

Drivers of Growth and Poverty Reduction in Malaysia: Government Policy, Export Manufacturing and Foreign Direct Investment

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Abstract: This paper examines the relationship between growth and poverty reduction in Malaysia. The evidence supports three propositions. First, policy instruments were important in stimulating export manufacturing, foreign direct investment and poverty reduction. Second, export manufacturing helped stimulate economic growth and labour force participation rates. Third, foreign direct investment was instrumental in stimulating export manufacturing and in the process assisted in reducing poverty levels. Ineffective upgrading policies slowed down manufacturing growth from the mid-1990s. Sustained growth and pro-distribution interventions were significant in explaining falling levels of poverty and inequality. The paper also argues that government failures undermined export manufacturing and economic growth. The three obvious excesses are one, the allocation of subsidies to unproductive heavy industries, two the sub-optimal privatisation initiatives involving public utilities, and three the application of affirmative action policies on the basis of ethnicity rather than income levels.

Keywords: Foreign direct investment, growth, inequality, Malaysia, manufacturing, poverty
JEL classification: I39, O14, F21

1. Introduction

This paper attempts to re-examine some of the critical issues Ungku Aziz (1962; 1964) had pioneered but locates the analysis on the key drivers of per capita income growth and poverty alleviation in Malaysia. The paper begins with the premise that growth and poverty (both absolute and relative) reduction in Malaysia was achieved on the basis of explicit policies to increase export-orientation and foreign direct investment (FDI) inflows into manufacturing, and incorporating specific instruments to guide poverty alleviation and redistribution.

Three critical propositions are advanced here to examine the relationship between growth and poverty reduction in Malaysia. First, explicit policy instruments were important in stimulating export manufacturing, FDI and in reducing poverty. Second, owing to the small size of the domestic market, export manufacturing helped stimulate economic growth and labour force participation rates and reduced poverty. This proposition was preferred to export-orientation in general as the Malaysian government identified in the Second Malaysia

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I am dedicating this paper to Royal Professor Ungku Aziz who was among the earliest scholars to apply rigorous economic theory to examine poverty and development problems in Malaysia. The charismatic Ungku Aziz stood out for so many years as a beacon of academic leadership in the country in general, and University of Malaya in particular. I am grateful to Mokhtar Tamin and Datuk Hashim Yaacob for recommending me to this task, and an anonymous referee for his/her comments.

Plan export-oriented manufacturing as the engine of growth (see Malaysia 1971). Third, foreign direct investment was instrumental in stimulating export manufacturing-led growth and in doing so assisted in reducing poverty.

2. Literature Review

Government policy is examined in the promotion of export manufacturing and FDI, and in poverty reduction. Instead of providing an extensive review of the literature on the key issues evaluated, the attempt here is to examine the key relationships that are expected between the important variables analysed.

2.1 *Export-Manufacturing and Growth*

Consistent with Smith's (1776) exposition, both free trade (see Ricardo 1817; Bhagwati 1979; Krueger 1983; Leamer 1995¹) and infant industry (List 1885; Kaldor 1958; Lewis 1955; Myrdal 1957) exponents support export-orientation to drive growth for its scale and scope properties and competition effects. Hirschman (1958; 1970) also argued that export-orientation will provide the scale necessary to stimulate backward linkages.

However, while the free trade theorists emphasised specialisation on the basis of static comparative advantage, the infant industry exponents considered scale as necessary to promote efficiency gains in industries enjoying differentiating capacities to appropriate increasing returns (see Young 1928; Kaldor, 1962; 1967).² There is now ample evidence of successful development through the promotion of industrialisation (see Hamilton 1791; List 1885; Abramovitz 1955; Gerschenkron 1962; Kaldor 1967; Johnson, 1982; Deyo 1985; Amsden 1989; Wade 1990; Lall 1994; 1996; Chang 2003; Reinert 2007). Hence, the paper assumes a positive relationship between export-oriented manufacturing growth and growth in gross domestic product (GDP), investment and labour force participation rates (see Table 1).

Since deliberate government-led actions rather than relative factor prices predicate the industrialisation drive articulated by increasing returns exponents, the paper also examines the relationship between export-oriented industrial policy and GDP growth. The successful export thrust behind industrial policy instruments have been argued by Amsden (1989), Wade (1990), Chang (1994), and Amsden and Chu (2003) as the key driver of rapid economic growth of Korea and Taiwan. The World Bank (1993) acknowledged a number of the policy interventions though it chose to discourage it by claiming that the circumstances faced by most other late-comer economies and the international environment no longer allowed it.

2.2 *Foreign Direct Investment and Growth*

The role of FDI in economic growth remained a controversial topic for a number of decades (Vernon, 1977). Radical critics—neo-Marxists and structural economists—considered its role to debilitate host-country development. Supporters pointed to its role to provide positive spillovers through markets, competition, technology diffusion and demonstration effect (see Jenkins 1984; Rasiah 1995: chap. 2). Since the collapse of the Soviet Union, the debate

¹ Leamer (1995) discussed free trade supporting the Heckscher-Ohlin model in English.

² Verdoorn relationship.

Table 1: Expected relationships, Malaysia

Independent variables	Dependent				
	GDP growth	FLFP	LFP	Poverty	Distribution
Xman	+ve	+ve	+ve	+ve	Unclear
Xother	Unclear	Unclear	Unclear	Unclear	Unclear
FI	Unclear	Unclear	Unclear	Unclear	Unclear
GDP		+ve	+ve	+ve	Unclear
LFP	+ve			+ve	Unclear
FLFP	+ve			+ve	Unclear

Note: Xman – share of manufactured exports in GDP; Xother – share of non manufactured exports in GDP; FI – net foreign direct investment in gross fixed capital formation; GDP – Gross Domestic Product; LFP – Labour Force Participation; FLFP – Female Labour Force Participation.

shifted for good from ideological to empirical. However, the empirical evidence on the impact of FDI on GDP continues to be inconclusive (Rasiah 2007).

In countries such as Singapore and Ireland where FDI has been considered to have played an important role over a long period, there is evidence of leveraging government policies to direct their activities towards upgrading and rooting domestically (Lall 1996; Best 2001). Hence, despite the potential benefits FDI can bring to some economies, the lack of the requisite conditioning policies – owing to the pursuance of neo-liberal prescriptions or benign neglect or owing to asymmetric bargaining relationships with multinationals – a number of developing economies have failed to upgrade thereby reducing their own attractiveness to sustain FDI levels as relative production costs rose (see Rasiah, 2007). Hence, the relationship between FDI and GDP growth is considered unclear in this paper (see Table 1).

FDI inflows will have a direct effect of raising investment levels though in the process, domestic investment can also be crowded out (see Lall and Streeten 1977; Kumar and Pradhan 2002). However, where FDI is largely targeted to export-oriented manufacturing activities the ‘stealing’ of markets from domestic firms seldom arises in early developers. Given the properties of increasing returns, FDI participation in export-oriented manufacturing is also expected to raise labour force participation rates. The expansion of employment – especially female labour – by firms relocating in export processing zones have been a major employment creator in Malaysia, Philippines, Indonesia, Vietnam, Cambodia and China (see Lim 1978; Young *et al.* 1980; Jomo 1990; 2007; Ariff, 1991; Athukorola and Menon 1996; Rasiah 1994; 2005).

