PUBLIC EXPENDITURE IMPACT ON INCOME DISTRIBUTION IN MALAYSIA

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Abstract

Income inequality between ethnics; Malay, Chinese and Indians as well as rural-urban disparity has long been a frustrating feature of Malaysian economic development. For more than thirties years, the country income inequality, represented by Gini Coefficient has only slightly reduced to 0.462 in 2004 from 0.506 in 1970. Indeed income inequality wider from 0.452 in 1999 to 0.462 in 2004. This increased in income inequality was accompanied by rapid economic growth of an average 6 percent per annum for the period 1970 to 2007. The expectations that the high economic growth would accompanied with low income inequality hypothesized by an inverted 'U-shaped' Kuznets curve have not come true for Malaysia. Why did it occur? Unlike many other conventional studies which looking at the relationship between growth and income inequality to explain this phenomenon, this paper will look at the public expenditure impact on income inequality in Malaysia. Public expenditure study related to income distribution is very crucial as it is one of the important fiscal policy tools to achieve income equality goals in Malaysia, thus it could explain the phenomenon of high economic growth accompanied by high income inequality.

Malaysia experienced an increasing trend in total public expenditure with the pattern of the composition of expenditure changes over the years. At the early years after independence until 1970s, expenditure on agricultural and rural areas development forms the largest proportion of development expenditure. Expenditure on transportation ranked second followed by expenditure in education and expenditure in trade and industry. Started from 1980 expenditure on agricultural and rural areas development declined significantly and only form a small proportion of development expenditure in 2004. In contrary the expenditure in education increased significantly to form a largest proportion of development expenditure in 2004. The expenditure in transportation and expenditure in trade and industry are now higher than expenditure in agricultural and rural areas development.

The significant decreased in expenditure on agricultural and rural areas development appear to have a significant impact on the increased in income inequality as the poor

mostly Malay are living in rural areas and involved in agricultural sector. Meanwhile expenditure in education and trade and industry although increased have failed to reduce income inequality. This could probably reflect that the expenditure in education was not well targeted to the poor; and expenditure in trade and industry was use excessive capital intensive method and employment skilled-biased technology. The paper indicates that government expenditure on agricultural and rural areas development which is particularly important for poor people should be relatively protected from budget cuts.

1. INTRODUCTION

It is widely accepted that the government can play a key role in redistributing income through public expenditure policies. Public expenditure intervention in income distribution is justified because sustained economic growth alone although may reduce poverty, may fail to reduce income inequality. Experience in Malaysia indicated the periods of sustained and consistent economic growth are associated with reductions in poverty, but not with improvements in distribution of income.

Malaysia experienced unprecedented growth over the last few decades. Gross domestic product (GDP) in real term has grown by an average about 6 percent per annum through out the period 1980 to 2007. The economic growth has generally decreased poverty levels. As shown by Table 2 start with the good New Economic Policy (NEP) in the 1970s, poverty continuously declined over the next decades. Poverty incidence has declined significantly from 52.4 percent of population in 1970 to 16.5 percent in 1990 and to 5.7 percent in 2004. However, for the income inequality it seems to suggest declining inequality in the 1970s and 1980s, and increasing inequality thereafter. Gini coefficient has remained fairly high since 1970, with the ratios generally moving in the range 0.45-0.53. Indeed Gini ratio has worsen from 0.452 in 1999 to 0.462 in 2004. Table 3 shows that income disparity between urban and rural households wider from 1:1.81 in 1999 to 1:2.11 in 2004. Income disparity between Malay and Chinese households and Malay and Indian households, however, smaller from 1:1.74 in 1999 to 1:1.64 in 2004 and from 1:1.36 in 1999 to 1:1.27 in 2004, respectively. Even though income disparity between ethnics improved but the disparity is still at high level. Moreover, intra-ethnic income inequality for all ethnic groups deteriorated from 1999 to 2004 as shown by Table 4 with the inequality among Bumiputera was the highest.

Table 1: GDP growth rates

1980-1990	5.3
1990-2000	7.0
1991-2006	5.2
2006[1]	5.8
2007[2]	6.0
2008[3]	4.6

Source: Malaysian Economic Reports,
Malaysian Economic Plan, Bank Negara Malaysia
Notes: [1] Estimated at 15 August 2006
*   [2] Forecasted at 15 August 2006*
*   [3] Forecasted by Bank Negara Malaysia at 15 July 2008.*

Table 2 : Incidence of Poverty and income inequality

Year	Overall	Rural	Urban	Malay	Chinese	Indians	Hard-core Poor	Household income distribution Gini Coefficient
1970	52.4	58.7	21.3	65.9	27.5	40.2	-	0.506
1976	42.4	50.9	18.7	56.4	19.2	28.5	-	0.529
1984	20.7	27.3	8.5	25.8	7.8	10.1	-	0.474
1987	17.3	22.4	8.1	23.8	7.1	9.7	-	0.458
1990	16.5	21.8	7.5	20.8	5.7	8.0	3.9	-
1993	13.5	18.6	5.3	-	-	-	-	0.459
1995	8.7	15.3	3.7	-	-	-	-	0.464
1997	6.8	11.8	2.4	-	-	-	1.4	0.47
1999	8.1	12.4	3.4	-	2.6	1.9	1.4	0.452
2000	5.5	10	1.9	-	-	-	-	-
2002	5.1	11.4	2.0	7.3	1.5	1.9	1.0	0.461
2004	5.7	11.9	2.5	-	-	-	1.2	0.462

Source: Malaysia Economic Reports (various years), Malaysia Five Years Economic Plans(Seventh, Eight,For exp: Ninth Malaysia Plan-Table 16-3, p.333), Anoma Abhayaratne (2003).

Table 3: Peninsular Malaysia: Mean monthly household incomes by ethnic group and stratum 1970-2004

	All	Bumiputera (B)	Chinese (C)	Indian (I)	Others	Urban (U)	Rural (R)	C/B	I/B	U/R
1970	423	276	632	478	1304	687	321	2.3	1.73	2.14
1973	502	335	739	565	1798	789	374	2.21	1.69	2.11
1976	566	380	866	592	1395	913	431	2.28	1.56	2.12
1979	669	475	906	730	1816	942	531	1.91	1.54	1.77
1984	792	616	1086	791	1775	1114	596	1.76	1.28	1.87
1987	760	614	1012	771	2043	1039	604	1.65	1.26	1.72
1990	1167	940	1631	1209	955	1617	951	1.74	1.29	1.7
1992	1563	-	-	-	-	-	-	1.73	1.26	1.75
1995	2020	1604	2890	2140	1284	2589	1326	1.8	1.33	1.95
1997	2606	-	-	-	-	3357	1704	1.83	1.42	2.04
1999	2472	1984	3456	2702	1371	3103	1718	1.74	1.36	1.81
2002	3011	2376	4279	3044	2165	3652	1729	1.8	1.28	2.1
2004	3022	2522	4127	3215	2150	3680	1744	1.64	1.27	2.11

Sources: Jomo (2006), Malaysia Five Year Economic Plans (Seventh, Eight, exp: Ninth Malaysia Plan-Table 16-3, p.333), Malaysia Economic Reports (various years)

Table 4: Gini coefficient by ethnic group and strata 1999 and 2004

	1999	2004
Bumiputera	0.433	0.452
Chinese	0.434	0.446
Indians	0.413	0.425
Others	0.393	0.462
Malaysia	**0.452**	**0.462**
Urban	0.432	0.444
Rural	0.421	0.397

Source: Ninth Malaysia Plan

Public expenditure as a means of government intervention in income distribution has grown by an average of 11.5 percent per annum for the period 1966 to 2006[1]. Public expenditure increased to RM1,051.4 billion during the Ninth Malaysia Plan, an increase of 34.5 percent from RM781.8 billion during the Eight Malaysia Plan and more than double from RM500.8 billion during Seventh Malaysia Plan[2]. Expenditure towards achieving income distribution emphasize on programs that improve the income and the quality of life of the people such as expenditure on agricultural and rural areas development, expenditure on transportation, expenditure on education, expenditure on health and expenditure on social and community services.

The above indicates that although economic growth occurred for a long period inequality did not decrease as predicted by a hypothetical inverted 'U-shaped' Kuznets curve; Kuznets' hypothesized inverted U-shaped relationship between inequality and the level of development explain a positive relationship between the level of economic development and inequality at the early stage of development while the relationship is reversed at a later stage. Unlike the early empirical literature, in which attention was focused primarily on the association between growth and inequality, this study focus on the association between public expenditure and income inequality to understand this relationship. Using public expenditure analysis to understand how budget allocation reflects income distribution is appear more important as public expenditure is one of the important fiscal policy tools that be used by government to achieve income equality goals. With better insight into public expenditure, government can make wiser decision on resource allocation and improve income distribution accordingly.

