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Abstract

Following this introductory chapter which comprises Part I of the book, there are eleven chapters and each of these chapters—written by an expert or by a team of experts—discusses a particular research question or questions about rural-urban dichotomies and spatial development in Asia. For ease of comprehension, we have divided the present volume containing twelve chapters into five parts. Part II of this book focuses on migration and this part consists of two chapters. Part III concentrates on the provision of goods and services and this part of the book consists of three chapters. Part IV focuses on conflict and this part consists of two chapters. The focus of the four chapters that comprise part V of this book is on reforms and their impacts.

Keywords: Asia, Regional Impacts, Rural-Urban Dichotomy, Spatial Economic Development

JEL Codes: R11, R23, R28

1.1. Preliminaries

In the post-world war II era, beginning with the prominent work of Lewis (1954), one standard way in which development economists such as Gupta (1993), Basu (2000), and others have studied rural-urban dichotomies is in terms of the rural to urban *migration* of labor in so called dual economy models.[4] In such models, production in one sector of the economy is targeted to the satisfaction of local needs and production in the other sector is targeted to the global export market. Lewis (1954) used the concept of a dual economy as the basis of what might be called his labor supply theory of rural-urban migration. He distinguished between a rural low-income subsistence sector with surplus labor and an expanding urban capitalist sector. Put succinctly, the urban sector absorbs the migrating labor from the rural areas until the rural surplus has been exhausted.

Like development economists, regional scientists have also analyzed rural-urban dichotomies in the post-world war II era.[5] In this regard, Batabyal *et al.* (2019b) and Batabyal and Yoo (2019) tell us that in the work of many regional scientists, urban regions are frequently dynamic, they display relatively rapid rates of economic growth, they are industrial, and they are often technologically more advanced. In contrast, rural regions are viewed as being not as dynamic, they are often agricultural, they display slow rates of growth, and they are technologically backward. This bipartite characterization has been used by regional scientists to

[4] See Ray (1998), Fields (2004), and Gollin (2014) for additional details on dual economy models.

[55] This said, it should be noted that earlier regional scientists such as Christaller (1933) and Losch (1954) have studied rural and urban regions in Europe specifically.

point to rural-urban disparities in metrics such as education (Jordan *et al*. 2014), health (Hall *et al*. 2006), and income (Yamamoto 2008).

Schaeffer *et al*. (2013) have rightly pointed out that until the mid-twentieth century, "rural" could be thought of as being the opposite of "urban." However, with ongoing urbanization, economic and social structures of rural and urban regions have become more similar. Even so, perceptions and attitudes, these researchers note, often survive long after the conditions that shaped them have changed. In this regard and with particular focus on Asia, researchers such as McGee (1998, 2008), Lerner and Eakin (2011), and Anonymous (2015) have all contended that given the increasing salience of urbanization in driving economic growth and development, it is now time to *rethink* the more traditional ways of conceptualizing rural-urban dichotomies in Asia.

Consistent with the above line of reasoning, the first of this book's two objectives is to bring together in one place, original research that sheds new light on rural-urban dichotomies and spatial development when these dichotomies are viewed *broadly* to include, in addition to migration, topics like the provision of goods and services, conflict, and economic reforms and their impacts.

That said, several researchers such as Mahbubani (2008), Batabyal and Nijkamp (2017), and Batabyal *et al.* (2019a) have noted that in the last two centuries, as the West (North America and Western Europe) was holding sway on the world stage, Asian nations were mainly

bystanders, responding to increasing surges of Western commerce, thought, and power. However, there is now an ongoing shift in the global center of gravity. Specifically, geopolitical and economic power are gradually moving away from the West to Asia and therefore Asia is returning, according to Mahbubani (2008), to the global center stage it occupied for eighteen centuries before the rise of the West.[6]

This state of affairs has led to a considerable amount of hand-wringing and soul-searching---see Allison (2017) and Rachman (2017)---in the West. In particular, the rise of Asia has led to some rebalancing in America's foreign policy and specifically to President Obama's pivot to Asia, and more recently, to President Trump's attacks on Huawei and his trade war with China.[7] The geopolitical and economic rise of Asia raise salient questions about how rural-urban dichotomies and spatial development ought now to be viewed in this vast continent. Also, given the present-day significance of Asia, Sen (2001) has rightly remarked that lessons learned about rural-urban dichotomies and spatial economic development in Asia are likely to prove useful for the design and implementation of suitable policies in other continents of the world. This state of affairs provides a rationale for the second of our two objectives and that is to study rural-urban dichotomies and spatial development in *Asia*.