2.3 Growth and Poverty

Two types of poverty are distinguished here, that is, absolute and relative. The first relates to the capacity of incomes of individuals to enjoy a certain bare set of necessities while the second relates to the relative differences in individuals’ income levels. While there is consensus that absolute poverty should be eradicated, there is often debate over whether inequality can and should be removed. This paper examines the relationship between growth and both types of poverty.

There is historical evidence of absolute poverty levels falling with economic growth (see Rasiah *et al.* 1995; Kakwani and Mehdi 2000; Ishak and Rogayah 1990; Ishak 2000; World Bank 1993; Hill 1996) and several studies provide evidence of absolute poverty levels showing a trend decline in the economies of Korea, Taiwan, Singapore, Malaysia, Indonesia and Thailand. However, behind this trend fall in absolute poverty levels, there has been government-led interventions. In Korea and Taiwan, land reforms created the initial conditions for economic transformation (see Amsden 1989; Wade 1990). China and Vietnam faced broader land reforms under communist regimes. Deliberate attempts to draw FDI to stimulate export manufacturing as a vehicle to drive growth and alleviate poverty were important in Singapore and Malaysia (see Wong 1998; Malaysia 1971). China and Vietnam partially absorbed the FDI strategy to alleviate poverty by stimulating export manufacturing from the 1980s and 1990s respectively. Thailand and Indonesia used this strategy from the 1980s and 1990s respectively (see Rasiah, 1998). Philippines' initial attempt to follow this strategy in the early 1970s was temporarily derailed by the communist insurgency but resumed such efforts following the collapse of Marcos in the mid-1980s. Whereas in Korea, Taiwan and China, domestic capital-led export manufacturing was critical; in Singapore, Malaysia, Thailand, Philippines, Indonesia, China and Vietnam, FDI-led export manufacturing was important in raising labour force participation rates. Hence, one can expect a trend fall in absolute poverty levels in the Malaysian data given that the country has faced steady economic growth over the period 1960-2006.

However, the relationship between growth and distribution is not obvious. The most famous work relating income growth to relative poverty is the Kuznets' (1955) inverted 'U-shaped' curve. Kuznets (1955; 1963) observed an inverse relationship between the logarithm of per capita income and income distribution in the developed economies, explaining the transition to structural change. Inter-sectoral productivity differences and demographic transition was argued to account for the initial worsening of income distribution before the convergence of inter-sectoral productivity differences reverses this trend. Kuznet's seminal work was historical and laid the foundations to explain changes in per capita income with economic growth. This study became famous with replicative work on developing economies by Oshima (1962), Adelman and Morris (1971), Robinson (1971) and Ahluwalia (1976). Although Kuznet appropriately limited his findings to explaining the socio-economic basis for the 'U-shaped' transition income inequality in the developed economies, replicative studies using developing economy experiences were calling for its proclamation as a law (see Robinson 1971; Ahluwalia 1976).

Subsequent work by Anand and Kanbur (1984), Fields (1989), Rasiah *et al.* (1996) and Palma (2002) seriously questioned the merits of this argument. Rasiah *et al.* (1996) argued that contrasting initial conditions and substantial differences in government policy on distribution helped produce a somewhat upright 'U-shaped' curve in Korea and Taiwan. The longitudinal data from Malaysia against per capita income discussed in that paper also did not lend support to the Kuznets' conjecture. Hence, this paper departs from the Kuznet's framework to examine poverty and distribution.

Young (1928), Kaldor (1967) and Reinert (2007) had also argued that emphasis on manufacturing is important to drive the differentiation and division of labour necessary to expand labour absorption. Hence, rising manufacturing expansion is expected to drive both

female (FLFP) and overall labour force participation (LFP). Increased labour absorption is expected to reduce absolute poverty levels (see Table 1).

Hence, the key relationships this paper seeks to examine are: (i) the link between manufacturing growth (including policy) and foreign direct investment, and GDP growth, and (ii) the link between growth and poverty and distribution. A positive relationship is expected between manufacturing growth and GDP growth, and an inverse relationship between GDP growth and poverty levels (see Table 1). The relationship between net FDI in gross fixed capital formation (FI) and per capita GDP, and between GDP growth and distribution is expected to be unclear.

3. Methodology and Results

To test the first two propositions of whether export-orientation and foreign direct investment drove GDP growth, this paper uses statistical relationships and interpretative assessments. The availability of long and continuous time series data enabled the use of statistical analyses of the relationship between growth, export-orientation, labour force participation and FDI flows. However, the lack of a reliable time series prevented a similar assessment of these variables on poverty and distribution trends. Hence the latter relies on interpretative evaluation. Also, the critical variable of basic infrastructure, which is directly related to the alleviation of poverty (for example, education, health, transport, utilities and telecommunications), was not examined statistically owing to the lack of consistent time series data. The latter will be introduced in the last section through interpretative analysis.

Two quantitative exercises were adopted to examine statistical relationships between per capita income (the logarithm of per capita income [$\ln(P)$], and GFCF (gross fixed capital formation) per unit of labour [$\ln(K/L)$], manufactured exports in GDP (MXGDP), other exports in GDP (OXGDP) and net FDI in GFCF (FI). Year dummies (Y_{dum}) and export manufacturing policy emphasis dummies (MXP_{dum}) were introduced. Following the usual norm, results involving the year dummy—used to remove serial correlation—are not reported in the paper. Although policy initiatives began by the mid-1960s – through the founding of the Federal Industrial Development Authority in 1964 (renamed as the Malaysian Industrial Development Authority in 1965) and the Investment Incentives Act of 1968—export-oriented foreign firms relocated significant amounts of operations only after the Free Trade Zones (FTZs) were opened in 1972. The following regression equation was run and the results are presented in Table 1.

$$\ln(P) = \alpha + \beta_1 FI + \beta_2 Xman/GDP + \beta_3 \ln(K/L) + \beta_4 MXP_{dum} + \mu \quad (1)$$

where $\ln(P)$, FI , $Xman/GDP$, $\ln(K/L)$ and MXP_{dum} refer to the natural logarithm of GDP per capita in 1990 prices, net FDI in GFCF, manufactured exports as a share of GDP, GFCF over labour force and export manufacturing policy emphasis respectively. $MXP_{dum} = 1$ during EO_1 and EO_2 , $MXP_{dum} = 0$ in other years. Lagging the dependent variable and unlimited lags using the ARIMA model did not improve the statistical results and hence the above model was retained to maximise the number of observations.

In the second quantitative exercise, Pearson correlation coefficients were used to examine the bivariate relationships between the variables of $Xman/GDP$, $Xother/GDP$, $\ln(P)$ and FI . In addition, the variables of labour force participation (LFP) and female labour force participation rates (FLFP) were added.

The third exercise examines interpretatively the impact of government-driven export manufacturing and FDI growth on the alleviation of absolute and relative poverty. Poverty trends were not examined using statistical relationships owing to a lack of continuous time series data.

The first two quantitative exercises rely on *World Development Institute* data (World Bank 2002) and national statistical database (Malaysia 1980), while the last part on absolute and relative poverty draws from the statistical annexes of *World Development Report* (World Bank 1980-2000). The statistical analysis was conducted using the *SPSS* package.

