

Appendix 3.1 Summary of Malaysia's Five-Year Plans

1MP (1966-1970)	Employment generation Reduction in unemployment Promotion of new economic activities Human resources development for effective participation in economic and social development Diversification of economy (Reduction in dependence on rubber, expansion of timber, palm oil and manufactured goods)	Poverty to be tackled implicitly Increase in per capita income and consumption, especially of rural inhabitants. Increase in productivity and income earning capacity Provide infrastructure such as electricity, health, low-cost housing, transportation, etc.	RED Book programme, including Land development schemes by FELDA Land consolidation and rehabilitation by FELCRA Irrigation and drainage Rubber replanting Rubber rehabilitation Modernisation of small-scale fishery Improvement in marketing system Revision of credit facilities	(4) Newly established Development Institutions Majlis Amanah Rakyat (MARA): 1966 Federal Land Consolidation and Rehabilitation Authority (FELCRA): 1966 Malaysia Agricultural Research and Development Institute (MARDI): 1969 Agricultural Bank of Malaysia (BPM): 1960 Malaysian Rubber Development Corporation (MARDEC): 1966
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	(1) Basic Economic Policy Strategy	(2) Poverty Eradication Strategy	(3) Major Programmes	(4) Newly-established Development Institutions
2MP (1971-1975)	Under the New Economic Policy (NEP) ▪ Poverty eradication ▪ Restructuring of society ▪ Stimulation of investment and consumption ▪ Promotion of export ▪ Employment generation through economic growth in the key sectors: agriculture, services, manufacturing, and wholesale and retail trading.	Under the New Economic policy (NEP), poverty to be explicitly recognised as a ▪ Employment generation ▪ Increase in income and productivity ▪ Modernisation of rural life ▪ Improvement of living conditions among the urban poor ▪ Creation of commercial and individual community for the Malays occupational employment ▪ Expansion of education and training facilities	▪ Land development, consolidation and rehabilitation ▪ Provision of complementary inputs, infrastructure and services ▪ Modernisation of fishery through the provision of subsidies and facilities ▪ National rubber prices stabilisation ▪ Provision of basic facilities and amenities ▪ Employment expansion in the manufacturing and construction sectors.	▪ Muda Agricultural Development Authority (MADA): 1970 ▪ Fishery Development Authority of Malaysia (LKIM): 1971 ▪ Southeast Pahang Development Authority (DARA): 1971 ▪ Southeast Johor Development Authority (KEJORA): 1972 ▪ Kemubu Agricultural Development Authority (KADA): 1972 ▪ Farmers' organisation Authority (FOA): 1973 ▪ Central Terengganu Development Authority (KETENGGAH): 1973 ▪ National Tobacco Board; 1973 ▪ Rubber Industry Smallholders Development Authority (RISDA): 1973

(4) Newly established Development Institutions	Target	Policy	Programme	Institution
3MP (1976-1980) ▪ Ethnic balance in employment ▪ Expansion of education and training facilities ▪ Use of public enterprise in achieving ethnically balanced employment ▪ Establishment of trust funds for the Malays	▪ Target of anti-poverty programmes clarified ▪ Improvement in welfare and quality of life for both the rural and urban poor ▪ Promotion of agricultural and industrial sectors for the generation of income and employment ▪ Increase of the Malays' participation in the ownership and control of wealth in the modern sector; reduction of employment in the traditional agricultural sector ▪ Identification of the poor as target groups	▪ Irrigation and drainage for paddy cultivators ▪ Replanting for rubber smallholders ▪ Replanting rehabilitation and intercropping with other crops for coconut smallholders ▪ Subsidised distribution of engines, nets and gears, relocation, and promotion of aquaculture and offshore fishing for fishermen ▪ Improvement of basic facilities, promotion of small-scale industries, and security of tenure for new village residents ▪ Land settlement schemes for agricultural labourers ▪ Special settlement schemes for Orang Asli ▪ Promotion of labour-intensive and small-scale industries for the urban poor	▪ Southern Kelantan Development Authority (KESEDAR): 1978	

	Era of Economic Development Strategic	(2) Review of Institutional Strategy	(3) Major Programmes	(4) Newly-established Development Institutions
4MP (1981-1985)	Era of economic recession ▪ Structural adjustment in government expenditure ▪ Structural transformation of the economy by diminishing the role of agriculture and rising the contribution of the manufacturing, construction, banking and financial sectors.	▪ Introduction of the concept of hardcore poor ▪ Employment generation in the manufacturing and service sectors ▪ Improvement in productivity and income ▪ Revitalisation of agriculture by commercialisation	▪ Irrigation and drainage ▪ Rubber replanting ▪ Land rehabilitation and consolidation ▪ Crop diversification and livestock integration ▪ Modernisation of small-scale fishery ▪ Land development schemes with the block system ▪ Provision of agricultural support services	▪ Kedah Regional Development Authority (KEDA): 1981 ▪ Jengka Regional Development Authority (JENGKA): 1983 ▪ Penang Regional Development Authority (PERDA): 1983
5MP (1986-1990)	▪ Efficient use of resources ▪ Minimisation of governmental assistance ▪ Privatisation ▪ Export-led manufacturing ▪ Increase in domestic savings ▪ Revitalisation of the agricultural sector under the NEP	▪ Increase in productivity and income ▪ Improvement in the quality of life ▪ Employment generation in the manufacturing and services sectors	▪ Group farming ▪ Rural urbanisation ▪ Established rural growth centres ▪ Promotion of off-farm employment	None.