Following this introductory chapter which comprises Part I of the book, there are eleven chapters and each of these chapters—written by an expert or by a team of experts—discusses a particular research question or questions about rural-urban dichotomies and spatial development in Asia. For ease of comprehension, we have divided the present volume containing twelve chapters into five parts. Part II of this book focuses on migration and this part consists of two

[6] See Myrdal (1968) for an alternate perspective on Asia and South Asia in particular.

chapters. Chapter 2 provides a detailed discussion of agritourism, unemployment, and rural-urban migration in an Asian developing nation such as Cambodia. Chapter 3 sheds light on the extent to which reference-dependent preferences influence migration within Japan.

Part III concentrates on the provision of goods and services and this part of the book consists of three chapters. Chapter 4 looks at the extent to which rural and urban residents are satisfied with the provision of public goods and services in China. Chapter 5 examines the rural versus urban gap in the provision of healthcare and in the accessibility of what the chapter calls cultural services in South Korea. Chapter 6 analyzes the ways in which the provision of education affects rural and urban life by providing a comparative study of Indonesia, Myanmar, and the Philippines.

Part IV focuses on conflict and this part consists of two chapters. Chapter 7 demonstrates the ways in which domestic violence spills over across space in Nepal. Chapter 8 contains a formal analysis of how conflict about the distribution of natural resources can lead to a desire to secede by a minor region when this region is part of a larger nation.

The focus of the four chapters that comprise part V of this book is on reforms and their impacts. Chapter 9 uses a three-sector, mobile capital version of the prominent Harris-Todaro model[8] to provide a general equilibrium analysis of economic liberalization and structural change in a developing country such as India. Chapter 10 analyzes the extent to which there is convergence in monthly per capita expenditures across states in India and in rural and urban regions in particular. Chapter 11 sheds light on the determinants of the rise of the middle class in India with particular emphasis on the rise in the rural and in the urban areas within this nation.

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[7] See Batabyal (2018a, 2018b, 2018c) for additional details on this last point.

[8] See Harris and Todaro (1970) for a full description of this model.

Finally, chapter 12 studies the difficulties associated with the implementation of community-driven development projects in the presence of circular and cyclical migration of workers to and from the capital city of Dili in Timor-Leste. With this preliminary discussion out of the way, we now proceed to comment on the intellectual contributions of the individual chapters in this book.

1.2. Migration

1.2.1. Agritourism and welfare

Agritourism is one kind of tourism that seeks to attract visitors to rural and agricultural regions to provide these visitors with distinct educational and recreational experiences.[9] Although one associates this kind of tourism primarily with the developed---Europe and the United States---world, increasingly, this kind of tourism is also becoming popular in Asian nations such as Cambodia, the Philippines, and Thailand. What impact will policies that are designed to promote agritourism have on labor markets? This is the central question that is addressed by chapter 2.

This chapter extends the Copeland and Taylor (1999) model and focuses on a small developing nation in which there are three industries. First, there is the smokestack manufacturing industry which is located in an urban area and this industry gives rise to pollution. Second, there is an environmentally sensitive agricultural industry that is located in a rural area and is adversely affected by the manufacturing industry pollution. Finally, there is an agritourism industry that is located in the rural region and that contributes to environmental protection. The main factors of production in the model are labor, foreign capital, and the environmental stock.

The static analysis conducted in this chapter sheds useful light on the impacts of potential

policy changes. To this end, consider the case of an Asian developing nation that would like to enhance domestic economic welfare and reduce the unemployment rate in the urban region. To attain these two objectives, this nation institutes (i) a policy that leads to the outflow of labor from the manufacturing industry, (ii) a policy to promote urban employment, and (iii) a foreign investment policy that is designed to grow the manufacturing industry.

Comparative statics analysis demonstrates that a policy that results in an outflow of labor from the manufacturing industry will reduce the labor input in this industry and in the agritourism industry. Also, this policy will lead to a rise in the competitive wage rate but the price of the manufacturing good will fall. Finally, this "labor outflow" policy has two additional impacts. First, there is a positive impact on domestic economic welfare and, second, the ratio of unemployed to employed workers in the urban region goes down. It is important to recognize that in the model of this chapter, encouraging the outflow of labor is the *only* way in which a policymaker can ensure that domestic economic welfare rises.