Theoretically, higher public expenditure will lower income inequality. Alesine and Rodrick (1992) note that a high level of inequality leads to redistributive fiscal policy in the form of higher government expenditure, the poor normally benefit more from a given government expenditure. Public expenditure represents a form of government intervention designed to promote allocative efficiency through a correction of market failures, redistributive resources equitably and promote economic growth and stability (Musgrave, 1959). The experience in Malaysia however does not show the case. Higher expenditure was not accompanied with lower income inequality. This then raised the issues on the effectiveness of the allocation of public expenditure to different programs towards the poor. Therefore, the composition of public expenditure emerge as critical determinants of income distribution as it could affect sectoral productivity, and hence labour demand and household income. Data from Table 5 shows that the composition of public expenditure changes through out the period 1970 to 2005. Allocation for expenditure in education is increasing at the expense of the declining expenditure for agricultural and rural areas development. This could probably the main causes to the increase in income inequality despite the rapid growth in economy.

Against this backdrop, the paper try to see the impact of public expenditure policies and income distribution by analyzing the trend of public expenditure in aggregate terms as well as the trend and patterns of its component associated to the trend of income

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[1] Author calculation – data from Bank Negara Malaysia Quarterly Bulletin. Various issues.
[2] See Ninth Malaysia Plan, Eight Malaysia Plan and Seventh Malaysia Plan.

inequality through out the period 1970 to 2004. By doing this it could better understand the growing income inequality despite high economic growth in Malaysia.

This paper is organized as follows: Section 11 surveys on the literature, Section 111 data analysis, and Section 1V conclusion.

Table 5: Federal Government development expenditure: A functional classification

	1966-70	1971-75	1976-80	1981-85	1986-90	1991-95	1996-00	2001-05
Defense and security	21.1	14.1	15.8	14.5	7.9	21.9	12.2	13.3
Economic Services	58.9	68.3	65.1	58.5	63.5	47.9	46.5	39.3
Agriculture and rural dev.	27.7	24.2	19.1	13.6	16.1	11.5	5.9	6.0
Trade and industry	6.8	18.2	14.4	13.4	14.8	8.1	11.9	9.4
Public utilities	5.8	4.2	8.1	9.8	11.1	6.7	7.8	3.7
Transport	12.5	17.7	18.0	15.1	19.2	21.5	20.2	19.2
Others	6.1	4.0	5.5	6.5	2.3	0.3	0.7	0.9
Social Services	17.5	14.9	16.0	25.3	25.7	25.9	32.2	39.7
Education	7.9	9.9	8.0	10.1	15.8	13.9	17.8	23.4
Health	4.2	2.4	1.4	1.4	2.2	4.5	3.6	5.5
Housing	4.8	1.9	5.3	11.1	3.9	1.9	4.6	4.5
Social & community services	0.6	0.7	1.3	2.7	3.8	5.6	6.2	6.3
General administration	2.5	2.7	3.1	1.7	2.9	4.3	9.1	7.7

Source: Quarterly Bulletin Bank Negara Malaysi-various issues, Annual Report Bank Negara Malaysia- various issues, Economic Report, Treasury Malaysia-various issues, Five Year Economic Plan, Treasury Malaysia-various issues.
Notes: All figures are as proportion of the total Federal Government developmentt expenditure

II. A SURVEY OF THE LITERATURE

A. The Theoretical literature

Economists often use the theory of market failure found in welfare economics as a rational for government activity. Market failures here refer to situations in which voluntary transaction do not result in efficient allocation such as the provision of public goods, externalities, monopoly and unemployment. According to Theorem of Welfare Economics (Steven, 2001) even if a competitive market might generate a Pareto-efficient allocation of resources, there are still the cases for government intervention, because an efficient allocation of resources might entail great inequality. For any Pareto-efficient allocation, there exists a set of prices that support that allocation as market equilibrium, but each with a different distribution of welfare. The issue is to decide which Pareto-efficient allocation conforms to society's notion of distributive justice. Apparently, the market cannot do it. The social welfare function is obviously not a market construct; it must evolve from the government action process. Moreover, the pareto principle can be pushed up further to allow economic efficiency to encompass not just actual pareto improvement, but also potential pareto improvement. These improvements cause some

person gain while others lose. With the government intervention there are overall net gains as the gainers could compensate the losers and still be better off.

The Theorem of Welfare Economics is further support by the government-led growth or so-called demand-led growth theory. According to Robert (2001), government-led growth theory argues that government spending, both as a stimulant for capital investments and a source of needed social investments. High rates of growth of demand can enhance productivity and the capacity of an economy to grow at non-inflationary rates. The theory supports government investment in government goods where government spending further supports demand, which in turn enhances productivity growth along with the supply side improvements. The theory, however, also argues that demand for goods and services must be sustained at high levels, and these require government stimulus and substantial wages. Much of the economic growth of the past generation has depended on and benefited from high levels of new government investment including high technology, transportation system, and educations system.

It is important to note that, unlike tax policy, where the theory of optimal taxation was developed; there is not a comparable theory of optimal expenditure policy that provides comparably well-defined rules for expenditure allocation. The key ideas of expenditure policy were the concept of externalities and market failure that suggested that only 'efficiency enhancing' interventions that corrected for the under provision of a product or service due to market failure justified government expenditure (Stefano, Anand, and Erwin, 2005; Steven, 2001). The redistributive powers of the government through expenditure, emanes from the normative arguments in favour of greater equality (Marshall, 1950; Rawls, 1971). Due to the lack of clear theoretical results, the various guidelines proposed and used by public finance specialist.

The question of how the effects of government expenditures on interpersonal income distribution are analyzed lies at the view of the differing theories of the government. One view the government as a neutral arbiter, mediated through the electoral process and growth of the number of interest groups represented through the political process. In contrast, radical perspective views the government as part and parcel of the capitalist economic and social system. With the transformation of competitive capitalism into monopoly capitalism, the role of the government will be more complex. In the absence of any offsetting tendencies, inequality becomes more severe over time in monopoly capitalism. For instance, in the acquisition of human capital, individuals starting in a family with more economic wealth and more human capital will tend to acquire relatively more human capital. Similarly, with physical capital, firms that start out with more physical capital and a larger share in the market have important economic advantages in market control, investment funds, information, and research and development to exacerbate the inequality over time. To the extent that inequality is becomes more and more severe in each time period, then the government must penetrate into society more and more to offset the socially destructive aspects of this inequality. The extent to which the government will mitigate the growing inequalities is conditioned by the need to perform its system maintenance function through its expenditure mechanism.

Government affects the distribution of income is through government purchasing policy which affects companies, industries, and workers differentially. Companies receive higher profits from government purchases than from non-government purchases, and consequently, stockholders in those industries, *ceteris peribus*, will receive higher dividends. These higher profits derive from the nature of contracting with the government in which a high profit rate is guaranteed by the government. In addition, favorable relations with the government via contracting enable those industries to expand their plant capacity faster than would otherwise be the case.

The distributional impact of government expenditure policy not only affects corporate profits and dividends. Higher profits structure place the company in a vulnerable bargaining position for labor to negotiate higher wage rates. Hence, it will affect the wage distribution (and thereby income distribution) as workers in some industries receive higher wages solely as a function of that government's purchasing relations. Therefore, the government expenditure policy influences wage structure via its influence over the structure of industries. Wages will be a positive function of the proportion of a sector's output purchased by the government, after controlling for the other forces affecting individual wage differences. The structure of a sector will be influenced by the purchasing policy of government which will manifest itself in higher profits per worker.

It is important to recognize that the government influences the process by which people obtain income and thereby structures the income distribution. The government benefits certain groups in the society by purchasing goods and services from them rather than from other groups. An even more important distributive activity of the government is in defining and maintaining the institutional structure in which one group can benefits by owning enterprises which sell to the government.

The impact of government expenditure policy on wage structures can be viewed in the light of different characteristics of jobs and different characteristics of individuals. Typically, the urban manufacturing sector contains the privilege members of the labor force which there are relatively good working conditions, high pay, job security, promotion based on seniority and so on. This sector has evolved jobs with substantial skill specificity, acquired through formal education or on-the-job training. The agricultural sector, on the other hand, consists of jobs that do not possess much skill specificity. The labor pool to fill these jobs is comparatively undifferentiated, approaching a homogenous. There is little or no on-the-job training required performing these jobs. The labor characterized by poor work discipline, high rates of turnover, unreliability on the job, and the like. As a consequence, job in the agriculture sector pay low wages, have poor working conditions, provide little job security, and high turnover.

