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# Sources of Income Growth and Inequality Across Ethnic Groups in Malaysia, 1970–2000

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**Summary.** — This paper examines the sources of income growth for major ethnic groups in Malaysia. An input–output structural decomposition analysis is extended and applied to the social accounting matrices of 1970 and 2000. The results indicate that the expansion of exports and the changes in the compensation of labor and capital inputs are the main determinants for the income changes. The effects differ largely between rural and urban areas, between skilled and unskilled workers, and between the major ethnic groups. The combination of these two determinants, however, is a dominant factor in explaining the increase in income inequality in Malaysia.


*Key words* — income distribution, social accounting matrix (SAM), structural decomposition analysis, ethnic groups

## 1. INTRODUCTION

The implications of economic growth on income inequality in developing countries are often measured at the national level. Such aggregate measures obviously hide many details of inequality, for example differences across various ethnic groups. Income inequality is a major concern in particular for multiracial countries because ethnically more homogenous populations tend to have more equal income distributions (see Alesina & Glaeser, 2004). For that reason, there has been growing research interest in measuring the relationship between economic growth and ethnic diversity (see for example, Agostini, Brown, & Roman, 2010; Gören, 2014; Iniguez-Montiel, 2014). This is supported by the growing body of economic literature that finds that ethnic heterogeneity induces social conflicts and violence, which in turn, affects economic growth (see for example, Easterly & Levine, 1997; Mauro, 1995; Montalvo & Reynal-Querol, 2005). The negative consequences of ethnic diversity imply that adequate policies are required to ensure that the benefits of economic growth are equally shared among all ethnic groups. This paper examines the contribution of economic growth and structural changes during 1970–2000 to income growth for all ethnic groups in Malaysia, which in turn, has implications for income inequality. [1]

Malaysia has been chosen for three main reasons. First, the bloody ethnic riots in May 1969 highlighted the dangers that can arise in a multiracial society when ethnic prejudices are exacerbated by income disparities (see Faaland, Parkinson, & Saniman, 2003; Heng, 1997; Shari, 2000). In the post-independence period (1957–1969) little has been done to redistribute wealth toward the poor, despite respectable economic growth. In 1970, per capita income of the Chinese and Indians were 129% and 76% higher than those of the Malays. Another aspect that contributed to the ethnic unrests was that the economic activities were run mostly by the non-Malays whereas political decision making was dominated by the Malays. As a result of the ethnic riots on May 13, 1969, growth policies have been shifted from strategies with an emphasis purely on economic growth toward policies that aimed at combining growth with reducing income inequality between ethnic groups. This policy shift was formalized in the New Economic Policies (NEP) for the period 1971–1990 (see Economic Planning Unit, various years). Although economic growth is satisfactory, the income gaps remain large—in 2005, per capita income for the ethnic Chinese and Indians were 64% and 27% higher than for the ethnic Malays.

Second, Malaysia's income distribution is very different from that of other developing economies, such as Vietnam (see van de Walle & Gunewardena, 2001) and Chile (see Agostini *et al.*, 2010). In these countries, ethnic minorities earn the lower incomes whereas in Malaysia it is the ethnic majority that earns the low incomes. Third, an analysis that encompasses many intertwined mechanisms that are relevant to study the links between growth and income inequality requires a detailed dataset. Malaysia has a rich dataset with household-based surveys that include information on ethnic groups across geographical locations. These surveys were essential in constructing the social accounting matrix (SAM) on which the empirical work in this paper is based.

The changes in household incomes during 1970–2000 are disentangled into their underlying determinants, using a so-called structural decomposition analysis (SDA, see e.g., Dietzenbacher & Los, 1998). Traditionally, SDA has been developed for applications based on input–output tables. Because such tables focus primarily on analyses related to production, they do not cover all relevant aspects related to income distribution. A SAM, however, does include socio-economic information. We therefore apply SDA to SAMs, which requires a non-trivial extension of the methodology and which—to our knowledge—is novel. One interesting aspect of the application is that it integrates into a single decomposition the primary effects of income generation

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(through the production structure and demand) and the secondary effects of income re-distribution (e.g., through institutional transfers). Two SAMs are available for Malaysia (for 1970 and 2000) and both include detailed information on ethnic groups. The results in this paper thus aim at providing insights into the causes of the changes in income in general and its distribution across ethnic groups in particular after three decades of policy reforms. Although decompositions of income changes at an aggregate level have been conducted (see, e.g., Oosterhaven & Hoen, 1998; Oosterhaven & van der Linden, 1997) we are not aware of any attempts at decomposing income changes at the level of disaggregated household groups.

The remainder of this paper is organized as follows. The next section briefly reviews the economic policies that were implemented during 1970–2000, and links them to income growth and its distribution over ethnic groups. Section 3 briefly explains the general structures of the SAMs for 1970 and 2000 that are used for the decomposition analyses. Section 4 discusses the technical details of our decomposition analyses that are applied to the SAMs and Section 5 presents the results. Finally, Section 6 summarizes and draws conclusions.