Is it possible to raise domestic economic welfare by focusing policy attention on the agritourism industry exclusively? To answer this question, chapter 2 analyzes the effects of a policy that (i) improves labor productivity in this industry, (ii) involves shifting resources to foster what this chapter calls "agricultural-good-intensive tourism," and (iii) introduces environmentally friendly technology.

Once again, comparative statics analysis shows that when the marginal product of labor in the manufacturing industry is sufficiently inelastic to additions of the labor input, promoting agricultural-good-intensive tourism will *attenuate* domestic economic welfare. In contrast, when this same condition is satisfied, the introduction of environmentally friendly technology *raises*

[9] Go to https://nationalaglawcenter.org/overview/agritourism/ for additional details. Accessed on 28 October 2020.

domestic economic welfare. Even though chapter 2 does a good job of analyzing how supply-side forces affect agritourism in a developing nation, this chapter omits a discussion of demand-side factors. The impacts of one kind of demand-side factor are studied in chapter 3.

1.2.2. Reference-dependent preferences

At least since the well-known work of Harris and Todaro (1970), we know that economic factors play a major role in the decision to migrate from one region to another. Even so, chapter 3 points out that in a developed nation such as Japan, people continue to migrate to urban areas even though economic and population growth have both leveled off for many years. To explain this puzzling state of affairs, chapter 3 studies internal migration in Japan theoretically and empirically. The primary focus of this study is on what is called "reference-dependency." This is the idea that an individual's utility depends at least in part on his or her comparison with either a reference group of individuals or with this individual's own past state or states.

From an empirical standpoint, chapter 3 points out that even though there is no absolute poverty in the rural regions of Japan and that this nation's population has been declining, many large Japanese cities are continuing to grow their populations. To explain this seemingly quixotic state of affairs, chapter 3 begins by noting that within each prefecture in Japan, there is a negative relationship between the Gini coefficient[10] and an individual's subjective level of satisfaction. This finding tells us that if we leave absolute income levels aside, individuals *may* obtain disutility from income disparities within prefectures. This last point is then used to analyze internal migration in Japan with models in which there are (i) two regions, (ii) two types of residents who differ in their labor skills, and (iii) preferences that are "reference-dependent."

[10] Go to https://web.archive.org/web/20140712032137/https://data.undp.org/dataset/Income-Gini-coefficient/36ku-rvrj for more on the Gini coefficient. Accessed on 28 October 2020.

When an individual's utility depends on his or her present consumption and on the difference between present and past consumption, the functional forms describing the dependence of utility on these two kinds of consumption matters for migration decisions. Specifically, if these functional forms are linear then the reference-dependence disappears and an individual's migration decision depends simply on the difference between absolute consumption levels. When one departs from linearity and an individual's utility depends on the *ratio* of present consumption to a power function of past consumption, things are different. The reference-dependency idea now matters and it works like a centrifugal force. In other words, as the power function of past consumption---which is the denominator of the ratio mentioned above---becomes larger, an individual is *less* likely to migrate from the poor to the rich region.

Does the above story change when an individual's utility depends not on his or her past consumption but instead on the consumption of others or a reference group? This question is addressed in chapter 3 in part by concentrating on the case where the reference point in a particular time period is proportional to the average consumption level of the region's residents in the previous time period. The analysis undertaken shows that this kind of reference-dependency reduces the incentive to migrate to the wealthier region. In contrast, when individuals have incomplete information about where the reference point lies, it is possible for the overall population distribution to be affected and this fact provides a potential explanation for the observed overpopulation in some Japanese cities. With this discussion of the two chapters about migration that comprise Part II of this book out of the way, we now turn to the three chapters on goods and services that make up Part III of the book.

1.3. Goods and Services

1.3.1. Provision of public goods and services

Given China's remarkable economic growth in the last four decades, we now know that many of its citizens have been lifted out of poverty. In addition, millions of rural residents have migrated to China's sparkling urban centers such as Beijing and Shanghai. Chapter 4 points out that even though the Chinese government has provided a significant amount of public goods and services, this provision has been skewed toward the nation's urban centers. Therefore, city dwellers have benefited disproportionately and rural residents, including those who have migrated to the big cities, have benefited little. Although this saturnine state of affairs has a lot to with the strict enforcement of China's *hukou* or household registration system, it is still interesting to analyze the extent to which rural and urban *hukou* holders are satisfied by the provision of public goods and services by the Chinese government.

