233.0	233.5	233.9	234.5	235.0
WITHOUT THE PROJECT COST	22.2	22.9	23.6	24.3	25.1	25.8	26.6	26.6	26.6	26.6	26.6	26.6	26.6
RAILWAY	603.3	630.7	658.7	685.5	713.5	742.7	788.8	790.9	793.2	795.8	798.6	801.8	805.2
ROAD	87.7	91.4	95.3	99.4	103.7	108.1	112.8	112.8	112.8	112.8	112.8	112.8	112.8
AIR FLIGHT	250.4	259.8	269.7	279.8	290.4	301.4	313.7	315.8	318.1	320.7	323.6	326.7	330.2
COASTAL SHIP	254.8	268.7	282.6	295.0	307.9	321.3	350.1	350.1	350.1	350.1	350.1	350.1	350.1
	10.4	10.7	11.0	11.3	11.6	11.9	12.2	12.2	12.2	12.2	12.2	12.2	12.2
INVESTMENT													
INVESTMENT DIFF	-13.7	24.9	-3.8	-7.1	-162.6	-15.6	-45.3	29.9	-16.2	-221.4	-17.5	-27.0	203.4
WITH THE PROJECT INV.	10.8	50.5	52.8	21.2	63.1	23.8	2.0	62.3	0.8	13.0	9.0	1.1	263.0
RAILWAY	9.7	49.4	51.6	20.1	46.3	21.9	2.0	61.5	0.7	13.0	7.9	1.1	261.8
ROAD	1.1	1.1	1.2	1.1	16.8	1.9	2.0	0.7	0.8	13.0	1.0	1.1	1.1
WITHOUT THE PROJECT INV.	24.5	25.6	56.7	28.3	225.0	39.5	47.3	32.4	17.0	234.4	26.5	28.0	59.5
ROAD	19.8	20.7	21.7	22.1	219.3	32.7	36.5	13.0	13.9	231.2	23.1	24.4	25.9
AIR FLIGHT	3.4	3.6	33.6	4.8	5.1	5.3	9.4	19.3	3.1	3.2	3.4	3.6	33.6
SEA	1.2	1.3	1.3	1.3	1.4	1.4	1.4						
CF FOR EIRR													
EIRR	492.4	483.7	541.4	576.7	765.4	652.1	738.1	671.4	726.4	942.3	750.3	773.0	557.5
	13.45	13.45	13.45	13.45	13.45	13.45	13.45	13.45	13.45	13.45	13.45	13.45	13.45

** ECONOMIC ANALYSIS FOR MALAYSIA RAILWAY PROJECT **

(MIL. M\$)

CASE II

2012 2013 2014 2015 2016 2017 2018

BENEFIT

TOTAL BENEFIT	777.5	795.4	816.1	839.2	865.1	893.2	925.5
TIME SAVING	230.7	245.7	262.5	281.2	302.2	325.7	351.9
PASS. FOR WORKS	213.7	227.6	243.0	260.4	279.7	301.4	325.6
PASS. FOR LEISURE	17.8	19.0	20.3	21.7	23.3	25.1	27.1
GOODS	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8
COST SAVING	546.8	549.7	553.7	558.0	562.9	567.5	573.5
WITH THE PROJECT COST	262.3	263.7	264.4	265.4	266.3	268.0	269.2
RAILWAY	235.7	237.1	237.8	238.8	239.7	241.4	242.6
ROAD	26.6	26.6	26.6	26.6	26.6	26.6	26.6
WITHOUT THE PROJECT COST	809.1	813.4	818.1	823.4	829.2	835.6	842.7
RAILWAY	112.8	112.8	112.8	112.8	112.8	112.8	112.8
ROAD	334.1	338.3	343.1	348.3	354.1	360.6	367.7
AIR FLIGHT	350.1	350.1	350.1	350.1	350.1	350.1	350.1
COASTAL SHIP	12.2	12.2	12.2	12.2	12.2	12.2	12.2

INVESTMENT

INVESTMENT DIFF	-20.3	118.3	-26.6	-221.0	387.8	-48.7	-1862.1
WITH THE PROJECT INV.	11.9	152.6	9.1	16.8	449.9	2.0	-2209.4
RAILWAY	10.8	151.4	7.9	16.8	448.1	2.0	-2191.6
ROAD	1.1	1.2	1.1	1.9	1.9	2.0	-17.8
WITHOUT THE PROJECT INV.	32.3	34.2	35.6	237.8	62.1	50.7	-347.3
ROAD	27.4	29.2	30.3	228.4	42.8	47.7	-303.6
AIR FLIGHT	4.8	5.1	5.3	9.4	19.3	3.1	-34.5
SEA							-9.3
CF FOR EIRR	797.9	677.0	842.7	1060.3	477.3	942.0	2787.6
EIRR	13.45	13.45	13.45	13.45	13.45	13.45	13.45

** ECONOMIC ANALYSIS FOR MALAYSIA RAILWAY PROJECT **

(MIL. M\$)

CASE III	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
BENEFIT													
TOTAL BENEFIT					162.8	172.7	181.8	192.9	204.7	215.8	229.0	243.5	
TIME SAVING					27.2	28.5	29.9	31.5	33.3	35.4	37.8	40.5	
PASS. FOR WORKS					25.0	26.2	27.5	29.0	30.6	32.5	34.8	37.3	
PASS. FOR LEISURE					2.1	2.2	2.3	2.4	2.6	2.7	2.9	3.1	
GOODS					0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
COST SAVING					135.6	144.2	151.8	161.4	171.4	180.5	191.2	203.0	
WITH THE PROJECT COST					93.9	96.4	100.4	103.1	105.9	110.6	114.1	117.3	
RAILWAY					84.1	86.1	89.7	92.0	94.3	98.4	101.5	104.1	
ROAD					9.8	10.2	10.7	11.1	11.6	12.1	12.7	13.2	
WITHOUT THE PROJECT COST					229.5	240.6	252.2	264.5	277.3	291.0	305.3	320.3	
RAILWAY					15.3	16.0	16.7	17.4	18.1	18.9	19.7	20.6	
ROAD					91.4	95.3	99.3	103.6	108.1	112.7	117.7	122.9	
AIR FLIGHT					115.6	121.9	128.6	135.6	143.0	150.9	159.2	167.8	
COASTAL SHIP					7.2	7.4	7.6	7.9	8.2	8.4	8.7	9.0	
INVESTMENT													
INVESTMENT DIFF	276.1	513.3	665.2	724.3	316.1	-1478.7	26.2	-10.5	-11.3	5.1	26.6	-13.5	-14.1
WITH THE PROJECT INV.	276.1	513.3	665.2	724.3	316.1	-1219.4	37.5	1.3	1.1	18.1	40.3	0.8	0.9
RAILWAY	276.1	513.3	665.2	724.3	316.1	-1235.0	36.8	0.6	0.4	17.3	39.4	0.8	0.9
ROAD						15.6	0.7	0.7	0.7	0.8	0.8	0.8	0.9
WITHOUT THE PROJECT INV.					259.4	11.3	11.8	12.4	13.0	13.7	14.3	15.0	
ROAD					196.2	8.5	9.0	9.4	9.9	10.3	10.9	11.4	
AIR FLIGHT					30.0	1.6	1.7	1.8	1.9	2.1	2.1	2.3	
SEA					33.1	1.1	1.1	1.2	1.2	1.3	1.3	1.3	
CF FOR EIRR	-276.1	-513.3	-665.2	-724.3	-316.2	1641.5	146.5	192.3	204.2	199.6	189.2	242.5	257.7
EIRR	13.34	13.34	13.34	13.34	13.34	13.34	13.34	13.34	13.34	13.34	13.34	13.34	13.34

** ECONOMIC ANALYSIS FOR MALAYSIA RAILWAY PROJECT **

(MIL. M\$)

CASE III

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
BENEFIT													
TOTAL BENEFIT	259.0	275.3	292.5	310.7	328.7	348.7	379.5	400.9	421.2	445.5	471.6	499.3	527.4
TIME SAVING	43.6	47.0	50.8	55.8	61.3	67.5	74.3	81.9	90.5	99.9	110.3	121.8	134.5
PASS. FOR WORKS	40.1	43.3	46.7	51.3	56.4	62.1	68.4	75.5	83.3	92.0	101.6	112.2	124.0
PASS. FOR LEISURE	3.3	3.6	3.9	4.3	4.7	5.2	5.7	6.3	6.9	7.7	8.5	9.4	10.3
GOODS	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
COST SAVING	215.4	228.3	241.8	254.9	267.4	281.3	305.2	318.9	330.7	345.7	361.3	377.5	392.9
WITH THE PROJECT COST													
RAILWAY	120.7	124.4	128.6	132.7	137.1	141.5	145.5	149.0	155.1	158.9	162.8	167.1	173.0
ROAD	106.9	110.1	113.7	116.6	120.9	124.7	128.0	130.9	136.4	139.6	142.9	146.5	151.7
WITHOUT-THE PROJECT COST	13.8	14.4	15.0	15.6	16.2	16.8	17.5	18.1	18.7	19.3	19.9	20.6	21.3
WITHOUT-THE PROJECT COST													
RAILWAY	336.1	352.7	370.4	387.0	404.5	422.8	450.7	467.9	485.8	504.6	524.1	544.5	565.9
ROAD	21.4	22.4	23.3	24.3	25.4	26.6	27.6	28.6	29.6	30.6	31.7	32.9	34.0
AIR FLIGHT	128.3	134.1	140.2	146.5	153.2	160.2	167.7	174.8	182.3	190.1	198.4	207.2	216.5
COASTAL SHIP	177.0	186.6	197.0	205.9	215.3	225.0	244.1	252.9	262.0	271.4	281.2	291.3	301.8
	9.3	9.6	9.9	10.3	10.6	10.9	11.3	11.7	12.0	12.4	12.8	13.2	13.6
INVESTMENT													
INVESTMENT DIFF	-4.0	7.1	-26.0	-4.9	-168.0	-25.0	-30.9	41.8	-27.8	-31.3	-13.2	-17.2	162.1
WITH THE PROJECT INV.	11.8	23.7	21.5	14.5	48.5	4.9	3.0	72.2	4.0	1.9	21.8	19.5	230.8
RAILWAY	10.8	22.7	20.5	13.5	31.9	3.2	1.1	70.5	2.2	0.1	19.9	17.6	228.7
ROAD	0.9	1.0	1.0	1.0	16.6	1.7	1.8	1.7	1.8	1.9	1.9	2.0	2.0
WITHOUT THE PROJECT INV.													
ROAD	15.8	16.6	17.5	19.4	216.6	29.9	33.8	30.3	31.7	33.3	35.0	36.7	68.7
AIR FLIGHT	12.0	12.6	13.3	13.9	210.8	24.0	25.3	24.4	25.6	26.8	28.3	29.8	31.4
SEA	2.4	2.5	32.7	4.0	4.2	4.4	6.9	4.4	4.5	4.7	4.9	5.1	35.4
	1.4	1.4	1.5	1.5	1.6	1.6	1.6	1.6	1.7	1.7	1.8	1.8	1.9
CF FOR EIRR	263.0	268.2	318.5	315.6	496.7	373.7	410.3	359.0	449.0	476.8	484.7	516.5	365.3
EIRR	13.34	13.34	13.34	13.34	13.34	13.34	13.34	13.34	13.34	13.34	13.34	13.34	13.34

** ECONOMIC ANALYSIS FOR MALAYSIA RAILWAY PROJECT **

(MIL. M\$)

CASE III

	2012	2013	2014	2015
BENEFIT				
TOTAL BENEFIT	559.4	592.9	629.8	667.7
TIME SAVING	148.6	164.2	181.5	200.6
PASS. FOR WORKS	137.0	151.4	167.3	185.0
PASS. FOR LEISURE	11.4	12.6	13.9	15.4
GOODS	0.2	0.2	0.2	0.2
COST SAVING				
WITH THE PROJECT COST	410.8	428.7	448.3	467.1
RAILWAY	177.5	182.9	187.8	194.6
ROAD	155.5	160.2	164.3	170.3
WITHOUT THE PROJECT COST	22.0	22.7	23.5	24.3
RAILWAY	588.2	611.6	636.1	661.7
ROAD	35.2	36.5	37.8	39.2
AIR FLIGHT	226.4	236.8	247.9	259.6
COASTAL SHIP	312.6	323.9	335.6	347.6
	14.0	14.4	14.9	15.3
INVESTMENT				
INVESTMENT DIFF	3.9	109.7	-20.4	-1330.8
WITH THE PROJECT INV.	45.6	153.6	25.7	-1520.1
RAILWAY	43.5	151.4	23.6	-1512.3
ROAD	2.1	2.2	2.2	-7.8
WITHOUT THE PROJECT INV.	41.8	44.0	46.2	-189.3
ROAD	33.1	34.9	36.7	-125.7
AIR FLIGHT	6.8	7.1	7.4	-36.6
SEA	1.9	2.0	2.1	-27.1
CF FOR EIRR				
EIRR	555.5	483.2	650.2	1998.5
	13.34	13.34	13.34	13.34