			Programme	(4) Newly established Development Institutions
6MP (1991-1995)	Under the National Development Policy (NDP) - Economic growth with equity - Creation of Bumiputera Commercial and Industrial Community (BCIC) - Reduction in social and economic inequality among ethnic groups - Promotion of human resource development - Regionally balanced promotion	- Concentration on the hardcore poor - Reduction in relative poverty (bottom 40% of households) - Minimisation of leakage and improvement in delivery system - Great emphasis on human resource development - Generation of employment opportunities for low income groups - Improvement in skills and productivity	- Special package for the hardcore poor (PPRT) - Loan scheme by AIM - Land consolidation and rehabilitation - Commercialisation of farms - Economic and commercial linkage of rural with modern sectors - Growth of value-added activities from agriculture - Continued provision and improvement of facilities and services for the urban poor - Employment opportunities in manufacturing, construction and other urban activities	None.
7MP (1996-2000)	Under the NDP - Balanced development - Sustained economic development - Equitable distribution - Shift from the input/investment-oriented to	- Emphasis on the hardcore poor, including Orang Asli and the urban poor - Reduction in relative poverty - Employment and income generation in the non-agricultural sectors	- Special package for the hardcore poor (PPRT) to be continued - NGOs to complement governmental activities - Participation of the private sectors in poverty alleviation	None.

	- the productivity-oriented - Large-scale production for exports - Human resource development (increased investment in education and training) - Private sector-led growth with emphasis on privatisation	- Improvement in the educational level of the poor - Development of remote areas in the poorest states and districts	- Provision of better education and training to low-income groups - Provision of low and medium cost housing for the urban poor	
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Source: Malaysia Plans, various issues.

Appendix 4.1 Poverty Data - Gini coefficients

Country	Year	Gini	Quintile 1	Quintile 2	Quintile 3	Quintile 4
Algeria	1988	38.73	0.0680	0.1777	0.3271	0.5345
Australia	1990	41.72	0.0460	0.1430	0.2980	0.5360
Bahamas	1989	44.54	0.0303	0.1207	0.2766	0.5232
Bangladesh	1989	28.85	0.0950	0.2280	0.3980	0.6140
Barbados	1979	48.86	0.0225	0.1025	0.2500	0.4900
Belgium	1988	26.63	0.0848	0.2270	0.4137	0.6492
Bolivia	1990	42.04	0.0562	0.1528	0.2981	0.5177
Botswana	1986	54.21	0.0360	0.1048	0.2190	0.4111
Brazil	1989	59.60	0.0248	0.0740	0.1655	0.3482
Bulgaria	1990	24.53	0.1054	0.2578	0.4283	0.6543
BurkinaFaso	1995	39.00	-	-	-	-
Cameroon	1983	49.00	-	-	-	-
Canada	1990	27.56	0.0754	0.2111	0.4657	0.6615
Chile	1989	57.88	0.0370	0.1050	0.2080	0.3700
China	1990	34.60	0.0701	0.1890	0.3504	0.5902
Colombia	1988	51.20	0.0370	0.1170	0.2420	0.4410
Costa Rica	1989	46.07	0.0400	0.1310	0.2740	0.4930
Cote d'Ivoire	1988	36.89	0.0678	0.1796	0.3374	0.5592
Denmark	1992	33.20	0.0548	0.1754	0.3670	0.6217
Djibuti	1996	38.10				
Dom. Rep.	1989	50.46	0.0420	0.1210	0.2460	0.4430
Ecuador	1994	43.00	0.0536	0.1426	0.2748	0.4739
Egypt	1991	32.00	0.0871	0.2120	0.3747	0.5891
El Salvador	1977	48.40	0.0500	0.1240	0.2460	0.4680
Ethiopia	1996	44.20				
Fiji	1977	42.50				
Finland	1991	26.11	0.0778	0.2241	0.4212	
France	1984	34.91	0.0658	0.1901	0.3575	0.5803
Gabon	1977	63.18	0.0290	0.0750	0.1710	0.3370
Gambia	1992	39.00				
Germany	1984	32.20	0.0659	0.1938	0.3735	0.6112
Ghana	1989	36.74	0.0697	0.1831	0.3407	0.5586
Greece	1988	35.19	0.0619	0.1778	0.3482	0.5882
Guatemala	1989	59.06	0.0210	0.0790	0.1840	0.3700
Guinea	1995	40.40				
GuineaBissau	1991	56.12	0.0206	0.0853	0.2055	0.4114
Guyana	1993	40.22	0.0627	0.1695	0.3193	0.5309
Honduras	1990	54.00				
Hong Kong	1991	45.00	0.0489	0.1507	0.2944	0.5063
Hungary	1991	32.24	0.0667	0.1952	0.3740	0.6132
India	1990	29.69	0.0910	0.2220	0.3910	0.6090
Indonesia	1990	33.09	0.0920	0.2131	0.3747	0.5805
Iran	1984	42.90				
Ireland	1987	34.60	0.0493	0.1464	0.3048	0.5540
Italy	1989	32.74	0.0835	0.2152	0.3884	0.6190
Jamaica	1990	41.79	0.0598	0.1586	0.3031	0.5163
Japan	1990	35.00				
Jordan	1991	40.66	0.0647	0.1676	0.3137	0.5231
Kenya	1992	54.39	0.0339	0.1011	0.2084	0.3816