Such an analysis is conducted empirically in chapter 4. Specifically, this chapter uses the 2015 Chinese General Social Survey (CGSS) to statistically study (i) the differences between rural and urban *hukou* holders in their perception of the provision of public goods, (ii) whether an individual's *hukou* status predicts how satisfied (s)he is with the governmental provision of public goods, and (iii) how rural and urban *hukou* holders respond to the provision of specific kinds of public goods and services.

When asked how satisfied they were with the current provision of public goods and services along four dimensions, respondents in the 2015 CGSS dataset answered that when looked at in terms of the distribution of resources, they were more satisfied than dissatisfied about the resource's adequacy, convenience, and inclusivity. How much does one's *houkou* status

influence how one views the provision of public goods? Additional analysis with the 2015 CGSS dataset reveals that although less than one-half (48.12%) of all urban *respondents* were satisfied with the provision of public goods, more than one-half (51.88%) of *urban hukou holders* were dissatisfied with the same provision of public goods.

Moving on to the rural versus urban dichotomy, chapter 4 shows that as far as the adequacy of the provided resources and the convenience of accessing public services are concerned, urban *hukou* holders are slightly more satisfied than rural *hukou* holders. In this regard, two additional results are worth emphasizing. First, econometric analysis demonstrates that there is a clear and statistically significant association between an individual's *hukou* status and this individual's satisfaction with the provision of public goods. Second, controlling for, *inter alia*, gender, marital status, and the highest education level, the chance that a rural hukou holder is satisfied with the provision of public goods and services is 20 percent *less* than the corresponding chance for an urban *hukou* holder.

A central point that is repeatedly made in chapter 4 is that the satisfaction an individual feels from the provision of public goods and services depends fundamentally on this individual's hukou status. That said, are these chapter 4 results about rural-urban dichotomies with regard to the provision of public goods and services specific to China or can one find similar results in other Asian nations? This question is addressed in chapter 5 which focuses on South Korea.

1.3.2. Healthcare and access to cultural services

The authorities in South Korea have known for some time now that even though this nation has rapidly industrialized and urbanized, relative to urban regions, most rural regions are lagging behind. To ameliorate this state of affairs, in 2004, the Korean government implemented

the SAQL Act that is designed to improve the quality of life of people resident in agricultural and fishing villages. In 2011, a so called "Rural Services Standard" was established as a part of the SAQL Act. The purpose of this Standard is to create policy targets for vital services that promote quality of life. In particular, to demonstrate its support for vulnerable groups in society, the Korean government established emergency medical facilities, small libraries, and cultural facilities in rural areas.

Although several observers have commented on the need to improve public services for socially disadvantaged groups of people in rural areas, chapter 5 points out that there is a paucity of research that comprehensively studies the rural service environment and concentrates on rural attributes, particular regional units, and alternate kinds of services. Given this lacuna in the literature, chapter 5 recommends the use of what it calls the "Service Accessibility Vulnerability Index" (SAVI) to analyze the accessibility to services across regions from a rural-urban vantage point. A key aspect of the analysis undertaken in this chapter is that it utilizes the *Si-Gun-Gu* or a self-governing local jurisdiction---comparable to counties in the United States---as a spatial unit of analysis. There are 250 *Si-Gun-Gu's* in South Korea and together they cover the entire nation and hence make it possible to make rural versus urban comparisons in a meaningful manner. As such, this chapter contends that the use of the SAVI will assist policymakers in prioritizing the type of services to provide in different regions based on a service supply strategy that is demand driven.

The data used in this chapter come from various sources and the SAVI that is created itself consists of three sub-indices representing spatial accessibility, social vulnerability, and economic vulnerability. In words, the SAVI measures the level of difficulty in accessing services

due to distance, social, and economic factors. Therefore, the larger is the SAVI, the more vulnerable is a study region because of limited accessibility to services. Put differently, the SAVI is high in study regions where there is a concentration of vulnerable people and/or where the distance to service facilities is great.

The estimation of vulnerability reveals that distant rural areas not only have concentrations of low-income households but that these areas also have higher concentrations of elderly people. As far as medical facilities are concerned, there are significant differences between rural and urban areas. Specifically, although per capita *public* healthcare facilities in rural areas are much higher than in urban areas, urban areas have much higher per capita *private* medical centers. Comparing the SAVI across rural and urban areas, chapter 5 demonstrates that relative to all other rural and urban areas, major metropolitan cities like Seoul and Pusan have the lowest SAVIs and hence are the *least* vulnerable as far as the availability of healthcare is concerned.

