Chapter 6

Summary and Conclusions

6.1 Introduction

This thesis deals with the income distribution over the major ethnic groups in Malaysia. The income inequality between the ethnic Malays, Chinese and Indians has received considerable attention in the past four decades, especially after the bloody ethnic riots in May 1969. These riots highlighted the inherent dangers of a multi-racial society when ethnic prejudices are exacerbated by income disparities. As a result, Malaysian economic policies changed after 1970. Policies that focused entirely on growth were replaced by policies aiming at growth combined with more income equality.

This thesis provides three perspectives on income inequality across ethnic groups in Malaysia. First, we look at long-run tendencies in the past. Did the process of economic transformation and structural change between 1970 and 2000 reduce inequality? The decomposition analysis applied in Chapter 3 to the 1970 SAM and the 2000 SAM described in Chapter 2 provides an answer to this question. Second, we analyze—also in Chapter 2—which factors mainly accounted for income inequality across ethnic groups in 2000, the most recent year for which all required data were available. Finally, we are interested in examining the potential future impacts of economic policies on income inequality, taking the economic structure of 2000 as a
proxy for the current situation, because more recent data are lacking. The analyses in Chapters 4 and 5 quantify the likely distributional impacts of two important types of policy in Malaysia—growth and energy price policies.

The next three sections give a brief summary of the main results, organized in three themes: sources of income inequality, growth interdependencies, and energy price deregulation. The last section discusses the main limitations of the present study.

6.2 Sources of Income Inequality

An examination of different income types shows that factor incomes are unequally distributed over the ethnic groups. The results in Chapter 2 show that the differences in income per capita can largely be explained by the interplay of three factors: unequal income per hour worked, unequal numbers of working hours per week, and unequal numbers of household members that depend on a worker's income. The unequal hourly wage rates appear to be mainly due to differences in industrial occupation of employees: a large fraction of the ethnic Malays work in low-wage industries (mostly in public services sectors), while the ethnic Chinese and Indians often work in high-wage industries (mostly in private sectors). Failing to recognize the dualistic nature of Malaysian labor markets might easily lead to the impression that all workers will benefit equally from economic growth, which could lead to misguided policies.

The analyses of structural changes in Chapter 3 further highlight the importance of labor market segmentation. The decomposition of income changes between 1970 and 2000 indicates that the expansion of exports and changes in the relative compensation of labor and capital were the dominant factors in explaining the increase in income inequality. The effects of these two determinants differ largely across ethnic groups, where the Chinese and Indians benefit the most. Malay workers generally remained employed in low-paid public services sectors, which did not experience the rapid export-led growth of many high-wage private sectors in which many non-Malay workers were employed. This labor segmentation emerged as a result of the policy reform in 1971. The New Economic Policy (1971-1990) strategy for
restructuring the society was implemented through an expansion of the public services sectors, in which priority was given to employing ethnic Malays. Mobility of employment between these segments (public and private sectors) of the labor market was so limited that wage differences could remain substantial over long periods of time. Furthermore, demand for employment in the private sector shifted from unskilled workers to skilled workers, because technological change allowed for gradual substitution of essentially labor-intensive traditional activities by essentially capital-intensive modern activities. Technological change was much slower in the public sectors, as a consequence of which labor productivity of the mainly unskilled workers in these sectors remained low. Hence, wage rates of skilled workers grew faster than wage rates of unskilled workers, the category of workers in which the Malays were overrepresented.

6.3 Growth Interdependencies

The analyses in Chapter 4 specifically address two issues: (i) the role of growth in final demand (including exports) for poverty reduction; and (ii) the role of interdependencies between production sectors for poverty reduction. In relation to the first issue, we find that growth in the final demand for the output of any sector leads to poverty reduction and, thus, growth is “pro-poor”. For households in rural regions, any final demand growth induces the largest poverty reduction for the Malays and the smallest for the Indians, while the poverty reduction for Chinese takes the intermediate position. For urban households, poverty reduction is the smallest for the Indians whereas the largest reduction is found for the Malays or the Chinese, depending on the specific sector for which final demand is assumed to grow.