附錄 6-3-1 F ...cial Analysis for Malaysia Railway Project

CASE I FIRR : 11.48

MALAYSIA RAILWAY PROJECT
 (UNIT : MS MIL.)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
ASSUMPTIONS											
TRAFFIC DEMAND											
PASSENGERS(1) (MIL. PERSON.KM)	.00	.00	.00	.00	.00	805.00	851.00	900.00	953.00	1008.00	3388.00
PASSENGERS(2) (MIL. PERSON.KM)	.00	.00	.00	.00	.00	308.00	343.00	382.00	424.00	471.00	588.00
GOODS (MIL. TON.KM)	.00	.00	.00	.00	.00	623.00	843.00	884.00	886.00	709.00	1804.00
RAIL FARE & TARIFF											
PASSENGERS(1) (\$ PER PERSON.KM)	.00	.00	.00	.00	.00	.09	.09	.09	.10	.10	.11
PASSENGERS(2) (\$ PER PERSON.KM)	.00	.00	.00	.00	.00	.05	.05	.05	.06	.06	.06
GOODS (\$ PER TON.KM)	.00	.00	.00	.00	.00	.10	.10	.11	.11	.12	.13
ESCALATION RATE (%)											
INVESTMENT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
RAIL FARE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAINT & OPERAT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
PROFIT & LOSS STATEMENT											
REVENUE	.00	.00	.00	.00	.00	144.31	159.40	178.30	195.16	216.08	628.91
PASSENGERS(1)	.00	.00	.00	.00	.00	68.43	75.95	84.34	93.77	104.14	385.37
PASSENGERS(2)	.00	.00	.00	.00	.00	14.83	17.29	20.22	23.58	27.48	35.90
GOODS	.00	.00	.00	.00	.00	61.05	66.16	71.74	77.82	84.46	225.64
EXPENSE	.00	.00	.00	.00	.00	75.28	78.04	82.25	86.13	90.28	214.03
MAINT. & REPLACE COST	.00	.00	.00	.00	.00	53.04	54.86	56.83	59.09	61.31	140.07
PERSONNEL COST	.00	.00	.00	.00	.00	11.97	12.38	12.83	13.32	13.86	28.11
ENERGY COST	.00	.00	.00	.00	.00	10.27	11.30	12.44	13.71	15.12	45.85
INTEREST PAYMENT	.00	.00	.00	.00	.00	189.75	197.72	224.53	255.42	288.54	342.54
DEPRECIATION	.00	.00	.00	.00	.00	68.84	68.84	68.84	68.84	68.84	154.59
CIVIL & TRACK						24.77	24.77	24.77	24.77	24.77	34.75
ELECTRIFICATION						3.70	3.70	3.70	3.70	3.70	9.08
SIGNALS						2.12	2.12	2.12	2.12	2.12	4.83
TELECOM						2.93	2.93	2.93	2.93	2.93	8.70
ROLLING STOCK	.00	.00	.00	.00	.00	23.53	23.53	23.53	23.53	23.53	72.45
WORKSHOPS						9.66	9.66	9.66	9.66	9.66	15.51
CONTAINER HAND. FACIL						1.83	1.83	1.83	1.83	1.83	10.96
MISCELLANEOUS						.30	.30	.30	.30	.30	.30
NET INCOME	.00	.00	.00	.00	.00	-189.56	-185.80	-198.32	-215.23	-229.59	-84.26

CAPITAL EXPENDITURE											
=====											
CAPITAL COST											
	333.56	650.30	889.12	1054.21	549.59	159.42	536.10	617.88	622.39	1120.07	36.12
CUMULATIVE	333.56	983.86	1872.98	2927.19	3476.78	3636.20	4172.31	4790.20	5412.59	6532.66	6568.78
DETAILED CAPITAL COST											
CIVIL & TRACK											
CUMULATIVE	228.22	473.47	742.67	641.97	123.29	91.46	296.97	473.16	343.70	75.25	.00
	228.22	701.69	1444.36	2086.33	2209.62	2301.08	2588.05	3071.20	3414.90	3490.16	3490.16
ELECTRIFICATION											
CUMULATIVE	.00	38.32	60.17	84.96	11.12	.00	55.40	87.34	137.80	18.25	.00
	.00	38.32	98.48	193.44	204.56	204.56	259.97	347.31	485.11	501.36	501.36
SIGNALS											
CUMULATIVE	.00	9.61	15.07	23.74	2.75	.00	12.26	19.39	30.46	3.52	.00
	.00	9.61	24.68	48.42	51.17	51.17	63.43	82.82	113.28	116.80	116.80
TELECOM											
CUMULATIVE	.00	18.29	28.81	45.31	5.24	.00	23.49	37.08	58.31	6.69	.00
	.00	18.29	47.10	92.41	97.65	97.65	121.14	158.21	216.53	223.22	223.22
ROLLING STOCK											
CUMULATIVE	.00	.00	.00	133.08	328.84	.00	76.61	.93	.00	892.70	24.42
	.00	.00	.00	133.08	461.93	461.93	538.54	539.47	539.47	1432.17	1456.59
WORKSHOPS											
CUMULATIVE	.00	.00	42.40	109.82	69.98	.00	.00	.00	52.11	82.57	.00
	.00	.00	42.40	152.22	222.18	222.18	222.18	222.18	274.29	356.87	356.87
CONTAINER HAND. FACIL											
CUMULATIVE	.00	.00	.00	5.33	3.83	.00	.00	.00	.00	43.08	11.70
	.00	.00	.00	5.33	9.17	9.17	9.17	9.17	9.17	52.25	63.95
MISCELLANEOUS											
CUMULATIVE	.00	.00	.00	.00	4.56	.00	.00	.00	.00	.00	.00
	.00	.00	.00	.00	4.56	4.56	4.56	4.56	4.56	4.56	4.56
LAND ACQUISITION											
CUMULATIVE	105.34	110.61	.00	.00	.00	67.96	71.36	.00	.00	.00	.00
	105.34	215.95	215.95	215.95	215.95	283.92	355.28	355.28	355.28	355.28	355.28
INT DURING CONSTRUCTION											
CUMULATIVE	.00	10.68	50.03	90.08	154.54	.00	.00	.00	.00	.00	.00
	.00	10.68	68.70	163.69	318.23	318.23	318.23	318.23	318.23	318.23	318.23
TOTAL CAPITAL COST											
CUMULATIVE	333.56	666.67	939.15	1151.19	704.14	159.42	536.10	617.89	622.39	1120.07	36.12
	333.56	1000.54	1939.68	3080.88	3795.01	3954.44	4490.54	5108.43	5730.82	6850.89	6887.02
-SALVAGE VALUE											
	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CASE I
FIRR

MALAYSIA RAILWAY PROJECT
===== (UNIT : \$ MIL.) =====

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ASSUMPTIONS											
TRAFFIC DEMAND											
PASSENGERS (1) (MIL. PERSON. KM)	3527.00	3692.00	3888.00	4047.00	4237.00	4399.00	4586.00	4740.00	8116.00	8116.00	8116.00
PASSENGERS (2) (MIL. PERSON. KM)	652.00	725.00	806.00	898.00	997.00	1104.00	1221.00	1352.00	1497.00	1856.00	1833.00
GOODS (MIL. TON. KM)	1851.00	1900.00	1950.00	2001.00	2053.00	2108.00	2183.00	2220.00	3860.00	3860.00	3860.00
RAIL FARE & TARIFF											
PASSENGERS (1) (\$ PER PERSON. KM)	.11	.12	.13	.13	.14	.15	.15	.16	.17	.18	.18
PASSENGERS (2) (\$ PER PERSON. KM)	.06	.07	.07	.07	.08	.08	.09	.09	.10	.10	.10
GOODS (\$ PER TON. KM)	.13	.14	.14	.15	.16	.17	.18	.18	.18	.20	.21
ESCALATION RATE (%)											
INVESTMENT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
RAIL FARE	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
MAINT. & OPERAT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
PROFIT & LOSS STATEMENT											
REVENUE	886.78	752.55	825.01	904.58	992.31	1083.48	1182.92	1292.34	2257.11	2385.84	2523.87
PASSENGERS (1)	401.75	441.58	485.51	533.85	586.84	639.52	698.98	759.73	1365.88	1434.17	1505.88
PASSENGERS (2)	41.94	48.97	57.10	66.72	77.95	90.63	105.25	122.37	142.27	165.25	192.08
GOODS	243.09	262.00	282.34	304.21	327.72	353.33	380.67	410.24	748.97	786.42	825.74
EXPENSE	231.17	243.43	256.93	270.87	286.17	301.77	318.43	336.31	572.97	598.64	625.72
MAINT. & REPLACE COST	151.72	157.99	164.93	171.70	179.14	186.60	194.44	202.67	340.72	355.18	370.32
PERSONNEL COST	28.32	30.63	32.06	33.62	35.32	37.12	39.06	41.19	67.71	70.28	73.02
ENERGY COST	50.13	54.81	59.94	65.55	71.71	78.05	84.93	92.45	164.54	173.21	182.38
INTEREST PAYMENT	304.59	266.84	228.69	190.74	178.02	168.20	242.67	288.35	341.10	310.54	351.72
DEPRECIATION	161.38	163.06	164.15	164.15	173.39	173.39	173.39	173.39	350.56	357.15	359.04
CIVIL & TRACK	34.75	34.75	34.75	34.75	38.32	38.32	38.32	38.32	81.82	81.82	81.82
ELECTRIFICATION	9.08	9.08	9.08	9.08	9.08	9.08	9.08	9.08	20.35	20.35	20.35
SIGNALS	4.83	4.83	4.83	4.83	4.83	4.83	4.83	4.83	10.76	10.76	10.76
TELECOM	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	16.21	16.21	16.21
ROLLING STOCK	79.22	80.92	82.01	82.01	84.66	84.66	84.66	84.66	200.60	203.00	204.88
WORKSHOPS	15.51	15.51	15.51	15.51	15.51	15.51	15.51	15.51	19.42	19.42	19.42
CONTAINER HAND. FACIL	10.96	10.96	10.96	10.96	13.98	13.98	13.98	13.98	21.11	24.97	24.97
MISCELLANEOUS	.30	.30	.30	.30	.30	.30	.30	.30	.30	.63	.63
NET INCOME	-10.34	79.41	175.23	278.82	354.74	410.12	448.42	494.29	992.49	1119.50	1187.19

CAPITAL EXPENDITURE	75.50	45.04	27.35	504.42	1148.41	1500.85	1524.78	1666.05	.00	878.11	1880.23
=====											
CAPITAL COST	6044.28	6689.32	6716.60	7221.09	8389.49	9870.14	11394.92	13060.96	13060.96	14039.07	15919.30
CUMULATIVE											
DETAILED CAPITAL COST											
CIVIL & TRACK											
CUMULATIVE	3490.16	3490.16	3490.16	3732.45	4407.68	5481.28	6321.99	6500.82	6500.82	7305.27	8923.96
ELECTRIFICATION											
CUMULATIVE	501.36	501.36	501.36	501.36	617.79	801.42	1080.25	1123.68	1123.68	1123.68	1282.82
SIGNALS											
CUMULATIVE	116.80	116.80	116.80	116.80	143.39	185.27	251.47	259.11	259.11	259.11	274.29
TELECOM											
CUMULATIVE	223.22	223.22	223.22	223.22	282.35	375.49	522.55	539.72	539.72	539.72	568.29
ROLLING STOCK											
CUMULATIVE	75.50	45.04	27.35	140.85	73.55	108.42	120.08	1365.48	.00	74.95	48.87
WORKSHOPS											
CUMULATIVE	1532.09	1577.13	1604.47	1745.12	1818.67	1927.09	2047.17	3412.65	3412.65	3487.80	3536.47
CONTAINER HAND. FACIL											
CUMULATIVE	356.87	356.87	356.87	356.87	356.87	356.87	418.74	446.83	446.83	446.83	446.83
MISCELLANEOUS											
CUMULATIVE	63.95	63.95	63.95	63.95	63.95	63.95	133.87	169.48	169.48	258.72	258.72
LAND ACQUISITION											
CUMULATIVE	4.56	4.56	4.56	4.56	4.56	4.56	4.56	4.56	4.56	14.03	14.03
INT DURING CONSTRUCTION											
CUMULATIVE	355.28	355.28	355.28	355.28	355.28	355.28	604.31	604.31	604.31	604.31	604.31
TOTAL CAPITAL COST	318.23	318.23	318.23	318.23	318.23	318.23	318.23	318.23	318.23	318.23	318.23
CUMULATIVE	75.50	45.04	27.35	504.42	1148.41	1500.85	1524.78	1666.05	.00	878.11	1880.23
-SALVAGE VALUE	0902.51	7007.55	7034.00	7539.32	8087.73	10188.37	11713.15	13379.19	13379.19	14357.30	16237.53
	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

MALAYSIA RAILWAY PROJECT
 =====
 (UNIT : MS MIL.)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
ASSUMPTIONS											
=====											
TRAFFIC DEMAND											

PASSENGERS(1) (MIL. PERSON.KH)	8116.00	8116.00	11211.00	11615.00	12033.00	12466.00	12915.00	13380.00	13861.00	14360.00	14877.00
PASSENGERS(2) (MIL. PERSON.KH)	2029.00	2248.00	2486.00	2752.00	3046.00	3371.00	3731.00	4130.00	4571.00	5060.00	5600.00
GOODS (MIL. TON.KH)	3860.00	3860.00	5133.00	5282.00	5458.00	5625.00	5789.00	5979.00	6184.00	6355.00	6553.00
RAIL FARE & TARIFF											