Korea, R.	1988	33.64	0.0739	0.1968	0.3595	0.5776
Laos	1992	30.40	0.0955	0.2247	0.3873	0.5976
Lesotho	1987	56.02	0.0287	0.0927	0.2052	0.4001
Luxembourg	1985	27.13	0.0875	0.2267	0.4072	0.6400
Madagascar	1993	43.44	0.0585	0.1565	0.2978	0.5016
Malawi	1993	62.00				
Malaysia	1989	48.35	0.0458	0.1291	0.2590	0.4627
Mali	1994	54.00				
Mauritania	1988	42.53	0.0353	0.1422	0.3043	0.5368
Mauritius	1991	36.69	0.0670	0.1830	0.3400	0.5660
Mexico	1989	54.98	0.0320	0.1020	0.2170	0.4070
Morocco	1991	39.20	0.0657	0.1702	0.3199	0.5370
Nepal	1984	30.06	0.0911	0.2200	0.3868	0.6050
Netherlands	1989	29.60				
New Zealand	1990	40.21	0.0458	0.1510	0.3141	0.5527
Nicaragua	1993	50.32	0.0420	0.1220	0.2480	0.4490
Niger	1992	36.10	0.0748	0.1930	0.3477	0.5588
Nigeria	1992	41.15	0.0660	0.1687	0.3126	0.5171
Norway	1991	33.31	0.0540	0.1657	0.3358	0.5845
Pakistan	1988	31.43	0.0861	0.2137	0.3797	0.5961
Panama	1989	56.47	0.0200	0.0830	0.1990	0.4020
Peru	1986	42.76	0.0620	0.1610	0.3000	0.5020
Philippines	1991	45.00				
Poland	1990	26.24	0.0952	0.2354	0.4147	0.6428
Portugal	1990	36.76	0.0570	0.1690	0.3380	0.5760
Puerto Rico	1989	50.86	0.0290	0.1000	0.2340	0.4680
Romania	1989	23.38	0.0998	0.2488	0.4360	0.6677
Rwanda	1983	28.90	0.0970	0.2279	0.3944	0.6108
Senegal	1991	54.12	0.0350	0.1048	0.2207	0.4138
Seychelles	1984	47.00				
Sierra Leone	1968	60.79	0.0276	0.0531	0.1643	0.3803
Singapore	1989	39.00				
South Africa	1993	62.30	0.0202	0.0687	0.1635	0.3513
Soviet Union	1989	27.77	0.0891	0.2260	0.4050	0.6340
Spain	1989	25.91	0.0839	0.2271	0.4139	0.6472
Sri Lanka	1990	30.10	0.0892	0.2205	0.3894	0.6066
Sudan	1968	38.72	0.0824	0.1649	0.3734	0.5405
Sweden	1990	32.52	0.0740	0.2010	0.3680	0.6180
Taiwan	1990	30.11	0.0776	0.2101	0.3843	0.6140
Tanzania	1993	38.10	0.0685	0.1775	0.3303	0.5456
Thailand	1990	48.80	0.0400	0.1230	0.2480	0.4480
Trinidad	1981	41.72	0.0343	0.1354	0.2963	0.5514
Tunisia	1990	40.24	0.0586	0.1627	0.3154	0.5367
Turkey	1987	44.09	0.0524	0.1485	0.2891	0.5006
Uganda	1992	40.78	0.0678	0.1709	0.3145	0.5187
UK	1990	32.30	0.0778	0.2037	0.3626	0.5901
USA	1990	37.80	0.0460	0.1540	0.3200	0.5580
Venezuela	1990	53.84	0.0361	0.1067	0.2232	0.4159
Yugoslavia	1990	31.88	0.0733	0.1980	0.3725	0.6097
Zambia	1991	43.51	0.0557	0.1515	0.2931	0.5029
Zimbabwe	1990	56.83	0.0398	0.1027	0.2028	0.3766

Source: Deininger and Squire (1996)

Appendix 4.2 Data used for Cross Countries Analysis

	Year	Income of the poor (Int. \$)	Average Income (Int. \$)	Human cap. Per worker (index)	Invest share in GDP	Mining share in GDP	Malaria share in pop
Algeria	1988	941	2769	1.4	0.214	0.053	0
Australia	1990	3322	14445	9.14	0.286	0.038	0
Bahamas (a)	1989	1910	12610	3.808	0.094	0.006	n.a.
Bangladesh	1989	653	1375	1.503	0.042	0	0.158
Barbados (a)	1979	717	6373	5.297	0.123	0.006	n.a.
Belgium	1988	5610	13232	6.636	0.238	0	0
Bolivia	1990	466	1658	1.619	0.165	0.075	0.005
Botswana	1986	479	2662	1.379	0.191	0.533	0.39
Brazil	1989	530	4271	1.743	0.193	0.017	0.194
Bulgaria (c)	1990	3269	6203	4.543	0.411	n.a.	0
Burkina Faso	1994	203	514	1.462	0.076	0.001	1
Cameroon (b)	1983	230	1342	1.427	0.085	0.088	1
Canada	1990	6474	17173	7.692	0.239	0.034	0
Chile	1989	807	4361	1.921	0.196	0.155	0
China	1990	464	1324	4.138	0.203	0.045	0.006
Colombia	1988	609	3293	1.99	0.158	0.062	0.25
Costa Rica	1989	690	3451	2.903	0.162	0.051	0
Cote d'Ivoire	1988	481	1419	1.805	0.112	0.029	1
CSSR (c)	1988	2445	4110	8.234	0.276	0.04	0
C. Afr. Rep.	1992	51	514	1.146	0.065	0.03	n.a.
Denmark	1992	3861	14091	11.377	0.258	0.006	0
Djibuti (a, b)	1996	345	1362	1.805	0.095	0	n.a.
Dom. Rep.	1989	510	2430	1.88	0.152	0.024	0
Ecuador	1994	859	3206	2.532	0.22	0.098	0.137
Egypt	1991	833	1913	1.503	0.046	0.034	0
El Salvador	1977	561	2244	1.318	0.083	0.002	0
Ethiopia	1996	111	312	1.462	0.049	0.001	0.75
Fiji (a, b)	1977	765	3532	3.294	0.174	0.039	n.a.
Finland	1991	4926	12663	8.598	0.348	0.004	0
France	1984	3959	12034	4.076	0.272	0.005	0
Gabon	1977	895	5170	2.244	0.218	0.215	1
Gambia	1992	160	1735	1.153	0.05	0	1
Germany	1984	4054	12302	4.323	0.279	0.005	0
Ghana	1989	314	902	1.359	0.062	0.016	1
Greece	1988	1999	6459	4.707	0.247	0.017	0
Guatemala	1989	224	2137	1.551	0.091	0.003	0.012
Guinea (b)	1995	183	783	1.462	0.061	0.077	1
Guinea Bissau	1991	61	593	1.462	0.172	0	1
Guyana (a)	1993	343	1095	3.259	0.242	0.087	n.a.
Honduras (b)	1990	197	1377	1.571	0.139	0.014	0.011
Hong Kong	1991	3814	15601	10.327	0.199	0.001	0
Hungary (c)	1991	1650	4947	8.777	0.263	0.038	0
India	1990	575	1264	1.372	0.138	0.017	0.281
Indonesia	1990	908	1974	2.065	0.165	0.121	0.426
Iran (b)	1984	860	4027	1.221	0.15	0.049	0.152
Ireland	1987	1859	7541	4.687	0.247	0.009	0
Italy	1989	5214	12488	3.397	0.28	0.002	0
Jamaica	1990	761	2545	2.553	0.218	0.089	0