How do local characteristics influence vulnerability in terms of access to services? Results obtained in this chapter show that relative to urban areas, rural areas with small populations and labor supply shortages--stemming from the presence of ageing populations---are likely to suffer most from reduced accessibility to services. In addition, local economic conditions are highly correlated with the magnitude of the SAVI. One question that is left unexplored in chapter 5 concerns the role that education plays in influencing economic welfare across rural and urban regions in Asia. This salient question is studied expansively in chapter 6.

1.3.3. Education and inequality

There is no gainsaying the point that education has a considerable impact on both

economic development and welfare. Therefore, it is certainly interesting to study whether the expansion of education in a particular nation has narrowed or widened income inequality. To this end, chapter 6 uses household surveys from Indonesia, Myanmar, and the Philippines to analyze how the expansion of education has affected the distribution of economic well-being in these three nations. The focus in this chapter is on expenditures and *not* on income because expenditure data are more reliable than data on incomes and because expenditure data track economic welfare more closely than do income data.

The methodology utilized in this chapter to study the effects of the expansion of education is in three steps. First, the chapter analyzes inequality in the number of years of education among households---called educational inequality---by carrying out an inequality decomposition analysis by rural and urban sectors, using the Gini coefficient.[11] Second, it employs the so called Blinder-Oaxaca decomposition method to study the impact of education on the disparities in rural-urban mean per capita expenditure or expenditure inequality. Finally, using a decomposition method developed by Akita and Miyata (2013), this chapter removes the impact of rural-urban differences in educational endowments on expenditure inequality and then ascertains the particular role that education plays in determining expenditure inequality.

Empirical analysis shows that in Indonesia, even though the mean level of educational attainment has increased in both rural and urban areas, it has increased faster in rural areas. In this regard, the expansion of secondary education has *reduced* educational inequality between rural and urban areas and within rural areas. In Myanmar, because of the expansion in pre-primary and primary education relative to secondary education, the mean number of years of education and overall educational inequality have both declined, albeit very slightly. In addition,

existing educational disparities in rural versus urban education has contributed to a *rise* in overall educational inequality. Finally, in the Philippines, secondary education has been expanded in rural and in urban areas and this has resulted in a *decline* in rural and urban educational inequality. In turn and unlike the case of Myanmar, the expansion in secondary education has led to a *fall* in overall educational inequality.

A hierarchical decomposition of expenditure inequality by location and education provides interesting insights into each of the three countries being studied. In Indonesia, disparities in expenditure between different educational groups contributed greatly to overall inequality in urban areas but not in rural areas. In addition, the disparity in expenditure between the different educational groups has gone up in rural *and* in urban areas. In Myanmar, if policymakers are to attenuate the overall expenditure inequality then they will first need to concentrate their efforts on reducing the existing inequalities between the different educational groups. Also, it will be important to account for the fact that in urban areas, formal job opportunities are limited for older households and, as a result, many such households are likely to find employment only in the informal sector. Finally and in contrast to the situation in Indonesia and Myanmar, chapter 6 shows that overall expenditure in the Philippines has declined markedly in the time period being studied. That said, policymakers need to pay close attention to the fact that even though female headed households are only 22 percent of all urban households, such households with lower education are particularly vulnerable to economic shocks. This completes our discussion of the three chapters that comprise Part III of this book. We now shift gears and proceed to discuss the topic of conflict that is covered in the two chapters that make up Part IV of the book.

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[11] See footnote 7.

1.4. Conflict

1.4.1. Domestic violence and spatial spillovers

Chapter 7 concentrates on one kind of conflict, i.e., domestic violence, a topic of considerable importance that has, to the best of our knowledge, been little studied by regional scientists. The fact that domestic violence can and does have a *spatial* spillover effect ought to be of considerable interest to regional scientists. The analysis undertaken in chapter 7 focuses on Nepal and clearly demonstrates that domestic violence has a spatial spillover effect and that this effect matters for the implementation of policies designed to eliminate gender-based violence.

Even though the Nepalese government has taken a number of steps to address the problem of domestic violence, this kind of violence persists in Nepal. What explains this unsavory state of affairs? Chapter 7 argues that this is probably because the observed domestic violence is characterized by a spillover effect in which the occurrence of domestic violence in one household or region affects the incidence of this kind of violence in a neighboring household or region.