PASSENGERS(1) (\$ PER PERSON.KH)	.19	.20	.21	.23	.24	.25	.26	.27	.29	.30	.32
PASSENGERS(2) (\$ PER PERSON.KH)	.11	.12	.12	.13	.13	.14	.15	.15	.16	.17	.18
GOODS (\$ PER TON.KH)	.22	.24	.25	.26	.27	.29	.30	.32	.33	.35	.37
ESCALATION RATE (*)											

INVESTMENT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
RAIL FARE	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
MAINT & OPERAT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
PROFIT & LOSS STATEMENT											
=====											
REVENUE	2671.42	2830.06	3980.70	4346.07	4746.99	5185.52	5667.47	6196.97	6776.35	7418.09	8122.28
PASSENGERS(1)	1581.17	1660.23	2408.02	2619.53	2849.50	3098.64	3371.84	3667.91	3989.75	4340.05	4721.12
PASSENGERS(2)	223.22	259.45	301.54	350.49	407.33	473.33	550.07	639.34	742.99	863.80	1003.55
GOODS	867.02	910.38	1271.14	1376.04	1490.17	1612.55	1745.55	1889.72	2045.60	2214.44	2397.80
EXPENSE	654.30	984.46	904.90	1039.21	1111.71	1202.28	1287.38	1392.43	1492.40	1618.49	1739.39
MAINT. & REPLACE COST	386.24	402.96	577.48	619.61	656.96	709.31	752.61	812.02	862.16	933.77	995.05
PERSONNEL COST	75.95	79.09	98.53	106.29	113.68	121.73	130.55	140.22	150.80	162.41	175.16
ENERGY COST	192.11	202.41	287.89	313.32	341.07	371.25	404.21	440.20	479.44	522.31	569.15
INTEREST PAYMENT	443.29	552.67	702.10	639.99	577.89	515.78	453.67	391.56	313.25	234.94	156.63
DEPRECIATION	359.04	359.04	572.09	822.03	642.72	673.31	702.86	746.85	894.01	894.01	937.07
CIVIL & TRACK	61.82	61.82	103.49	103.49	103.49	103.49	103.49	103.49	103.49	103.49	103.49
ELECTRIFICATION	20.35	20.35	36.51	36.51	36.51	36.51	36.51	36.51	36.51	36.51	36.51
SIGNALS	10.78	10.78	14.14	17.63	17.63	17.63	17.63	17.63	17.63	17.63	17.63
TELECON	16.21	16.21	20.73	25.58	25.58	25.58	25.58	25.58	25.58	25.58	25.58
ROLLING STOCK	204.88	204.88	321.40	358.08	378.75	390.74	420.29	454.25	547.08	584.40	616.20
WORKSHOPS	19.42	19.42	21.07	21.07	21.07	21.07	21.07	21.07	21.07	21.07	21.07
CONTAINER HAND. FACIL	24.97	24.97	54.13	59.06	59.06	59.06	59.06	59.06	59.06	59.06	59.06
MISCELLANEOUS	.63	.63	.63	.63	.63	.63	.63	.63	.63	.63	.63
NET INCOME	1214.79	1233.89	1741.60	2044.83	2414.68	2794.15	3223.56	3866.13	4116.02	4670.65	5289.22
=====											

DESCRIPTION	2015.76	2015.76	2015.76	2015.76	2015.76	2015.76	2015.76	2015.76	2015.76	2015.76	2015.76	2015.76	2015.76	2015.76
CAPITAL EXPENDITURE														
=====														
CAPITAL COST	2187.71	2988.54	165.42	1408.79	327.63	886.56	530.20	1040.95	3102.57	906.82	860.73			
CUMULATIVE	18107.01	21095.55	21260.97	22670.75	23098.39	23864.94	24395.15	25436.10	28538.67	29445.49	30306.22			
DETAILED CAPITAL COST														
#SBU LIMIT#														
CONTINUATION REQUIRED, ENTER S.														
S														
CIVIL & TRACK	1454.52	673.88	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CUMULATIVE	10378.48	11052.37	11052.37	11052.37	11052.37	11052.37	11052.37	11052.37	11052.37	11052.37	11052.37	11052.37	11052.37	11052.37
ELECTRIFICATION	443.77	279.37	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CUMULATIVE	1736.39	2015.76	2015.76	2015.76	2015.76	2015.76	2015.76	2015.76	2015.76	2015.76	2015.76	2015.76	2015.76	2015.76
SIGNALS	40.64	25.60	.00	112.30	.00	.00	.00	.00	.00	144.17	.00	.00	.00	.00
CUMULATIVE	314.92	340.53	340.53	452.82	452.82	452.82	452.82	452.82	452.82	596.99	596.99	596.99	596.99	596.99
TELECON	74.82	47.41	.00	155.53	.00	.00	.00	.00	.00	200.17	.00	.00	.00	.00
CUMULATIVE	643.11	690.52	690.52	846.05	846.05	846.05	846.05	846.05	846.05	1046.22	1046.22	1046.22	1046.22	1046.22
ROLLING STOCK	148.03	1814.46	119.97	1028.06	327.63	244.79	530.20	809.42	2612.88	906.82	484.32			
CUMULATIVE	3084.50	5498.95	5618.93	6646.99	6974.62	7219.42	7749.62	8558.04	11171.92	12078.74	12563.06			
WORKSHOPS	25.93	11.85	.00	.00	.00	621.76	.00	.00	.00	.00	.00	.00	.00	.00
CUMULATIVE	472.56	484.41	484.41	484.41	484.41	1106.17	1106.17	1106.17	1106.17	1106.17	1106.17	1106.17	1106.17	1482.58
CONTAINER HAND. FACIL	.00	135.96	45.44	113.89	.00	.00	.00	231.53	145.38	.00	.00	.00	.00	.00
CUMULATIVE	258.72	394.88	440.12	554.01	554.01	554.01	554.01	785.54	930.90	930.90	930.90	930.90	930.90	930.90
MISCELLANEOUS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CUMULATIVE	14.03	14.03	14.03	14.03	14.03	14.03	14.03	14.03	14.03	14.03	14.03	14.03	14.03	14.03
LAND ACQUISITION	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CUMULATIVE	604.31	604.31	604.31	604.31	604.31	604.31	604.31	604.31	604.31	604.31	604.31	604.31	604.31	604.31
INT DURING CONSTRUCTION	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CUMULATIVE	318.23	318.23	318.23	318.23	318.23	318.23	318.23	318.23	318.23	318.23	318.23	318.23	318.23	318.23
TOTAL CAPITAL COST	2187.71	2988.54	165.42	1408.79	327.63	886.56	530.20	1040.95	3102.57	906.82	860.73			
CUMULATIVE	18425.25	21413.78	21578.20	22988.99	23316.62	24183.18	24713.38	25754.33	28856.90	29763.72	30624.46			
-SALVAGE VALUE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

MALAYSIA RAILWAY PROJECT
 (UNIT : MS MIL.)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
ASSUMPTIONS												
=====												
TRAFFIC DEMAND												

PASSENGERS(1) (MIL.PERSON.KH)	15413.00	15868.00	16561.00	17158.00	17775.00	18415.00	18078.00	19765.00	20477.00	21214.00	21977.00	
PASSENGERS(2) (MIL.PERSON.KH)	6199.00	6861.00	7594.00	8405.00	9302.00	10296.00	11395.00	12612.00	13959.00	15449.00	17099.00	
GOODS (MIL.TON.KH)	6758.00	6965.00	7181.00	7404.00	7833.00	7870.00	8114.00	8365.00	8624.00	8892.00	9187.00	
RAIL FARE & TARIFF												

PASSENGERS(1) (\$ PER PERSON.KH)	.33	.35	.37	.39	.41	.43	.45	.47	.49	.52	.54	
PASSENGERS(2) (\$ PER PERSON.KH)	.19	.20	.21	.22	.23	.24	.25	.26	.28	.29	.31	
GOODS (\$ PER TON.KH)	.38	.40	.42	.44	.47	.49	.51	.54	.57	.60	.63	
ESCALATION RATE (%)												

INVESTMENT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	
RAIL FARE	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	
MAINT & OPERAT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	
PROFIT & LOSS STATEMENT												
=====												
REVENUE	8897.69	9751.86	10700.85	11742.00	12891.10	14162.74	15569.87	17128.17	18856.58	20775.05	22905.75	
PASSENGERS(1)	5135.78	5586.75	6083.93	6618.41	7199.23	7831.37	8518.99	9267.04	10080.92	10965.93	11928.36	
PASSENGERS(2)	1166.44	1355.56	1575.40	1830.83	2127.53	2472.62	2873.37	3339.28	3880.70	4509.68	5240.89	
GOODS	2595.47	2809.55	3041.52	3292.77	3564.34	3858.76	4177.32	4521.38	4894.96	5299.44	5736.50	
EXPENSE	1884.70	2008.03	2203.90	2348.55	2575.63	2747.23	3013.41	3219.45	3533.28	3777.51	4142.68	
MAINT & REPLACE COST	1075.22	1127.27	1244.48	1393.53	1436.89	1505.03	1658.98	1741.11	1918.79	2013.30	2213.82	
PERSONNEL COST	180.10	204.53	221.52	240.17	260.70	283.37	308.39	336.05	360.60	400.57	438.16	
ENERGY COST	620.32	676.22	737.89	804.84	878.03	958.23	1046.03	1142.29	1247.84	1383.84	1490.70	
INTEREST PAYMENT	78.31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
DEPRECIATION	953.29	1005.81	1124.99	1130.57	1216.31	1224.67	1448.87	1512.44	1599.65	1624.10	1705.34	
CIVIL & TRACK	103.49	103.49	103.49	103.49	103.49	103.49	103.49	103.49	103.49	103.49	103.49	
ELECTRIFICATION	38.51	38.51	48.82	48.82	48.82	48.82	48.82	66.67	66.67	66.67	66.67	
SIGNALS	22.13	22.13	22.13	22.13	22.13	22.13	31.93	31.93	31.93	31.93	31.93	
TELECOM	31.82	31.82	31.82	31.82	31.82	31.82	47.54	47.54	47.54	47.54	47.54	
ROLLING STOCK	632.41	672.14	770.30	775.88	861.62	898.98	1052.33	1087.80	1167.48	1181.94	1273.17	
WORKSHOPS	50.93	50.93	50.93	50.93	50.93	50.93	50.93	50.93	58.44	58.44	58.44	
CONTAINER HAND. FACIL	75.38	88.17	98.20	98.20	96.20	96.20	112.53	122.78	122.78	122.78	122.78	
MISCELLANEOUS	.63	.63	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	1.31	
NET INCOME	5981.40	6738.02	7371.86	8262.89	9099.16	10190.84	11107.39	12396.28	13723.66	15373.43	17057.73	
=====												

CAPITAL EXPENDITURE	324.35	1284.90	3079.37	142.99	1791.25	239.90	5842.92	1812.65	1745.22	616.72	1446.80
===== CAPITAL COST											
CUMULATIVE	30630.57	31915.47	34994.85	35137.84	36929.08	37168.88	43011.90	44824.55	46569.78	47186.49	48633.29
DETAILED CAPITAL COST											
CIVIL & TRACK	11052.37	11052.37	11052.37	11052.37	11052.37	11052.37	11052.37	11052.37	11052.37	11052.37	11052.37
CUMULATIVE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ELECTRIFICATION	2015.76	2015.76	2496.05	2496.05	2496.05	2496.05	2496.05	2496.05	2496.05	2496.05	2496.05
CUMULATIVE	.00	.00	480.28	480.28	480.28	480.28	480.28	480.28	480.28	480.28	480.28
SIGNALS	596.99	596.99	596.99	596.99	596.99	596.99	596.99	596.99	596.99	596.99	596.99
CUMULATIVE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TELECOM	1046.22	1046.22	1046.22	1046.22	1046.22	1046.22	1046.22	1046.22	1046.22	1046.22	1046.22
CUMULATIVE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ROLLING STOCK	324.35	899.40	2393.88	142.99	1791.25	239.90	4648.62	878.88	1493.91	616.72	1446.80
CUMULATIVE	12887.41	13876.82	18270.70	16413.69	18204.93	18444.83	23091.46	23970.33	25464.25	26080.96	27527.76
WORKSHOPS	1482.58	1482.58	1482.58	1482.58	1482.58	1482.58	1482.58	1482.58	1482.58	1482.58	1482.58
CUMULATIVE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CONTAINER HAND. FACIL	930.90	285.46	185.52	.00	.00	.00	377.13	236.77	.00	.00	.00
CUMULATIVE	14.03	14.03	1411.91	1411.91	1411.91	1411.91	1789.04	2025.81	2025.81	2025.81	2025.81
MISCELLANEOUS	14.03	14.03	19.59	.00	.00	.00	.00	.00	.00	.00	.00
CUMULATIVE	.00	.00	33.72	33.72	33.72	33.72	33.72	33.72	33.72	33.72	33.72
LAND ACQUISITION	604.31	604.31	604.31	604.31	604.31	604.31	604.31	604.31	604.31	604.31	604.31
CUMULATIVE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
INT DURING CONSTRUCTION	318.23	318.23	318.23	318.23	318.23	318.23	318.23	318.23	318.23	318.23	318.23
CUMULATIVE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL CAPITAL COST	324.35	1284.90	3079.37	142.99	1791.25	239.90	5842.92	1812.65	1745.22	616.72	1446.80
CUMULATIVE	30946.81	32233.70	35313.06	35450.07	37247.32	37487.21	43330.14	45142.78	46888.01	47504.73	48951.53
-SALVAGE VALUE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

MALAYSIA RAILWAY PROJECT
 (UNIT : M\$ MIL.)

