Chapter 1

Introduction

This thesis deals with issues regarding income inequality between ethnic groups in Malaysia. Strains between the Malay, the Chinese and the Indian ethnic groups (plus a number of minority groups) have been the most important topic in Malaysian politics for several decades. Quite often the debates were a consequence of distributional concerns rather than religious problems, for example. The thesis analyzes the drivers of changes in income inequality between 1970 and 2000, the consequences of a number of growth-promoting policies on income inequality, and the extent to which soaring world prices for oil will affect inequality across ethnic groups. Before so doing, however, we first present a concise history of the inequality issues in Malaysia.

1.1 Ethnic Plurality and Economic Duality in Malaysia

The pluralistic character of the Malaysian society was inherited from the British during their occupation of Malaya from 1786 to 1957. The borders of the current country Malaysia are not identical to those of the country that became independent in 1957. Upon independence, it contained Malaya (the peninsula now called “West Malaysia”). In 1963, Malaya merged with Sabah and Sarawak (two states on the Northern shore of the island Borneo) and Singapore to form the Federation of Malaysia. In 1965, Singapore continued as an independent nation. From then on,
Malaysia has had the borders shown in Figure 1.1, which also depicts the eleven states in West Malaysia and the two states in East Malaysia.

While there had already been some Chinese and Indians in Malaya before the British occupation, the mass migration of the Chinese and Indians took place during the British occupation. Starting in the second half of the nineteenth century and up to the 1930s, the British had encouraged large scale migration of Chinese and Indians to Malaya, to meet their manpower needs in tin mining and on the rubber plantations. The Chinese immigrants were allocated mainly to the tin mines and the Indian immigrants generally worked on the rubber plantations. Based on the earliest available information (for West Malaysia only), the Malays constituted 54% of the total population in 1921, 29% was Chinese and 15% was Indians (see Fernandez, et al., 1975).

**Figure 1.1** Map of Malaysia

Malaysia is still a pluralistic country, with Malays, Chinese and Indians as the major ethnic groups. The total population of the country as estimated in 2000 stood at
23.3 million.¹ About 80% of this population was located in West Malaysia. In this part of the country, the Malays accounted for 53% of the population, the Chinese for 26% and the Indians for 8%. A group of ethnic minorities constituted the remaining 13% of the population. The ethnic composition in East Malaysia—the states of Sabah and Sarawak—was much more heterogeneous. In Sabah, a diverse group of ethnic minorities (of which the Kadazan and the Bajau are the most numerous) had a population share of 72%, whereas the shares of Malays and Chinese only amounted to 15% and 13%, respectively. In Sarawak, the Malays and Chinese made up half of the population (27% was Chinese, 23% was Malays). The Ibans (an ethnic minority at the national level) accounted for about 30% of the population and was the single largest ethnic group in the state of Sarawak.

Malaya was characterized by a dual economic system. During a significant period of British occupation, 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 the western part of Malaya where most of the tin deposits and suitable land for rubber cultivation were found. The products were exported to the international market via the main ports of Singapore and Penang. The profits obtained from these activities were relatively high when compared to other economic activities. 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”, the northern and eastern part of Malaya.

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,

¹ Population censuses are conducted every ten years by the Department of Statistics of Malaysia. When this dissertation was written, the most recent census was conducted in 2000 (Department of Statistics Malaysia, 2001).
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 servant, i.e. in the police and the military forces (for more information see Faaland et al., 2003). Upon independence in 1957, 73% of the Malay labor force was active in agriculture and fishing, compared to only 40% of the Chinese and 56% of the Indians (see Economic Planning Unit, various years).

1.2 Income Inequality and Ethnic Riots in Malaysia

After the independence in 1957, the new government mainly continued the market-oriented economic policies of the colonial British. This resulted in relatively rapid economic growth. In real terms, the average annual GDP growth rate was 4.1% in the period 1956-1960, 5.0% in the period 1961-1965 and 5.4% in the period 1966-1970 (Bank Negara Malaysia, 1994). Although the economic expansion in the post-independence period (1957-1970) was respectable, it failed to make substantial contributions towards solving the issue of economic imbalances between the ethnic Malays, Chinese and Indians.