3.1 Export-Manufacturing, FDI, GDP Per Capita and Labour Force Participation

This section examines the determinants of GDP per capita and bivariate relationships between GDP per capita, manufactured exports, non-manufacturing exports, FDI, labour force participation rates (including females separately).

The variable of just export share in GDP was dropped owing to government focus on export manufacturing as the engine of growth to drive poverty alleviation (Malaysia 1971). The first exercise used *OLS* regressions and the results are presented in Table 2. Figure 1 shows the share of exports in GDP. The critical variable of $\ln(K/L)$ was significant and had the right positive sign. The explanatory variable of export manufacturing (X_{man}) also showed a positive and highly significant relationship with per capita income growth in the country. Figure 2 shows the share of manufactured exports in GDP. Overall, the results show that export manufacturing was important in stimulating per capita income growth in Malaysia.

FI was also significant in Malaysia, but the relationship was inverse. The latter is a consequence of FDI shares in both falling gradually overall in trend terms (see Figure 3). While the regression model used does not capture spillovers from FI , there has indeed been a trend fall in net inflows of FDI since the mid-1990s owing to rising production costs in the face of emerging locations with larger a labour force – especially China, Vietnam, Philippines and Indonesia. While Singapore averted potential hollowing out from competition with these economies by upgrading, Malaysia has failed to create effective institutional changes to make such a transition. Even in the electric-electronics industry, foreign ownership of fixed assets in Malaysia turned from its peak of 91 per cent in 1993 to record 83 per cent in 1998 and 80 per cent in 2000 (Rasiah 2006).

Nevertheless, given the dominant position of FDI in the growth of the key export sub-sector of electronics which still accounted for over 72.5 per cent of manufacturing exports in 2000 (see Rasiah 2008: Table 3), a study of spillovers will help provide more reliable answers. Although most studies showed relatively little pecuniary inputs acquired by exporters of foreign manufactured goods from domestic producers (see Capanelli 1999), wage income and technological spillovers have been instrumental in stimulating the growth of domestic firms (see Rasiah 1994; 1995). Especially, wages earned by employees working in foreign export-oriented firms helped raise consumer demand. Rasiah (1994; 1996; 2002) produced significant examples of technology diffusion through human capital transfers and subcontracting to local firms in the electronics industry.

The export manufacturing policy dummy variable MP_{dum} was also significant and positive. The dummy clearly identified only the periods of 1970-80 (EO_1) and 1986-2000 (EO_2) with export-manufacturing (see also Table 3). The initial spur through incentives and

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Table 2: Per capita income regression results, Malaysia, 1963-2000

Dep: $\ln(\text{GDP/Capita})$	
Intercept	3.805 (16.692)*
$\ln(KL)$	0.532 (15.461)*
FI	-0.892 (-2.821)*
$Xman$	0.353 (4.541)*
MXP_{dum}	0.076 (2.586)*
R^2	0.989
DW	1.871#
F	340.5*
N	37

Source: Computed using World Bank (2001) data.

Note: Figures in parentheses refer to t -ratios; * - Significant at 1 per cent level; Results of year dummy to remove auto-correlation not reported (they were positive and significant but close to zero). Stationarity tests showed the model to be stable. LM test confirmed the presence of no autocorrelation. Separate correlation test showed no problems of multi-collinearity between independent variables; # - passed the Durbin Watson test.

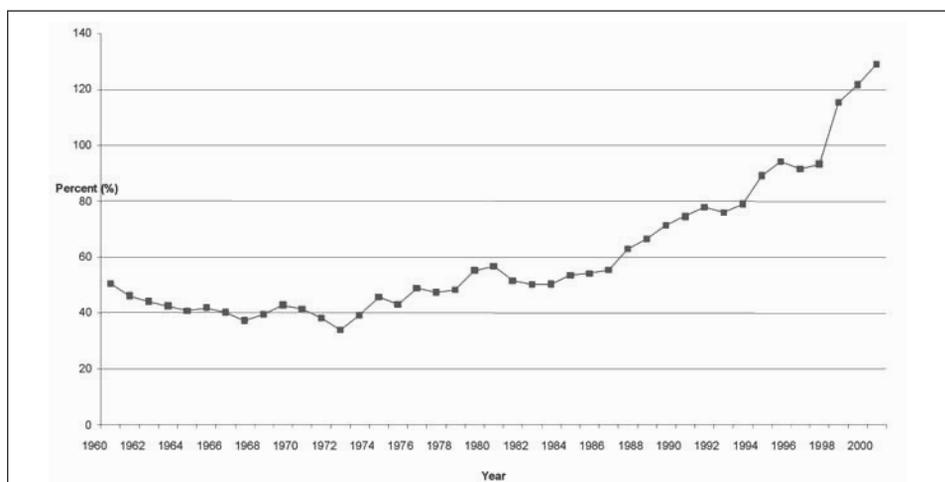


Figure 1: Export share in GDP, Malaysia, 1960-2000

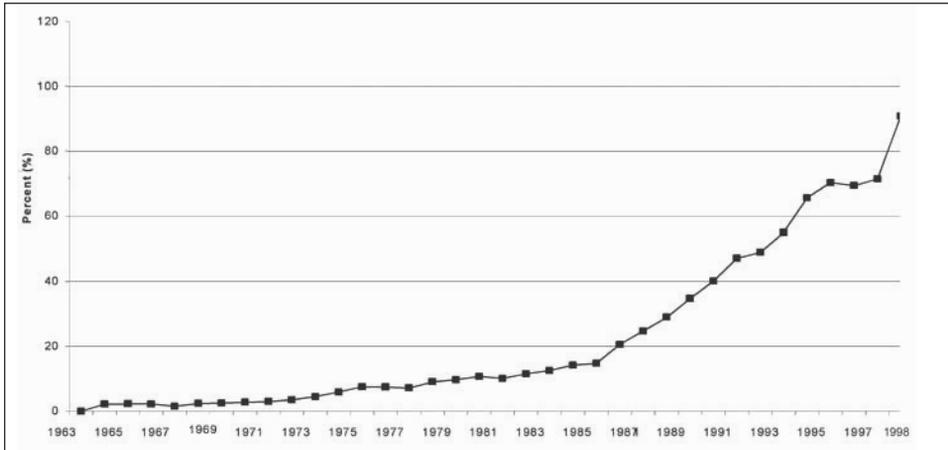


Figure 2: Manufactured exports in GDP, Malaysia, 1963-2000

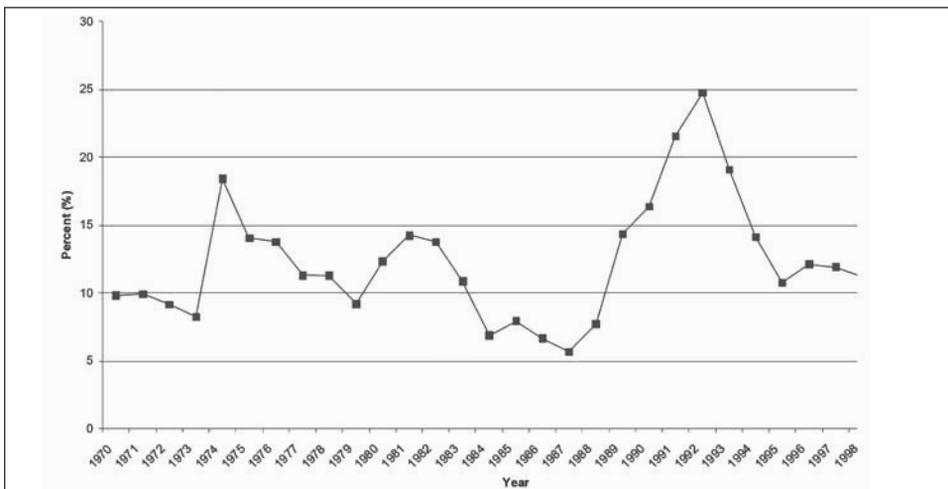


Figure 3: Net FDI Levels in GFCF, Malaysia, 1970-2000

ownership deregulation involving export manufacturing was important in attracting and creating the momentum to sustain manufactured export growth.