2030

ASSUMPTIONS	
TRAFFIC DEMAND	
PASSENGERS (1) (MIL. PERSON. KM)	22769.00
PASSENGERS (2) (MIL. PERSON. KM)	18925.00
GOODS (MIL. TON. KM)	9452.00
RAIL FARE & TARIFF	
PASSENGERS (1) (\$ PER PERSON. KM)	.57
PASSENGERS (2) (\$ PER PERSON. KM)	.32
GOODS (\$ PER TON. KM)	.68
ESCALATION RATE (%)	
INVESTMENT COST	5.00
RAIL FARE	5.00
MAINT & OPERAT COST	5.00
PROFIT & LOSS STATEMENT	
REVENUE	25277.32
PASSENGERS (1)	12978.14
PASSENGERS (2)	6090.60
GOODS	6210.58
EXPENSE	4430.83
MAINT. & REPLACE COST	2320.49
PERSONNEL COST	479.93
ENERGY COST	1630.40
INTEREST PAYMENT	.00
DEPRECIATION	
CIVIL & TRACK	1931.98
ELECTRIFICATION	103.49
SIGNALS	86.87
TELECOM	37.51
ROLLING STOCK	55.01
WORKSHOPS	1465.90
CONTAINER HAND. FACIL	58.44
MISCELLANEOUS	143.62
	1.31
NET INCOME	18914.54

CAPITAL EXPENDITURE	7021.34

CAPITAL COST	55854.64
CUMULATIVE	
DETAILED CAPITAL COST	
CIVIL & TRACK	.00
CUMULATIVE	11052.37
ELECTRIFICATION	.00
CUMULATIVE	3193.05
SIGNALS	179.01
CUMULATIVE	1090.65
TELECOM	240.06
CUMULATIVE	1790.80
ROLLING STOCK	6120.95
CUMULATIVE	33848.71
WORKSHOPS	.00
CUMULATIVE	1733.99
CONTAINER HAND. FACIL	481.33
CUMULATIVE	2507.14
MISCELLANEOUS	.00
CUMULATIVE	33.72
LAND ACQUISITION	.00
CUMULATIVE	604.31
INT DURING CONSTRUCTION	.00
CUMULATIVE	318.23
TOTAL CAPITAL COST	-20027.10
CUMULATIVE	28924.43
-SALVAGE VALUE	27048.44

MALAYSIA RAILWAY PROJECT
 (UNIT : M\$ MIL.)

CASE II FIRR : 8.52

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1998
ASSUMPTIONS											
=====											
TRAFFIC DEMAND											

PASSENGERS(1) (MIL.PERSON.KM)	.00	.00	.00	.00	.00	305.00	851.00	900.00	953.00	1008.00	3358.00
PASSENGERS(2) (MIL.PERSON.KM)	.00	.00	.00	.00	.00	308.00	343.00	382.00	424.00	471.00	588.00
GOODS (MIL.TON.KM)	.00	.00	.00	.00	.00	623.00	643.00	664.00	686.00	709.00	1804.00
RAIL FARE & TARIFF											

PASSENGERS(1) (\$ PER PERSON.KM)	.00	.00	.00	.00	.00	.08	.08	.08	.10	.10	.11
PASSENGERS(2) (\$ PER PERSON.KM)	.00	.00	.00	.00	.00	.05	.05	.05	.06	.06	.08
GOODS (\$ PER TON.KM)	.00	.00	.00	.00	.00	.10	.10	.11	.11	.12	.13
ESCALATION RATE (%)											

INVESTMENT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
RAIL FARE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAINT. & OPERAT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
PROFIT & LOSS STATEMENT											
=====											
REVENUE	.00	.00	.00	.00	.00	144.31	159.40	170.30	195.18	218.08	628.91
PASSENGERS(1)	.00	.00	.00	.00	.00	68.43	75.95	84.34	93.77	104.14	365.37
PASSENGERS(2)	.00	.00	.00	.00	.00	14.83	17.29	20.22	23.56	27.48	35.90
GOODS	.00	.00	.00	.00	.00	61.05	66.16	71.74	77.82	84.46	225.84
EXPENSE	.00	.00	.00	.00	.00	75.57	78.94	82.56	86.46	90.83	214.88
MAINT. & REPLACE COST	.00	.00	.00	.00	.00	53.33	55.26	57.29	59.42	61.68	141.01
PERSONNEL COST	.00	.00	.00	.00	.00	11.97	12.38	12.83	13.32	13.88	28.11
ENERGY COST	.00	.00	.00	.00	.00	10.27	11.30	12.44	13.71	15.12	45.85
INTEREST PAYMENT	.00	.00	.00	.00	.00	189.68	197.72	224.77	250.14	287.59	344.08
DEPRECIATION	.00	.00	.00	.00	.00	89.04	89.04	89.04	89.04	89.04	154.72
CIVIL & TRACK	.00	.00	.00	.00	.00	24.78	24.78	24.78	24.78	24.78	34.95
ELECTRIFICATION	.00	.00	.00	.00	.00	3.70	3.70	3.70	3.70	3.70	9.08
SIGNALS	.00	.00	.00	.00	.00	2.12	2.12	2.12	2.12	2.12	4.83
TELECON	.00	.00	.00	.00	.00	2.93	2.93	2.93	2.93	2.93	6.70
ROLLING STOCK	.00	.00	.00	.00	.00	23.64	23.64	23.64	23.64	23.64	72.32
WORKSHOPS	.00	.00	.00	.00	.00	9.73	9.73	9.73	9.73	9.73	15.58
CONTAINER HAND. FACIL	.00	.00	.00	.00	.00	1.83	1.83	1.83	1.83	1.83	10.96
MISCELLANEOUS	.00	.00	.00	.00	.00	.30	.30	.30	.30	.30	.30
NET INCOME	.00	.00	.00	.00	.00	-189.97	-186.30	-200.07	-218.49	-231.18	-86.85
=====											

CAPITAL EXPENDITURE	334.60	640.71	887.00	1055.10	551.32	160.83	541.03	627.51	828.91	1129.39	36.12
CAPITAL COST	334.60	981.37	1869.28	2924.38	3475.70	3036.53	4177.56	4805.07	5433.98	6563.36	6599.49
CUMULATIVE											
DETAILED CAPITAL COST											
CIVIL & TRACK	228.32	470.00	741.46	840.69	123.28	92.87	301.40	482.46	350.21	80.39	.00
CUMULATIVE	228.32	699.32	1440.77	2081.47	2204.76	2297.63	2599.03	3081.49	3431.70	3512.09	3512.09
ELECTRIFICATION	.00	38.32	60.17	94.98	11.12	.00	55.40	87.49	137.80	16.25	.00
CUMULATIVE	.00	38.32	98.48	193.44	204.56	204.56	259.97	347.46	485.27	501.52	501.52
SIGNALS	.00	9.61	15.07	23.74	2.76	.00	12.26	19.55	30.46	3.52	.00
CUMULATIVE	.00	9.61	24.68	48.42	51.18	51.18	63.44	82.99	113.45	116.97	116.97
TELECOM	.00	18.17	28.81	45.31	5.28	.00	23.64	37.08	58.31	6.74	.00
CUMULATIVE	.00	18.17	46.98	92.29	97.57	97.57	121.21	158.29	216.60	223.34	223.34
ROLLING STOCK	.00	.00	.00	133.78	330.52	.00	76.96	.93	.00	896.84	24.42
CUMULATIVE	.00	.00	.00	133.78	464.30	464.30	541.25	542.18	542.18	1439.02	1463.44
WORKSHOPS	.00	.00	42.40	111.29	89.98	.00	.00	.00	52.11	82.57	.00
CUMULATIVE	.00	.00	42.40	153.69	223.65	223.65	223.65	223.65	275.77	358.34	358.34
CONTAINER HAND. FACIL	.00	.00	.00	5.33	3.83	.00	.00	.00	.00	43.08	11.70
CUMULATIVE	.00	.00	.00	5.33	9.17	9.17	9.17	9.17	9.17	52.25	63.95
MISCELLANEOUS	.00	.00	.00	.00	4.56	.00	.00	.00	.00	.00	.00
CUMULATIVE	.00	.00	.00	.00	4.56	4.56	4.56	4.56	4.56	4.56	4.56
LAND ACQUISITION	105.34	110.01	.00	.00	.00	87.98	71.36	.00	.00	.00	.00
CUMULATIVE	105.34	215.95	215.95	215.95	215.95	283.92	355.28	355.28	355.28	355.28	355.28
INT. DURING CONSTRUCTION	.00	16.73	48.91	96.80	154.39	.00	.00	.00	.00	.00	.00
CUMULATIVE	.00	16.73	65.64	163.43	317.82	317.82	317.82	317.82	317.82	317.82	317.82
TOTAL CAPITAL COST	334.66	663.44	937.81	1151.60	705.71	160.83	541.03	627.51	628.91	1129.39	36.12
CUMULATIVE	334.66	998.10	1835.91	3087.81	3793.52	3954.36	4495.38	5122.89	5751.80	6881.18	6917.31
- SALVAGE VALUE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

MALAYSIA RAILWAY PROJECT
 (UNIT : MS MIL.)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ASSUMPTIONS											
=====											
TRAFFIC DEMAND											

PASSENGERS(1) (MIL.PERSON.KM)	3527.00	3892.00	3886.00	4047.00	4237.00	4399.00	4566.00	4740.00	4920.00	4920.00	4920.00
PASSENGERS(2) (MIL.PERSON.KM)	652.00	725.00	806.00	898.00	997.00	1104.00	1221.00	1352.00	1497.00	1656.00	1833.00
GOODS (MIL.TON.KM)	1851.00	1900.00	1950.00	2001.00	2054.00	2108.00	2163.00	2220.00	2278.00	2278.00	2278.00
RAIL FARE & TARIFF											

PASSENGERS(1) (\$ PER PERSON.KM)	.11	.12	.13	.13	.14	.15	.15	.15	.17	.18	.18
PASSENGERS(2) (\$ PER PERSON.KM)	.00	.07	.07	.07	.08	.08	.09	.09	.10	.10	.10
GOODS (\$ PER TON.KM)	.13	.14	.14	.15	.16	.17	.18	.18	.19	.20	.21
ESCALATION RATE (%)											

INVESTMENT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
RAIL FARE	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
MAINT. & OPERAT. COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
PROFIT & LOSS STATEMENT											
=====											
REVENUE	686.78	752.55	825.01	904.58	982.47	1083.48	1182.92	1292.34	1412.29	1498.77	1592.25
PASSENGERS(1)	401.75	441.58	485.51	533.65	586.84	639.52	696.99	759.73	828.01	869.41	912.68
PASSENGERS(2)	41.94	48.07	57.10	66.72	77.95	90.63	105.25	122.37	142.27	165.25	192.08
GOODS	243.09	262.90	282.34	304.21	327.88	353.33	380.67	410.24	442.01	464.11	487.31
EXPENSE	230.81	243.04	256.51	278.08	293.41	311.37	336.65	357.65	377.85	398.98	417.55
MAINT. & REPLACE COST	151.36	157.60	164.51	178.91	188.36	198.20	212.66	224.02	233.71	247.57	258.39
PERSONNEL COST	28.32	30.63	32.06	33.62	35.32	37.12	39.08	41.19	43.51	45.30	47.23
ENERGY COST	50.13	54.81	59.94	65.55	71.73	78.05	84.93	92.45	100.63	108.11	111.93
INTEREST PAYMENT	306.12	263.19	230.25	192.32	154.38	123.51	92.63	61.75	30.88	.00	.00
DEPRECIATION	158.52	160.75	161.84	169.55	175.23	178.22	186.63	189.92	190.14	199.08	199.09
CIVIL & TRACK	34.95	34.95	34.95	34.95	34.95	34.95	34.95	34.95	34.95	34.95	34.95
ELECTRIFICATION	9.08	9.08	9.08	9.08	9.08	9.08	9.08	9.08	9.08	9.08	9.08
SIGNALS	4.83	4.83	4.83	4.83	4.83	4.83	4.83	4.83	4.83	4.83	4.83
TELECOM	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70	6.70
ROLLING STOCK	78.12	78.35	79.44	87.15	88.80	92.79	101.20	104.49	104.72	109.47	109.47
WORKSHOPS	15.58	15.58	15.58	15.58	15.58	15.58	15.58	15.58	15.58	15.58	15.58
CONTAINER HAND. FACIL	10.96	10.96	10.96	10.96	13.98	13.98	13.98	13.98	13.98	17.85	17.85
MISCELLANEOUS	.30	.30	.30	.30	.30	.30	.30	.30	.30	.63	.63
NET INCOME	-8.67	80.56	176.40	264.63	359.45	470.39	587.01	683.01	813.42	900.70	975.61
=====											