To formally test the hypothesis of a domestic violence spillover effect, chapter 7 uses household data from the 2016 Nepal Demographic and Health Survey (NDHS) along with global positioning system (GPS) data to provide a detailed analysis of the spatial relationship between the opinions of neighboring households and the incidence of domestic violence. This testing is guided by the following straightforward line of reasoning: if adjoining households do affect abusive behavior then *targeting* and *focusing* violence reduction efforts is likely to be a better way of dealing with the underlying problem than spreading these efforts throughout the nation.

In order to study the spatial nature of domestic violence concretely, chapter 7 uses the

2016 NDHS and then runs a cross-sectional multivariate regression. This empirical strategy is grounded in a conceptual model of partner abuse with gender specific levels of economic empowerment. This kind of spatial analysis permits researchers to examine spatial heterogeneity and to isolate domestic violence *hotspots*. The chapter emphasizes that these twin tasks would *not* be possible in a statistical analysis that uses exogenously given geographical boundaries such as provinces or states.

The analysis itself concentrates on physical violence. All "ever-married women" are asked a number of questions about physical violence perpetrated by their spouses and the resulting responses are grouped into three categories which are (i) less severe violence, (ii) severe violence, and (iii) sexual violence. After testing for spatial autocorrelation, this chapter finds that whereas the western part of Nepal has hotspots for *all* forms of violence, in central and eastern Nepal, there are hotspots for severe physical and sexual violence. The analysis also shows that the incidence of less severe violence is *lower* when households cluster together geographically and when their neighbors are similar.

What are the policy implications of the above findings? This chapter contends that educating men and women about the economic, legal, and social consequences of domestic violence can help diminish the acceptance and the justifiability of abusive behaviors. Second, the spillover effect of domestic violence eases the spread of efforts to preclude violence across households and this feature, we are told, is likely to be crucial in eventually eliminating this scourge in Nepal. We now proceed to chapter 8 which discusses another kind of conflict that involves the potential secession of a region from the country of which it is a part.

1.4.2. Separation and natural resources

After pointing to conflicts between Asian nations such as China and Vietnam over natural resources, chapter 8 extends the previous work of Ohno (2018) by adding a political-economy component. This extension permits this chapter to theoretically analyze the question of secession. In the model presented, there is a country that is split up into regions 1 and 2. Region 1 (2) has a larger (smaller) population and hence region 1 (2) is referred to as the major (minor) region. Both regions have agricultural and manufacturing goods sectors. The economy of this nation uses two kinds of labor. Some of this labor is employed in the manufacturing sector and the remainder is employed in the agricultural sector. All households in the model have identical preferences, irrespective of the region they reside in. The utility functions of these households display a love for variety *a la* Dixit and Stiglitz (1977).

As far as production is concerned, labor, the sole input, is used to produce the agricultural good and the market for this good is competitive. In contrast, the market for the manufacturing good is monopolistically competitive. As such, the equilibrium price of this good is given by the markup over the marginal cost of production. A key part of the analysis in this chapter concerns natural resources and this term is used broadly. So, beautiful mountains, attractive coastlines, etc., are all considered to be natural resources and these resources are *immobile* and they are found only in the minor region 2.

Even though the natural resources are found only in the minor region 2, these resources are owned by a central government that represents the entire nation. In addition, this central government benefits monetarily from the natural resources and it distributes these monetary benefits to households that are made up of peasants and workers. Put differently, the utilities of

peasants and workers depend in part on the benefits that are distributed to them. What impact does an increase in population have on the utilities of the households? Analysis shows that a population increase raises (lowers) utility when the effect of this increase on the variety of manufactured goods is larger (smaller) than the effect on income redistribution.

When will the minor region 2 want to secede from the larger nation of which it is a part? To answer this question, chapter 8 notes that since the natural resources are located entirely in the minor region, this region has some bargaining power when interacting with the central government to determine the terms of secession. Even so, as the chapter points out, from a straightforward benefit-cost perspective, the minor region will secede if the weighted utility of the peasants and the workers in this region after secession is *higher* than the corresponding weighted utility prior to seceding. Because of the analytical complexity of the relevant mathematical expressions, it is not possible to obtain easily interpretable answers to the "Should region 2 stay in the integrated economy or secede from it" question. Therefore, this chapter examines some special cases.