There are two characteristics of the post-independence economy that contributed to the fact that inequality between ethnic groups was not diminishing.

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2 The ethnic differences were not limited to the employment patterns, but cut across almost all spheres of life, including educational systems, languages, cultural activities, and adherences to religions.
First, little has been done to redistribute wealth towards the poor. As a consequence of this, poverty rates improved only marginally between 1957 and 1970 and the income gaps between the ethnic groups widened further. This is illustrated by Figure 1.2. In 1970, about half of the population was living under the poverty line and urban incomes were about twice as high as those in rural areas. The poverty rates were notably high among the Malays compared to the Chinese and Indians. In 1970, 66% of the Malays were poor, compared to only 28% and 40% for the Chinese and Indians, respectively. In the same year, the per capita incomes of the Chinese and Indians were 129% and 76% higher than those of the Malays.

Second, economic power was not reflected in political power. Political decision-making was dominated by the Malays, while the economic activities were run mostly by the non-Malays, as discussed above. From the perspective of the Malay community, the continuation of the colonial *laissez-faire* had only ensured increased well-being for the Chinese, but it had not achieved much improvement in the plight of the Malays. Hence, a more aggressive government intervention was called for, to enhance upward mobility of the Malays in education and the labor market. The Chinese and Indians, however, felt that the government was doing too much for the Malays. 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 on May 13, 1969. As a result, economic policies moved away from a narrow focus on growth towards a broader set of objectives, in which both growth and a more equal income distribution featured prominently. This policy shift was formalized in the New Economic Policies (NEP) for the period 1971-1990 (see, Economic Planning Unit, various years).
Figure 1.2 Poverty rates and per capita income gaps, 1957-2005

Source: Economic Planning Unit (various years).
Notes: Figures in 1957 and 1970 refer to West Malaysia only, since data for East Malaysia are not available. The income gap is calculated by expressing per capita income of non-Malays over Malays. In 1970, for example, the average income of an Indian was 1.70 times the average income of a Malay.

The NEP was succeeded by the National Development Policy (NDP), for the period 1991-2000. The approach towards income distribution as adopted by the government in the NEP was changed, especially the policies related to the Malays. The support now came in the form of assistance to the Malays in their competition with other ethnic groups, without making them rely too much on the government (see Economic Planning Unit, various years). A more or less similar approach has been pursued in the more recent National Vision Policy (2001-2010).

The economic reforms have improved incomes for all ethnic groups. The remarkable reduction in absolute poverty in Malaysia between 1970 and 2005, however, was not accompanied by a significant reduction in income inequality. In 2005, the percentages of poor people had come down for all ethnic groups, to 8.3%, 0.6% and 2.9% for the Malays, Chinese and Indians, respectively (see Figure 1.2). The per capita income of the urban households was still 111% higher than for the rural households, which is very similar to the gap in 1970. Per capita incomes for the
Chinese and Indians were 64% and 27% higher than for the Malays. These gaps are lower than in the 1970s, but the gaps did not narrow much further after the mid-1980s. These statistics indicate that economic growth alleviated poverty for almost the entire Malaysian population. At the same time, they also indicate that effective redistribution interventions are needed to translate economic growth into lower income inequality across ethnic groups.

The low responsiveness of income inequality across ethnic groups to economic growth suggests that more research is needed in order to develop a clear understanding of the causes and consequences of income inequality. The consequences of economic growth on income inequality across ethnic groups in Malaysia are complicated and contingent. The available analytical frameworks do not allow for a careful assessment of the inequality consequences that various growth policies have on different ethnic groups.