CAPITAL EXPENDITURE											
=====											
CAPITAL COST											
CUMULATIVE											
	75.94	45.04	27.35	153.10	133.57	59.88	178.83	65.80	5.13	205.39	.00
	8675.42	6720.46	6747.81	8900.91	7034.48	7094.16	7270.99	7336.79	7341.91	7547.31	7547.31
DETAILED CAPITAL COST											
CIVIL & TRACK											
	3512.09	3512.09	3512.09	3512.09	3512.09	3512.09	3512.09	3512.09	3512.09	3512.09	3512.09
	501.52	501.52	501.52	501.52	501.52	501.52	501.52	501.52	501.52	501.52	501.52
ELECTRIFICATION											
	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	501.52	501.52	501.52	501.52	501.52	501.52	501.52	501.52	501.52	501.52	501.52
SIGNALS											
	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	116.97	116.97	116.97	116.97	116.97	116.97	116.97	116.97	116.97	116.97	116.97
TELECOM											
	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	223.34	223.34	223.34	223.34	223.34	223.34	223.34	223.34	223.34	223.34	223.34
ROLLING STOCK											
	75.94	45.04	27.35	153.10	63.65	59.68	178.83	65.80	5.13	106.68	.00
	1539.38	1584.42	1611.77	1784.88	1828.51	1888.20	2065.02	2130.83	2135.95	2242.63	2242.63
WORKSHOPS											
	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	358.34	358.34	358.34	358.34	358.34	358.34	358.34	358.34	358.34	358.34	358.34
CONTAINER HAND. FACIL											
	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	63.95	63.95	63.95	63.95	63.95	63.95	63.95	63.95	63.95	63.95	63.95
MISCELLANEOUS											
	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	4.56	4.56	4.56	4.56	4.56	4.56	4.56	4.56	4.56	4.56	4.56
LAND ADQUISITION											
	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	355.28	355.28	355.28	355.28	355.28	355.28	355.28	355.28	355.28	355.28	355.28
INT DURING CONSTRUCTION											
	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	317.82	317.82	317.82	317.82	317.82	317.82	317.82	317.82	317.82	317.82	317.82
TOTAL CAPITAL COST											
	75.94	45.04	27.35	153.10	133.57	59.68	178.83	65.80	5.13	205.39	.00
	6993.25	7038.29	7065.63	7218.73	7352.30	7411.99	7588.81	7654.61	7659.74	7865.13	7865.13
-SALVAGE VALUE											
	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

MALAYSIA RAILWAY PROJECT
 (UNIT : M\$ MIL.)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
ASSUMPTIONS											
TRAFFIC DEMAND											
PASSENGERS (1) (MIL. PERSON. KM)	4920.00	4920.00	4920.00	4920.00	4920.00	4920.00	4920.00	4920.00	4920.00	4920.00	4920.00
PASSENGERS (2) (MIL. PERSON. KM)	2029.00	2246.00	2486.00	2752.00	3046.00	3371.00	3731.00	4130.00	4571.00	5060.00	5800.00
GOODS (MIL. TON. KM)	2278.00	2278.00	2278.00	2278.00	2278.00	2278.00	2278.00	2278.00	2278.00	2278.00	2278.00
RAIL FARE & TARIFF											
PASSENGERS (1) (\$ PER PERSON. KM)	.18	.20	.21	.23	.24	.25	.26	.27	.29	.30	.32
PASSENGERS (2) (\$ PER PERSON. KM)	.11	.12	.12	.13	.13	.14	.15	.15	.16	.17	.18
GOODS (\$ PER TON. KM)	.22	.24	.25	.26	.27	.29	.30	.32	.33	.35	.37
ESCALATION RATE (%)											
INVESTMENT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
RAIL FARE	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
MAINT. & OPERAT. COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
PROFIT & LOSS STATEMENT											
REVENUE	1693.43	1803.16	1922.43	2052.43	2194.37	2346.72	2520.28	2702.06	2915.15	3144.37	3398.36
PASSENGERS (1)	958.52	1006.45	1056.77	1109.61	1165.00	1223.34	1284.51	1346.74	1416.17	1486.88	1561.32
PASSENGERS (2)	223.22	259.45	301.54	350.48	407.33	473.33	550.07	639.34	742.99	863.00	1003.55
GOODS	511.68	537.26	564.13	592.33	621.95	653.05	685.70	719.98	755.98	793.78	833.47
EXPENSE	437.10	458.40	480.43	503.77	533.53	560.07	588.81	618.84	656.90	691.32	728.06
MAINT. & REPLACE COST	209.78	282.12	294.67	307.85	326.68	341.47	357.54	373.87	397.08	415.39	434.61
PERSONNEL COST	49.31	51.55	53.97	56.80	59.46	62.56	65.96	69.67	73.74	78.23	83.16
ENERGY COST	118.13	124.74	131.79	139.32	147.39	156.03	165.31	175.30	186.07	197.70	210.29
INTEREST PAYMENT	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
DEPRECIATION	199.50	200.40	200.68	240.40	243.58	262.82	263.96	284.32	353.97	360.25	372.18
CIVIL & TRACK	34.95	34.95	34.95	34.95	34.95	34.95	34.95	34.95	34.95	34.95	34.95
ELECTRIFICATION	9.08	9.08	9.08	9.08	9.08	9.08	9.08	9.08	9.08	9.08	9.08
SIGNALS	4.83	4.83	4.83	4.83	4.83	4.83	4.83	4.83	4.83	4.83	4.83
TELECOM	8.70	6.70	6.70	11.54	11.54	11.54	11.54	11.54	17.78	17.78	17.78
ROLLING STOCK	109.88	110.78	111.06	137.52	140.67	141.20	142.34	142.70	215.33	221.60	222.28
WORKSHOPS	15.58	15.58	15.58	15.58	15.58	15.58	15.58	15.58	34.31	34.31	34.31
CONTAINER HAND. FACIL	17.85	17.85	17.85	22.78	22.78	22.78	22.78	22.78	29.07	29.07	29.07
MISCELLANEOUS	.63	.63	.63	.63	.63	.63	.63	.63	.63	.63	.63
NET INCOME	1056.73	1144.37	1241.33	1308.25	1417.27	1526.83	1687.52	1824.91	1904.28	2092.80	2298.11

CAPITAL EXPENDITURE											
=====											
CAPITAL COST	9.55	22.27	6.54	1195.73	68.31	638.26	28.43	8.35	2801.86	201.48	391.96
CUMULATIVE	7558.85	7579.13	7585.67	8781.40	8849.70	9487.96	9518.38	9524.74	12328.60	12528.08	12920.05
DETAILED CAPITAL COST											
CIVIL & TRACK											
CUMULATIVE	3512.00	3512.00	3512.00	3512.00	3512.00	3512.00	3512.00	3512.00	3512.00	3512.00	3512.00
ELECTRIFICATION											
CUMULATIVE	501.52	501.52	501.52	501.52	501.52	501.52	501.52	501.52	501.52	501.52	501.52
SIGNALS											
CUMULATIVE	116.97	116.97	116.97	112.30	228.27	228.27	228.27	228.27	144.17	373.44	373.44
TELECOM											
CUMULATIVE	223.34	223.34	223.34	378.67	378.67	378.67	378.67	378.67	200.31	578.98	578.98
ROLLING STOCK											
CUMULATIVE	9.55	22.27	6.54	814.21	68.31	12.18	28.43	8.35	2312.03	201.48	15.55
	2252.18	2274.45	2280.99	3095.20	3183.51	3175.69	3204.12	3212.47	5524.50	5725.88	5741.53
WORKSHOPS											
CUMULATIVE	358.34	358.34	358.34	358.34	358.34	884.42	884.42	884.42	984.42	984.42	1360.83
CONTAINER HAND. FACIL											
CUMULATIVE	223.11	223.11	223.11	337.00	337.00	337.00	337.00	337.00	482.36	482.36	482.36
MISCELLANEOUS											
CUMULATIVE	14.03	14.03	14.03	14.03	14.03	14.03	14.03	14.03	14.03	14.03	14.03
LAND ACQUISITION											
CUMULATIVE	355.28	355.28	355.28	355.28	355.28	355.28	355.28	355.28	355.28	355.28	355.28
INT DURING CONSTRUCTION											
CUMULATIVE	317.82	317.82	317.82	317.82	317.82	317.82	317.82	317.82	317.82	317.82	317.82
TOTAL CAPITAL COST											
CUMULATIVE	9.55	22.27	6.54	1195.73	68.31	638.26	28.43	8.35	2801.86	201.48	-6295.70
	7874.68	7896.95	7903.49	9099.22	9187.53	9805.79	9834.21	9842.56	12844.43	12845.91	6550.21
-SALVAGE VALUE											
	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	6687.66

MALAYSIAN RAILWAY PROJECT
(UNIT : \$ MIL.)

CASE III FIRR : 5.86

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
ASSUMPTIONS											
TRAFFIC DEMAND											
PASSENGERS(1) (MIL. PERSON.KH)	.00	.00	.00	.00	.00	805.00	851.00	900.00	953.00	1008.00	1080.00
PASSENGERS(2) (MIL. PERSON.KH)	.00	.00	.00	.00	.00	309.00	343.00	382.00	424.00	471.00	524.00
GOODS (MIL.TON.KH)	.00	.00	.00	.00	.00	623.00	843.00	664.00	686.00	709.00	733.00
RAIL FARE & TARIFF											
PASSENGERS(1) (\$ PER PERSON.KH)	.00	.00	.00	.00	.00	.08	.08	.08	.10	.10	.11
PASSENGERS(2) (\$ PER PERSON.KH)	.00	.00	.00	.00	.00	.05	.05	.05	.06	.06	.06
GOODS (\$ PER TON.KH)	.00	.00	.00	.00	.00	.10	.10	.11	.11	.12	.12
ESCALATION RATE (%)											
INVESTMENT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
RAIL FARE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAINT & OPERAT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
PROFIT & LOSS STATEMENT											
REVENUE	.00	.00	.00	.00	.00	144.31	159.40	176.30	195.16	216.08	239.43
PASSENGERS(1)	.00	.00	.00	.00	.00	68.43	75.95	84.34	93.77	104.14	115.64
PASSENGERS(2)	.00	.00	.00	.00	.00	14.83	17.28	20.22	23.56	27.48	32.10
GOODS	.00	.00	.00	.00	.00	61.05	66.16	71.74	77.82	84.46	91.68
EXPENSE	.00	.00	.00	.00	.00	76.25	83.24	87.08	91.20	100.74	109.83
MAINT. & REPLACE COST	.00	.00	.00	.00	.00	54.02	59.58	61.81	64.16	71.77	75.72
PERSONNEL COST	.00	.00	.00	.00	.00	11.97	12.38	12.83	13.32	13.86	14.44
ENERGY COST	.00	.00	.00	.00	.00	10.27	11.30	12.44	13.71	15.12	18.67
INTEREST PAYMENT	.00	.00	.00	.00	.00	180.31	180.31	180.31	180.31	180.31	180.31
DEPRECIATION	.00	.00	.00	.00	.00	69.29	72.85	73.03	73.03	75.53	79.62
CIVIL & TRACK						24.73	24.73	24.73	24.73	24.73	24.73
ELECTRIFICATION						3.70	3.70	3.70	3.70	3.70	3.70
SIGNALS						2.11	2.11	2.11	2.11	2.11	2.11
TELECOM						2.93	2.93	2.93	2.93	2.93	2.93
ROLLING STOCK						23.98	27.54	27.73	27.73	30.27	33.81
WORKSHOPS						9.69	9.69	9.69	9.69	9.69	9.69
CONTAINER HAND. FACIL						1.83	1.83	1.83	1.83	1.83	2.34
MISCELLANEOUS						.30	.30	.30	.30	.30	.30
NET INCOME	.00	.00	.00	.00	.00	-191.55	-187.00	-174.13	-159.39	-150.55	-137.34