Interestingly, when trade between the seceding region and the larger country is impossible and a specific inequality condition holds, the analysis shows that secession is always desirable *independent* of the bargaining power over natural resources possessed by the minor region. On the other hand, when there are no restrictions on trade between the seceding region and the larger nation, the bargaining power possessed by the minor region needs to exceed a critical threshold for secession to be a desirable option. This concludes our discussion of the two chapters about conflict that comprise Part IV of this book. We now turn to the four chapters that makes up the final Part V of this book.

1.5. Reforms and their Impacts

1.5.1. Foreign direct investment and structural change

Chapter 9 begins the proceedings by pointing out that even though multi-sector general equilibrium models have been widely used to study the welfare aspects of foreign direct investment (FDI) in developing nations, a lot less attention has been devoted to studying the interactions between rural farm and non-farm sectors and the implications of these interactions for per capita gross domestic product (GDP) and urban unemployment. Given this lacuna in the literature, the purpose of this chapter is to use a three-sector general equilibrium model in the spirit of Harris and Todaro (1970) to study the functioning of a small open economy in which there is a non-traded intermediate input, a rural-urban dichotomy, and capital is imperfectly mobile between the non-farm and the industrial sectors.

The model of a small open economy that is presented in this chapter consists of an urban manufacturing sector and a rural sector. The latter sector is split up into an agricultural export good producing sector (sector X) and a non-farm sector (sector N) that produces a non-traded intermediate input for the import-competing urban manufacturing sector (sector M). The inputs in sector X are land and labor, in sector N, they are land, labor, and capital, and in sector M, they are labor, capital, and the intermediate input. The import-competing sector M is protected with an *ad valorem* tariff. An institutionally given wage is paid to sector M workers and the wage in sectors X and N is determined by market forces. Labor is perfectly mobile between the X and the N sectors but, possibly because of unionization, there exists an imperfection in the sector M labor market. The capital stock in the economy under study includes domestic and foreign capital which are perfect substitutes and all the production functions exhibit constant returns to scale

with diminishing marginal returns.

How does an inflow of foreign capital affect the working of the small open economy under consideration? Comparative statics analysis demonstrates that this inflow (i) raises the rural wage rate, (ii) lowers the return to land, and (iii) raises the price of the intermediate input produced by the non-farm sector. To see, for instance, why the third result above arises, note the following line of reasoning: Because domestic and foreign capital are perfect substitutes, an inflow of foreign capital raises the capital stock. Now, given the expansionary effect of sector M, the demand for the intermediate input produced by sector N increases. Therefore, the real return to capital falls and this leads to a *rise* in the price of the intermediate input.

Can trade policy, i.e., a reduction in the *ad valorem* tariff, be used to enhance social welfare in our small open economy? Analysis shows that the answer to this question depends on the interactions between the following four effects: (i) the total wage income decreases, (ii) rental income from land increases, (iii) the return to mobile capital falls, and (iv) the cost of providing the tariff protection falls. The combined impact of these four effects tells us that if the initial tariff is sufficiently high then the net effect of the reduction in the distortion costs associated with the tariff can be dominant and this dominance can lead to a *rise* in social welfare.

A central conclusion emanating from the analysis in this chapter is that for a developing nation such as India, trade reform can make the nation very dependent on volatile external economic events and that this dependence can subject the output of the manufacturing sector to increased competition, too quickly. When this happens, employers have an incentive to replace labor with capital and this, in turn, leads to a lower share of employment in what the chapter calls the "registered sectors" of the economy. What policymakers need to be aware of is that trade

policy liberalization can lead to *jobless growth* and hence make it difficult to increase productive employment. We now proceed to chapter 10 which examines the rural-urban dimension of economic growth driven convergence in a key expenditure metric in India.

1.5.2. Monthly per capita expenditure

Governments in developing countries standardly want the economic growth taking place in their countries to be inclusive in the sense that they would like this growth to positively affect all sections of society. Even so, as chapter 10 points out, the observed economic growth in India in the last few decades appears to have resulted in regional disparities among the different Indian states. Now, very generally and at the level of nations, the idea of *convergence* is the hypothesis that the per capita incomes of developing nations will tend to grow at faster rates than the per capita incomes of developed nations. Therefore, all nations should eventually converge in terms of their per capita incomes.

This convergence idea can also be studied within a nation to examine how economic growth has affected the various states within a nation. This is what chapter 10 does for the case of India. Specifically, this chapter analyzes rural-urban differences in the convergence of the monthly per capita expenditure (MPCE) of Indian households using data from the National Sample Survey in the 1993-194 to 2011-2012 time period. In addition, this chapter also looks at the factors that influence the convergence of the MPCE over time.

