

Economic Growth and Poverty Reduction: Lessons from the Malaysian Experience

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Abstract

Over the last three decades, Malaysia has achieved sustained high growth rates and large reductions in poverty incidence. This paper examines the contribution of growth in reducing poverty during 1970-2000. It also identifies the pattern of growth most conducive in reducing poverty in Malaysia. This study provides evidence that growth has contributed significantly in reducing poverty in Malaysia. The pattern of growth is an important issue in determining the impact of growth on poverty reduction. This suggests that governments should adopt growth enhancing policies together with policies targeting at poverty alleviation to achieve a maximum reduction in poverty incidence.

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1 Introduction:

The relationship between economic growth and poverty in developing countries has been a subject discussed at some length in development literature (Lipton and Ravallion, 1993; Thorbecke and Hong Sang, 1996). Economic growth is often seen as the key foundation for achieving poverty reduction. A widely held view in development economics is that the benefits of rapid economic growth rates diffuse automatically across all segments of society. This view is based on the 'trickle down' theory that was the dominant development thinking in the 1950s and 1960s.

Those who support the view that economic growth is always associated with a reduction of poverty include World Bank (1990), Fields (1989), Asian Development Bank (1994), Squire (1993) and, Ravallion and Chen (1997). A recent study of the World Bank provides additional evidence that the incomes of the poor rises one-for-one with overall growth (Dollar and Kraay, 2000). Some other studies argue that higher incomes generated by the growth process do not necessarily raise the living standards of the poor due to factors such as non-existence of appropriate employment opportunities, structure of relative prices, and the nature of social and legal rights (Dreze and Sen, 1989; Demery and Square, 1996; Khan, 1999). Contrary to the above views, Jentsch (2001) argues that economic growth is just one strategic element among many other interconnected factors related to poverty reduction. Therefore, poverty reduction can be achieved by specific policies even if there is no growth.

Even when there exist a clear positive relationship between economic growth and poverty reduction, significant differences can be observed across countries and over time in how much poverty reduction occurs at a given rate of growth. It seems that the effectiveness of overall growth as an engine of poverty reduction is influenced by a number of factors. World Bank (2001) shows that for a given rate of growth, the extent of poverty reduction depends on how the distribution of income changes with growth and on initial inequalities in income assets and access to opportunities that allow poor people to share its growth.

Even when the distribution of income itself does not change with growth, countries with similar growth rates can have very different poverty outcomes, depending on their initial

inequality. Other things being the same, growth leads to less poverty reduction in unequal societies than in egalitarian ones. When initial inequality is low, growth reduces poverty nearly twice as much as when inequality is high. However, the earlier studies concluded that growth would initially cause a widening of income inequalities owing to its differential impact on different sectors (Kuznets, 1955). This rising inequality tends to offset part of the gains from growth for the poor. However, there is no firm empirical basis for this view.

During the last three decades East Asian economies achieved remarkable high growth rates. During this period, these economies grew faster than any other country in the world. With their remarkable high growth performance they have also made great progress in reducing poverty. In East Asia the number of people living on less than \$ 1 a day fell from around 420 million to around 280 million between 1987 and 1998. Hong Kong, China, Republic of Korea, Malaysia, Singapore and Taipei China have virtually eliminated poverty measured by the US\$ 1 per day poverty line (World Bank, 2001).

In the East and Southeast region, Malaysia stands out as one of the most outstanding economies in terms of the rate of economic growth and poverty reduction. During the last three decades, real average per capita income increased 3.5 times. During the same period, poverty incidence in Malaysia fell from 52.4% to 5.5% . There was also considerable progress in reducing hard-core poverty as well to only 0.5% by 2000

Despite the large number of studies examining the remarkable success in reducing poverty in Malaysia, it is still not clear that whether this success is the outcome of the rapid growth of the economy or the outcome of the deliberate poverty eradication measures adopted by the government. This study attempts to identify the extent to which growth alone might have contributed in reducing poverty incidence in Malaysia during the period 1970-2000. This study also attempts to identify the pattern of growth most conducive in reducing poverty incidence in Malaysia.

This paper is organised as follows. The next section of the paper presents a brief overview of economic growth in Malaysia since 1970. Section three discusses the changes in poverty incidence during the same period. Section four examines the relationship between

growth and poverty in order to identify the contribution of growth in reducing poverty. Finally, section five offers concluding remarks with some implications for other developing countries.