Japan (b)	1990	4063	14331	9.758	0.342	0.003	0
Jordan	1991	1039	3212	2.573	0.139	0.037	0
Kenya	1992	155	914	1.434	0.155	0.002	0.91
Lesotho	1987	136	949	2.024	0.111	0.003	0
Luxembourg (a)	1985	5764	13175	4.289	0.297	0.003	n.a.
Madagascar	1993	186	634	1.462	0.014	0.077	1
Malawi (b)	1993	58	543	1.475	0.098	0.081	1
Malaysia	1989	1070	4674	3.63	0.229	0.103	0.467
Mali (b)	1994	66	458	1.125	0.061	0.012	0.62
Mauritania	1988	139	788	1.462	0.151	0.069	23.3
Mauritius	1991	1996	5959	3.417	0.105	0.001	0
Mexico	1989	891	5566	2.546	0.165	0.032	0
Morocco	1991	736	2241	1.832	0.09	0.029	0
Nepal	1984	424	930	1.146	0.053	0.001	0.047
Netherlands (b)	1989	4508	13029	6.059	0.247	0.027	0
New Zealand	1990	2636	11513	14.527	0.246	0.011	0
Nicaragua	1993	297	1415	1.468	0.114	0.041	0.044
Niger	1992	189	1043	1.091	0.087	0.076	0.66
Nigeria	1992	323	978	1.482	0.125	0.208	1
Norway	1991	4063	15047	7.507	0.31	0.079	0
Pakistan	1988	601	1396	1.523	0.106	0.006	0.527
Panama	1989	279	2785	4.097	0.203	0.001	0.138
Peru	1986	678	2188	2.56	0.177	0.022	0.002
Philippines (b)	1991	455	1749	2.539	0.153	0.019	0.617
Poland (c)	1990	1818	3820	12.173	0.327	0.043	0
Portugal	1990	2131	7478	1.976	0.227	0.033	0
Puerto Rico	1989	1265	8727	2.951	0.222	0.001	n.a.
Romania (c)	1989	1019	2043	4.529	0.29	0.048	0
Rwanda	1983	404	834	1.235	0.039	0.002	1
Senagal	1991	196	1120	1.366	0.051	0.005	1
Seychelles (a, b)	1984	517	2811	2.244	0.163	0.001	n.a.
Sierra Leone	1968	151	1097	1.084	0.015	0.061	1
Singapore (b)	1989	2715	11059	5.407	0.309	0.001	0
South Africa	1993	310	3068	2.889	0.184	0.111	0
Soviet Union (c)	1989	3449	7741	6.08	0.384	0.015	n.a.
Spain	1989	3875	9238	3.657	0.253	0.006	0
Sri Lanka	1990	935	2096	2.614	0.091	0.014	0.2
Sudan	1968	337	2420	1.064	0.135	0	0.81
Sweden	1990	5462	14762	7.644	0.235	0.003	0
Taiwan	1990	3128	8063	n.a	0.22	0.043	0
Tanzania	1993	164	478	1.462	0.107	0.002	1
Thailand	1990	716	3580	2.786	0.174	0.017	0.471
Trinidad	1981	2013	11738	3.705	0.124	0.157	0
Tunisia	1990	853	2910	1.681	0.147	0.079	0
Turkey	1987	902	3441	1.654	0.211	0.02	0
Uganda	1992	186	548	1.256	0.024	0.001	1
United Kingdom	1990	5141	13217	8.097	0.181	0.022	0
United States	1990	4152	18054	6.862	0.214	0.016	0
Venezuela	1990	1093	6055	2.264	0.178	0.11	0.07
Yugoslavia (c)	1990	1665	4541	3.98	0.298	0.025	0
Zambia	1991	195	699	1.887	0.219	0.204	1
Zimbabwe	1990	235	1182	1.482	0.172	0.06	0.7

Source:

1. Income of the poor from Deininger and Squire (1996) and equation (1).
2. Average income and Investment share per GDP is taken from Summers and Heston (1995).
3. Human capital per worker calculated from equation (3).
4. Mining shares in GDP are taken from Hall and Jones (1999).
5. Malaria Share in population is taken from McArthur and Sachs (2001).

Note: (a) Population of less than 1 million in 1990; (b) Income of the poor estimated on the basis of equation (1); (c) Formerly socialist country.