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
CAPITAL EXPENDITURE											
=====											
CAPITAL COST											
CUMULATIVE	334.66	650.26	888.58	1058.08	556.05	.00	77.95	.93	.00	51.51	85.40
	334.66	984.92	1873.50	2931.57	3487.61	3487.61	3565.56	3566.49	3566.49	3618.00	3703.40
DETAILED CAPITAL COST											
CIVIL & TRACK	229.32	473.47	742.67	641.97	123.29	.00	.00	.00	.00	.00	.00
CUMULATIVE	229.32	702.79	1445.46	2087.43	2210.72	2210.72	2210.72	2210.72	2210.72	2210.72	2210.72
ELECTRIFICATION	.00	38.32	60.17	94.96	11.12	.00	.00	.00	.00	.00	.00
CUMULATIVE	.00	38.32	98.48	193.44	204.56	204.56	204.56	204.56	204.56	204.56	204.56
SIGNALS	.00	9.57	15.07	23.87	2.73	.00	.00	.00	.00	.00	.00
CUMULATIVE	.00	9.57	24.65	48.51	51.25	51.25	51.25	51.25	51.25	51.25	51.25
TELECOM	.00	18.28	28.69	45.31	5.24	.00	.00	.00	.00	.00	.00
CUMULATIVE	.00	18.28	46.98	92.28	97.52	97.52	97.52	97.52	97.52	97.52	97.52
ROLLING STOCK	.00	.00	.00	135.78	335.31	.00	77.95	.93	.00	51.51	73.70
CUMULATIVE	.00	.00	.00	135.78	471.09	471.09	549.04	549.97	549.97	601.48	675.18
WORKSHOPS	.00	.00	41.98	110.85	69.96	.00	.00	.00	.00	.00	.00
CUMULATIVE	.00	.00	41.98	152.83	222.79	222.79	222.79	222.79	222.79	222.79	222.79
CONTAINER HAND. FACIL	.00	.00	.00	5.33	3.83	.00	.00	.00	.00	.00	.00
CUMULATIVE	.00	.00	.00	5.33	9.17	9.17	9.17	9.17	9.17	9.17	9.17
HISCELLANEOUS	.00	.00	.00	.00	4.56	.00	.00	.00	.00	.00	.00
CUMULATIVE	.00	.00	.00	.00	4.56	4.56	4.56	4.56	4.56	4.56	4.56
LAND ACQUISITION	105.34	110.61	.00	.00	.00	.00	.00	.00	.00	.00	.00
CUMULATIVE	105.34	215.95	215.95	215.95	215.95	215.95	215.95	215.95	215.95	215.95	215.95
INT DURING CONSTRUCTION	.00	16.73	50.08	97.02	154.77	.00	.00	.00	.00	.00	.00
CUMULATIVE	.00	16.73	66.82	163.83	318.60	318.60	318.60	318.60	318.60	318.60	318.60
TOTAL CAPITAL COST	334.66	656.98	938.66	1155.08	710.82	.00	77.95	.93	.00	51.51	85.40
CUMULATIVE	334.66	1001.66	1940.32	3095.40	3806.21	3806.21	3884.16	3885.09	3885.09	3936.60	4022.00
-SALVAGE VALUE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CASE III

FIRR

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
FINANCE PROGRAM											
TOTAL CAPITAL COST	334.66	666.99	938.66	1155.08	710.82	.00	77.95	.83	.00	51.51	85.40
CUMULATIVE T.C.C.	334.66	1001.66	1940.32	3095.40	3806.21	3806.21	3884.16	3885.09	3885.09	3936.60	4022.00
EQUITY & SUBSIDY	167.33	333.50	469.33	577.54	355.41	.00	.00	.00	.00	.00	.00
CUM EQUITY & SUBSIDY	167.33	500.83	970.16	1547.70	1903.11	1903.11	1903.11	1903.11	1903.11	1903.11	1903.11
LONG-TERM LOAN											
DRAW DOWN											
REPAYMENT											
BALANCE	167.33	500.83	970.16	1547.70	1903.11	1903.11	1903.11	1903.11	1903.11	1903.11	1522.49
INTEREST PAYMENT	.00	.00	.00	.00	.00	180.31	190.31	190.31	190.31	190.31	190.31
WORKING CAPITAL											
DRAW DOWN	.00	.00	.00	.00	.00	122.26	192.10	102.03	86.35	126.48	523.74
REPAYMENT	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
BALANCE	.00	.00	.00	.00	.00	122.26	314.38	416.39	502.74	629.23	1152.87
INTEREST PAYMENT	.00	.00	.00	.00	.00	.00	12.23	31.44	41.64	50.27	62.82

FUND FLOW STATEMENT

NET INCOME	.00	.00	.00	.00	.00	-181.55	-187.00	-174.13	-159.39	-150.55	-137.34
ADD BACK DEPRECIATION	.00	.00	.00	.00	.00	69.29	72.85	73.03	73.03	75.58	79.62
CASH FLOW FROM OPERATION	.00	.00	.00	.00	.00	-122.26	-114.15	-101.09	-86.35	-74.97	-57.72
EQUITY & SUBSIDY	167.33	333.50	469.33	577.54	355.41	.00	.00	.00	.00	.00	.00
LONG-TERM LOAN	167.33	333.50	469.33	577.54	355.41	.00	.00	.00	.00	.00	.00
WORKING CAPITAL	.00	.00	.00	.00	.00	122.26	192.10	102.03	86.35	126.48	523.74
SALES PROCEEDS OF LAND	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL SOURCES	334.66	666.99	938.66	1155.08	710.82	.00	77.95	.93	.00	51.51	466.02

CAPITAL EXPENDITURE

L-T LOAN REPAYMENT	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
WORKING CAPITAL REPAYMENT	334.66	666.99	938.66	1155.08	710.82	.00	77.95	.93	.00	51.51	466.02
TOTAL USES	334.66	666.99	938.66	1155.08	710.82	.00	77.95	.93	.00	51.51	466.02

NET CASHFLOW

CUM. N.C.F.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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SUMMARY STATISTICS

BEST COVERAGE RATIO	.00	.00	.00	.00	.00	.36	.44	.54	.63	.68	.31
CUM BEST COVERAGE RATIO	.00	.00	.00	.00	.00	.36	.40	.45	.50	.54	.46
IRR (ROI) %	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

MALAYSIA RAILWAY PROJECT
 (UNIT : M\$ MIL.)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ASSUMPTIONS											
TRAFFIC DEMAND											
PASSENGERS(1) (MIL. PERSON.KM)	1126.00	1189.00	1258.00	1327.00	1402.00	1468.00	1537.00	1608.00	1685.00	1746.00	1809.00
PASSENGERS(2) (MIL. PERSON.KM)	583.00	649.00	722.00	804.00	894.00	990.00	1098.00	1213.00	1342.00	1487.00	1648.00
GOODS (MIL.TON.KM)	757.00	783.00	808.00	835.00	863.00	881.00	921.00	951.00	983.00	1013.00	1045.00
RAIL FARE & TARIFF											
PASSENGERS(1) (\$ PER PERSON.KM)	.11	.12	.13	.13	.14	.15	.15	.16	.17	.18	.19
PASSENGERS(2) (\$ PER PERSON.KM)	.06	.07	.07	.07	.08	.08	.08	.09	.10	.10	.10
GOODS (\$ PER TON.KM)	.13	.14	.14	.15	.16	.17	.18	.18	.19	.20	.21
ESCALATION RATE (%)											
INVESTMENT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
RAIL FARE	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
MAINT & OPERAT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
PROFIT & LOSS STATEMENT											
REVENUE	265.18	294.02	325.93	361.80	401.76	444.03	491.19	543.42	601.85	663.30	731.06
PASSENGERS(1)	128.26	142.21	157.73	174.98	194.12	213.42	234.62	257.89	283.58	308.53	335.65
PASSENGERS(2)	37.50	43.83	51.20	59.87	69.90	81.28	94.48	109.79	127.54	148.39	172.46
GOODS	99.42	107.97	116.99	126.95	137.76	149.34	162.09	175.74	190.73	206.38	223.55
EXPENSE	112.21	118.00	124.71	132.50	139.76	153.13	163.44	172.53	182.52	194.56	216.31
MAINT. & REPLACE COST	78.76	81.96	85.84	90.48	94.26	103.89	110.27	115.05	120.05	127.15	143.25
PERSONNEL COST	15.06	15.78	16.54	17.37	18.29	19.27	20.34	21.52	22.81	24.19	25.71
ENERGY COST	18.37	20.26	22.33	24.65	27.21	29.88	32.83	36.06	39.65	43.32	47.35
INTEREST PAYMENT	152.25	114.19	76.12	38.06	.00	.00	.00	.00	.00	.00	.00
DEPRECIATION	79.62	79.67	81.27	84.09	86.94	89.66	94.36	95.16	95.16	108.74	108.74
CIVIL & TRACK	24.73	24.73	24.73	24.73	24.73	24.73	24.73	24.73	24.73	24.73	24.73
ELECTRIFICATION	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
SIGNALS	2.93	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11
TELECOM	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93
ROLLING STOCK	33.81	33.80	35.48	38.28	40.40	43.21	47.92	48.70	48.70	61.13	61.13
WORKSHOPS	9.09	9.09	9.09	9.69	9.69	9.69	9.69	9.69	9.69	9.69	9.69
CONTAINER HAND. FACIL	2.34	2.34	2.34	2.34	2.99	2.99	2.99	2.99	2.99	3.81	3.81
MISCELLANEOUS	.30	.30	.30	.30	.30	.30	.30	.30	.30	.30	.30
NET INCOME	-76.91	-17.85	43.82	107.15	175.07	201.24	233.37	275.63	324.18	349.90	406.61

CASE III

FIRR

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CAPITAL EXPENDITURE											
=====											
CAPITAL COST	.00	1.19	29.84	63.50	58.44	54.36	110.19	9.82	.00	283.75	.00
CUMULATIVE	3703.40	3704.59	3734.43	3797.93	3856.37	3910.74	4020.92	4030.74	4030.74	4314.49	4314.49
DETAILED CAPITAL COST											
CIVIL & TRACK	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CUMULATIVE	2210.72	2210.72	2210.72	2210.72	2210.72	2210.72	2210.72	2210.72	2210.72	2210.72	2210.72
ELECTRIFICATION	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CUMULATIVE	204.56	204.56	204.56	204.56	204.56	204.56	204.56	204.56	204.56	204.56	204.56
SIGNALS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CUMULATIVE	51.25	51.25	51.25	51.25	51.25	51.25	51.25	51.25	51.25	51.25	51.25
TELECOM	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CUMULATIVE	97.52	97.52	97.52	97.52	97.52	97.52	97.52	97.52	97.52	97.52	97.52
ROLLING STOCK	.00	1.19	29.84	63.50	43.51	54.36	110.19	9.82	.00	255.22	.00
CUMULATIVE	675.18	676.36	706.21	769.71	813.22	867.58	977.76	987.58	987.58	1242.80	1242.80
WORKSHOPS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CUMULATIVE	222.79	222.79	222.79	222.79	222.79	222.79	222.79	222.79	222.79	222.79	222.79
CONTAINER HAND. FACIL	.00	.00	.00	.00	14.93	.00	.00	.00	.00	18.06	.00
CUMULATIVE	20.87	20.87	20.87	20.87	35.80	35.80	35.80	35.80	35.80	54.86	54.86
MISCELLANEOUS	.00	.00	.00	.00	.00	.00	.00	.00	.00	9.47	.00
CUMULATIVE	4.56	4.56	4.56	4.56	4.56	4.56	4.56	4.56	4.56	14.03	14.03
LAND ACQUISITION	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CUMULATIVE	215.95	215.95	215.95	215.95	215.95	215.95	215.95	215.95	215.95	215.95	215.95
INT DURING CONSTRUCTION	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CUMULATIVE	318.60	318.60	318.60	318.60	318.60	318.60	318.60	318.60	318.60	318.60	318.60
TOTAL CAPITAL COST	.00	1.19	29.84	63.50	58.44	54.36	110.19	9.82	.00	283.75	.00
CUMULATIVE	4022.00	4023.19	4053.03	4116.54	4174.97	4229.34	4339.52	4349.34	4348.34	4633.09	4633.09
-SALVAGE VALUE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2005	2007
FINANCE PROGRAM											
=====											
TOTAL CAPITAL COST	.00	1.19	28.84	63.50	58.44	54.36	110.19	9.82	.00	283.75	.00
CUMULATIVE T.C.C.	4022.00	4023.19	4053.03	4116.54	4174.97	4229.34	4339.52	4349.34	4349.34	4633.09	4633.09
=====											
EQUITY & SUBSIDY	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CUM EQUITY & SUBSIDY	1903.11	1903.11	1903.11	1903.11	1903.11	1903.11	1903.11	1903.11	1903.11	1903.11	1903.11
=====											
LONG-TERM LOAN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
DRAW DOWN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
REPAYMENT	380.62	380.62	380.62	380.62	.00	.00	.00	.00	.00	.00	.00
BALANCE	1141.88	761.24	380.62	.00	.00	.00	.00	.00	.00	.00	.00
INTEREST PAYMENT	152.25	114.19	76.12	38.06	.00	.00	.00	.00	.00	.00	.00
=====											
WORKING CAPITAL	379.91	319.98	285.37	252.89	.00	.00	.00	.00	.00	.00	.00
DRAW DOWN	.00	.00	.00	.00	203.58	236.54	217.58	360.97	419.33	174.89	515.35
REPAYMENT	1532.87	1852.85	2138.22	2391.11	2187.53	1950.99	1733.42	1372.45	953.12	778.23	262.87
BALANCE	115.30	153.29	185.29	213.82	239.11	218.75	193.10	173.34	137.25	95.31	77.82
INTEREST PAYMENT											
=====											
FUND FLOW STATEMENT											
=====											
NET INCOME	-78.91	-17.85	43.82	107.15	175.07	201.24	233.37	275.63	324.18	348.90	406.61
ADD BACK DEPRECIATION	79.62	79.67	81.27	84.09	86.94	89.66	94.38	95.18	95.18	108.74	108.74
CASH FLOW FROM OPERATION	.72	61.83	125.09	191.24	262.02	290.91	327.75	370.79	419.33	458.65	515.35
EQUITY & SUBSIDY	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
LONG-TERM LOAN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
WORKING CAPITAL	379.91	319.98	285.37	252.89	.00	.00	.00	.00	.00	.00	.00
SALES PROCEEDS OF LAND	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
=====											
TOTAL SOURCES	380.62	381.81	410.48	444.13	262.02	290.91	327.75	370.79	419.33	458.65	515.35
=====											
CAPITAL EXPENDITURE	.00	1.19	28.84	63.50	58.44	54.36	110.19	9.82	.00	283.75	.00
L-T LOAN REPAYMENT	380.62	380.62	380.62	380.62	.00	.00	.00	.00	.00	.00	.00
WORKING CAPITAL REPAYMENT	.00	.00	.00	.00	203.58	236.54	217.56	360.97	419.33	174.89	515.35
=====											
TOTAL USES	380.62	381.81	410.46	444.13	262.02	290.91	327.75	370.79	419.33	458.65	515.35
=====											
NET CASHFLOW	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CUM. N.C.F.	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
=====											
SUMMARY STATISTICS											
=====											
DEBT COVERAGE RATIO	.41	.51	.60	.70	2.10	2.33	2.68	3.14	4.06	5.81	7.62
CUM DEBT COVERAGE RATIO	.44	.46	.48	.52	.60	.68	.78	.84	.92	1.01	1.10
IRR (KDI) *	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CASE III

FIRR

MALAYSIA RAILWAY PROJECT
 =====
 (UNIT : M\$ MIL.)