2 Economic Growth 1970-2000

Over the last three decades Malaysian economy has achieved remarkably high and continuous growth rates. During this period, growth rate of real GDP was higher than 6 percent per year except during the recession in 1985-86 and the financial crisis in 1997. In the 1970's the economy grew at an average annual growth rate of 8.3 percent. Due to the recession in 1985-86, the average annual growth rate in 1980's was slowed down to 6 percent. But, after recovering in 1987, the economy grew at roughly more than 8 percent annually until the financial crisis in 1997. The economy experienced a negative growth in 1998 but picked up from 1999 and sustained at an average annual rate of 4.5 percent. Consistent with the high growth rates during this period, per capita income in 1987 prices increased from RM 2464.39 in 1970 to RM 8996.95 in 2000.

A striking feature of growth in Malaysia is that high growth rates were achieved with relative price stability and since 1991, with virtual full employment. During the high growth period, the economy managed to keep a low annual rate of inflation ranging between 1 percent and 5 percent. With rapid expansion in output, employment expanded by about 3 percent in 1990s resulting in the overall unemployment rate to decline to 3 percent in 2000.

The high growth rates achieved by the economy during the last three decades were accompanied by a substantial structural transformation in the economy. The economy was transformed from a predominantly agricultural one to that of an industrial based and services oriented one as evidenced by the change in the composition of output (Table 1). In 1970, the contribution of agriculture to the GDP was as high as 29.0 percent. This share declined sharply to 18.7 percent in 1990 and to 8.7 percent in 2000. This sector also experienced a decline in average annual growth rate from 4.8 percent during 1970-75 to -0.1 percent in 1996-2000. The share of manufacturing in GDP increased from 13.9 percent in 1970 to 33.4 percent in 2000. In 1986, the manufacturing sector exceeded the contribution from agriculture for the first time.

During 1986-95, this sector grew at a double digit rate and accounted for the bulk of the growth process, employment generation and exports.. The share of the services sector, which is the largest contributor to GDP, increased from 32.6 percent to 53.6 percent during this period.

The change in the composition of output was reflected by a similar change in the composition of employment. The share of employment in agriculture to total employment declined from 53.5 percent of total employment in 1970 to 39.7 percent in 1980 and to 15.2 percent in 2000, while the share of employment in manufacturing increased from 8.7 percent in 1970 to 15.7 percent in 1980 and to 27.6 percent in 2000. The services sector remains as the largest contributor to employment contributing 32.5 percent in 1970 and 48.7 percent in 2000.

3 Incidence of Poverty

Poverty in Malaysia was predominantly a rural Malay phenomenon. As table 3 indicates, in 1970, about half of the population was found to be poor. The majority of the poor were Bumiputeras (Malays and indigenous ethnic groups). Among the Bumiputeras, 65.9 percent were poor compared with 27.5 percent of Chinese and 40.2 percent of Indiansⁱ. Further, the poor were concentrated largely in the rural areas. The incidence of poverty in the rural sector was 58.7 percent while it was 21.3 percent in the urban sector.

With the remarkable high growth rates achieved during the last three decades, Malaysia was successful in reducing poverty incidence substantially. Despite some controversy over the reliability and comparability of official poverty dataⁱⁱ, the incidence of poverty declined from 52.4 percent in 1970 to 5.5 percent in 2000ⁱⁱⁱ; the rural poverty incidence declined to 10.0 percent while the urban poverty incidence fell to 1.9 percent. Correspondingly, the number of the poor has declined from 8.67 millions in 1970 to 1.28 million in 2000. When compare the decline in rural poverty with that of urban poverty, it can be seen that decline in rural poverty has contributed more to the fall in incidence of overall poverty.

Despite the impressive progress made in reduction of incidence of poverty, ethnic disparities in poverty have continued. The poverty rate for the Bumiputeras decreased from 65.9 percent in 1970 to 20.8 percent in 1990. Although the incidence of poverty among Bumiputeras

has decreased by about 68 percent since 1970, it is still high compared to only 5.7 percent for the Chinese and 8 percent for the Indians.