With a view to understand how government expenditure serves as a central instrument in pursuit income distribution policy goals, it is useful to analytically classify the various components of government expenditure in terms of their influence on various segments of economy through the operation of intermediate targets as schematized in figure 1 below. Typically, fiscal policy sets growth, stability and equity as the ultimate goals where government expenditure management is one of the main operating instruments in

pursuing these goals. In this pursuit, government expenditure management plans to achieve intermediate targets set for overall expenditure control; to achieve balance budget, strategic resource allocation and strategic scale of expenditure by effective and responsive operational management of expenditure. The achievement of equity goals is more responsive to selective expenditure particularly investment in agricultural and rural areas and expenditure in social services such as education, health and community services.

Some economists view that government expenditure have to be balanced so as to pursue the goals of growth and equity while at the same time keeping a vigil on the overall size of the expenditure to contain the deficit within levels consistent with macroeconomic stability. Jeff (2007), however states that government budget balancing is less important than widely assume, deficits can be justified if it result from government investment in neglected areas with high potential financial and social returns such as early education and transportation infrastructure. But, the composition of the deficit matters. If more government spending develops human capital, for example, initial budget deficits are a much less serious matter; such outlays are more akin to spending from the development budget rather than operating budget.

Figure 1: Fiscal policy operating procedure and government expenditure
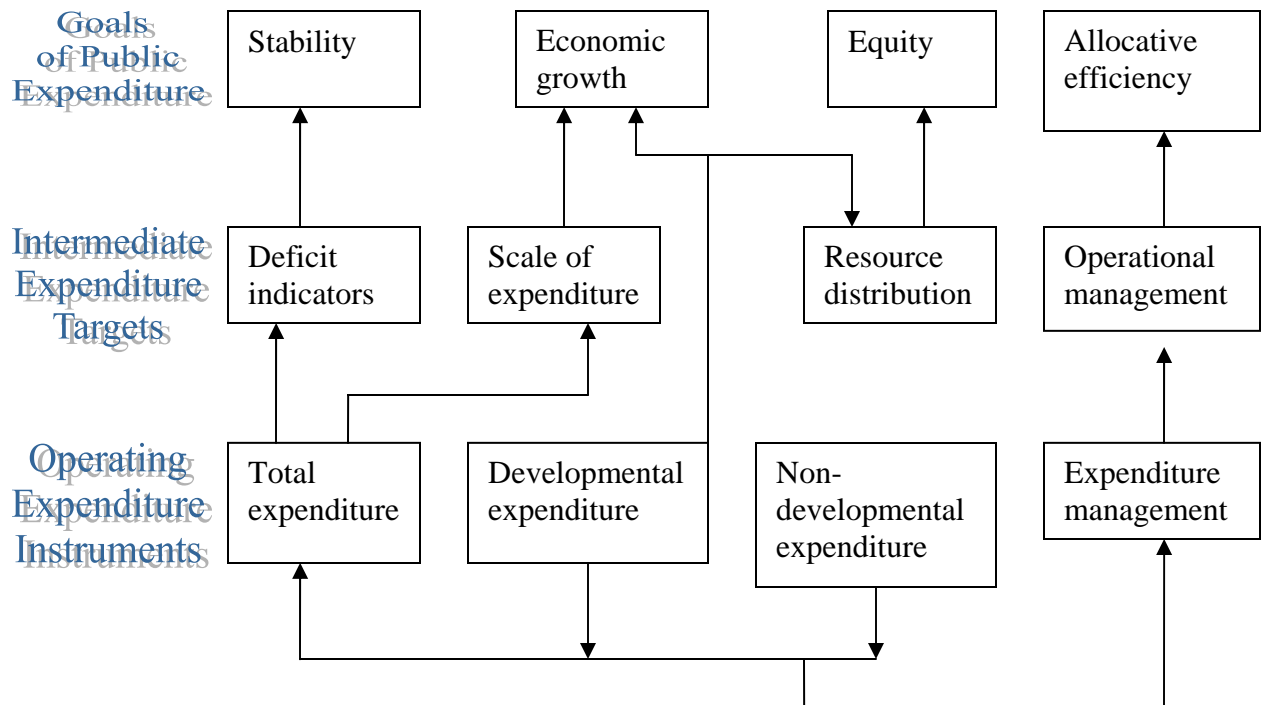
Sources: Adapted from Ranjit Kumar Pattnaik, Dhritidyuti Bose, Indranil Bhattacharyaa, 2006, p.607.

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B. The Empirical Literature

There is a great deal of evidence that public expenditure has a significant effect on income distribution. An analysis of Cameroon SAM by Emini and Fofack in 2004 shows that the dramatic fall in public expenditure during the crisis period persisted in the post devaluation growth period in the late 1990s has implications for ongoing poor welfare indicators and high unemployment rates in Cameroon. Under fixed-price multiplier analysis, a simulation of policy experiments highlight the potential growth and welfare benefits of increased public investments. Under the assumption of a reduction of the external debt servicing, with the relief reallocated to public investment, a significantly higher economic growth rate is estimated, with the benefits of growth reflected in the rapid increase in household income and financial assets, and particularly for the capitalist household. Of all the sectors, rural production yields above average backward linkages and at the same time low forward linkages. This implies that increased government expenditure in agricultural and rural production results into rising demand for agricultural inputs in the form of goods and factors but at the same time its reflects that most of the production is exported.

By using Indonesian SAM applications Oktaviani, Hakim, Siregar (2004) shows that the contraction in fiscal policy through the reduction and even the abolition of fuel subsidies affect the producing sectors, especially the sectors relying heavily on the subsidized fuel and subsidies electricity. The sectors will contract and since the sectors reduce demands for primary factors, households experience a declining real income. Such policies will also cause the increase in prices of commodities then will directly reduce the household's consumption.

In the study to see the impact of public policies on poverty, income distribution and growth, Laabas and Limam (2004) have found five important results, there are: first, public policies affect poverty only indirectly through their impact on income distribution and mean expenditure among the social spending in government budget; second, policies aimed at improving income distribution are more effective than in affecting poverty; third, among the social spending in government budget, transfers seem to be more effective in affecting income distribution and poverty; fourth, policies aimed at sustaining basic necessity production such as that of cereals, have a larger impact on poverty and income distribution than aggregate public policies; and five, public policies and other variables affecting poverty are found to have a more significant impact on the degree of severity of poverty than on the number of the poor.

Bigsten and Levin (2000) found that the efficiency and composition of government expenditures are critical determinants of growth, poverty and income distribution. He argue that when undertaking fiscal reforms government should distinguished three types of impact from reallocation of government expenditures. First, when relative prices and factor incomes change, income distribution and poverty will change. Second, the composition of government expenditures affects sectoral productivity, and hence labour demand and household income. Third, changes in the supply of government services,

such as health care and education have an impact on household's possibilities to acquire human capital.

In relation to the first types of impact from reallocation of expenditure mentioned by Bigsten and Levin above, Dorosh and Lundberg (1996) found that changes in relative prices and factor incomes following reduced government current expenditures hurt mainly urban households, due to the urban bias of government employment. While protecting urban households from a short term income loss, this had a long term negative impact on the rural poor.

Based on simulations with an econometric model of the Swedish thirteen different public expenditure, Dahlberg and Jakobsson (1977) shows that the effects of an increase in public consumption on employment, imports and private consumption are found to differ considerably depending on which expenditure of the public sector is expanded.

In his study to analyze the role of different types of government expenditures in contributing to poverty alleviation in rural areas in India, Fan et.al (1999) show that government's investments in agriculture, investment in rural infrastructure, and expenditures on health and education have a visible impact on poverty, with expenditures on roads having the largest impact in reducing poverty in India. For their study in China (2002), they found that expenditures on education having the largest impact in reducing poverty. One of the merits of these two studies is they taking into account the endogeneity of many relevant variables in their model. This framework is extremely useful in showing the direct as well as the indirect channels through which government expenditures affect poverty.

Jose (1998) study in Latin America shows that greater allocation of resources to education, which makes it possible to improve the distribution of human capital in a society, can have more effects on income distribution. The study also indicates that as a proportion of the income, subside channeled through   expenditure are greater for the poorest sectors of the population. This pattern is the result of the very different distributive impacts of the different types of expenditure. The degree of targeting on the poor is high in the case of expenditure on health and primary education and, to a lesser extent, secondary education.