## 2. ECONOMIC GROWTH AND INCOME INEQUALITY, 1970–2000

During the British colonial period (1786–1957), Malaysia was characterized by a dual economic system. Two coexisting modes of production can be distinguished. The first mode was found—in particular—in tin mining and on rubber plantations. It relates to activities that were executed at a large scale and used modern technologies. These economic activities were concentrated in west Malaysia where most of the tin deposits and suitable land for rubber cultivation were found. The profits obtained from exports were relatively high for these commodities (when compared to other commodities). The second mode of production was peasant agriculture (mainly paddy farming, coconut farming, coffee farming, and inshore fishing) based on traditional methods. Products from these activities were locally consumed and were not intended for sale in the international market. These activities very much reflect the way of life in what is called "the Malay belt".

While the commercial and industrial sectors with modern modes of production expanded and increasingly clustered in the urban areas, the traditional sectors faced stagnation or they even deteriorated. Due to population growth, the pressure on land worsened the situation over time in traditional agricultural sectors. In contrast, increasingly sophisticated technologies were introduced in the modern sectors. Thus, differences in productivity, income, and ultimately wealth of those engaged in the two sectors increased. Since the employment structure was largely determined by ethnicity, the current concerns about inequality between ethnic groups dates back to periods long before Malaysian independence. Under the British colonial labor policy of "divide and rule", the Chinese and Indians were segregated from each other and from the Malays by economic activity and geographical location. Over generations, the Chinese and Indians who had migrated to Malaysia to work in the tin mines and on the rubber plantations owned by the British, had been allowed to gradually venture into modern commercial and industrial activities (which were essentially located in urban areas), whereas the Malays were mainly engaged in traditional activities such as peasant agriculture and fishing (mainly in rural areas). The Malays were only allowed by the British to be involved in modern economic activities as civil servants, i.e., in the police and the military forces (for more information see Faaland *et al.*, 2003).

Although the economic expansion during the post-independence period (i.e., 1957–1969) was respectable, it failed to make a substantial contribution toward reducing the differences in economic welfare between the Malays (the largest group that is the poorest on average), the Chinese, and the Indians. In particular two features were characteristic for this period. First, the economic policy in the post-independence period continued to be one of *laisser-faire*, just as it had been before the independence. There was little attempt to re-distribute wealth toward the economically dispossessed. Second, although the political power was dominated by the Malays, the economic activities were run mostly by the non-Malays. For all ethnic groups, this led to the question whether their interests were sufficiently safeguarded in Malaysia. The disenchantment that had been growing among all segments of the population ultimately erupted in the bloody ethnic riots in May 1969. As a result, economic policies shifted from a planning that entirely focused on growth, toward policies that focused on growth combined with a more equal income distribution. This policy shift was formalized in the New Economic Policies (NEP) for the period 1971–1990 (see, Economic Planning Unit, various years).

The objectives of the NEP were: (i) to eradicate poverty (irrespective of ethnic groups) and (ii) to restructure the society, attempting to eliminate the identification of ethnic groups by economic function (i.e., the former labor policy of "divide and rule"). For the first objective, the overall development strategy was reformulated by emphasizing export-oriented industrialization and setting up ambitious rural and urban development programs. Development programs were focused primarily at increasing participation and involvement of disadvantaged households in economic activities. Land development and *in situ* agriculture were the main strategies next to the absorption of the rapidly growing rural labor force into higher income jobs in the industrial and services sectors. Additional support in the form of replanting grants, the provision of subsidized inputs to various agricultural activities and the use of special agencies to assist in marketing was provided to stimulate income growth in rural areas. For the urban poor, low-cost housing projects and programs to assist urban petty trade (e.g., the acquisition of stalls and equipment) were set up.

For the second objective, long-term targets were established to (a) increase the Malays ownership of shares in limited companies, and (b) increase the proportion of Malays at managerial positions. The strategies that were formulated to pursue (a) included the promotion of Malays participation in business by providing them privileged access to the private sector (e.g., through the introduction of a quota system). An expansion of the public sector (where the Malays held most of the key positions) was the main strategy to pursue (b). Also the Industrial Coordination Act (ICA) was introduced to strengthen participation of the Malays in medium- and large-scale enterprises by requiring that the composition of employees reflected the composition of ethnic groups in society.

The implications of the NEP policies on economic growth are presented in Table 1. We observe that during the period of NEP, the economy expanded at an average rate of 12% per year (in current prices). Given an average inflation rate of somewhat more than 4% per year, the real growth would amount to approximately 8%, which is still considerable. The rapid growth during this period was accompanied by a substantial transformation of the economic structure from