The incidence of hard-core poverty^{iv} was reduced from 4 percent in 1989 to 0.5 percent in 2000 while that for urban and rural sectors were reduced from 1.4 percent to 0.1 percent and 5.2 percent to 1.0 percent respectively.

The impressive record of poverty reduction in Malaysia is also reflected by improvements in a number of social indicators. Since 1990, a significant improvement in access to basic services can be observed. By 2000, 93 percent of the population had access to safe drinking water while 97.6 percent had access to electricity (EPU, 2004). By the end of 1995, about 88 percent of the urban poor households and 72 percent of rural poor households had access to electricity while 92 percent of the urban poor and 65 percent of the rural poor households had access to safe drinking water (Malaysia, 1996). During the period primary enrolment rate increased from 87 in 1970 to 96.8 in 2000. Life expectancy rates for both females and males increased to 75 years and 70.2 years, respectively by 2000. Literacy rate was as high as 93.8 in 2000. These indicators are similar to those of the middle income countries and in some cases, high income countries.

4 Growth and Poverty

The Malaysian economy experienced a dramatic reduction in the incidence of poverty with rapid growth during the period from 1970-2000. It has been suggested by a number of studies that the large reductions in poverty incidence in Malaysia was the result of the high growth achieved by the economy (JBIC, 2001; Mahbot, 1997; Ragayah, 2000). Some other studies suggest that this success in poverty reduction has not been a result of growth alone. They claim that this success was unlikely without the relentless efforts of the government in including poverty eradication as a major development objective and formulating specific policies and programs aiming at eradicating poverty (Shireen, 1998; Khan, 2002; and Nair, 2000). Henderson et. al. (2002) concludes that it is not clear whether this success is the outcome of rapid growth than a result of government's deliberate efforts in eradicating poverty. They also point out that

there has been no study done in Malaysia to assess the extent to which growth alone might have reduced poverty.

This section of the study examines the contribution of growth in reducing poverty incidence during the period 1970-2000 using statistical methods. The main obstacle in carrying out this study is the unavailability of annual time series of poverty incidence data for the period. For the period of 30 years from 1970, only 11 observations of poverty incidence are available; 2 data points in 1970s, 2 data points in 1980s, 5 data points in 1990s and for 2000. To overcome this, following the method adopted by Warr (2000), the missing observations were constructed by using the available observations. Change in the incidence of poverty in an interval was divided by the number of years corresponding to that time interval to obtain the annual rate of change in poverty incidence. Then, the model used by Warr (2000) given below was estimated by using the OLS method.

$$y_t = \alpha + \beta x_t + e_t$$

where y_t is the change in poverty incidence in year t , x_t is the growth of per capita income and e_t is the error term.

The regression results are summarised in Table 3. The estimates of equation 1 show that the rate of growth of real per capita income is significant at 5 percent level in explaining the variation of the rate of change in overall poverty. This indicates that economic growth has contributed significantly in reducing poverty incidence during 1970-2000. The estimated slope coefficient indicates that, on average, one percent increase in real per capita growth reduces overall poverty by 0.7 percent. The R-squared statistic indicates that per capita growth alone explain only about 39 percent of the annual variation in the rate of poverty reduction. Further, the significant constant term confirms the significance of non-growth factors in reducing poverty incidence. This result confirms that the success in reducing poverty was not a result of growth alone though it has contributed significantly in reducing poverty.

Estimates of equations 2 and 3 show that the slope coefficients of both of the equations are significant at 5 percent level. A notable feature of the results is that per capita growth has a stronger impact in reducing urban poverty than rural poverty. On average, one percent increase

in per capita growth rate reduces rural poverty by 0.54 percent while it reduces urban poverty by 1.53 percent. The difference in poverty impact of growth may be due to the pattern of growth of the economy during the period. It is the pattern of growth that determines how the benefits of growth are translated in to gains for the poor in terms of increased employment opportunities and/or consumption possibilities.

During the past few decades, the growth in the Malaysian economy was driven mainly by the growth in manufacturing sector. Generally, manufacturing industries are located in urban areas and manufacturing growth directly benefits the urban sector by increasing employment and wages in that sector. Although it can benefit the other sectors thorough indirect effects, the impact of the direct effects can be stronger than the indirect effects. Also there are time lags involved in the impact of indirect effects on the other sectors.