Keuning and Thorbecke (1989) for SAM Indonesia have identified four classes of government current expenditure on respectively education and health, wages and salaries, other goods and services, and household transfers; and nine classes of government capital expenditure on respectively agriculture, industry and mining, energy, transport and tourism, education, health, housing and water works, general services and other activities. They also broke down the labour force to sixteen income groups, distinguished according to type of occupation, rural vs urban, and paid versus unpaid status. Their finding shows that for the same reduction in public spending, the effects on the average incomes of each group and hence on poverty, will defer according to the budget options selected. Government household transfers and government investment in infrastructure have the greatest positive impact on incomes of the agricultural employees. In contrast, by far the

most favorable program for the urban group consists of government wages. They also found that investment in infrastructure affects directly the level of production in the private sector and thus the marginal productivity of primary factors employed in that sector and then the income. Bigsten and Levin (2000) support this as they found that, as government investment was squeezed, and in particular infrastructural and agricultural services, there was a negative impact on agricultural activities and the rural poor in Cameroon.

Kubursi (1973) did the analysis of the differential impact of government expenditures by various departments on total employment, total income, the distribution of income between wage and non-wage and import requirement by applying Input-output analysis in Ontario. He found that there exists wide variation in the income multipliers generated by a dollar increase of income in the various departments. Similar results hold for employment multiplier, however, the employment multipliers are obviously lower in magnitude and more clustered than the income multipliers. Surprisingly expenditures by the departments of education and health generate lower than average income and employment multipliers. A high income effect is associated with a department expenditure which entails a purchase of goods from industries that possess high backward linkages to other industries as well as low import components and a high direct income coefficient. The direct and indirect impact of government expenditures by the various departments seems to favour wage incomes as compare to non wage incomes.

Li, Squire and Zou (1997) have shown that policies aimed at boosting education level, improving the work of institutions, developing the financial market and ensuring a better distribution of land tend to reduce inequality in income distribution and hence to lower poverty levels.

Spending on basic services such as primary and secondary education and basic health care, tend to reach the poor, while spending on tertiary services such as university education, hospital services, tend to be pro-rich (Van De Walle,1996).

Bidani and Ravallion (1997) have found a statistically significant relationship between government spending on health and poverty in developing countries. Stefano et.al. (2005) review of experiences with pro-poor budgeting in heavily indebt poor countries also suggests that health care is consistently classified as 'poverty reducing'. In contrast, the classification of other expenditure components such as agricultural development and infrastructure as 'poverty reducing' varies from country to country.

As indicated earlier, many studies, old and new have shown that government expenditure did have an impact on income distribution, and particularly the studies shown that different class of expenditure have different impacts on income distribution. Expenditure on agricultural activities and education are two important components of government expenditure to affects the poor and to improve income equality.

There are also other studies that show lack of impact between government expenditure and income distribution. Most of them argued that it was due to the lack of efficiency of

government expenditure. Sanjeev et al. (1997) have even tried to measure the extent of inefficiency in government service delivery. Along the same line, World Development Report of the World Bank (2004) remarked that despite the fact that governments devote about a third of their budgets to health and education, very little of it goes to the poor. Even if funds are dedicated to the poor people, the weak systems of incentives and delivery largely explain the lack of a consistent relationship between changes in the structure of government spending and income inequality.

Squire (1993) commented on the dilemma facing policy makers in their efforts to fight poverty saying that universal programs to reduce poverty have tended to incur costly leakages to the non-poor whereas highly targeted programs have tended to result in the incomplete coverage of the poor. In both cases, the impact on the poor of public expenditure policy would not be expected to be an effective one.

Lloyd-Sherlock (2000) found that the scale and general allocation patterns of government spending in Latin America are not benefiting the poor. Despite the high level of spending, large sections of low income groups are excluded from many areas of government welfare.

Empirical results from a number of African countries also shows that spending on social services, such as health care and education, is not particularly well targeted to the poorest households. Subsidies to primary education are an exception, but they still appear inequitable, when judged against the number of school-age children in the poorest groups (Castro-Leal et. al., 1999).

There is growing concern regarding the wisdom of relying so heavily on social sector spending to promote poverty reduction. Killick (2004) argue that large amounts of aid are being misdirected, promoting a narrow approach to poverty where spending in the social sectors is expanded at the expense of broader developmental priorities such as raising economic growth and addressing structural weaknesses, both of which are key to sustained poverty reduction. In Uganda, it has been argued that roads, agriculture, water and sanitation may yield higher returns for employment and income creation than primary health care and education and that the Poverty Action Fund has promoted a narrow interpretation of pro-poor programs, skewing budget allocations away from programs that may have allowed greater poverty reduction (Williamson and Canagarajah, 2003).

Bigsten and Levin (2000) remind that governments must priorities, and choose, between expenditures which at the margin bear on distributional aspects and growth. Government should know how to balance resource allocations, between supporting immediate gains for poverty alleviation, and supporting processes that bring continuing and sustainable poverty alleviation. He claims that many countries have had the intention of allocating expenditures towards activities which would reduce inequalities and poverty, they have often failed. One of the reasons is the failure to link policy, planning and budgeting.

III. ANALYSIS

A. Income Inequality

Malaysia is a multi-ethnic society with three major ethnic groups, Malay, Chinese and Indians. In 2005, total population was 36.75 million persons. Bumiputera, which most of its Malay, accounted for 65.9 percent of the population, and Chinese and Indians accounted for 25.3 percent and 7.5 percent respectively. Other races accounted for 1.3 percent of the population.

This multiracial society inherited from the British colonial rule. During a colonial rule a large number of Chinese were brought in to Malaysia to work in the mining industry and a large number of Indian were brought in to work in the rubber plantation and rail roads, while that Malay continued to work in the traditional agricultural activities. This resulted to a significant change in the ethnic composition of Malaysia. The ethnic groups start to be identified with the economic activities and separated by geographical location. At the time of independence, the majority of the Malays lived in underdeveloped rural areas, involved in traditional agriculture activities and the majority of Chinese lived in relatively developed urban areas. A marked income inequality existed between the Malay, Chinese and Indians. Until today income inequality still exist and persistent between Malay, Chinese and Indians who still separated by Malay in agricultural activities in rural areas and non-Malay in non-agricultural activities in urban areas.

Since independence Malaysia economic development policies have been shaped by the government's commitment of ensuring that the benefits of economic growth are shared equitably among all Malaysians; Malay, Chinese, Indians and other races. This commitment is made upon the realization that greater equity in the distribution of income and equal opportunities for wealth creation is essential for sustained economic growth as well as for the insurance of social stability. Particularly, since 1970 economic development policy has been guided by the strategy of distribution through New Economic Policy (NEP). Since then, poverty continuously declined over the next decades. However the impact on income inequality is less clear, although it has decreased in 1970s and 1980s it then increased until now.

Table 2 above shows that incidence of poverty declined sharply for the period 1970 to 1984, declined slowly for the period 1984 to 1990 and declined significantly for the period 1990 to 2005. Poverty incidence has declined significantly from 52.4 percent of population in 1970 to 20.4 percent in 1984, to 16.5 percent in 1990 and to 5.7 percent in 2004. Recorded similar trend incidence of poverty in urban areas declined significantly from 21.3 percent of population in urban areas in 1970 to 8.5 percent in 1984, to 7.5 percent in 1990 and to 2.5 percent in 2004. Similarly incidence of poverty in rural areas declined significantly from 58.7 percent of population in rural areas in 1970 to 27.3 percent in 1984, to 21.8 percent in 1990 and to 11.9 percent in 2004. Incidence of poverty for ethnic group; Malay, Chinese and Indians also sharply reduced, Malay incidence of poverty was 65.9 percent of Malay population in 1970 declined to 7.3 percent in 2002 while that Chinese and Indian incidence of poverty, respectively, were

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27.5 percent of Chinese population and 40.2 percent of Indians population in 1970 declined to 1.5 percent and 1.9 percent in 2002.

Table 2 also shows that for the income inequality the trends are unclear, it seems to suggest declining inequality in the 1970s and 1980s, and increasing inequality thereafter. Presently, inequality between ethnic, states, urban and rural still remained wide and persistent. Gini ratio has deteriorated from 0.452 in 1999 to 0.462 in 2004. This is also support by Table 6 below which indicates that the share of income of the bottom 40 percent declined from 14.5 percent in 1990 to 13.5 percent in 2004 while the share of the top 20 percent increased slightly from 50 percent in 1990 to 51.2 percent in 2004. The share of income of the bottom 40 percent is the lowest ranging between 10.3 percent to 14.5 percent for the period 1970 to 2004, while that the share of income of the top 20 percent is the highest ranging between 50 percent to 61.9 percent. Meanwhile the share of income of the middle 40 percent ranging between 27.8 percent to 35.5 percent.