1.3 Research on the Links between Economic Growth and (Ethnic) Inequality

Cross-country comparisons find that economic disparity correlates with ethnic diversity (see Darity Jr. and Nembhard, 2000). For that reason, there has been increasing interest in studying the economic consequences of ethnic heterogeneity in recent years. The growing body of economic literature finds that a degree of ethnic heterogeneity induces social conflicts and violence, which in turn, affects economic growth (see for example, Mauro, 1995; Easterly and Levine, 1997; Montalvo and Reynal-Querol, 2005). In contrast, ethnically more homogenous populations tend to have more equal income distributions (see Alesina and Glaeser, 2004; Fum and Hodler, 2010). Given the negative consequences of ethnic diversity, adequate policies are required to ensure that the benefits of economic growth are equally shared among all ethnic groups.

Poverty and income inequality are the two related socio-economic indicators that are frequently analyzed when economic growth occurs. Focusing on the specific impact of growth and income inequality on poverty, several studies have shown that
the income distribution indeed matters for poverty reduction (see for example, Ravallion, 1997; Adams, 2004; Son, 2007; Iniguez-Montiel, 2014). The extent to which economic growth reduces poverty depends on how income is distributed—the more equal the income distribution is, the more poverty is alleviated. For this reason, the relationship between economic growth and income inequality is also a key concern in discussions of development policy and is emphasized in this dissertation.

How is income inequality affected by growth? Thoughts about this relationship have been influenced heavily by the Kuznets hypothesis. This hypothesis implies that an inverted U-shape is found if income inequality (on the vertical axis) is plotted against income per capita (on the horizontal axis). In the early stages of economic development (when incomes are low), income inequality tends to increase with growth. This is because economic advances are concentrated in urban sectors where average incomes are already higher than in rural sectors. In response to further increases in urban incomes, migration into urban areas will take place. The country thus becomes more urbanized with continued development, which at higher income levels leads to a decline in income inequality (since relatively few poor people will remain in the rural areas characterized by low wages). Empirical evidence indicates that the effects of growth on income inequality still remain unclear for developing countries. Examples are: Bruno et al. (1998) who find that 32 out of 42 the countries in their study do not reveal any systematic relationship between growth and inequality; de Janvry and Sadoulet (2000) and Walker (2007) who do not observe a relationship between the growth rate and the degree of income inequality; or Adams (2004) who finds that income distribution does not change much as development progresses. Differences in methodologies, in coverage of concepts, in definitions, and in datasets are factors that influence the outcomes.

Most empirical studies investigating the relationship between economic growth and income inequality rely on cross-country data, time-series data or panel data and focus on aggregated inequality measures. Such aggregate measures obviously hide many details of inequality, for example differences across various ethnic groups.

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3 For a more complete discussion of the Kuznets hypothesis see, for example, Walker (2007) and Shin (2012).
Attempts at analyzing income inequality across ethnic groups in developing countries include Shari (2000) for Malaysia, van de Walle and Gunewardena (2001) for Vietnam, Agostini et al. (2010) for Chile, and Bailey et al. (2013) for Brazil. The empirical evidence suggests that income inequality across ethnic groups is highly affected by: differences in incomes paid to various factors of production (capital and several types of labor); differences in demographic factors (e.g. educational levels and age structures); and differences in the presence of ethnic groups in geographical locations (such as rural and urban areas). A drawback of many of the studies for developing countries is that the standard method for analyzing inequality is based on data derived from representative household surveys only. The relationship between growth and income inequality, however, involves many aspects of the economy that are linked to each other, such as domestic production structures, international trade, allocation of factors of production, tax structures, and institutional structures. Analyses based on household surveys only cannot capture these aspects and their links and are therefore unable to take into account how different ethnic groups are interconnected and interact with the rest of the economic system (see Round, 2003; Pieters, 2010). In response to the economic expansion, for example, incomes of ethnic groups are likely to be affected differently, as a consequence of different labor market participation of ethnic groups and differential growth rates of the production sectors in which people are employed, and reinforced (or dampened) by interdependencies among these sectors.