The second exercise used Pearson correlation coefficients and the results are presented in Table 4. X_{man}/GDP showed strong positive correlation coefficients with $\ln(P)$, LFP and $FLFP$. These results suggest that export manufacturing was instrumental in stimulating income, investment flows and employment creation (including female employment). Malaysia enjoyed positive growth in overall and female labour force participation (see Figure 4).

The results for non-manufacturing exports (X_{others}/GDP) were generally negative. Rapid growth in manufactured exports explains this inverse relationship (see Figure 2). X_{others}/GDP 's relationship with $\ln(P)$, LFP and $FLFP$ were significant but negative. The

Table 3: Industrial strategies and trade orientation, Malaysia, 1958-2007

Phases	Trade orientation	Period of dominance	Policy instruments
Phase 1	IS_1	1958-1970	Pioneer Industries Ordinance, 1958
Phase 2	EO_1	1970-1980	Investment Incentives Act, 1968 Free Trade Zone Act 1971
Phase 3	IS_2	1980-1985	Heavy Industries Corporation of Malaysia (HICOM) 1980
Phase 4	EO_2	1986-2007	Industrial Master Plan 1986; Promotion of Investment Act, 1986; Action Plan for Industrial Technology Development (APITD) 1990; IMP2, 1996

Source: Compiled by author

Table 4: Pearson correlation coefficients, Malaysia, 1960-2000

	$\ln(P)$	X_{man}/GDP	X_{other}/GDP	FI
X_{man}/GDP	0.888			
t	0.000*			
N	37			
X_{other}/GDP	-0.675	-0.851		
t	0.000*	0.000*		
N	37	37		
FI	0.212	0.191	-0.235	
t	0.261	0.313	0.211	
N	37	37	37	
$FLFP$	0.994	0.858	-0.609	0.162
t	0.000*	0.000*	0.000*	0.393
N	40	37	37	37
LFP	0.975	0.806	-0.524	0.136
t	0.000*	0.000*	0.001*	0.473
N	40	37	37	37

Note: Two-tailed tests were run because of unclear relationships between some variables;
* - significant at 1 per cent level; ** - significant at 10 per cent level.

Source: Computed from World Bank (2001) data using SPSS package

coefficient of FDI was close to zero. The negative relationship between non-manufactured exports and the other significant important variables – including GDP per capita - obviously show that it has not been a significant driver of growth in Malaysia over the period 1960-2000.

The relationship between FDI and the other variables was generally insignificant. Nevertheless, FDI showed the expected positive sign. FDI only enjoyed a positive but moderate relationship with the key model variable of $\ln(KL)$. As explained earlier the

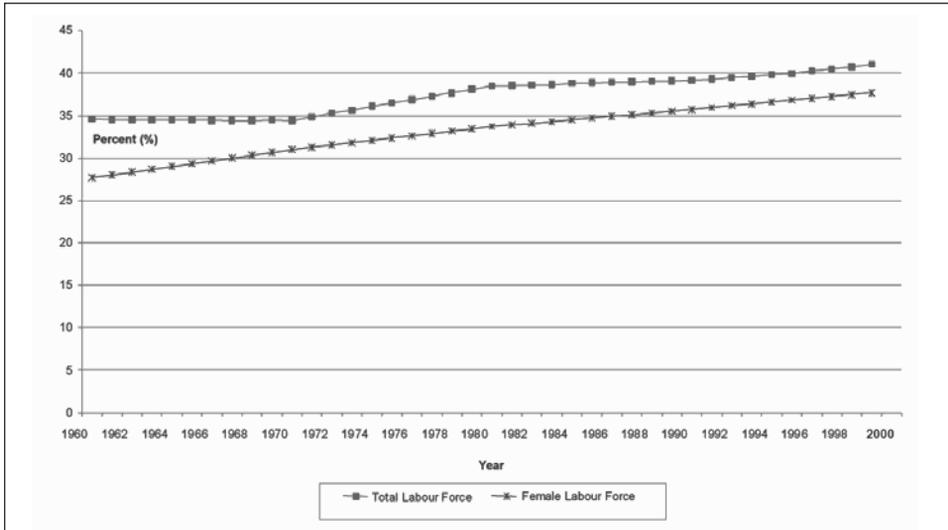


Figure 4: Labour force participation rates, Malaysia, 1960-2000

relative fall in net FDI inflows after 1993, for reasons also detailed earlier, explains this relationship (see Figure 3). FDI was important at least until the 1990s as separate Pearson correlation coefficient tests between FDI and per capita GDP, and export manufacturing over the period 1960-1993 shows a positive and significant relationship.

The very strong and positive relationship between $\ln(P)$, and LFP and $FLFP$ also shows that growth in income helped increase employment absorption. Labour absorption continued to remain strong in the 1990s in Malaysia (see Figure 4). Female employment also rose sharply as a consequence, the rise being sharpest in the early 1970s.

The correlation coefficient results strengthen the proposition that export manufacturing helped sustain growth in income and employment absorption in Malaysia. Non manufacturing exports declined progressively in importance. A few conclusions arise from these results. First, export manufacturing stimulated strong labour force participation rates in the country. Second, female labour force participation rates too rose strongly with export manufacturing – which is understandable given the assembly and processing nature of value chain segments that emerged in Malaysia over the period 1972-2000 (see Lim 1978; Rasiah 1988; 1995; 1998). The key export-oriented manufacturing industry in Malaysia (that is, electric and electronics) is dominated by foreign ownership. These results suggest that the out-migration of workers – particularly female workers – from primary sectors (especially agriculture) – was driven strongly by growth in export manufacturing. Poverty, rising education levels, natural resource depletion, increasing capital-intensity levels in agriculture and government promotion stimulated the movement of workers to export manufacturing.

3.2 Absolute and Relative Poverty

The previous section established the significance of export manufacturing in boosting GDP per capita growth and labour force participation rates. This section will argue that expansion

in FDI-led export manufacturing, income and labour force participation rates offered a strong basis for reducing absolute and relative poverty in Malaysia. While export manufacturing on its own did not apply negative pressure on income inequality, specific government instruments played important roles in improving absolute and relative poverty. These achievements followed complex efforts that often deviated from available conventional analyses of liberalisation and export-orientation (World Bank, 1993).