	2008	2009	2010	2011	2012	2013	2014	2015
ASSUMPTIONS								
=====								
TRAFFIC DEMAND								

PASSENGERS(1) (MIL. PERSON. KM)	1874.00	1941.00	2011.00	2083.00	2158.00	2236.00	2317.00	2400.00
PASSENGERS(2) (MIL. PERSON. KM)	1822.00	2017.00	2233.00	2472.00	2736.00	3029.00	3354.00	3712.00
GOODS (MIL. TON. KM)	1077.00	1111.00	1145.00	1181.00	1217.00	1255.00	1284.00	1334.00
RAIL FARE & TARIFF								

PASSENGERS(1) (\$ PER PERSON. KM)	.19	.20	.21	.23	.24	.25	.26	.27
PASSENGERS(2) (\$ PER PERSON. KM)	.11	.12	.12	.13	.13	.14	.15	.15
GOODS (\$ PER TON. KM)	.22	.24	.25	.26	.27	.29	.30	.32
ESCALATION RATE (%)								

INVESTMENT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
RAIL FARE	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
MAINT & OPERAT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
PROFIT & LOSS STATEMENT								
=====								
REVENUE	807.46	892.08	986.34	1091.70	1209.17	1341.06	1488.92	1654.18
PASSENGERS(1)	365.10	397.06	431.94	469.78	511.03	555.98	604.92	657.82
PASSENGERS(2)	200.45	233.00	270.85	314.83	365.87	425.31	484.49	574.64
GOODS	241.91	262.03	283.55	307.09	332.27	359.78	389.51	421.62
EXPENSE	228.78	242.85	267.95	284.07	305.54	324.44	358.36	381.03
MAINT. & REPLACE COST	149.66	157.03	174.77	182.77	195.31	204.32	227.30	237.80
PERSONNEL COST	27.37	29.20	31.22	33.46	35.93	38.67	41.71	45.08
ENERGY COST	51.76	56.62	61.95	67.84	74.30	81.46	89.36	98.05
INTEREST PAYMENT	.00	.00	.00	.00	.00	.00	.00	.00
DEPRECIATION	108.83	113.27	118.29	123.73	129.30	135.06	141.06	147.38
CIVIL & TRACK	24.73	24.73	24.73	24.73	24.73	24.73	24.73	24.73
ELECTRIFICATION	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
SIGNALS	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11
TELECOM	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93
ROLLING STOCK	61.22	65.68	70.68	76.72	82.89	89.28	95.93	102.72
WORKSHOPS	9.69	9.69	9.69	9.69	9.69	9.69	9.69	9.69
CONTAINER HAND. FACIL	3.81	3.81	3.81	3.81	3.81	3.81	3.81	3.81
MISCELLANEOUS	.63	.63	.63	.63	.63	.63	.63	.63
NET INCOME	469.85	535.96	600.11	653.90	736.33	830.56	936.16	1074.76
=====								

	2008	2009	2010	2011	2012	2013	2014	2015
CAPITAL EXPENDITURE								
=====								
CAPITAL COST	1.94	93.17	100.40	1102.30	317.27	626.02	176.65	128.14
CUMULATIVE	4316.42	4409.59	4509.99	5612.29	5929.56	6555.58	6732.23	6860.36
DETAILED CAPITAL COST								
CIVIL & TRACK								
CUMULATIVE	2210.72	2210.72	2210.72	2210.72	2210.72	2210.72	2210.72	2210.72
ELECTRIFICATION								
CUMULATIVE	204.56	204.56	204.56	204.56	204.56	204.56	204.56	204.56
SIGNALS								
CUMULATIVE	51.25	51.25	51.25	112.23	163.47	163.47	163.47	163.47
TELECOH								
CUMULATIVE	97.52	97.52	97.52	155.53	253.06	253.06	253.06	253.06
ROLLING STOCK								
CUMULATIVE	1244.74	1337.90	1438.30	2248.51	2565.78	2568.25	2744.91	2873.04
WORKSHOPS								
CUMULATIVE	222.79	222.79	222.79	222.79	222.79	222.79	222.79	222.79
CONTAINER HAND. FACIL								
CUMULATIVE	54.86	54.86	54.86	79.18	79.18	79.18	79.18	79.18
MISCELLANEOUS								
CUMULATIVE	14.03	14.03	14.03	14.03	14.03	14.03	14.03	14.03
LAND ACQUISITION								
CUMULATIVE	215.95	215.95	215.95	215.95	215.95	215.95	215.95	215.95
INT DURING CONSTRUCTION								
CUMULATIVE	318.60	318.60	318.60	318.60	318.60	318.60	318.60	318.60
TOTAL CAPITAL COST								
CUMULATIVE	4635.03	4728.19	4828.59	5930.89	6248.16	6874.18	7050.83	7365.20
-SALVAGE VALUE								
	.00	.00	.00	.00	.00	.00	.00	3813.77

2008 2009 2010 2011 2012 2013 2014 2015

FINANCE PROGRAM	2008	2009	2010	2011	2012	2013	2014	2015
TOTAL CAPITAL COST	1.84	93.17	100.40	1102.30	317.27	826.02	176.65	-3685.63
CUMULATIVE T.C.C.	4835.03	4728.19	4828.59	5930.89	6248.16	6874.18	7050.83	3365.20
EQUITY & SUBSIDY	.00	.00	.00	.00	.00	.00	.00	.00
CUM EQUITY & SUBSIDY	1903.11	1903.11	1903.11	1903.11	1903.11	1903.11	1903.11	1903.11
LONG-TERM LOAN								
DRAW DOWN	.00	.00	.00	.00	.00	.00	.00	.00
REPAYMENT	.00	.00	.00	.00	.00	.00	.00	.00
BALANCE	.00	.00	.00	.00	.00	.00	.00	.00
INTEREST PAYMENT	.00	.00	.00	.00	.00	.00	.00	.00
WORKING CAPITAL								
DRAW DOWN	.00	.00	.00	.00	.00	.00	.00	.00
REPAYMENT	262.87	.00	.00	.00	.00	.00	.00	.00
BALANCE	.00	.00	.00	.00	.00	.00	.00	.00
INTEREST PAYMENT	26.29	.00	.00	.00	.00	.00	.00	.00

FUND FLOW STATEMENT	2008	2009	2010	2011	2012	2013	2014	2015
NET INCOME	469.85	535.96	600.11	653.90	735.33	830.56	836.16	1074.76
ADD BACK DEPRECIATION	108.83	113.27	118.29	153.73	167.30	186.08	194.39	198.38
CASH FLOW FROM OPERATION	578.68	649.23	718.40	807.63	903.63	1016.62	1130.55	1273.15
EQUITY & SUBSIDY	.00	.00	.00	.00	.00	.00	.00	.00
LONG-TERM LOAN	.00	.00	.00	.00	.00	.00	.00	.00
WORKING CAPITAL	.00	.00	.00	.00	.00	.00	.00	.00
SALES PROCEEDS OF LAND	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL SOURCES	578.68	649.23	718.40	807.63	903.63	1016.62	1130.55	1273.15

CAPITAL EXPENDITURE	2008	2009	2010	2011	2012	2013	2014	2015
L-T LOAN REPAYMENT	1.84	93.17	100.40	1102.30	317.27	826.02	176.65	-3685.63
WORKING CAPITAL REPAYMENT	262.87	.00	.00	.00	.00	.00	.00	.00
TOTAL USES	264.81	93.17	100.40	1102.30	317.27	826.02	176.65	-3685.63

NET CASHFLOW	2008	2009	2010	2011	2012	2013	2014	2015
CUM. N.C.F.	313.87	556.06	618.00	-294.67	586.36	390.60	953.90	4958.78
	313.87	869.93	1487.93	1193.26	1779.62	2170.22	3124.12	8082.90

SUMMARY STATISTICS	2008	2009	2010	2011	2012	2013	2014	2015
DEBT COVERAGE RATIO	23.01	.00	.00	.00	.00	.00	.00	.00
CUM DEBT COVERAGE RATIO	1.21	1.33	1.46	1.61	1.77	1.96	2.17	2.40
IRR (ROI) %	.48	1.37	2.17	1.81	2.47	2.84	3.58	5.86

MALAYSIA RAILWAY PROJECT
 (UNIT : MS MIL.)

	1988	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
ASSUMPTIONS											
TRAFFIC DEMAND											
PASSENGERS(1) (MIL.PERSON.KM)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1066.00
PASSENGERS(2) (MIL.PERSON.KM)	.00	.00	.00	.00	.00	309.00	343.00	382.00	424.00	471.00	524.00
GOODS (MIL.TON.KM)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	733.00
RAIL FARE & TARIFF											
PASSENGERS(1) (\$ PER PERSON.KM)	.00	.00	.00	.00	.00	.09	.09	.09	.10	.10	.11
PASSENGERS(2) (\$ PER PERSON.KM)	.00	.00	.00	.00	.00	.05	.05	.05	.06	.06	.08
GOODS (\$ PER TON.KM)	.00	.00	.00	.00	.00	.10	.10	.11	.11	.12	.13
ESCALATION RATE (%)											
INVESTMENT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
RAIL FARE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAINT & OPERAT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
PROFIT & LOSS STATEMENT											
REVENUE	.00	.00	.00	.00	.00	14.83	17.29	20.22	23.56	27.48	239.43
PASSENGERS(1)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	115.64
PASSENGERS(2)	.00	.00	.00	.00	.00	14.83	17.29	20.22	23.56	27.48	32.10
GOODS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	91.68
EXPENSE	.00	.00	.00	.00	.00	26.89	27.84	28.85	29.92	31.06	105.89
MAINT. & REPLACE COST	.00	.00	.00	.00	.00	18.87	19.67	20.41	21.18	21.98	75.78
PERSONNEL COST	.00	.00	.00	.00	.00	7.30	7.47	7.85	7.85	8.06	14.44
ENERGY COST	.00	.00	.00	.00	.00	.82	.70	.78	.89	1.01	16.67
INTEREST PAYMENT	.00	.00	.00	.00	.00	74.27	86.45	110.24	142.21	174.03	214.74
DEPRECIATION	.00	.00	.00	.00	.00	25.68	25.68	25.68	25.68	25.68	91.62
CIVIL & TRACK						8.93	8.93	8.93	8.93	8.93	28.94
ELECTRIFICATION						1.29	1.29	1.29	1.29	1.29	4.36
SIGNALS						1.00	1.00	1.00	1.00	1.00	2.34
TELECOM						1.23	1.23	1.23	1.23	1.23	3.39
ROLLING STOCK						3.24	3.24	3.24	3.24	3.24	38.79
WORKSHOPS						8.69	9.69	9.69	9.69	9.69	2.81
CONTAINER HAND. FACIL						.30	.30	.30	.30	.30	.30
MISCELLANEOUS						.00	.00	.00	.00	.00	.00
NET INCOME	.00	.00	.00	.00	.00	-112.02	-122.68	-144.55	-174.25	-203.28	-173.83