The degree of poverty reduction varies across sectors for which final demand grows. Increases in the final demand for government services appear to be more pro-poor than increases of the same magnitude in the final demand for manufactured products. Governments in developing and transition countries often pursue policies that promote the manufacturing sector to achieve higher GDP growth, but this policy is apparently not necessarily very beneficial to the poor. We argue that the contrast between pro-poor and pro-growth policies is smaller if the growth-driven sectors have
strong backward linkages with pro-poor sectors, i.e. sectors for which output growth leads to substantial reductions in poverty rates. This is the second issue studied in Chapter 4.

The results indicate that sectors for which final demand growth leads to much poverty reduction tend to have few backward linkages. Growth in final demand for the government sector, for example, yields the largest poverty reduction, but the growth has very small spillover effects. Hence, growth of the government sector would benefit the employees of this sector itself the most, whereas income earners in other sectors would hardly enjoy positive effects. This is in contrast to the manufacturing sector, which has the largest spillover effects but for which poverty reduction in the sector itself is minor. Hence, stimulating the final demand of the manufacturing sector yields some, but overall limited, poverty reduction in other sectors. The results indicate that there is a conflict between the objectives of achieving a large poverty reduction and fostering high economic growth. In the absence of strong linkages among production sectors, the results suggest that the best way to increase the income of poor workers in a sector is to stimulate the sector itself, rather than other sectors.

6.4 Energy Price Deregulation

Recent oil price hikes have compelled the governments of developing countries to increase domestic prices of petroleum by means of eliminating energy subsidies, to keep public deficits within manageable limits. Policy-makers who focus on equity considerations usually warn against the unfavorable effects of the deregulation of petroleum prices on income distribution. This is because households with lower incomes generally spend above-average fractions of their budgets on energy. The last chapter of this thesis examines the potential impacts of a deregulation of the petroleum price on the income distribution over the major ethnic groups in Malaysia. We propose a SAM-based model that allows for substitution possibilities among inputs in production activities and among consumer products. The model is used to run a simulation, based on the SAM for 2000 and a realistic increase in the world price for crude oil.
A higher petroleum price affects households through two channels. On the one hand, the nominal income increases for all households (which is because higher product prices induce higher wage rates in our model). On the other hand, a higher petroleum price also leads to an increase of the consumer price index. The magnitudes of both effects generally differ across household groups. The simulation results for the real incomes indicate that a rising petroleum price induces distributional changes, favoring the Chinese and Indians at the expense of the Malays. All household groups experience real income reductions, because all household group-specific consumer price indices rise faster than income, but to different degrees. The Malays experience larger real income losses because they spend a relatively larger share of their consumption on petroleum products. We also find that the increases in inequality across ethnic groups as a consequence of deregulation of petroleum prices would be larger in rural areas than in urban regions. These results suggest that a concern about income inequality across ethnic groups should lead to a policy in which reductions in energy subsidies are supplemented by other measures to alleviate the increased inequality caused by the reductions.

6.5 Reflection

The analyses in this thesis provide new insights concerning policy-relevant questions about how income differentials across the ethnic groups in Malaysia changed over recent decades, what determinants were most important in accounting for the inequality as measured in the year 2000, and how this inequality would be affected by various types of growth policy and by deregulation of petroleum prices. However, several aspects that might influence income inequality have—admittedly—not been addressed and our data do not measure everything perfectly. In what follows, six limitations of the present set of analyses are discussed.
First, the role of informal sectors in explaining income inequality in developing countries has recently drawn considerable attention (Bhattacharya, 2011; Xue et al., 2014). The present study is unable to address this issue because statistics for informal sectors in Malaysia are scarce.\footnote{In some countries information for formal and informal sectors can be obtained. For example, in India, statistics for formal and informal manufacturing sectors are available through the Annual Survey of Industries and the National Sample Survey (see Moreno-Monroy et al., 2012).} If we measure informal sector employment as those workers that are not covered by the national social security scheme, the size of the informal sector in Malaysia is large, amounting to 53.7% of the total workforce (Department of Statistics Malaysia, 2006). The share of informal workers in the total workforce for each ethnic group varies. It is 56% for Malays, 53% for Chinese, 38% for Indians and 70% for other minority groups. These numbers raise the question to what extent income levels in informal sectors differ from those in formal sectors. An answer to this question might help explain the overall income inequality across ethnic groups and would require separate data on incomes and employment in the informal and formal sectors. If, in addition, we also would like to analyze the effects of final demand changes on inequality, the data should also provide information on the links between formal and informal sectors. This would require the separation of informal and formal sectors in the input-output table, including information on household purchases from informal suppliers. The modeling approach adopted in this thesis does not yield any insights regarding the implications of economic policies on informal activities and their role in income inequality, because the SAMs used in this study only capture the flows of activities within and between formal sectors.