The incidence of absolute poverty in Malaysia fell from 52.4 per cent in 1970 to 6.1 per cent in 1997 (see Table 5). Only in 1999 did the figure rise again over the 1970-2002 period. The incidence of rural poverty (11.0 per cent) remained higher than urban poverty (2.0 per cent) in 2002. The incidence of poverty is much lower in Peninsular Malaysia (4.3 per cent) compared to Sabah (16.0 per cent) and Sarawak (5.8 per cent). Apart from the rise in 1997 in Peninsular Malaysia and Sabah, it can be seen that absolute poverty levels fell dramatically in the whole country over the period 1970-2002.

Unlike absolute poverty, relative poverty levels did not follow the same pattern of decline. The Gini coefficient for estimating relative poverty rose over the period 1970-76 but fell thereafter until 1990 (see Table 6). It has since risen over the period 1990-2002 except for 1999 when it fell again following the financial crisis that slashed the incomes of the rich more.

It will be argued that deliberate government policy directly and through the promotion of FDI and export manufacturing were instrumental for a fall in poverty levels. However, selective liberalisation attempts from 1990s—especially privatisation—aggravated the Gini coefficients in the period 1990-2000.

This section will deal with specific government instruments targeted at reducing poverty directly and subsequently examine the role of FDI-driven export manufacturing.

3.3 Government Instruments

This sub-section discusses government instruments that had a direct impact on poverty reduction. Despite the sub-optimal use of ethnic restructuring policies, it will be shown that some of these policies—especially until 1990 had a strong equalising effect while liberalisation initiatives in selected sectors had dis-equalising effects.

Efforts to provide preferential treatment, to what the political leaders felt that the more disadvantaged Malays deserved, culminated in the launching of the New Economic Policy through the Second Malaysia Plan in 1971 (Malaysia, 1971). Ethnic-based poverty alleviation and redistribution became the twins prongs of growth and restructuring. In addition to explicit policies to increase funding and placement in educational institutions, the government either expanded existing institutions (for example MARA) or launched new instruments to broaden Bumiputera participation in the economy. The Industrial Coordination Act (ICA) of 1975 placed ethnic conditions on manufacturing enterprises with a paid up capital exceeding RM250,000 seeking licensing (Chee 1986; Jesudason 1989). The government has raised the registration ceiling several times since then. It was RM2.5 million in 2003. In addition, the MARA Institute of Technology (MIT) raised Bumiputera enrolment in tertiary education. The Permodalan Nasional Berhad (PNB), which was formed in 1978 expanded corporate investment enjoyed by Bumiputeras. In addition to the expansion of Bumiputera employment in public service, the government also launched heavy industry corporations

Table 5: Incidence of absolute poverty, Malaysia, 1970-2002

Strata	1970		1976		1984		1990		1993		1995		1997		1999		2002	
	Total poor house-holds ('000)	Incidence of poverty per cent	Total poor house-holds ('000)	Incidence of poverty per cent	Total poor house-holds ('000)	Incidence of poverty per cent	Total poor house-holds ('000)	Incidence of poverty per cent	Total poor house-holds ('000)	Incidence of poverty per cent	Total poor house-holds ('000)	Incidence of poverty per cent	Total poor house-holds ('000)	Incidence of poverty per cent	Total poor house-holds ('000)	Incidence of poverty per cent	Total poor house-holds ('000)	Incidence of poverty per cent
Penin. M'sia	791.8	49.3	764.4	39.4	483.3	18.4	448.9	15.0	325.3	10.5	260.6	7.4	196.5	5.2	264.1	6.5	195.9	4.3
Rural	705.9	58.7	669.6	47.8	402.0	24.7	371.4	19.3	268.2	14.9	192.1	12.9	152.9	9.4	190.5	11.0	143.5	10.3
Urban	85.9	21.3	94.9	17.9	81.3	8.2	77.5	7.3	57.1	4.4	68.5	3.3	43.6	2.0	73.6	3.2	52.4	1.7
Sabah	n.a.	n.a.	95.5	58.3	76.0	33.1	96.6	34.3	123.9	33.2	66.9	22.4	49.5	16.4	68.4	20.1	49.2	16.0
Rural	n.a.	n.a.	87.5	65.6	68.5	38.6	91.1	39.1	108.1	36.2	56.3	28.8	43.2	22.5	55.7	26.0	35.4	24.5
Urban	n.a.	n.a.	8.0	26.0	7.5	14.3	8.5	14.7	15.8	19.8	10.6	10.3	6.3	5.8	12.7	10.1	13.8	8.5
Sarawak	n.a.	n.a.	115.9	56.5	90.1	31.9	70.9	21.0	68.0	19.1	38.1	10.0	28.2	7.3	27.6	6.7	22.8	5.8
Rural	n.a.	n.a.	107.0	65.0	85.9	37.3	67.8	24.7	63.0	23.6	33.4	15.7	25.7	11.8	24.8	10.5	19.4	10.0
Urban	n.a.	n.a.	8.9	22.9	4.2	8.2	3.1	4.9	5.0	6.0	4.7	2.8	2.5	1.5	2.8	1.6	3.4	1.7
M'sia	1,000	52.4	975.8	42.4	649.4	20.7	619.4	17.1	517.2	13.4	365.6	8.7	274.2	6.1	360.1	7.5	267.9	5.1
Rural	n.a.	n.a.	864.1	50.9	556.4	27.3	530.3	21.8	439.3	18.6	281.8	14.9	221.8	10.9	271.0	12.4	198.3	11.4
Urban	n.a.	n.a.	111.8	18.7	93.0	8.5	89.1	7.5	77.9	5.3	83.8	3.6	52.4	2.1	89.1	3.4	69.6	2.0

Note: n.a. - not available

Source: Malaysia (1981, 1986, 1991a, 1991b, 1993, 1996) for 1970-1993; for 1995-2002, calculated from the data provided by Economic Planning Unit, compiled by Rogayah (2004a).

Table 6: Distribution of relative poverty, Malaysia, 1970-2002

Percentage of households	Income share										
	1970	1976	1979	1984	1987	1990	1993	1995	1997	1999	2002
Top 20 per cent	55.7	57.7	55.8	3.2	51.2	50.4	n.a.	51.3	52.4	50.5	51.3
Mean household income(RM)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5202	6854	6268	7745
Middle 40 per cent	32.9	31.2	32.4	34.0	35.0	35.3	n.a.	35.0	34.4	35.5	35.2
Mean household income (RM)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1777	2250	2204	2660
Bottom 40 per cent	11.5	11.1	11.9	12.8	13.8	14.3	n.a.	13.7	13.2	14.0	13.5
Mean household income (RM)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	693	867	865	1019
Gini Ratio	0.513	0.529	0.505	0.483	0.458	0.446	0.459	0.464	0.470	0.443	0.461
Mean household income (RM)	264	514	763	1095	1074	1163	1563	2020	2606	2472	3011

Source: Reproduced from Rogayah (2004b).

and service industries, which helped raise Bumiputera participation in management and overall labour force participation rates.