CASE IV

FIRR

CASE IV

FIRR

	1988	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
CAPITAL EXPENDITURE											
=====											
CAPITAL COST	141.73	257.48	349.74	424.96	183.36	243.43	475.85	639.46	636.34	814.18	11.81
CUMULATIVE	141.73	399.21	748.95	1173.91	1357.27	1600.70	2076.58	2716.01	3352.36	4166.53	4178.35
DETAILED CAPITAL COST											
CIVIL & TRACK	82.89	189.01	266.20	231.01	48.24	184.33	351.63	556.93	498.44	95.78	.00
CUMULATIVE	82.89	251.70	517.90	748.90	797.15	981.48	1333.11	1890.04	2388.48	2484.26	2484.26
ELECTRIFICATION	.00	13.31	21.15	33.31	3.89	.00	31.62	49.95	78.51	9.06	.00
CUMULATIVE	.00	13.31	34.46	67.77	71.66	71.66	103.28	153.23	231.74	240.81	240.81
SIGNALS	.00	5.56	8.39	13.27	1.61	.00	7.24	11.32	17.75	2.05	.00
CUMULATIVE	.00	5.56	13.94	27.22	28.83	28.83	36.06	47.39	65.14	67.20	67.20
TELECOM	.00	7.61	12.03	19.14	3.25	.00	13.59	21.25	33.39	3.83	.00
CUMULATIVE	.00	7.61	19.64	38.78	41.03	41.03	54.63	75.88	109.27	113.10	113.10
ROLLING STOCK	.00	.00	.00	17.37	52.86	.00	8.72	.00	.00	627.82	11.81
CUMULATIVE	.00	.00	.00	17.37	70.23	70.23	78.95	78.95	78.95	777.56	789.38
WORKSHOPS	.00	.00	41.98	110.85	69.96	.00	.00	.00	.00	.00	.00
CUMULATIVE	.00	.00	41.98	152.83	222.79	222.79	222.79	222.79	222.79	222.79	222.79
CONTAINER HAND. FACIL	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.24	.00
CUMULATIVE	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.24	14.07
MISCELLANEOUS	.00	.00	.00	.00	4.56	.00	.00	.00	.00	.00	.00
CUMULATIVE	.00	.00	.00	.00	4.56	4.56	4.56	4.56	4.56	4.56	4.56
LAND ACQUISITION	59.04	61.99	.00	.00	.00	59.10	62.05	.00	.00	.00	.00
CUMULATIVE	59.04	121.03	121.03	121.03	121.03	180.13	242.18	242.18	242.18	242.18	242.18
INT DURING CONSTRUCTION	.00	7.09	20.31	38.82	62.01	.00	.00	.00	.00	.00	.00
CUMULATIVE	.00	7.09	27.40	66.22	128.22	128.22	128.22	128.22	128.22	128.22	128.22
TOTAL CAPITAL COST	141.73	284.57	370.05	483.78	245.37	243.43	475.85	639.46	636.34	814.18	11.81
CUMULATIVE	141.73	406.29	776.35	1240.13	1485.50	1728.93	2204.78	2844.24	3480.58	4294.76	4306.57
-SALVAGE VALUE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

MALAYSIA RAILWAY PROJECT
 (UNIT : \$ MIL.)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ASSUMPTIONS											
TRAFFIC DEMAND											
PASSENGERS (1) (MIL. PERSON.KM)	1126.00	1189.00	1258.00	1327.00	1402.00	1488.00	1537.00	1609.00	1685.00	1748.00	1809.00
PASSENGERS (2) (MIL. PERSON.KM)	583.00	649.00	722.00	804.00	894.00	990.00	1096.00	1213.00	1342.00	1487.00	1648.00
GOODS (MIL. TON.KM)	757.00	783.00	808.00	835.00	863.00	891.00	921.00	951.00	983.00	1013.00	1045.00
RAIL FARE & TARIFF											
PASSENGERS (1) (\$ PER PERSON.KM)	.11	.12	.13	.13	.14	.15	.15	.16	.17	.18	.19
PASSENGERS (2) (\$ PER PERSON.KM)	.06	.07	.07	.07	.08	.08	.09	.09	.10	.10	.10
GOODS (\$ PER TON.KM)	.13	.14	.14	.15	.16	.17	.18	.18	.19	.20	.21
ESCALATION RATE (%)											
INVESTMENT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
RAIL FARE	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
MAINT & OPERAT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
PROFIT & LOSS STATEMENT											
REVENUE	265.18	294.02	325.93	361.80	401.78	444.03	491.19	543.42	601.85	663.30	731.66
PASSENGERS (1)	128.28	142.21	157.73	174.98	194.12	213.42	234.62	257.89	283.58	308.53	335.65
PASSENGERS (2)	37.50	43.83	51.20	59.87	69.90	81.28	94.48	109.79	127.54	148.39	172.46
GOODS	99.42	107.87	116.99	126.95	137.76	149.34	162.09	175.74	190.73	206.38	223.55
EXPENSE	112.28	118.07	124.78	132.57	139.83	153.21	163.52	172.72	182.61	204.75	210.41
MAINT. & REPLACE COST	78.83	82.03	85.91	90.55	94.33	104.07	110.35	115.14	120.14	137.25	143.35
PERSONNEL COST	15.08	15.78	16.54	17.37	18.29	19.27	20.34	21.52	22.81	24.19	25.71
ENERGY COST	18.37	20.26	22.33	24.65	27.21	29.88	32.83	36.06	39.65	43.32	47.35
INTEREST PAYMENT	199.88	185.03	170.17	155.32	140.46	112.37	84.28	56.19	28.09	.00	.00
DEPRECIATION	91.62	91.62	93.22	95.04	98.23	100.95	105.60	108.38	108.38	121.31	121.31
CIVIL & TRACK	28.94	28.94	28.94	28.94	28.94	28.94	28.94	28.94	28.94	28.94	28.94
ELECTRIFICATION	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36
SIGNALS	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34
TELECOM	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39	3.39
ROLLING STOCK	38.79	38.79	41.38	44.20	45.62	48.34	52.99	53.76	53.76	67.38	67.38
WORKSHOPS	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89
CONTAINER HAND. FACIL	2.81	2.81	2.81	2.81	3.59	3.59	3.59	3.59	3.59	4.59	4.59
MISCELLANEOUS	.30	.30	.30	.30	.30	.30	.30	.30	.30	.63	.63
NET INCOME	-138.61	-100.70	-62.24	-22.13	23.25	77.50	137.79	208.14	284.77	337.23	393.94

CASE IV

FIRR

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CAPITAL EXPENDITURE											
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CAPITAL COST	.00	.00	29.84	63.50	40.80	54.38	108.67	9.82	.00	317.98	.00
CUMULATIVE	4178.35	4178.35	4208.19	4271.69	4312.49	4366.85	4475.52	4485.34	4485.34	4803.30	4803.30
DETAILED CAPITAL COST											
CIVIL & TRACK											
CUMULATIVE	2464.26	2464.26	2484.26	2484.26	2484.26	2484.26	2484.26	2484.26	2484.26	2484.26	2484.26
ELECTRIFICATION											
CUMULATIVE	240.81	240.81	240.81	240.81	240.81	240.81	240.81	240.81	240.81	240.81	240.81
SIGNALS											
CUMULATIVE	67.20	67.20	67.20	67.20	67.20	67.20	67.20	67.20	67.20	67.20	67.20
TELECOM											
CUMULATIVE	113.10	113.10	113.10	113.10	113.10	113.10	113.10	113.10	113.10	113.10	113.10
ROLLING STOCK											
CUMULATIVE	789.38	789.38	819.22	882.72	905.55	959.92	1068.59	1078.40	1078.40	1363.98	1363.98
WORKSHOPS											
CUMULATIVE	222.79	222.79	222.79	222.79	222.79	222.79	222.79	222.79	222.79	222.79	222.79
CONTAINER HAND. FACIL											
CUMULATIVE	14.07	14.07	14.07	14.07	17.98	.00	.00	.00	.00	22.93	.00
MISCELLANEOUS											
CUMULATIVE	4.56	4.56	4.56	4.56	4.56	4.56	4.56	4.56	4.56	9.47	14.03
LAND ACQUISITION											
CUMULATIVE	242.18	242.18	242.18	242.18	242.18	242.18	242.18	242.18	242.18	242.18	242.18
INT DURING CONSTRUCTION											
CUMULATIVE	128.22	128.22	128.22	128.22	128.22	128.22	128.22	128.22	128.22	128.22	128.22
TOTAL CAPITAL COST	4306.57	4306.57	4336.41	4399.92	4440.71	4495.07	4603.74	4613.56	4613.56	4931.52	4931.52
-SALVAGE VALUE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

MALAYSIA RAILWAY PROJECT
 =====
 (UNIT : M\$ MIL.)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
ASSUMPTIONS											
TRAFFIC DEMAND											
PASSENGERS(1) (MIL.PERSON.KM)	1874.00	1941.00	2011.00	2083.00	2158.00	2236.00	2317.00	2400.00	2486.00	2576.00	2689.00
PASSENGERS(2) (MIL.PERSON.KM)	1822.00	2017.00	2233.00	2472.00	2736.00	3028.00	3354.00	3712.00	4108.00	4547.00	5032.00
GOODS (MIL.TON.KM)	1077.00	1111.00	1145.00	1181.00	1217.00	1255.00	1294.00	1334.00	1375.00	1418.00	1482.00
RAIL FARE & TARIFF											
PASSENGERS(1) (\$ PER PERSON.KM)	.19	.20	.21	.23	.24	.25	.26	.27	.29	.30	.32
PASSENGERS(2) (\$ PER PERSON.KM)	.11	.12	.12	.13	.13	.14	.15	.15	.16	.17	.18
GOODS (\$ PER TON.KM)	.22	.24	.25	.26	.27	.28	.30	.32	.33	.35	.37
ESCALATION RATE (%)											
INVESTMENT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
RAIL FARE	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
MAINT & OPERAT COST	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
PROFIT & LOSS STATEMENT											
REVENUE	807.40	892.06	986.24	1081.70	1209.17	1341.06	1488.92	1654.18	1839.62	2048.71	2283.67
PASSENGERS(1)	365.10	397.06	431.94	469.78	511.03	555.98	604.92	657.92	715.57	778.55	848.89
PASSENGERS(2)	200.45	233.00	270.85	314.83	365.87	425.31	494.49	574.84	667.74	776.05	901.76
GOODS	241.81	262.03	283.55	307.09	332.27	359.78	389.51	421.62	458.31	484.11	534.91
EXPENSE	228.89	242.87	268.06	284.19	305.97	324.58	358.51	381.42	410.71	452.82	482.59
MAINT. & REPLACE COST	149.76	157.14	174.89	182.90	195.44	204.45	227.44	238.28	254.23	281.48	284.79
PERSONNEL COST	27.37	28.20	31.22	33.46	35.93	38.57	41.71	45.08	48.82	53.01	57.66
ENERGY COST	51.76	56.62	61.95	67.84	74.30	81.46	89.36	98.05	107.66	118.33	130.13
INTEREST PAYMENT	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
DEPRECIATION	121.31	125.76	130.78	141.32	151.25	169.91	178.24	182.20	239.04	249.99	248.89
CIVIL & TRACK	28.94	28.04	28.94	28.94	28.94	28.94	28.94	28.94	28.94	28.94	28.94
ELECTRIFICATION	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36	4.36
SIGNALS	3.39	2.34	2.34	3.99	3.99	3.99	3.99	3.99	3.99	3.99	3.99
TELECOM	3.39	3.39	3.39	5.43	5.43	5.43	5.43	5.43	5.43	5.43	5.43
ROLLING STOCK	67.38	71.82	78.84	82.43	92.36	92.36	100.70	104.65	154.08	165.03	165.03
WORKSHOPS	9.69	9.69	9.69	9.69	9.69	28.34	28.34	28.34	28.34	28.34	28.34
CONTAINER HARD. FACIL	4.59	4.59	4.59	5.85	5.85	5.85	5.85	5.85	7.47	7.47	7.47
MISCELLANEOUS	.63	.63	.63	.63	.63	.63	.63	.63	.63	.63	.63
NET INCOME	457.25	523.36	587.50	666.18	752.25	846.57	952.17	1060.57	1189.80	1345.90	1551.08

CASE IV

FIRR

CASE IV

FIRR

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
CAPITAL EXPENDITURE											

CAPITAL COST	.00	93.17	100.40	308.96	200.88	823.55	178.65	69.80	1700.64	237.78	.00
CUMULATIVE	4893.30	4896.46	4998.86	5305.82	5506.50	6130.05	6308.70	6378.49	8077.13	8314.91	8314.91
DETAILED CAPITAL COST											
CIVIL & TRACK	2484.26	2484.26	2484.26	2484.26	2484.26	2484.26	2484.26	2484.26	2484.26	2484.26	2484.26
CUMULATIVE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ELECTRIFICATION	240.81	240.81	240.81	240.81	240.81	240.81	240.81	240.81	240.81	240.81	240.81
CUMULATIVE	67.20	67.20	67.20	120.18	120.18	120.18	120.18	120.18	120.18	120.18	120.18
SIGNALS	113.10	113.10	113.10	178.50	178.50	178.50	178.50	178.50	178.50	178.50	178.50
CUMULATIVE	1363.96	1457.13	1557.53	1718.84	1919.52	1919.52	2098.17	2185.97	2477.33	2868.11	3353.92
ROLLING STOCK	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CUMULATIVE	222.79	222.79	222.79	222.79	222.79	222.79	222.79	222.79	222.79	222.79	222.79
WORKSHOPS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CUMULATIVE	54.96	54.96	54.96	84.22	84.22	84.22	84.22	84.22	84.22	84.22	84.22
CONTAINER HAND. FACIL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CUMULATIVE	14.03	14.03	14.03	14.03	14.03	14.03	14.03	14.03	14.03	14.03	14.03
MISCELLANEOUS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CUMULATIVE	242.18	242.18	242.18	242.18	242.18	242.18	242.18	242.18	242.18	242.18	242.18
LAND ACQUISITION	128.22	128.22	128.22	128.22	128.22	128.22	128.22	128.22	128.22	128.22	128.22
CUMULATIVE	.00	93.17	100.40	308.96	200.88	823.55	178.65	69.80	1700.64	237.78	-4648.95
INT DURING CONSTRUCTION	4931.52	5024.69	5125.08	5434.04	5834.72	6258.27	6434.92	6504.72	8205.35	8443.13	3794.18
CUMULATIVE	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4648.95
-SALVAGE VALUE											