Table 6: Income shares by income group and location

	1970	1973	1976	1979	1984	1987	1990	1995	1997	1999	2004
Total											
Top 20%	55.9	53.7	61.9	54.7	53.2	51.2	50	51.3	52.4	50.5	51.2
Middle 40%	32.5	34	27.8	34.4	34	35	35.5	35	34.4	35.5	35.3
Bottom (40%)	11.6	12.3	10.3	10.9	12.8	13.8	14.5	13.7	13.2	14	13.5
Urban											
Top 20%	55	-	-	-	52.1	50.8	-	49.8	50.2	48.9	
Middle 40%	32.8	-	-	-	34.5	35	-	35.7	35.6	36.7	
Bottom 40%	12.2	-	-	-	13.4	14.3	-	14.5	14.2	14.9	
Urban											
Top 20%	51	-	-	-	49.5	48.3	-	47.4	48.2	48	
Middle 40%	35.9	-	-	-	36.4	36.7	-	37.1	36.6	36.7	
Bottom 40%	13.1	-	-	-	14.1	15	-	15.5	15.2	15.6	

Source: First, Second and Third Outline Perspective Plans. For example, Table 4-1, p.89 in Third Outline Perspective Plan..

Trends in the series for urban and rural areas have broadly followed the aggregate income inequality picture, with the income rural figure lower than the urban. The incidence of poverty in rural areas is about two times that in urban areas, a relativity which has remained broadly constant since the 1970s. Urban-rural disparities seem to have risen in the 1990s. Table 3 indicates that income disparity between urban and rural households deteriorated from 1:1.81 in 1999 to 1:2.11 in 2004.

Among ethnic groups, Malay who's mostly lives in rural areas known as poor. The ethnic groups and regional discrepancies are contributed much by the fact that the small-scale agricultural activities in the rural areas are mainly undertaken by the Malay, where per capita income was the lowest among all sectors, whereas manufacturing and services industries in and near urban areas are largely owned and managed by non-Malays particularly Chinese where per capita income much higher than in agriculture. Table 3 indicates that the income of Chinese is more than two times the income of Bumiputera

and the income of Indian is more than one and half time the income of Bumiputera during 1970s. Generally, the income disparities between Bumiputera and Chinese and Bumiputera and Indian have improved through out the period 1970 to 2004, however, the income disparity ratio still high which the income of Chinese is more than one and half times the income of bumiputera and the income of Indians more than one time the income of Bumiputera during 2000s. More seriously, all ethnic groups recorded deterioration in intra-ethnic Gini coefficient from 1999 to 2004 as shown by table 4. The inequality among Bumiputera was the highest compared with the Chinese and Indians. Gini coefficient among Bumiputera was 0.433 in 1999 deteriorated to 0.452 in 2004, while that Gini coefficient among Chinese and Indian deteriorated, respectively from 0.434 and 0.413 in 1999 to 0.446 and 0.425 in 2004.

Throughout NEP, however, Malay incomes have gained relative to both the Chinese and Indian communities. But the former still remain significantly lower than the latter two. This is also show by the ownership of share capital by the Bumiputera. The proportion of Bumiputera equity ownership increased dramatically from 2.4 percent in 1970 to 20.6 percent in 1995, and then declined slightly to 18.9 percent in 2000 and remained unchanged until 2004 (Roslan, 2006). According to the Ninth Malaysia Plan, in 2004, the share capital of the Chinese more than double that of Bumiputera at 39 percent, while that the share of equity ownership held by the Indians and foreigners were 1.2 percent and 32.5 percent respectively. Bumiputera ownership of share capital at par value increased from RM63 billion in 2000 to RM100 billion in 2004. The achievement of the Bumiputera at 18.9 percent still fell short of the NEP target of 30 percent. Table 7 shows that the proportion of Bumiputera companies in all economic sectors remained very low. The highest proportion of equity controlled by Bumiputera was in construction at 35.2 percent followed by transportation and wholesale and retail trade, respectively at 26.7 percent and 20.4 percent. Privatization remained an active mechanism in enhancing bumiputare equity ownership which Bumiputera ownership of the share capital at par value in privatized projects increased from RM5.5 billion upon privatization to RM14.9 billion in 2005 or 14.9 percent of total equity held by Bumiputera (Ninth Malaysia Plan).

Table 7: Ownership of share capital of limited companies by ethnic group and sectors, 2004.

Ownership Group	Agriculture	Mining	Manufacturing	Utility	Construction	Wholesale & retail trade	Transportation	Finance	Service	Others	Total
Bumiputera	16.4	12.3	8.1	6.3	35.2	20.4	26.7	12.5	18.7	24.3	18.9
Non-Bumiputera	54.0	39.8	25.3	9.2	44.0	53.3	30.6	10.5	40.9	48.6	40.6
Chinese	52.9	39.5	24.5	8.9	42.6	50.7	27.7	10.2	39.5	45.7	39
Indians	0.8	0.2	0.6	0.2	1.1	2.0	2.5	0.3	1.1	1.8	1.2
Others	0.2	0.1	0.1	0.1	0.3	0.6	0.4	0.04	0.2	1.1	0.4
Nominee companies	6.6	25.4	1.9	17.2	5.9	0.7	11.4	17.5	10.9	3.9	8.0
Foreigners	23.0	22.5	64.7	67.3	14.9	25.6	31.3	59.5	29.5	23.2	32.5
Total	100	100	100	100	100	100	100	100	100	100	100

Source: Ninth Malaysia Plan, p.338

Reported in the Ninth Malaysia Plan, a survey on the ownership of commercial buildings and premises in all the urban centers throughout the country in 2005 revealed that inequality in the ownership of the non-financial assets remain sizeable. Bumiputera

ownership of properties was very low at 11.7 percent of the various types of business premises compared with Chinese 71.9 percent.

Though the government policies were seem not really successful in achieving redistributive targets, the targets for restructuring employment were considered achieved. Total employment increased from 3.4 million in 1970 to 8.5 million in 2000, to 11.4 million in 2007. Consistent with the increase in employment, unemployment decreased from 7.8 percent in 1970 to 3.4 percent in 2000 and to 3.3 percent in 2007 (Table 6.1, Economic Report 2007/08). Table 8 shows that, the percentage of Bumiputera in professional and technical occupation increased and indeed, the percentage of Bumiputera in all other occupations. The percentage of Bumiputera in professional and technical category increased from 47.0 percent in 1970 to 58.5 percent in 2000, to 59 percent in 2005. However, Bumiputera employment share in the agriculture sector still high rose from 72 percent in 1970 to 77.1 percent in 2000 to 80.8 percent in 2005. In addition, still the percentage of Bumiputera in senior officers and managers is below 40 percent, though it increased slightly from 36.6 percent in 2000 to 37.1 percent in 2005. The percentage of Chinese in senior officers and manager is the highest accounted for 55.1 percent. For example, the percentage of Bumiputera chief executive officer (CEOs) was 20 percent compared with 70.4 percent of the Chinese.

Table 8: Employment by ethnic group and occupation (% of Total)

Occupation	1970			1985				2000				2005			
	B	C	I	B	C	I	O	B	C	I	O	B	C	I	O
Senior Officials & Managers	24.1	62.9	7.8	28.2	66.0	5.0	0.8	36.6	55.8	6.6	0.9	37.1	55.1	7.1	0.7
Profesionals & Technicals	47.0	39.5	10.8	54.4	32.4	11.1	2.1	58.5	31.9	8.7	1.0	59.0	30.8	9.1	1.05
Clerical	35.4	45.9	17.2	54.0	36.8	8.7	0.5	56.6	35.4	7.4	0.5	56.7	34.3	8.4	0.5
Services & Sales	35.5	50.7	12.9	47.9	44.0	7.5	0.65	51.2	40.6	7.3	0.9	51.5	39.6	8.0	0.9
Agricultural	72.0	18.3	9.7	73.5	17.2	8.3	1.1	77.1	13.9	5.5	3.6	80.8	11.3	4.3	3.7
Production	34.2	55.9	9.6	45.5	43.1	10.9	0.5	52.0	32.7	12.1	3.2	53.6	31.5	11.9	2.9

Source: Ninth Malaysia Plan – Table 16-4, p. 334, Anoma Abhayaratne (2003),
Notes: B = Bumiputera, C = Chinese, I = Indian, O = Others.

B. Public Expenditure

This section reviews trends and patterns in government expenditures so as to identify the scope for a restrained income distribution in such expenditures. In reviewing this, policy reform and shock in the economy will also be review in order to get a clear and whole picture on public expenditure impact to income distribution.