Land tenure schemes specifically targeted at poor Bumiputras – for example, Felda, Risda, Felcra – attracted significant numbers of poor settlers. Although the Felda programme began with rubber in the early 1960s, oil palm had become by far the most successful income earner for the management and the settlers from the 1980s. The government ensured that the 10-acre smallholdings under the Felda scheme did not cause problems of scale shortages by coordinating their management on a large scale. By 2004 around 70 per cent of the acreage ownership under Felda had been transferred to the settlers. Although the Felda scheme suffered from a number of problems and its settlers are currently facing old age problems with children no longer interested in continuing with the farms, incomes of most farmers engaged in these schemes rose above absolute poverty levels (see Nungsari 2005). Similarly, the government also helped form the Farmers Marketing Authority (FAMA) to reduce the powers of the middlemen. Ungku Aziz (1964) had argued persuasively prior to that on the problems of middleman exploitation of farmers that continued to stifle efforts to reduce poverty and inequality in the country. This helped raise the share of farmers in the value added chain. These interventions were consistent with Ungku's calls for reducing the monopsonistic powers of the middlemen to increase the share of income enjoyed by the poor farmers in a series of talks he gave in the 1960s and 1970s.

Divestment of ownership involving government controlled enterprises since the 1980s and 1990 – including the corporatisation and privatisation of public utilities – brought both equalising and dis-equalising impact on income distribution. While the transfer of ownership to the rich made distribution unequal, the use of specific instruments such as trust funds (*Amanah Saham Nasional* and *Amanah Saham Bumiputera*) that attracted investment from lower income groups provided some equalising impact. However, the impact of large scale share acquisitions by the rich aggravated income distribution in the 1990s until the advent of the financial crisis. This trend was arrested shortly in the late 1990s when the currency and stock market crash affected the incomes of the rich more than the poor (Rasiah 1998; Ishak 2001; Rasiah and Ishak 2001).

While specific policies were key in driving the reduction in poverty, it will be argued in the next section that FDI-led export manufacturing was also important in expanding labour force participation rates that is equally important in expanding wages incomes.

3.4 Export Manufacturing

FDI-led export manufacturing was identified as the engine of growth and restructuring in the Second Malaysia Plan launched on 1971. Government instruments to promote FDI-led export manufacturing included financial and fiscal incentives, subsidised land and power. Free trade zones mushroomed in Malaysia since it was first opened in Bayan lepas in 1972. Large waves of export-oriented foreign firms relocated in these zones to drive export manufacturing (see Rasiah 1988).

Despite the vulnerability associated with the boom-bust cycles that characterised the key EO export-oriented industries, EO generally enjoyed greater labour absorption over the long-term in Malaysia. The contribution of industry to overall employment rose from its lowest share of 22.3 per cent in 1987 to 36.6 per cent in 2003 (see Figure 5). Increased outward-orientation and FDI-led manufactured exports essentially drove Malaysia's GDP

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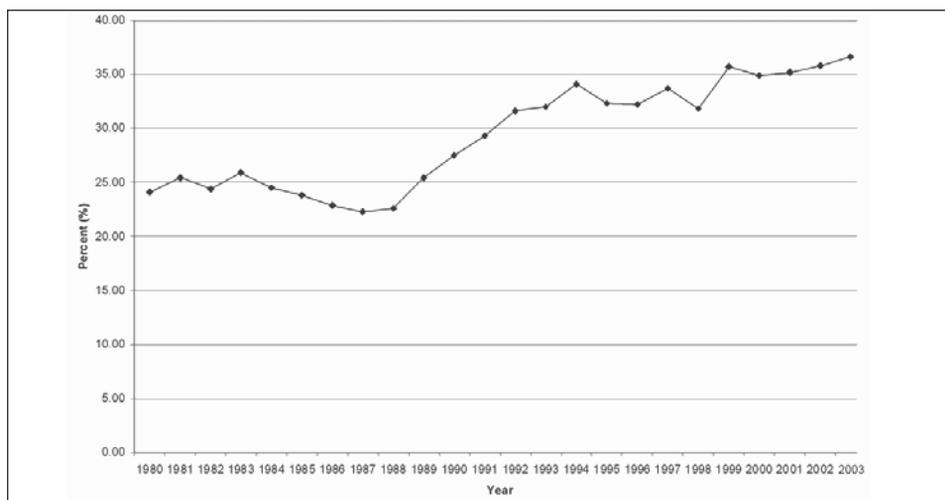


Figure 5: Share of industrial labour in total employment, Malaysia, 1980-2003

Table 7: Manufacturing employment and value added structure by EO and IS definitions, 1971-97 (%)

	1971	1979	1985	1990	1997
Employment					
EO	72.1	75.8	74.4	85.7	78.1
IS	27.9	24.2	25.6	14.3	21.9
Value Added					
EO	64.2	72.7	56.9	56.0	64.1
IS	35.8	27.3	43.1	44.0	35.9

Note: EO–Export oriented; IS–Import substituting

Source: Computed from Malaysia, *Industrial Surveys*, 1971; 1979; 1985; 1990; 1997.

growth since the 1970s and from the late 1980s, which helped bring down the unemployment rates. Unemployment rates fell most under EO_1 and EO_2 , and recorded highest levels towards the end of IS_1 and IS_2 . In addition, wage inequality between direct workers and professional managers in manufacturing showed trend improvements from 1973 until 1997, demonstrating that the extensive focus on EO did not aggravate relative poverty.

The EO industries accounted for more than 50 per cent of manufacturing employment and value added over the period 1971-97 (see Table 7). Being more labour-intensive than DO (domestic oriented) industries, EO manufacturing employment share always exceeded its value added share. The EO manufacturing employment share rose from 72.1 per cent in 1971 to 75.8 per cent in 1979 before falling slightly to 74.4 per cent in 1985 as retrenchments gripped the EO sector following the mid-1990s slowdown. EO employment share hit its peak of 85.7 per cent in 1990 before falling to 78.1 per cent in 1997 following a slowdown.

Uncoordinated and ill-planned IS_1 under otherwise *laissez faire* conditions brought about modest growth in employment despite a nascent manufacturing base in 1958-68. Manufacturing employment on average grew by 4.4 per cent per annum in 1962-70 (Rasiah and Zulkifly 1998: 81). Its contribution to overall employment rose from 8.4 per cent in 1965 to only 8.7 per cent in 1970. The unemployment rate rose from 3.6 per cent in 1962 to 8.9 per cent in 1967-68 (see Figure 6; see also Oshima, 1988: Table 2). Nearly half of the 16-19 age cohorts were found unemployed in 1967-68.

Manufacturing employment and value added grew strongly under EO_1 , averaging 13.9 and 28.1 per cent per annum respectively in 1971-79 (see Table 8). Manufacturing's contribution to overall employment rose to 15.7 per cent in 1980 (Rasiah and Zulkifly 1998: Table 6.4). DO manufacturing employment and value added also grew strongly at 11.1 and 21.9 per cent per annum respectively in the period 1971-79. The unemployment rate fell to 4.7 per cent in 1982. EO manufacturing value added and employment growth outperformed DO manufacturing in the period 1971-79. Production for the global markets expanded employment and value added in EO industries far more than in DO industries in this period. The three largest EO industries of electrical machinery, textiles and rubber products recorded the highest average annual employment growth rates of 44.7, 17.7 and 16.7 per cent respectively in 1971-79 (see Rasiah 2002: Appendix 1). Value added of the key EO industries of electrical machinery and textiles grew on average at 46.4 and 34.8 percent per annum in the period 1971-79 (see Rasiah 2002: Appendix 2). Only tobacco (44.9 per cent) among DO industries recorded higher value added growth than textiles in this period.