Appendix 4.3 Regressing the incomes of the poor on average per capita income

Equation: $\ln yp = c + \ln y$

LS // Dependent Variable is LNYP				
Date: 02/05/02 Time: 15:04				
Sample: 1 102				
Included observations: 102				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.877389	0.344552	-5.448785	0.0000
LNYP	1.064627	0.042676	24.94662	0.0000
R-squared	0.861560	Mean dependent var	6.644432	
Adjusted R-squared	0.860175	S.D. dependent var	1.215060	
S.E. of regression	0.454349	Akaike info criterion	-1.558367	
Sum squared resid	20.64328	Schwarz criterion	-1.506897	
Log likelihood	-63.25501	F-statistic	622.3337	
Durbin-Watson stat	2.269535	Prob(F-statistic)	0.000000	

Appendix 4.4 OLS estimates for Cross Countries Analysis

Model (1): $\ln yp = c + \ln y + \ln(H/L)$

LS // Dependent Variable is LNYP				
Date: 02/05/02 Time: 15:06				
Sample: 1 102				
Included observations: 101				
Excluded observations: 1				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.846182	0.462765	-1.828535	0.0705
LNYP	0.895325	0.067162	13.33079	0.0000
LNHL	0.323996	0.103467	3.131408	0.0023
R-squared	0.873217	Mean dependent var	6.630534	
Adjusted R-squared	0.870630	S.D. dependent var	1.212945	
S.E. of regression	0.436273	Akaike info criterion	-1.629723	
Sum squared resid	18.65271	Schwarz criterion	-1.552046	
Log likelihood	-58.01176	F-statistic	337.4881	
Durbin-Watson stat	2.238253	Prob(F-statistic)	0.000000	

$$\text{Model (2): } \ln yp = c + \ln y + \ln(H/L) + \ln INV$$

LS // Dependent Variable is LNYP

Date: 02/05/02 Time: 15:07

Sample: 1 102

Included observations: 101

Excluded observations: 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.665761	0.530638	-1.254643	0.2126
LNYP	0.882302	0.069855	12.63043	0.0000
LNHL	0.314555	0.104608	3.006986	0.0034
LNINV	0.035889	0.051221	0.700660	0.4852
R-squared	0.873856	Mean dependent var	6.630534	
Adjusted R-squared	0.869954	S.D. dependent var	1.212945	
S.E. of regression	0.437410	Akaike info criterion	-1.614970	
Sum squared resid	18.55878	Schwarz criterion	-1.511400	
Log likelihood	-57.75682	F-statistic	223.9870	
Durbin-Watson stat	2.269918	Prob(F-statistic)	0.000000	

$$\text{Model (3): } \ln yp = c + \ln y + \ln(H/L) + \ln INV + MINING$$

LS // Dependent Variable is LNYP

Date: 02/05/02 Time: 15:13

Sample(adjusted): 1 101

Included observations: 98

Excluded observations: 3 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.698732	0.537223	-1.300638	0.1966
LNYP	0.885713	0.070671	12.53287	0.0000
LNHL	0.306135	0.106919	2.863241	0.0052
LNINV	0.034136	0.051755	0.659574	0.5112
MINING	0.024225	0.026225	0.923747	0.3580
R-squared	0.873954	Mean dependent var	6.617305	
Adjusted R-squared	0.868532	S.D. dependent var	1.212423	
S.E. of regression	0.439606	Akaike info criterion	-1.594079	
Sum squared resid	17.97258	Schwarz criterion	-1.462193	
Log likelihood	-55.94609	F-statistic	161.2060	
Durbin-Watson stat	2.277848	Prob(F-statistic)	0.000000	

$$\text{Model (4): } \ln yp = c + \ln y + \ln(H/L) + \ln INV + MINING + MALARIA$$

LS // Dependent Variable is LNYP

Date: 02/05/02 Time: 15:17

Sample(adjusted): 1 101

Included observations: 88

Excluded observations: 13 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.602897	0.577100	-1.044702	0.2992
LNYP	0.874460	0.075346	11.60591	0.0000
LNHL	0.307936	0.107961	2.852287	0.0055
LNINV	0.019419	0.051609	0.376270	0.7077
MINING	0.021419	0.025664	0.834609	0.4064
MALARIA	-0.019052	0.019141	-0.995323	0.3225
R-squared	0.880172	Mean dependent var	6.612692	
Adjusted R-squared	0.872866	S.D. dependent var	1.205193	
S.E. of regression	0.429722	Akaike info criterion	-1.623486	
Sum squared resid	15.14223	Schwarz criterion	-1.454577	
Log likelihood	-47.43321	F-statistic	120.4632	
Durbin-Watson stat	1.909309	Prob(F-statistic)	0.000000	

$$\text{Model (5): } \ln yp = c + \ln y + \ln(H/L) + \text{MINING}$$

LS // Dependent Variable is LNYP

Date: 02/05/02 Time: 23:57

Sample(adjusted): 1 101

Included observations: 98

Excluded observations: 3 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.870096	0.468805	-1.855989	0.0666
LNYP	0.898030	0.067954	13.21529	0.0000
LNHL	0.315171	0.105719	2.981215	0.0037
MINING	0.023678	0.026133	0.906036	0.3672
R-squared	0.873364	Mean dependent var	6.617305	
Adjusted R-squared	0.869322	S.D. dependent var	1.212423	
S.E. of regression	0.438283	Akaike info criterion	-1.609820	
Sum squared resid	18.05666	Schwarz criterion	-1.504312	
Log likelihood	-56.17477	F-statistic	216.0950	
Durbin-Watson stat	2.249843	Prob(F-statistic)	0.000000	

$$\text{Model (6): } \ln yp = c + \ln y + \ln(H/L) + \text{MALARIA}$$

LS // Dependent Variable is LNYP

Date: 02/06/02 Time: 00:01

Sample: 1 102

Included observations: 91

Excluded observations: 11

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.692203	0.491488	-1.408383	0.1626
LNYP	0.880854	0.070635	12.47048	0.0000
LNHL	0.320669	0.104412	3.071181	0.0028
MALARIA	-0.018859	0.018887	-0.998487	0.3208
R-squared	0.879972	Mean dependent var	6.627527	
Adjusted R-squared	0.875833	S.D. dependent var	1.206064	
S.E. of regression	0.424984	Akaike info criterion	-1.668447	
Sum squared resid	15.71319	Schwarz criterion	-1.558079	
Log likelihood	-49.20907	F-statistic	212.6109	
Durbin-Watson stat	1.915224	Prob(F-statistic)	0.000000	