Government expenditure can be broadly categorized into two categories; current and development expenditures. Current expenditure refers to the operating expenses required for the day-to-day functioning of the government departments. Development expenditures refer to the creation or acquisition of fixed asset and sometimes is use to improve the existing facilities, and thus so-called investment expenditure.

Through out the period 1965 to 2005 current expenditure forms a larger proportion of total expenditure compared to development expenditure as indicated in table 7. The share of current expenditure was 76.9 percent during 1966-1970 and 69.6 percent during 2000-2005 as compare to the share of development expenditure at 23.1 percent during 1966-1970 and 30.4 percent during 2000-2005. It is important to note here that the scope for limiting or reducing current expenditure is limited by the fact that a large proportion of the current expenditure is accounted by committed expenses comprising of emoluments, pension and gratuities and debt service charges.

Table 7: Government Expenditure (all figures in percentage)

	1966-70	1971-75	1976-80	1981-85	1986-90	1991-95	1996-2000	2001-05
Current expenditure of total expenditure	76.9	70.8	65.5	63	75.8	75.1	70.9	69.6
Development expenditure of total expenditure	23.1	29.2	34.5	37	24.2	24.9	29.1	30.4
Growth rate of total expenditure	7.2	20.1	21.2	8.9	7.1	7.3	11	8.8
Growth rate of current expenditure	7.1	18.1	16.5	13.3	5.9	8.0	9.5	11.7
Growth rate of development expenditure	8.3	27.2	30.2	1.6	12.9	6.3	15.0	3.3

Source: Data from Bank Negara Quarterly Bulletin, various issues.

Development expenditure objective is mainly to achieve growth and income equality and therefore it could reflect changes in income distribution policy focusing and indicates the direction towards which the government is heading, and thus will be more emphasize in this paper. Detail elaboration on development expenditure programs in relation to income distribution policy and economic shocks is necessary to get a clear picture on the government development expenditure impact on income distribution in Malaysia.

Development expenditure or also called capital or investment expenditure represents the expenditure undertaken by the government to build its investments. These investments enhance the productive capacity of the economy through the provision of the facilities, infrastructure and capital goods. The actual impact of these investments on the growth process is magnified by the crowding in impact on private investment.

Table 5 of the functional classification of development expenditure pictures the development expenditure trend and composition through out 1966 to 2005. Allocation to economic services forms the largest proportion of development expenditure. This followed by allocation to social services, defense and security and general administration.

The largest proportion of development expenditure in the economic sector is not surprising since this expenditure on the various economic sectors must necessarily be of a capital in nature. Furthermore given the important of public sector to led growth and development through public investment in various sectors, the expenditure can be expected to be substantial. This expenditure, however, shows a significant decreasing

trend from the highest 68.3 percent of development expenditure during 1971-75 to 58.5 percent during 1981-85 to 47.9 percent during 1991-95 and to 39.3 percent during 2000-05. High proportion after the independence and particularly during 1970s, reflects the fully involvement of public sector in NEP to achieve two objectives; to eradicate poverty and to restructure the society. This is to solve the socio-economic imbalances that characterized the Malaysian society at that time. Emphasize was given to expenditure programs which would have the greatest impact in reducing the wide economic and social imbalances within and among ethnic groups and regions. In the 1980s governments continuous efforts to achieve these two NEP objectives could be seen from the continuous high proportion of development expenditure in economic sector. In 1990s, however, there was significant reduction in proportion of development expenditure in economic services to below 50 percent until achieve the lowest 39.3 percent during 2000-05. This trend could reflect the shifted in the government income distribution strategy towards more involvement in social sector.

Among the outlays for economic services, allocation for agriculture and rural development forms the largest proportion of development expenditure in 1960s and 1970s owing to the dominance of the low income group in the agricultural sector in rural areas. High expenditure in agricultural and rural development is due to the need to finance various agricultural and rural development projects which involve large and complex infrastructure that require high capital expenditure. Among the expenditure programs that have been implemented to raise the productivity and income in agricultural activities are financing to improve inputs and facilities in existing agricultural areas, financing for new land development scheme and financing for agricultural research to modernize as well as commercialized agricultural practice. The most significant financing is on the open up of new land from the jungle to plant rubber and palm oil in a large scale estate. Beside to commercialize the rubber and palm oil activity the scheme could enable the development of new townships at the rural areas and more importantly this new land is for the poor who does not have land. These activities are undertaken by Federal Land Development Activity (FELDA), Federal Land Consolidation and Rehabilitation Authority (FELCRA) and the Rubber Industry Smallholders Development Authority (RISDA). A substantial expenditure was also spent on 'in situ' programs which involves the improvements of existing agricultural land through rubber replanting and the improve drainage and irrigation facilities. The development in 'in situ' particularly by Integrated Agricultural Development Projects (IADPs), Regional Development Authorities (RDA's), FELCRA, RISDA and Farmers Organization Authority (LPP). Allocation for agriculture and rural development which form the largest proportion at 27.7 percent of development expenditure during 1966-70, however, has been declined to reach only 6.0 percent during 2000-05. The significant reduction of development expenditure in agriculture and rural development support the above mentioned ideas on the shifted in the government income distribution strategy which now give significantly less focus on the development in the agriculture and rural areas. This reflects the decreasing role of public investments in boosting demand in agriculture and rural and at the same time could reflects the decreasing important of the agriculture sector in the economy.

In contrast the transportation is accounting for a greater proportion of the outlays, respectively, which only accounted of 12.5 percent of development expenditure during 1966-70 rose to 19.2 percent during 2001-05. Significant increase in expenditure for transportation was a result of improve and build up new roads and highway. Expenditure on transportation is important in the provision of an efficient system for supporting private sectors as well as accelerating economic growth.

Trade and industry also shows a greater proportion of the development expenditure, accounted at 6.8 percent during 1966-70 rose to 9.4 percent during 2001-05. Development expenditure for trade and industry takes the form of loans and/or equity participation in government-assisted agencies. The increase in expenditure to trade and industry is to accelerate industrial expansion, to speed up the pace of regional development and increase Bumiputera participation in trade and industry. The increase also resulted from the rapid growth of small scale industries mainly to encourage Malay and low income people to involve in business.

Development expenditure in public utilities is 3.7 percent of total development expenditure during 2000-2005. Expenditure in utilities includes investment on electricity, water supply and sewerage and other utility projects. Other outlays on economic services were very low for the period 1965-2005.

Development expenditure for social services, have increased from 17.5 percent during 1966-70 to 39.7 percent during 2000-2005. This remarkable increase was mainly contributed through the continuous provision of a wide range of free or subsidies social and education facilities. Allocation for education consistently increased from 7.9 percent of development expenditure during 1966-70 to 23.4 percent during 2001-05. This expenditure is to provide appropriate education and training program and facilities to increase the supply of trained man power. Similarly allocation for social and community services consistently increased from 0.6 percent of development expenditure during 1996-2000 to 6.3 percent during 2001-05. This trend reflects the efforts of the government to improve social elements along with economic elements to ensure stable and sustained economic growth. This also indicates the focus of the government on human resource development through training and education, not only as an engine of economic growth, but more importantly for the poor to come out from the poverty.

Allocation for health services at first declined from 4.2 percent of development expenditure during 1966-70 to 1.4 percent during 1981-85, but then increased to achieve 5.5 percent during 2001-05. Improvement in health services will lead to a better quality of life through improvements of health conditions. Furthermore, improve in health condition will increase labour productivity by reducing the loss of working hours through illness.

Allocation for housing fluctuated ranging from the lowest 1.9 percent of development expenditure during 1971-75 to the highest 11.1 percent during economic crisis 1981-85. Allocation for housing was 4.5 percent during 2000-2005. Public sector housing programs involve provision of housing for poor people in both rural and urban areas. Free

new housing is provided for the hard-core poor meanwhile low cost housing is provided for poor people. To accelerate the development of low cost housing, there are a joint venture between public and private sector.

Development expenditure for defense and security is mainly for the purchase of military equipment, military vehicles, military accommodation and military bases. Public sector cut defense and security expenditure significantly just after economic crisis during 1986-90 to achieve 7.9 percent of development expenditure as government use the money for other expenditure for economic recovery purpose. After that the expenditure jumped up to 21.9 percent during 1991-1995, but decline consistently since then to achieve 13.3 percent during 2001-05.

Allocation expenditure for general administration shows an increasing trend from 2.5 percent during 1966-70 to 7.7 percent during 2001-05. This expenditure is mainly to provide adequate physical facilities for better working environment to lead to increase output and quality of service particularly the provision of office accommodation.