To identify the pattern of growth that most conducive in reducing poverty, we regress the rate of change in rural and urban poverty on growth of agriculture and manufacturing sectors. The regression results are presented in table 5.

The estimates of equation 4 show that agriculture growth is not significant in reducing rural poverty. But it shows that manufacturing growth is significant in reducing rural poverty. On average, one percent increase in manufacturing growth reduces rural poverty by 0.33 percent. Estimation of equation 4 gives the same results. But, the impact of manufacturing growth in reducing urban poverty is stronger than its impact on rural poverty. On average, one percent increase in manufacturing growth reduces urban poverty by 0.9 percent

What this tells us? It was not the agricultural sector but the manufacturing sector that has contributed to the large reductions in poverty incidence. We can clearly see that the high growth rates achieved by the Malaysian economy during the period were associated with the intensive growth of the manufacturing sector, which recorded a double-digit growth rate with the exception of 1981-85. Its employment share increased from 8.7 percent in 1970 to 26 percent in 1995 providing employment both rural and urban labour. During this period, a significant degree of migration has occurred from rural to urban sector (Ragayah, 2000). Therefore, the growth of the manufacturing sector is likely to have a significant impact on the incomes of the poor households.

During the period, agriculture sector grew at a slower rate and its employment share has declined from 53.5 percent in 1970 to 18 percent in 1995. Therefore, the agriculture sector has unable to contribute to poverty reduction. However, it is also possible that the simple regression model used in this study might not be adequate to capture the time lags involved in translating the benefits of agriculture growth into gains to the rural poor households. Ravallion and Datt (1998) estimated that there is a time lag of up to three years in the full impact of agriculture growth on poverty reduction.

If agriculture growth had no or little effect in reducing rural poverty and the impact of manufacturing growth on rural poverty is smaller than its impact on urban poverty, what caused rural poverty to decline from 58.7 percent in 1970 to 10 percent in 2000? Though, the rapid expansion in the manufacturing sector has resulted increased employment opportunities which has contributed positively in increasing household income, the success achieved in reducing poverty would have unlikely without the relentless efforts of the government. The government played a major role in reducing poverty by prioritising poverty eradication as a development objective and formulating specific policies and programmes to channel the benefits of growth to the other sectors of the economy to increase the incomes of the poor and to improve their quality of life.

5 Conclusion

This paper has examined the relationship between poverty incidence and economic growth in Malaysia during the period 1970-2000. The study provides evidence that growth has contributed significantly in reducing poverty. However, growth alone is unable to explain the total variation of the change in poverty incidence. Further, the results suggest that the pattern of growth is an important issue in determining the impact of growth in poverty reduction. The manufacturing growth, which has been the main source of growth of the economy, has contributed significantly in reducing poverty incidence in Malaysia. However, the impact of manufacturing growth on rural poverty is relatively small compared that on urban poverty. This indicates that the remarkable reductions of rural poverty during the period may not have been

possible without the relentless efforts of the government in formulating specific policies and programmes that channelled the gains of growth to the poor households. This suggests that governments should adopt growth enhancing policies together with policies targeting at poverty alleviation in order to achieve a maximum reduction in poverty incidence.

Appendix

Table 1: Composition and growth rate of GDP by sector of origin 1970-2000

	Share of GDP (percent)						
	1970	1975	1980	1985	1990	1995	2000
Agriculture	29.0	27.7	22.9	20.9	18.7	10.3	8.7
Mining	13.7	4.6	10.1	10.5	9.8	8.2	6.6
Manufacturing	13.9	16.4	19.6	19.7	26.9	27.1	33.4
Construction	3.8	3.8	4.6	4.8	3.6	4.4	3.3
Services	36.2	45.0	40.1	43.5	42.5	51.2	53.6
	Average annual growth rate (percent)						
	70-75	76-80	81-85	86-90	91-95	96-2000	
Agriculture	4.8	3.9	2.7	4.6	2.0	-0.1	
Mining	0.4	8.9	5.9	5.2	2.9	2.3	
Manufacturing	11.6	13.5	5.2	13.7	13.3	5.4	
Construction	6.6	12.6	5.8	0.4	13.3	-3.7	
Services							