Appendix 4.6 OLS Estimates, Malaysia

Model (1) $GINI = C + CV + TYR + LNGDP + LNGEPR1 + LNGESEC$

LS // Dependent Variable is GINI

Date: 03/11/02 Time: 16:04

Sample: 1970 2000

Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.740333	0.708085	1.045542	0.3058
CV	0.532625	1.383542	0.384972	0.7035
TYR	-0.033468	0.019548	-1.712126	0.0993
LNGDP	0.131849	0.030132	4.375749	0.0002
LNGEPR1	-0.098375	0.066750	-1.473782	0.1530
LNGESEC	-0.096892	0.056532	-1.713918	0.0989
R-squared	0.696534	Mean dependent var	0.487839	
Adjusted R-squared	0.635840	S.D. dependent var	0.024559	
S.E. of regression	0.014820	Akaike info criterion	-8.251539	
Sum squared resid	0.005491	Schwarz criterion	-7.973993	
Log likelihood	89.91176	F-statistic	11.47629	
Durbin-Watson stat	1.318633	Prob(F-statistic)	0.000008	

Model (2) $GINI = C + CV + TYR + LNGDP + LNGESEC$

LS // Dependent Variable is GINI

Date: 03/11/02 Time: 16:06

Sample: 1970 2000

Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.400769	0.684476	0.585512	0.5633
CV	0.956899	1.383425	0.691689	0.4953
TYR	-0.034090	0.019979	-1.706325	0.0999
LNGDP	0.132861	0.030795	4.314297	0.0002
LNGESEC	-0.148048	0.045616	-3.245509	0.0032
R-squared	0.670168	Mean dependent var	0.487839	
Adjusted R-squared	0.619425	S.D. dependent var	0.024559	
S.E. of regression	0.015151	Akaike info criterion	-8.232743	
Sum squared resid	0.005968	Schwarz criterion	-8.001454	
Log likelihood	88.62042	F-statistic	13.20700	
Durbin-Watson stat	1.168782	Prob(F-statistic)	0.000005	

Model (3) $GINI = C + CV + TYR + LNGDP + LNGEPR1$

LS // Dependent Variable is GINI

Date: 03/11/02 Time: 16:08

Sample: 1970 2000

Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.344570	0.693869	0.496592	0.6236
CV	1.262998	1.364442	0.925651	0.3631
TYR	-0.023870	0.019414	-1.229535	0.2299
LNGDP	0.132843	0.031229	4.253890	0.0002
LNGEPR1	-0.168619	0.054614	-3.087447	0.0048
R-squared	0.660876	Mean dependent var	0.487839	
Adjusted R-squared	0.608703	S.D. dependent var	0.024559	
S.E. of regression	0.015363	Akaike info criterion	-8.204961	
Sum squared resid	0.006136	Schwarz criterion	-7.973672	
Log likelihood	88.18979	F-statistic	12.66704	
Durbin-Watson stat	1.314171	Prob(F-statistic)	0.000008	

Model (4) GINI = C + CV + LNGDP + LNGEPR1 + LNGESEC

LS // Dependent Variable is GINI

Date: 03/11/02 Time: 16:10

Sample: 1970 2000

Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.028637	0.567385	-0.050472	0.9601
CV	2.330638	0.933602	2.496393	0.0192
LNGDP	0.146273	0.029986	4.878105	0.0000
LNGEPR1	-0.100843	0.069169	-1.457929	0.1568
LNGESEC	-0.069162	0.056138	-1.231991	0.2290
R-squared	0.660951	Mean dependent var	0.487839	
Adjusted R-squared	0.608789	S.D. dependent var	0.024559	
S.E. of regression	0.015361	Akaike info criterion	-8.205180	
Sum squared resid	0.006135	Schwarz criterion	-7.973892	
Log likelihood	88.19320	F-statistic	12.67125	
Durbin-Watson stat	1.234429	Prob(F-statistic)	0.000008	

Model (5) GINI = C + CV + LNGDP + LNGESEC

LS // Dependent Variable is GINI

Date: 03/11/02 Time: 16:11

Sample: 1970 2000

Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.391543	0.520387	-0.752407	0.4583
CV	2.800038	0.894409	3.130603	0.0042
LNGDP	0.147585	0.030590	4.824558	0.0000
LNGESEC	-0.121097	0.044283	-2.734589	0.0109
R-squared	0.633233	Mean dependent var	0.487839	
Adjusted R-squared	0.592481	S.D. dependent var	0.024559	
S.E. of regression	0.015678	Akaike info criterion	-8.191114	
Sum squared resid	0.006636	Schwarz criterion	-8.006084	
Log likelihood	86.97518	F-statistic	15.53871	
Durbin-Watson stat	1.105865	Prob(F-statistic)	0.000005	