C. Public Expenditure Impact on income Distribution

Federal government expenditures patterns exhibited several distinct phases. Government expenditure during the 1960s were directed towards achieving high economic growth through improving basic infrastructure, modernizing agricultural sector, and promoting as well as developing industrial sector. The emphasizing in economic growth caused the social economic imbalances in the society. Realizing this government expenditure during 1970s and early 1980s were directed to accelerate the achievement of NEP to eradicate poverty and to restructure the society to get balance economy, and thus government expenditure indicates rapid growth and highest total expenditure of GNP ratio during this period. Table 8 shows that total expenditure growth at 14.7 percent, it reflects the expansion of the government to the use of public expenditure as an instrument of redistribution. Accordingly, development expenditure in agricultural and rural areas recorded the largest proportion of development expenditure as the poor who is mostly Malays are mostly living in rural areas and involved in agriculture sector. High expenditure on development in agricultural and rural areas is accompanied with high expenditure in transportation and in trade and industry. During this period public sector was active as a producer and distributor of good and services and investor of capital, hence the period also saw an increasing trend in contribution of public investment in gross capital formation (Table 8). As a result of active participation of government, income inequality and poverty incidence reduced significantly during this period.

The late 1980s and 1990s then saw a lower growth in expenditure which reflects the shifted to private sector led growth. There was a significant cut of government expenditure which the rate of expenditure growth declined remarkably from 21.2 percent during 1976-80 to 9.0 percent during 1981-85, to 7.3 percent during 1991-95 as shown by Table 8. This is due to government limiting the use of financial resources which is reducing due to prolonged economic recession (fiscal deficit at 11.3 percent during 1981-

85). A lower growth in expenditure mainly attributed by the significant decreased of expenditure in agricultural and rural areas. In contrast, expenditure on education and social and community services were increased. This change in the component of development expenditure believe to significantly contributed to the increased in income inequality for the period from 1987 to 1997 besides the focus on private sector led growth that has undermined the government's redistributive capacity. The 1997 crisis however has slightly reduced the income inequality until 1999. This is because during economic crisis many companies bankrupt and hence limiting the incomes of the higher income groups and it reduce the gap between the rich and the poor.

Due to the economic crisis government has take several measures and it leads to the establishment of Danamodal and Danaharta to restructure debt, to inject new capital or to take over of the dying companies. The 2000s then exhibited a shifted back of private sector to public sector to take more control in the economy. As evidence, the proportion of total government expenditure of GNP has bound back to 29.3 percent for the period 2001-2005 as about the previous level as 1970s period. More significantly was the increase in the proportion of public sector investment of total fixed capital formation from the rate leveling at around 35 percent during 1986-2000 to 60.2 percent during 2001-2005. Government continued to focus more on expenditure in education, transportation, trade and industry and social and community services. Expenditure on agriculture and rural development however continue to receive a small portion of the expenditure. Income inequality and poverty increased during this period.

The trend and pattern in the government expenditure composition suggest the growing use of social sector expenditure at the expense of agriculture and rural development expenditure to promote income inequality and poverty reduction in Malaysia. This change to be a binding constrain to private investment and growth in income and employment in rural areas which then lead to continue and wider income inequality. Once government reduced capital expenditures in rural areas, this had a negative impact on the rural poor and income inequality. This is because agricultural and rural areas are closely related to the poor in Malaysia. The experience in Malaysia also shares by Ghana, when government investment in agriculture and infrastructure declined, there was negative long-term effects on production (Dorosh and Lundberg. 1996). The same goes to Cameroon, as public investment was squeezed in infrastructural and agricultural, there was a negative impact on agricultural activities and the rural poor. (Castro-Leal et. Al, 1999; Sahn and Younger, 1999)

The development in agriculture and rural areas for instance infrastructure investment in rural areas is very important as it could have an immediate and lagged effect on income and poverty. As immediate effects, the employment opportunities are generated specifically among the poor through the public works employment. As lagged effects on income via increased productivity, lower transactions and transport cost and expanded trade. Higher income may then promote human capital formation through better health and higher education attainment, which in turn, raises the earnings potential of individuals. Infrastructure investment also has a direct effect on income as well as an indirect effect via human capital formation.

Social expenditure particularly expenditure in education and health is undoubtedly also important component through which the government can affect income distribution because these expenditure can be targeted to serve the poorest household. Education and health should be guaranteed by public policies in order for people to live a long and healthy life, become knowledgeable and acquire a decent standard of living. If these basic capabilities are not achieved, many choices are simply not available and many opportunities remain inaccessible. Lack of opportunities will lead to income inequality. For instance, if education is subject only to market rules, then higher education will be available only to children whose parents can pay market prices. Poorer parents, who in most cases are unskilled workers, could not afford such a cost; consequently unskilled parents will tend to have unskilled children. In this way, inequality will be crystallized within the initial conditions and will not be reduced during economic growth. Moreover, if growth requires more and more skilled workers, inequality will increase accordingly. There is a great deal of evidence that social expenditure has significant effect on income distribution (van de Walle, 1996; Klasen et al., 2004).

Due to the assumption that social sector spending could reach the poor higher expenditure has been allocated to education from years to years. Surprisingly however the increase in expenditure did not accompany by improve in income inequality which indicates that higher income household derive more benefit from this expenditure. This is probably because expenditure is not well-targeted to the poorest household. The degree of targeting on the poor is high in the case of expenditure on primary education and, to a lesser extent secondary and tertiary education. Li and Glewwe (1999) and Filmer and Pritchett (1988) shows that spending in education goes disproportionately to areas such as tertiary education that tend to benefit better off groups more and that the poor generally benefit much less than better off groups from public expenditure in the sector. Empirical results from number of African countries also show that spending on social services, such as education and health care, is not particularly well-targeted to the poorest households (Castro-Leal et. Al, 1999; Sahn and Younger, 1999). The higher income inequality is further attributed by the persistence of the traditional causes of inequality that is unequal access to education. Probably, redistribution of government expenditure is not based on a sound understanding of the factors that govern household decision about schooling, and of the means by which the allocation can lead to better outcomes for the poor (we leave this issue to be investigated further in the future research).

Higher expenditure on trade and industry which is known promoting higher return to capital would also attributed to increase inequality. Use of capital-intensive method instead of labour-intensive ones tends to increase income disparities, as does the employment of skill-biased technologies. In addition the location of industrial facilities also has an impact on income inequality. As enterprises are often concentrated in urban areas because of ready access to skilled labour force, better infrastructure, larger market and technological spillovers, industrializalion may increase inequality between urban and rural areas.

Table 8: Key indicators of public sector (%)

	1966-70	1971-75	1976-80	1981-85	1986-90	1991-95	1996-00	2001-05
Growth rate of GNP	6.3	13.6	18.3	7.8	10	13.2	8.3	9.8
Growth rate of total revenue	8.7	17.1	22.3	8.8	7.7	11.7	4.5	11.7
Growth rate of tax revenue	9.1	19.2	23.4	6.9	6.3	14.5	3.1	11.8
Growth rate of total expenditure	7.2	20.1	21.2	9.0	7.1	7.3	11	8.8
Tax revenue/GNP	15.2	17.3	21.4	22.4	18.1	19.9	17.5	17.9
Total expenditure/GNP	23.5	29.4	31.7	40.1	33.3	26.7	24.4	29.3
Government deficit/GNP	-5.1	-7.8	-6.2	-11.3	-5.9	0.10	-1.6	-4.9
Public gross capital formation/ Total gross capital formation	36.9	31.4	36.3	45.0	38.5	33.7	39.2	60.2
Private gross capital formation/ Total gross capital formation	63.1	68.6	63.7	55.0	61.5	66.3	60.8	39.8

IV CONCLUSION

Despite favorable economic growth and huge public spending on economic development income inequality is still a crucial matter for Malaysia. Presently, inter and intra-ethnic income disparity as well as urban-rural income disparity is still wide and persistent. Indeed, income disparity between urban and rural areas wider remarkably and the ratio is now closely to the 1970s level.

The strategy to achieve income equality goals been done by government through the focus on education at the expense of agricultural and rural areas development through out the period 1970 to 2004. In the 1970s the expenditure for agricultural and rural areas development accounted the highest proportion of development expenditure while in contrast in the 2000s expenditure for agricultural and rural areas only accounted a very small proportion of development expenditure. The low degree of priority given to expenditure for agricultural and rural areas development may explain why income inequality still remained high. Although a very high proportion of the increase in total development expenditure has been directed to education, this is the component displaying the least progressive form of distribution when it is not well targeted to the poor. Hence, data in Malaysia probably reflects that expenditure on education is not well targeted to the poor. We leave this issue to be further investigated in the future research.