Sources: Malaysia, 1986, 1991a, 1991b, 1996 and 2001

Table 2: Incidence of Poverty and Number of Poor Households 1970-2002

Year	1970	1976	1980	1984	1987	1990	1993	1995	1997	1999	2000	2002
Incidence of poverty(%)												
Overall	52.4 (791.8)	42.4 (764.4)	29.0	20.7 (649.4)	17.3	16.5 (619.4)	13.5 (517.2)	8.7 (418.3)	6.8 (332.4)	8.1 (360.1)	5.5 (276.0)	5.1 (269.7)
Rural	58.7 (705.9)	50.9 (669.6)	37.4	27.3 (556.4)	22.4	21.8 (530.3)	18.6	15.3 (319.0)	11.8 (267.5)	12.4 (257.4)	10.0	11.4 (198.3)
Urban	21.3 (85.9)	18.7 (94.9)	12.6	8.5 (93.0)	8.1	7.5 (89.1)	5.3	3.7 (99.3)	2.4 (64.9)	3.4 (102.7)	1.9	2.0 (69.6)
Malay	65.9	56.4	NA	25.8	23.8	20.8	NA	NA	NA	10.2	NA	7.3
Chinese	27.5	19.2	NA	7.8	7.1	5.7	NA	NA	NA	2.6	NA	1.5
Indians	40.2	28.5	NA	10.1	9.7	8.0	NA	NA	NA	1.9	NA	1.9
Incidence of hardcore poverty (%)												
Overall	NA	NA	NA	6.9 (216.1)		4.0 (143.1)	NA	2.1 (88.8)	1.4 (67.5)	1.4 (66.1)	0.5	1.0 (52.9)
Rural	NA	NA	NA	9.3 (189.9)		5.2 (126.8)	NA	3.6 (76.5)	2.5 (55.3)	2.4 (52.1)	1.0	2.3 (40.3)
Urban	NA	NA	NA	2.4 (26.2)		1.4 (16.3)	NA	0.9 (12.3)	0.4 (12.2)	0.5 (13.9)	0.1	0.4 (12.6)

Note: Number of poor households (000) is given in parenthesis.

NA: not available.

Source: Household Income surveys, Malaysia Plans, Economic Reports, Ministry of Finance, various issues.

Table 3: The Annual Rate of Change in Poverty Incidence and Growth of GDP**OLS Regression Results**

Variable	Equation 1 Annual Change in Overall Poverty Incidence	Equation 2 Annual Change in Rural Poverty Incidence	Equation 3 Annual Change in Urban Poverty Incidence
Constant	-3.48853** (-2.05195)	-3.1654** (-2.16734)	-0.28324** (-2.07604)
GDP Growth per capita	-0.71501** (-2.39862)	-0.54901** (-2.20172)	-1.53434** (-2.41266)
R-squared	0.395652	0.37844	0.408861
Adjusted R-squared	0.369332	0.353673	0.384491
F-statistic	5.753**	4.847**	5.820**
No of observations	32	31	31

Notes: t-statistics are given in parenthesis.

**Significant at 5 percent level.

Table 4: Sectoral Growth and Poverty Incidence**OLS Regression Results.**

Variables	Equation 4 Annual Change in Rural Poverty Incidence	Equation 5 Annual Change in Urban Poverty Incidence
Constant	-8.46129 (-4.87585)*	-4.4225 (-3.19022)*
per capita growth of agriculture sector	-0.21105 (-0.5639)	-0.509422 (-0.541545)
Per capita growth of manufacturing sector	-0.33681 (-2.79102)**	-0.898805 (-2.83462)*
R-squared	0.35528	0.38838
Adjusted R-squared	0.34294	0.35083
F-statistic	4.2661**	5.3029**
No of observations	29	29

Notes: t-statistics are given in parenthesis.

**Significant at 5 percent level.

*Significant at 1 percent level.