Model (6) GINI = C + CV + LNGDP + LNGEPR1

LS // Dependent Variable is GINI

Date: 03/11/02 Time: 16:13

Sample: 1970 2000

Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.164899	0.561811	-0.293514	0.7714
CV	2.497606	0.932528	2.678316	0.0124
LNGDP	0.143829	0.030205	4.761688	0.0001
LNGEPR1	-0.154917	0.053970	-2.870444	0.0079
R-squared	0.641158	Mean dependent var	0.487839	
Adjusted R-squared	0.601287	S.D. dependent var	0.024559	
S.E. of regression	0.015507	Akaike info criterion	-8.212960	
Sum squared resid	0.006493	Schwarz criterion	-8.027929	
Log likelihood	87.31378	F-statistic	16.08067	
Durbin-Watson stat	1.251708	Prob(F-statistic)	0.000003	

Model (7) GINI = C + TYR + LNGDP + LNGESEC

LS // Dependent Variable is GINI

Date: 03/11/02 Time: 16:15

Sample: 1970 2000

Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.862817	0.147826	5.836694	0.0000
TYR	-0.044880	0.012361	-3.630744	0.0012
LNGDP	0.117670	0.021379	5.504056	0.0000
LNGESEC	-0.165857	0.037289	-4.447816	0.0001
R-squared	0.664099	Mean dependent var	0.487839	
Adjusted R-squared	0.626776	S.D. dependent var	0.024559	
S.E. of regression	0.015004	Akaike info criterion	-8.279025	
Sum squared resid	0.006078	Schwarz criterion	-8.093994	
Log likelihood	88.33779	F-statistic	17.79358	
Durbin-Watson stat	1.103437	Prob(F-statistic)	0.000001	

Model (8) GINI = C + TYR + LNGDP + LNGEPRI

LS // Dependent Variable is GINI

Date: 03/11/02 Time: 16:16

Sample: 1970 2000

Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.965790	0.175761	5.494915	0.0000
TYR	-0.037094	0.013109	-2.829615	0.0087
LNGDP	0.111687	0.021224	5.262292	0.0000
LNGEPRI	-0.195358	0.046226	-4.226125	0.0002
R-squared	0.649700	Mean dependent var	0.487839	
Adjusted R-squared	0.610778	S.D. dependent var	0.024559	
S.E. of regression	0.015322	Akaike info criterion	-8.237053	
Sum squared resid	0.006338	Schwarz criterion	-8.052022	
Log likelihood	87.68723	F-statistic	16.69228	
Durbin-Watson stat	1.264391	Prob(F-statistic)	0.000002	

Model (9) GINI = C + CV + LNGDP + LNGESEC + UNRT + INFL

LS // Dependent Variable is GINI

Date: 03/11/02 Time: 16:19

Sample: 1970 2000

Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.255306	0.561219	-0.454912	0.6531
CV	2.514042	0.987973	2.544647	0.0175
LNGDP	0.135678	0.034788	3.900125	0.0006
LNGESEC	-0.118660	0.046565	-2.548272	0.0173
UNRT	-0.000918	0.002384	-0.385178	0.7034
INFL	-0.000596	0.000735	-0.812076	0.4244
R-squared	0.642661	Mean dependent var	0.487839	
Adjusted R-squared	0.571194	S.D. dependent var	0.024559	
S.E. of regression	0.016082	Akaike info criterion	-8.088126	
Sum squared resid	0.006466	Schwarz criterion	-7.810580	
Log likelihood	87.37886	F-statistic	8.992329	
Durbin-Watson stat	1.049657	Prob(F-statistic)	0.000054	

Model (10) $GINI = C + CV + LNGDP + LNGEPR1 + UNRT + INFL$

LS // Dependent Variable is GINI

Date: 03/11/02 Time: 16:21

Sample: 1970 2000

Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.093766	0.596233	-0.157264	0.8763
CV	2.328119	1.014837	2.294081	0.0305
LNGDP	0.135704	0.034640	3.917512	0.0006
LNGEPR1	-0.150306	0.057833	-2.598990	0.0155
UNRT	-0.000575	0.002404	-0.239063	0.8130
INFL	-0.000412	0.000740	-0.557484	0.5822
R-squared	0.645599	Mean dependent var	0.487839	
Adjusted R-squared	0.574719	S.D. dependent var	0.024559	
S.E. of regression	0.016016	Akaike info criterion	-8.096381	
Sum squared resid	0.006413	Schwarz criterion	-7.818835	
Log likelihood	87.50681	F-statistic	9.108314	
Durbin-Watson stat	1.190249	Prob(F-statistic)	0.000049	

Model (11) $GINI = C + TYR + LNGDP + LNGESEC + UNRT + INFL$

LS // Dependent Variable is GINI

Date: 03/11/02 Time: 16:22

Sample: 1970 2000

Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.761014	0.145804	5.219437	0.0000
TYR	-0.060639	0.015015	-4.038582	0.0004
LNGDP	0.117628	0.021778	5.401269	0.0000
LNGESEC	-0.132927	0.037525	-3.542408	0.0016
UNRT	-0.005611	0.002322	-2.415913	0.0233
INFL	-0.000479	0.000630	-0.760468	0.4541
R-squared	0.727735	Mean dependent var	0.487839	
Adjusted R-squared	0.673282	S.D. dependent var	0.024559	
S.E. of regression	0.014038	Akaike info criterion	-8.360033	
Sum squared resid	0.004926	Schwarz criterion	-8.082487	
Log likelihood	91.59342	F-statistic	13.36444	
Durbin-Watson stat	1.285757	Prob(F-statistic)	0.000002	