The high allocation for agricultural and rural areas development is very crucial for Malaysia as the poor mostly Malay involved in agricultural activities and lived in rural areas. In relation to this, government should again give more focus in this sector via higher allocation expenditure to support the new programs and to pursue the existing programs which is still relevant such as the efficient use of land, technical and financial assistance to farmers, and plantation in big size, to improve the income inequality. The development of rural non-agricultural activities, like production in small and medium sized enterprises (SMEs) which is seen now is not sufficient need to be more emphasized to decrease the disparity between urban and rural areas.

Therefore, the government must try to balance between expenditure for agricultural and rural areas development and expenditure for education, noting that merely focusing on education lead to higher income inequality. The balance expenditure is a warranted for all population to access to public services. This is necessary condition for sustainable income equality and poverty reduction. In addition government must also ensure that the expenditure whether for agricultural and rural areas development or for education is well targeted to the poor.

To design a pro-poor public expenditure adjustment, we need to assess the distributional effects of spending programs. Programs those are particularly important for poor people such as agriculture and rural development, basic education, health care and public utilities should be relatively protected from budget cuts. It is equally important to identify the kind of government spending programs that can be cut without leading to a big increase in poverty and inequality.

In the Ninth Malaysia Plan government will undertake more active role to reduce income inequality. Government is targeting to narrow the income gap between Bumiputera and Chinese from 1:1.64 in 2004 to 1:1.50 in 2010 and between Bumiputera and Indians from 1:1.27 in 2004 to 1:1.15 in 2010. Government is targeting to reduce the rural-urban gap from 1:2.11 in 2004 to 1:2.0 in 2010. In relation to the Bumiputera equity ownership, the target is to attain between 20 to 25 percent by 2010 in order to reach the ultimate target of at least 30 percent by 2020.

REFERENCES

Alesine, A., & Rodrik, D. (1992). 'Distribution, political conflict and economic growth'. In Cukierman, A., Hercowitz, Z., & Leiderman, L., eds. *Political economy, growth, growth and business cycles*. Cambridge: MIT Press, 1992), pp. 23-50.

Anoma Abhayaratne. (2003). Poverty reduction strategies in Malaysia 1970-2000: Some lessons. University of Peradeniya, Sri Lanka.

Bidani, B., & Ravallion, M. (1997). Decomposing social indicators using distributional data. *Journal of Econometrics*, Vol. 106, p.p 407-443.

Bigsten, A., & Levin, J. (2000). Growth, income distribution and poverty: A review. Working Paper in Economics, N0. 32. Department of Economics, Goteborg University.

Castro-Leal, F., Dayton, J., Demery, L., & Mehra, K. (1999). Public social spending in Africa: Do the poor benefit?. *The World Bank observer*, 14(1).

Dahlberg & Jakobsson (1977). On the effects of different patterns of public consumption on expenditures. *The Review of Income and Wealth*, vol. 23, issue 1 p. 385.

Dorosh, P.A., & Lundberg, M.K.A. (1996). More than just peanuts (groundnuts: Aid flows and policy reforms in Gambia, in Sahn, D.E ed.., *Economic reform and the poor in Africa*. Clarendon Press, Oxford.

Emini, C.A & Fofack (2004). *A Financial Social Accounting Matrix for the integrated macroeconomic model for poverty analysis. Application to Cameroon with a fixed-price multiplier analysis.* World Bank Policy Research Working Paper, 3210, February.

Fan, S., Hazell, P., & Thorat, S. (1999). *Linkages between government spending, growth and poverty in rural India*. IFPRI Research Report, 110, Washington, D.C.

Fan, S., Zhang, L,. and Zhang X. (2002). *Growth, inequality and poverty in rural China: the role of public investments*. IFPRI Research Report, 125, Washington D.C.

Filmer, D., & Pritchett, L. (1997). *Child mortality and public spending on health: How much does money matter?* Policy Research Working Paper No. 1864, Woe

Jeff, M. (2007). *Breaking the stranglehold on growth. Why policies promoting demand offer a better way for the U.S economy*. EPI Briefing Paper, 192. Washington.

Jomo, K.S. (2006). *Growth with equity in East Asia*? DESA Working Paper No. 33.

Jose, A.O. (1998). *Income distribution, poverty and social expenditure in Latin America*. Conference of the Americas, Washington.

Keuning, S. & Thorbecke, E. (1989). *The impact of budget retrenchmen on income distribution in Indonesia: A social Accounting Matrix application.* Working Paper No.3, OECD Development Centre.

Killick, T. (2004). Politics, evidence, and new aid agenda. *Development Policy Review*, 22, pp.1-27.

Klasen, S., Grosse, M., Thiele, R., Lay, J., Spatz, J., & Wiebelt, M. (2004). *Operationalising pro-poor growth: a country case study on Bolivia, Mimeo*. The World Bank, Washington, DC.

Kubursi, A.A. (1973). Evaluating the economic impact of government expenditure by department an application of input-output analysis. *Socio-Econ Plan Sct*, Vol. 8. Pergamon Press.

Kuznets, S. (1955). Economic growth and income inequality. *American Economic Review*, Vol. 45.

Li, H., Squire, L., & Zou, H. (1997). Explaining international and intertemporal variations in income inequality. *The Economic Journal*, Vol 108, pp.1-18.

Li, S., & Glewwe, P. (1999). *Distribution of government education expenditures in developing countries*. Warld Bank, Washington, DC.

Laabas, B. & Limam, I. (2004). *Impact of public policies on poverty, income distribution and growth.* IFPRI/API Collaborative Research Project.

Lloyd-Sherlock, P. (2000). Failing the needy: Public social spending in Latin America. *Journal of International Development*, 12, pp.101-119.

Malaysia. Economic Reports. (Various years). Treasury Malaysia.

Malaysia. Bank Negara Malaysia Annual Report. (Various years). Ministry of Finance.

Malaysia. Bank Negara Malaysia Quarterly Report. (Various quarters). Ministry of Finance.

Malaysia. Seventh Economic Plan, Eight Economic Plan, Ninth Economic Plan. Economic Planning Unit.

Malaysia. Third Outline Perspective Plan, 2001-2010. Economic Planning Unit.

Marshall, T.H. (1950). *Citizenship and social class and other essays*. Cambridge University Press.

Musgrave, R. (1959). *The theory of public fianace*. New York, Mc Graw-Hill.

Oktaviani, R., Budiman, Hakim, D.B., Siregar, H., & Sahara. (2004) *The impact of fiscal policy on Indonesian macroeconomic performance, agricultural sectors and poverty incidences (A dynamic computable general equilibrium analysis).* Department of Socio-Economics Sciences, Faculty of Agriculture, Bogor Agricultural University.

Perumal, M. (1989). Economic growth and income inequality in Malaysia, 1957-1984. *Singapore Economic Review*, vol.34, no.2, pp. 33-46.

Ranjit Kumar Pattnaik, Dhritidyuti Bose, Indranil Bhattacharyya and Jai Chander. (2006). *Public expenditure and emerging fiscal policy scenario in India*. Department of Economic Analysis and Policy, Reserve Bank of India.

Rawls, J. (1971). *A theory of justice*. Harvard University Press.

Robert, B. (2001). 'Distribution, demand and growth in Neo-Kaleckian Macro models'. In Mark Setterfield, ed. *The economies of demand-led growth*, Celtenham, England, Edward Elgar.

Sahn, D.E., & Younger, S. (1999). Dominance testing of social sector expenditures and taxes in Africa. *Working Paper* 99/172, Fiscal Affairs Department, International Monetary Fund.

Sanjeev, D. etal (1997). *The efficiency of government expenditure: Experiences from Africa*. IMF Working Paper WP/97/153.

Squire, L., (1993). Fighting poverty. American Economic Review, vol. 83, No. 2, pp. 377-382.

Stefano, P., Anand, R. & Erwin, R.T. (2005). *How does the composition of public spending matter?*World Bank Policy research Working Paper, 3555.

Steven, E.L. (2001). Price theory and applications. South-Western College Publication.

Van De Walle. (1996). *Assessing the welfare impacts of public spending*. Research Working Paper 1670, The World bank, Washington D.C.

Williamson, T. & Canagarajah, S. (2003). Is there a place for virtual poverty funds in pro-poor public spending reform? Lessons from Uganda's. *Development Policy Review*, 21, pp. 449-480.

World Development Report. (2004). World Bank.