Manufacturing employment grew slowly in the IS_2 phase compared to the EO_1 phase. Despite the provision of generous incentives and protection to support IS industries, EO industries still spawned more jobs in the period 1980-85 (see Table 7). However, greater state support for IS_2 industries compared to EO industries and a sharp downturn in EO industries caused by a global cyclical downturn in key industries (for example, electric and electronics) saw DO industries enjoying an annual average growth rate of value added more than 5 times that of the EO industries in this period. Textiles declined considerably as the imposition of quotas in developed economies led to a relocation of production in the major markets. In addition, the resource-based EO industries of wood and rubber too declined. Electrical machinery value added on average only grew by 11.4 per cent per annum in 1979-85. The DO industries of petroleum and coal (59.2 per cent), and industrial chemicals (40.2 per cent) recorded the highest value added growth in 1979-85. DO industries also underwent substantial structural change in 1979-85 with the capital-intensive heavy industries of iron and steel, automobiles, petroleum and coal, and chemicals expanding operations in this period. A fall in export demand in EO industries and high rents (from protection and government subsidy) enjoyed by DO industries saw labour productivity of the former growing very slowly while that of the latter rising strongly. Manufacturing employment on average only grew by 2.2 per cent per annum in 1979-85. The slowdown in EO manufacturing caused massive retrenchments in 1984-86 resulting in unemployment rate rising to 8.3 per cent in 1986. Hence, manufacturing's contribution to overall employment fell to 15.2 per cent in 1985 (Rasiah and Zulkifly 1998: Table 6.4).

Employment and value added grew sharply again in the EO_2 phase, which recorded an average annual growth rate of 23.41 and 14.8 per cent respectively in 1985-90 (see Table 7), buoyed by rising global demand. Growth in EO industries also helped expand domestic

demand for DO industries especially from 1989. Employment grew strongest in EO industries in the period 1985-90 when FDI from the Northeast Asian economies of Japan, Taiwan, South Korea and Singapore relocated in Malaysia as a consequence of the Endaka effect when the currencies of these economies were floated in 1985, the withdrawal of the Generalised System of Preferences (GSP) of the last three in February 1988, and depreciation of the Ringgit and introduction of generous incentives by the government in 1986. This expansion resulted in manufacturing's contribution to overall employment rising to 19.9 per cent in 1990.

EO manufacturing employment growth slowed down in the 1990s as unemployment rates fell from 5.1 per cent in 1990 to 2.4 per cent in 1997 before rising to 3.5 per cent in 2003 (Malaysia 2000:5). Average annual manufacturing employment in EO industries grew by only 1.2 per cent per annum in 1990-97 (see Table 7). The tight labour market and rising production costs against newly emerging low cost sites such as China reduced employment growth in the period 1990-97. Despite imports of foreign labour, which accounted for around 15-25 per cent of the labour force in 1997, the tightening labour market forced firms to introduce automation. EO industries increasingly substituted manual operations with automation in the 1990s (see Rasiah 1995). DO industries recorded higher employment growth than the EO industries in 1990-97. Growing domestic demand facilitated expansion in DO industries. Transport equipment, machinery, fabricated metals, non-metal mineral, petroleum and coal and tobacco enjoyed considerable growth in employment. Employment growth in EO industries began slowing down in the late 1990s as FDI levels began to slow down as costs began to soar. In addition, the failure of supply-side factors to stimulate firms' participation in higher value added activities deflected some greenfield investment as well as drove away some brownfield investment to China, Thailand, Indonesia and Philippines. Only resource-based furniture and fixtures among EO industries showed a high employment growth rate in 1990-97.

Nevertheless, the foreign dominated EO industries recorded an average annual labour productivity growth rate of 19.1 per cent in 1990-97 – far exceeding that of DO industries in the same period. EO dominated employment generation in the manufacturing sector accounting for 85.7 and 78.1 per cent of manufacturing employment in 1990 and 1997 respectively (see Table 6). Unlike in the mid-1980s, unemployment levels did not rise sharply during the 1997-98 financial crisis. Unemployment was recorded at only 3.1 per cent in 1998. Foreign workers accounted for much of the retrenchments carried out in 1997-98. Indeed, unemployment rates in Malaysia fell most during the periods of 1971-79 and since the late 1980s when FDI-led EO_1 and EO_2 were respectively dominant.

Growth in manufacturing employment and productivity was also reflected in growth in wages. Manufacturing real wages grew most in the periods 1990-97 and 1979-85 (see Table 8). The former period was dominated by EO_2 , while the latter period phase by IS_2 . The massive relocation of labour-intensive FDI in the early 1970s did not raise wages because of the low value-added nature of production operations and high labour reserves from high unemployment rates. Wages rose in 1979-85 primarily because of deflationary conditions and the retrenchment of low wage transient workers in the mid-1980s. Hence, the higher wage growth in the IS_2 period of 1979-85 was also characterised by rising unemployment. The high unemployment rates of the mid-1980s restricted wage growth in the early period of

Table 8: Average annual manufacturing employment, value added and labour productivity growth, Malaysia, 1971-97

	1971-79	1979-85	1985-90	1990-97	1985-97
Employment growth					
Export-oriented	13.9	1.9	23.4	1.2	9.9
Domestic-oriented	11.1	3.2	6.8	9.0	8.1
Value added growth					
Export-oriented	28.1	5.9	14.8	20.5	18.1
Domestic-oriented	21.9	19.0	15.6	14.8	15.2

Note: Labour productivity computed using value added and employment. Value added in constant 1990 prices.

Source: Computed from Malaysia, *Industrial Surveys*, 1971, 1979, 1985, 1990 and 1997.

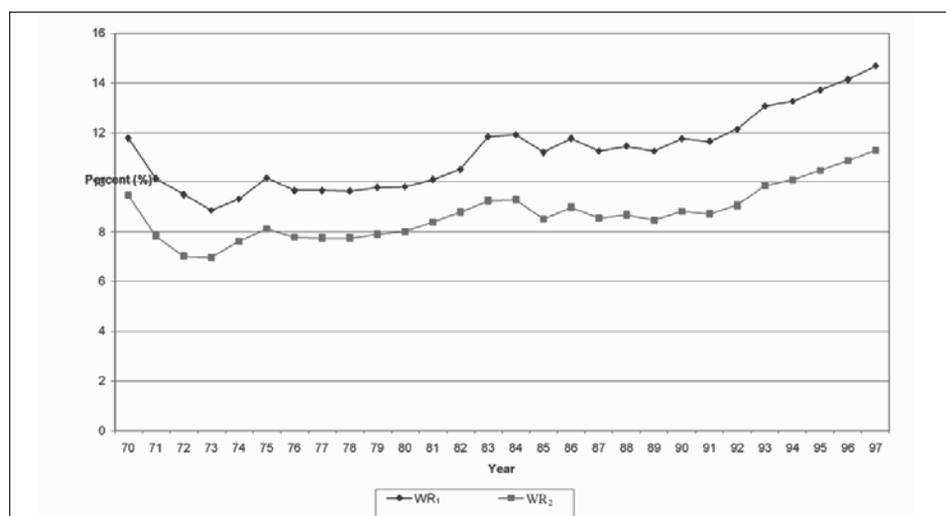


Figure 6: Mean wages as a share of mean of professional managers in manufacturing, Malaysia, 1970-1997

EO_2 , that is, 1985-90. However, rapid growth of EO industries and its pulling effect on DO industries as well as serious labour shortages stimulated a rise in real wages in the 1990s.