Model (12) $GINI = C + TYR + LNGDP + LNGEPR1 + UNRT + INFL$

LS // Dependent Variable is GINI

Date: 03/11/02 Time: 16:24

Sample: 1970 2000

Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.816165	0.187509	4.352680	0.0002
TYR	-0.053894	0.016875	-3.193813	0.0038
LNGDP	0.109859	0.022604	4.860166	0.0001
LNGEPR1	-0.149124	0.050991	-2.924541	0.0072
UNRT	-0.005019	0.002594	-1.934521	0.0644
INFL	-0.000405	0.000675	-0.600840	0.5534
R-squared	0.695312	Mean dependent var	0.487839	
Adjusted R-squared	0.634374	S.D. dependent var	0.024559	
S.E. of regression	0.014850	Akaike info criterion	-8.247520	
Sum squared resid	0.005513	Schwarz criterion	-7.969974	
Log likelihood	89.84947	F-statistic	11.41020	
Durbin-Watson stat	1.280092	Prob(F-statistic)	0.000008	

Appendix 4.7

Breusch-Godfrey Serial Correlation LM Test: AR (1)

F-statistic	2.589351	Probability	0.120661	
Obs*R-squared	3.018874	Probability	0.082301	
Test Equation:				
LS // Dependent Variable is RESID				
Date: 04/30/02 Time: 16:03				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.306561	0.712538	0.430238	0.6709
CV	-0.556269	1.385378	-0.401529	0.6916
TYR	-0.003273	0.019063	-0.171711	0.8651
LNGDP	-0.010988	0.030005	-0.366206	0.7174
LNGEPRI	-0.011869	0.065143	-0.182203	0.8570
LNGESEC	-0.004852	0.054900	-0.088372	0.9303
RESID(-1)	0.327727	0.203665	1.609146	0.1207
R-squared	0.097383	Mean dependent var		-1.97E-16
Adjusted R-squared	-0.128271	S.D. dependent var		0.013529
S.E. of regression	0.014370	Akaike info criterion		-8.289480
Sum squared resid	0.004956	Schwarz criterion		-7.965676
Log likelihood	91.49984	F-statistic		0.431559
Durbin-Watson stat	1.695051	Prob(F-statistic)		0.850515

Breusch-Godfrey Serial Correlation LM Test: AR (2)

F-statistic	2.951829	Probability	0.072262	
Obs*R-squared	6.331843	Probability	0.042175	
Test Equation:				
LS // Dependent Variable is RESID				
Date: 04/30/02 Time: 16:06				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.116405	0.691928	0.168233	0.8679
CV	-0.218650	1.342572	-0.162859	0.8721
TYR	-0.001838	0.018302	-0.100425	0.9209
LNGDP	-0.003816	0.029066	-0.131299	0.8967
LNGEPRI	-0.017884	0.062575	-0.285805	0.7776
LNGESEC	0.010719	0.053396	0.200743	0.8427
RESID(-1)	0.417564	0.201918	2.067983	0.0501
RESID(-2)	-0.353993	0.201414	-1.757536	0.0921
R-squared	0.204253	Mean dependent var		-1.97E-16
Adjusted R-squared	-0.037931	S.D. dependent var		0.013529
S.E. of regression	0.013783	Akaike info criterion		-8.350981
Sum squared resid	0.004369	Schwarz criterion		-7.980919
Log likelihood	93.45311	F-statistic		0.843380
Durbin-Watson stat	1.875261	Prob(F-statistic)		0.563480

Breusch-Godfrey Serial Correlation LM Test: AR (3)

F-statistic	1.935622	Probability	0.153326	
Obs*R-squared	6.473683	Probability	0.090706	
Test Equation:				
LS // Dependent Variable is RESID				
Date: 04/30/02 Time: 16:09				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.165980	0.719002	0.230848	0.8196
CVEDI	-0.300193	1.387753	-0.216316	0.8307
TYR	-0.001760	0.018661	-0.094330	0.9257
LNGDP	-0.005869	0.030187	-0.194409	0.8476
LNGEEPRI	-0.019917	0.064051	-0.310962	0.7588
LNGESEC	0.009685	0.054516	0.177663	0.8606
RESID(-1)	0.447659	0.222482	2.012117	0.0566
RESID(-2)	-0.382670	0.220526	-1.735263	0.0967
RESID(-3)	0.080573	0.225890	0.356693	0.7247
R-squared	0.208828	Mean dependent var		-1.97E-16
Adjusted R-squared	-0.078870	S.D. dependent var		0.013529
S.E. of regression	0.014052	Akaike info criterion		-8.292231
Sum squared resid	0.004344	Schwarz criterion		-7.875912
Log likelihood	93.54249	F-statistic		0.725858
Durbin-Watson stat	1.907532	Prob(F-statistic)		0.667523

Appendix 4.8 Correlation Matrix

	CV	TYR	LNGDP	LNGEPR1	LNGESEC
CV	1.000000	-0.985881	-0.990095	-0.981087	-0.976726
TYR	-0.985881	1.000000	0.969453	0.960750	0.950411
LNGDP	-0.990095	0.969453	1.000000	0.971791	0.968888
LNGEPR1	-0.981087	0.960750	0.971791	1.000000	0.984586
LNGESEC	-0.976726	0.950411	0.968888	0.984586	1.000000

Appendix 4.9 Regressions for Kuznets curve

Dependent variable is the Gini coefficient

Indep. Vars.

I. Log-specification

Log gdp*	0.296
	(1.877)
[log gdp]^2	-0.019
	(-1.972)

II. Square-specification

gdp**	3.20
	(0.462)
[gdp]^2***	-7.36
	(-1.123)

III. Anand-Kanbur specification

gdp**	-7.22
	(-2.616)
1/gdp	-37.164
	(-1.216)

Note:

T-statistics in parenthesis.

* gdp corresponds to per capita GDP at 1990 constant price

** Coefficient is multiplied by 10^{-6} .

*** Coefficient is multiplied by 10^{-10} .

Kuznets Curves