Second, the methodologies developed in this thesis are also unable to deal with dualistic aspects of economic structures other than the coexistence of formal and informal sectors discussed above. In the Malaysian case, dualities exist in many aspects of the economy, ranging from the labor market to the product markets. For the labor market, the analyses in Chapters 2 and 3 clearly showed that (increasing) income inequality has mainly resulted from the widening gap between wages paid in the tradable sectors (i.e. private sectors, which generally have high productivity levels) and the non-tradable sectors (i.e. public sectors, often characterized by low productivity levels), combined with ethnically segmented labor markets. For the
product markets, there is a huge difference between small and medium-sized enterprises (SMEs) and large enterprises. Although the SMEs accounted for 97.3% of the total number of enterprises in 2010, they only generated 30.2% of GDP while employing 52.7% of all workers (see Department of Statistics Malaysia, 2012). We do not have data on employment by ethnic group in SMEs and large enterprises, but differences along this dimension across ethnic groups could easily translate into income inequality given the low GDP contribution per worker in SMEs. In a similar vein, it might be worthwhile to consider a distinction between economic activities in two “zones”: processing trade firms (located inside the free industrial zones) and non-processing trade firms (located outside free industrial zones). The output of the processing trade firms grew at an average annual rate of 12% (in real terms) between 2000 and 2005 compared to only 4% that of non-processing trade firms (see Department of Statistics, various years). If ethnic groups are not equally represented in the workforces in free industrial zones and outside these zones, the results obtained for impacts of various sector-specific growth policies on inequality might be biased.

These examples illustrate the fact that the homogeneity assumption underlying most SAM-based models can lead to biases. If sectors serve different markets, but the production technologies adopted (which include the use of labor of various types) are not identical across destinations, serious misrepresentations of reality could occur. In particular, one might get a false impression that development in some sector will “trickle down” to benefit all equally. This argument is supported by the “distributional invariance” property of Pyatt and Round (2012). They showed that the higher-order multiplier effects (i.e. closed-loop effects) of an exogenous change in final demand are more or less proportional to the incomes of the household groups. However, they did not find this “distributional invariance” when dualistic structures were explicitly distinguished in the construction of a SAM.

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2 SMEs are enterprises with low sales figures and/or low numbers of employees. In the Malaysian manufacturing sector, an enterprise is an SME if its annual sales do not exceed Malaysian Ringgit (MR)25 million or if the enterprise’s employment is less than 150 fulltime equivalents. In other sectors (including services), these thresholds amount to MR5 million and 50 full time equivalents, respectively.
Third, the results in this thesis clearly show a widening income gap between rural and urban households. It would have been interesting to analyze the regional aspects of inequality across ethnic groups in more detail. Income inequality varies across states: the 2005 Gini coefficients range from 0.35 for the state of Kelantan to 0.48 for the state of Sabah (see Economic Planning Unit, various years). Although differences in Gini coefficients do not necessarily translate into differences in inequality across ethnic groups, it is important to look into the effects of growth policies on regional economic activity and income distributions. Such an analysis was beyond the scope of this thesis but can be done by using regional social accounting matrices (RSAMs). For the development of full RSAMs, economic activities should be attributed to states. A major challenge in constructing RSAMs for Malaysia is the absence of regional input-output tables, which therefore need to be estimated first. After that, geographical information from household income surveys and household expenditure surveys can be used for the remaining accounts of the RSAMs.