Rapid growth in exports also did not aggravate wage inequality in manufacturing. Two classifications of wage ratios (WR) were estimated in this paper to examine income inequality trends in manufacturing (see Figure 6). General workers were excluded from the measurement of WR owing to gradual outsourcing of this job by firms. WR_1 was estimated as the mean wage of skilled and semi-skilled direct workers divided by the mean wage of professional managers. After an initial fall in 1970-73, WR_1 recorded trend improvements in the period 1973-97. The results were similar when the wages of unskilled direct workers were added to the numerator of W_1 (that is, WR_2). The slightly sharper slope of WR_1 than WR_2 shows that wages of skilled and semi-skilled workers rose higher than that of unskilled workers, which demonstrated the presence of a wage premium for skills. In fact, serious shortages in human

Table 9: Average annual manufacturing real wage growth and EO-DO ratios, Malaysia, 1971-97

Average annual growth rate	1971-79	1979-85	1985-90	1990-97	1985-97
Export-oriented	2.68	5.61	-1.11	7.44	3.79
Domestic-oriented	1.04	6.15	-0.09	6.18	3.52
Ratios	1971	1979	1985	1990	1997
EO/DO ratio	0.72	0.82	0.79	0.75	0.82

Source: Computed from Malaysia, *Industrial Surveys*, 1971, 1979, 1985, 1990 and 1999

capital have restricted upgrading in the electronics industry in Malaysia (Rasiah 2004a; 2004b). Wages of direct workers relative to the other employees increased in the 1990s primarily because of a tight labour market. This was the general situation even when unskilled workers was taken as the numerator, suggesting that pressure on the labour market as well as rising demand for higher skills was driving wage increases in the 1990s. The trend fall in wage inequality levels is another factor that helped improve distribution in the period 1973-1997.

Government instruments were instrumental in driving reductions in both absolute and relative poverty in Malaysia, which was strongly assisted by expansion in FDI-led export manufacturing. Employment and wages in manufacturing grew strongly from export-orientation directly and indirectly through the effective demand generated from its multiplier effect on DO firms and other sectors. However, greater expansion in export manufacturing also exposed the Malaysian economy to the vicissitudes of volatile global markets. Although Malaysia enjoyed a fairly sound social security system that was inherited from British colonialism (Rasiah 2000), it applied little to export manufacturing activities such that crashes in external demand were often met with retrenchments as evidenced in the mid-1980s, which caused unemployment to rise. A severe downswing in the electronics industry led to widespread retrenchments in 1984-86 (Rasiah 1988). A similar consequence was avoided in the second half of the 1990s only because foreign workers offered the 'retrenchment buffer'.

4. Conclusion

The small size of the domestic market made export-orientation inevitable for Malaysia. Although the global market connections already enjoyed by foreign firms relocating to Malaysia helped raise manufactured exports rapidly, policies were also important in stimulating investment in export-oriented industries, income growth and employment absorption in the country. Within manufacturing, FDI participation was particularly strong in the leading export manufacturing branches of electric-electronics and textile-garments.

EO manufacturing was instrumental in stimulating investment and income growth, and increased employment absorption, which was critical in sustaining reduction in poverty levels in the country. Also, although household income inequality worsened in the 1990s, there is little evidence to suggest that it was a consequence of export manufacturing. Income inequality in Malaysia improved from 1976 until 1990, but began to worsen thereafter until the financial crisis sliced off incomes of the rich more than the poor in the late 1990s. Indeed, wage inequality between direct workers and professional managers in the manufacturing sector improved in trend terms in the period 1973-97.

The relative significance of FDI in GFCF has fallen since 1993 owing to rising production costs in the face of the emergence of China, Vietnam, Indonesia and Philippines, all of which have much larger labour forces. The failure of supporting institutions drive a transition to higher value added activities *a la* Singapore has also reduced Malaysia's attractiveness to FDI. Although the relative importance of FDI in the economy has fallen, its key initial participation from 1972 and still important role in driving export manufacturing suggest that it has remained important in raising wage employment. A separate study is, however, necessary to examine the spill-over impact of FDI to confirm this point.

Underlying the economic transition in Malaysia is the shift from dependence on primary exports to manufactured exports – the trend rising sharply from the early 1970s in Malaysia. Non-manufactured exports in GDP were negatively correlated with most variables, demonstrating the relative increase in the significance of manufactured exports over other exports.

With the exception of global economic downswings, both absolute and relative poverty levels improved in Malaysia. While these results were achieved under both IS and EO regimes, problems associated with the former and the increased emphasis on the latter especially from the mid-1980s was necessary to sustain the improvements. However badly designed, government policy was important in capping increases in inequality. In addition to programmes directed at alleviating poverty such as land tenure schemes, the government's ethnic restructuring scheme was manifested in preferential access enjoyed by the Bumiputeras in civil service jobs, education and hiring in private firms seeking licensing under the ICA. The government also introduced and coordinated a number of mechanisms to reduce the monopsonistic powers of the middle men when involving the trading of commodities produced by Bumiputeras. Bumiputera investment corporations such as PNB and Pernas pooled preferential share capital to expand Bumiputera participation in business. Indeed, despite the equalising impact of trust instruments used by the government to attract investment from the poor, the greater divestment of shares to the rich increased inequality in the country when liberalisation increased in the 1990s. Only the severe financial crisis of the late 1990s reversed such trends as the incomes of the rich fell more than that of the poor.

While export manufacturing stimulated rapid growth and labour force participation rates and hence the opportunity to reduce absolute and relative poverty, relatively weak labour and social security policies also exposed them to the vicissitudes of unregulated capitalist downswings. Unemployment rates rose sharply during periods of external shocks, which slowed down poverty reduction. Malaysia was able to reduce its impact on the export-manufacturing sector in the late 1990s only through the retrenchment of foreign workers.

The experience of Malaysia demonstrates that export manufacturing has been important in sustaining growth even when involving resource rich economies. Contrary to neo-liberal claims (World Bank 1993), however, FDI-led export manufacturing was promoted through explicit policy instruments. The lack of effective policies to stimulate upgrading from low-end activities has since the mid-1990s slowed down manufacturing growth in the country. Sustained growth was important for the dramatic reduction in poverty. Pro-distribution interventions were also significant in explaining falling levels of inequality. While the role of government was important, the failures—for example, ineffective upgrading and privatisation

policies—call for improvements to interventions. The two obvious excesses of government intervention that may have affected poverty alleviation – both absolute and relative—are one, the dissipation of rents in the allocation of subsidies to unproductive heavy industries, and the sub-optimal allocation of privatisation involving public utilities. While it may have been politically the easiest approach to pursue poverty alleviation and redistribution ethnically at a time when the underprivileged Bumiputeras were seeking greater economic participation in the 1960s, 1970s and 1980s, the unequal expansion of Bumiputera corporate ownership and dominance of labour force participation in civil service suggests that affirmative policies should now target the poor directly.

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