The studies in this thesis apply an economy-wide approach that links production sectors, factors of production, domestic institutions and external sectors to each other in a single consistent framework, the social accounting matrix (SAM). The main purposes of this thesis are to quantify the sources of inequality in Malaysia and to estimate and predict the consequences of past and current growth policies on income inequality among ethnic groups in this country. More specific questions that will be addressed are the following. How much of the inequality across ethnic groups is contributed by the functional distribution of income over the various factors of production? To what extent did the economic transformation and structural changes between 1970 and 2000 lead to income growth for all ethnic groups, and did it translate into a reduction in inequality? Given the current economic structure, is there
a conflict between promoting a pro-poor sectoral policy and promoting a pro-growth sectoral policy, taking full account of the (e.g. input-output) linkages between sectors? Does the current policy of deregulation of the domestic petroleum price induce distributional shifts between ethnic groups, and—if so—do these reduce inequality? Answers to these questions are based on a new SAM and are relevant for the policy debate on how to address income differences across ethnic groups in Malaysia.

It should be emphasized that the problems sketched above surface in many developing countries with a heterogeneous population. Malaysia has been chosen as a focal point of discussion for two main reasons. First, Malaysia’s income distribution is very different from that of other developing economies, such as Vietnam (see van de Walle and Gunewardena, 2001) and Chile (see Agostini, et al., 2010). In these countries, minority groups earn substantially lower incomes, while in Malaysia the largest ethnic group earns low incomes. Second, an analysis that encompasses many mechanisms 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 on which the empirical work in this thesis is based.

1.4 Outline

This thesis consists of five chapters aimed at answering the research questions formulated above. SAMs play an essential role in every chapter. Chapter 2 describes the construction of a new SAM for Malaysia in 2000 and derives some key figures regarding inequality across ethnic groups in rural and urban Malaysia. Chapter 3 quantifies the sources of income growth and inequality changes over a period of 30 years, by comparing the 2000 SAM with a 1970 SAM constructed by Pyatt and Round (1984). Chapters 4 and 5 use the 2000 SAM for analyzing the impacts of specific industrial and energy policies. In what follows, the chapters are briefly discussed.

Chapter 2 quantifies to what extent the distribution of incomes paid to different types of factors of production is responsible for ethnic inequality. In this chapter, the
Chapter 3 examines the sources of income growth and inequality between 1970 and 2000. The analyses in this chapter quantify the extent to which the economic transformation and structural change between 1970 and 2000 has reduced income inequality. For this purpose, a structural decomposition analysis (SDA) framework is developed and applied to the SAMs of 1970 (derived from Pyatt and Round, 1984, and expressed in prices of 2000) and 2000. This technique is able to identify the underlying exogenous causes of the growth of incomes and thus income inequality. Examples of such exogenous causes are changes in input-output coefficients and export growth.

Chapter 4 provides the first application of the 2000 SAM for the assessment of growth policies. The empirical analysis addresses two related issues. First, it analyzes the link between sectoral growth and poverty reduction, quantifying the extent to which increasing output of a sector (as a consequence of pro-growth policies) reduces poverty rates (pro-poor outcomes). The second part of this chapter analyzes opportunities to reduce poverty in one sector by targeting growth in another sector (or other sectors), as a consequence of intersectoral linkages. For this purpose, an extended SAM multiplier decomposition analysis is developed.

Chapter 5 uses the 2000 SAM for energy policy assessment. The recent petroleum price hikes have compelled developing countries (including Malaysia) to increase domestic petroleum prices—through an elimination of some energy subsidies—to fight budget deficits. The aim of this chapter is to examine what effects such deregulations of domestic petroleum prices have had for the income distribution over ethnic groups in Malaysia. This income distribution might be sensitive to such changes since households do not have identical consumption bundles. An extended SAM model is introduced, which not only incorporates substitution possibilities among
production inputs and consumption goods, but also allows for the exogenous determination of the price of an intermediate input. The model is calibrated using data from the 2000 SAM, after which simulation analyses are conducted.

The final chapter summarizes the main findings of this study and provides some reflections on limitations of the analyses presented in this thesis.
References

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