Bibliography

- Asian Development Bank, Asian Development Outlook, Hong Kong: Oxford University Press, 1994.
- Demery, L., and L. Squire, 1996, “*Macroeconomic Adjustment and Poverty in Africa: An Emerging Picture*,” World Bank Research Observer v. 11 ,p. 1.
- Dollar D., and A. Kray, Growth is Good for the Poor, World Bank, Development Research Group, 2000.
- Dreze, J., and Amartya K. Sen, Hunger and Public Action, Oxford: Clarendon Press, 1989.
- Fields, G., “*Changes in Poverty and Inequality in Developing Countries*”, World Bank Research Observer, v. 4, p. 167-186, 1989.
- Henderson, J., D. Hulme, R. Phillips, and N. A. M. Nur, “*Economic Governance and Poverty Reduction in Malaysia*”, Manchester Business School Working Paper, v. 440, p. 36, 2002.
- Japan Bank for International Co-operation, Poverty Profile: Executive Summary Malaysia, Japanese Bank for International Co-operation, 2001.
- Jentsch, G., Can Economic Growth Reduce Poverty? New Findings on Inequality, Economic Growth and Poverty, 2001.
- Khan, M. H., When is Economic Growth Pro-Poor? Experiences in Malaysia and Pakistan, IMF Working Paper, IMF, Washington, 2002.
- Kuznets, S., “*Economic Growth and Income Inequality*”, American Economic Review, v. 45, p. 1-28, 1955.
- Lipton, M., and M. Ravallion, Poverty and Policy: Research Working Paper, 1130, World Bank, 1993.
- Mahbot, S., The Malaysian Economy: Challenges and Prospects in Asian Strategy and Leadership Institute, Malaysia Today: Towards the New Millennium, London: ASEAN Academic Press, 1997.
- Malaysia, Fifth Malaysia Plan, 1986-1990, KualaLumpur:Government Printers,1986.
- Malaysia, Second Outline Perspective Plan 1991-2000, Kuala Lumpur :Government Printers, 1991.
- Malaysia, Sixth Malaysia Plan 1991-1995, Kuala Lumpur :Government Printers, 1991.

- Malaysia, 1996, Seventh Malaysia Plan 1996-2000, Government Printers, Kuala Lumpur.
- Malaysia, Eighth Malaysia Plan, 2001-2005, Kuala Lumpur: Government Printers, 2001.
- Ministry of Finance, Economic Report, Various Issues, Kuala Lumpur.
- Nair, S., Poverty in the New Millennium: Challenges for Malaysia, Paper presented at the Second Biennial Aotearoa NZ'International Development Studies Network Conference entitled 'Prosperity, Poverty, Progress' held in Victoria University of Wellington, New Zealand, 2000.
- Ragayah, H. M. Z., Growth with Equity: Policy Lessons from the Experience of Malaysia, Paper presented at the workshop on Growth with equity : Policy Lessons from the Experiences of Selected Asian Countries, Seoul, 2001.
- Ravallion, M., and S. Chen, "*What Can New Survey Data Can Tell Us About Recant Changes in Distribution and Poverty*", The World Bank Economic Review, v. 11(2), p. 357-82, 1997.
- Ravallion, M and G. Datt, "*When is Growth Pro-Poor? Evidence from the Diverse Experiences of India's States*," Policy Research Working Paper, 2263, Washington :The World Bank, 1998.
- Shireen, M. H., Income Inequality and Poverty in Malaysia, Landham: Rowman and Littlefield Publishers, 1998.
- Squire, Lyn, "*Economic Development: Recent Lessons – Fighting Poverty*", American Economic Review, v. 83, p. 377-382, 1993.
- Thorbecke, E., and J. Hong Sang, "*Multiplier Decomposition Method to Analyse Poverty Alleviation*", Journal of Development Economics, v. 48(2), p. 279-301, 1996.
- Warr, P., "*Poverty Reduction and Economic Growth: The Asian Experience*", Asian Development Review, v. 18(2), p.131-147, 2000.
- World Bank, Attacking Poverty: World Development Report, 2000/01, Washington: The World Bank, 1990.

ⁱ The population shares in 1970 were 60 percent Malay, 30 percent of Chinese and 10 percent of Indians.

ⁱⁱ There has been an extensive debate on the credibility of official poverty data. One of the concerns was whether the different surveys are comparable and whether the methods of measurements were consistent. Second concern was the use of different poverty lines (for details see Jomo, 1989, 1990).

ⁱⁱⁱ The financial crisis in 1997 had an adverse effect on poverty reduction. During 1997-99, the incidence of poverty increase from 6.1 percent to 7.5 percent.

^{iv} The concept of hard-core poverty was introduced in Malaysia in 1989 to target poverty programs towards the very poor.