Fourth, the present studies analyze the causes of income inequality “between” ethnic groups without paying specific attention to the inequality “within” ethnic groups. The main justification for our focus on the income inequality between ethnic groups is that this is what the Malaysian government has done. Specific policies on equity across ethnic groups were incorporated in all development policies since the introduction of the New Economic Policy (NEP, 1971-1990). Statistics show that inequalities within ethnic groups are not only sizeable, but also increasing for all groups. Within the group of Malays, income inequality as measured by the Gini coefficient increased from 0.34 in 1957 to 0.45 in 2005. It went up from 0.37 to 0.45 for the group of Chinese and it grew from 0.35 to 0.43 for the group of Indians (see Economic Planning Unit, various years). Analyses of inequality within ethnic groups would require modeling extensions. For each ethnic group in the SAM, disaggregation of the households into sub-groups would be needed. This methodological extension would not only address the important issue of inequality within ethnic groups, but would at the same time alleviate aggregation biases (due to homogeneity

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3 The Gini coefficient can range from 0 (full equality) to 1 (extreme inequality).
4 Figures for 1957 are only for west Malaysia (peninsular Malaysia).
assumptions—mentioned in the previous paragraph in the household sector). The data required for a more detailed SAM are not available, however.

Fifth, the empirical analyses in this thesis deal only with inequality in the distribution of income. The literature has long recognized that the distribution of assets, and in particular the distribution of land, may drive the degree of income inequality (Deininger and Squire, 1998). Analyses of land holdings have several advantages. First, ownership of land can be a major determinant of the productive capacity of individuals and their ability to invest. Second, the distribution of land is easily ascertained and thus suffers less from measurement errors. Third, its coverage is relatively stable, both across regions and over time. The distribution of land as a productive asset has important implications for allocative efficiency in the economy. In the Malaysian case, it is expected that the distribution of land is skewed towards the ethnic Malays in rural areas. This is because Malays have been protected by law under the so-called Malay Reservation Enactment and their land holding is therefore much larger than the land holding of other groups. However, it is not so much land holding per se that matters, rather whether the land is productive or not. Ownership of unproductive land and restricted access to credit markets (and thus a relatively low ability to finance productive activities) may explain why income from the agricultural activities of the Malays is lower than for other groups, despite the larger share of land holding. The approach suggested here—analysis of distribution of income and land—allows us to evaluate the joint effects on inequality across ethnic groups. This is feasible given the fact that data on the size of land ownership for agricultural activities and income generated from land are collected at a regular basis by the Economic Planning Unit.

Finally, the analyses in Chapters 4 and 5 investigate the relationship between demand-side policy analyses and income inequality. Another topic that has received considerable attention in the literature is the role of supply-side policy variables on

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5 The basic aim of the Malay Reservation Enactment was the perpetuation of the ownership of land under Malay settlement and cultivation in the hands of the Malays. This was to ensure that the Malays would own a share of land that is at least as large as the share of Malays in the total population, which was motivated by the fact that they are considered “indigenous” to the country.
income inequality. Supply-side policy intervention is more effective than demand-side policies (see for example, Sylwester, 2002; Gońi et al., 2011), but it takes more time to become effective and requires strong political commitment. Examples that may have consequences for income inequality across ethnic groups include: supply-side policies regarding the immigration of unskilled workers from neighboring countries; tax reforms; and human capital investment. A large supply of unskilled foreign workers to the domestic labor market may lead to downward pressures on wage rates. Reforming income tax laws and broadening the tax base through the introduction of a value-added tax (VAT) may increase the fiscal budget. The additional revenues from these reforms could be used for redistribution. Underinvestment in human capital for some ethnic groups and quality differences between public and private educational institutions may have significant implications on labor compensation, and hence on income inequality.

Studies on such supply-side policies would require the development of extended models, the empirical implementation of which is only possible with additional data. For the examples above, modeling international migration requires detailed data on inflows and outflows of workers, demographic structures, labor market structures, and incomes and expenditures of citizens and non-citizens. Detailed data on the current government programs for transfers (including subsidies) to various household groups would be needed for the analysis of redistribution effects from tax reforms. Extending the model to include human capital requires additional data on numbers of students, the allocation of funding over educational institutions, and population structures.
References


Department of Statistics Malaysia (various years) *External Trade Statistics*, Department of Statistics Malaysia: Putrajaya.