Chapter 10 uses a fixed effect model and runs three kinds of regressions. The first kind estimates the determinants of the average state-wise monthly per capita expenditures (AMPCE), the second kind focuses on the state-wise monthly per capita consumption expenditures in rural areas (RMPCE), and the third kind looks at the state-wise determinants of monthly per capita

consumption expenditures in urban areas (UMPCE). The chapter also explores the notion of "club convergence" within India by utilizing the so called PS test which is a test due to Phillips and Sul (2007).

The empirical analysis in the first part of chapter 10 demonstrates that the 15 major states of India do *not* follow a single transition path and that the MPCE across these different states exhibits distinct transition paths. This finding suggests the possible existence of club convergence within sub-groups of states. When this chapter tests for the existence of this kind of convergence, the results show that with the exception of three states---Gujarat, Kerala, and West Bengal---there *is* evidence for the existence of five different clubs. For instance, one club consists of the states of Haryana and Maharashtra and both these states display the same pattern as far as the behavior of per capita consumption expenditure is concerned.

Looking at rural areas in the different states, the analysis shows that the RMPCE metrics across the 15 major Indian states follow heterogeneous patterns and there is, in fact, no evidence of convergence. This notwithstanding, when sub-groups of states are looked at separately, one can find evidence for the existence of four clubs. The existence of these four clubs tells us that within each club, there is a common steady state equilibrium path of the RMPCE metric but that this path *varies* across the four identified clubs.

A similar analysis of urban areas in the different states identifies four clubs. Additional analysis shows that in states such as Kerala and Maharashtra with high rates of urbanization, there is a common transition path of the UMPCE metric. Given this chapter's focus on the trinity of the AMPCE, the RMPCE, and the UMPCE metrics, what can one say about the speed of convergence of these metrics within the different identified clubs? Analysis shows that subject to

some caveats, the RMPCE metric converges *faster* than the UMPCE metric. In addition, there also exists a rural-urban difference in terms of the convergence of monthly consumption expenditures. Although this chapter provides useful information about rural-urban differences from the standpoint of monthly per capita expenditures, it does not focus on the extent to which economic growth in India has moved people out of poverty and into the *middle class*. This task is undertaken by chapter 11.

1.5.3. Middle class formation

It is now well known that the economic reforms introduced by the Indian government in 1991 have put the nation on an elevated growth trajectory.[12] Even so, the benefits of the robust resulting growth have been shared unequally by the Indian population. Therefore, the primary objective of chapter 11 is to analyze the *differences* in the formation of a middle class in rural and in urban areas in this nation. The secondary objective is to understand *disparities* in rural-urban middle class formation in the nation and in the individual states.

To this end, chapter 11 uses district household survey data on household asset ownership for the years 1992-1993, 1998-1999, 2005-2006, and 2015-2016 to estimate the middle class in rural and in urban areas at the national and at the state levels. Interestingly, this chapter identifies specific assets that are then used to classify the class category into which a household falls. The four distinct categories are (i) lower middle class, (ii) middle middle class, (iii) upper middle class, and (iv) rich class. So, for instance, in 2015-2016, in order to qualify as a member of the lower middle class, a household would have to own a "pucca" or concrete home and a television and, to qualify as a member of the upper middle class, a household would have to own a "pucca" house, a television, a refrigerator or a motorcycle, and a car or a tractor. Because adequate data

are available for the four reference years mentioned above across the various states, chapter 11 is able to utilize a panel data method to ascertain the determinants of the middle class in India. This notwithstanding, because of issues including the expansion of the number of states in India and missing observations, this chapter ultimately ends up using data for 28 states and union territories as a balanced panel in the econometric estimation.

Analysis demonstrates that at the *national* level, there has been significant growth in the size of the middle class in rural and in urban areas. Specifically, over a time period of 22 years, the size of the middle class population grew by 31 percent. This tells us that despite an increase in the absolute size of the population, India added approximately 1.4 percent to the middle class population every year during the study period. This positive outcome notwithstanding, the chapter reminds us that in this same study period, we have seen a considerable disparity in the size of the middle class between rural and urban areas. This tells us that the rural-urban *gap* in the size of the middle class has widened over time and that, more generally, rural-urban *inequalities* in development have persisted over many decades.

In addition to looking at the national level, chapter 11 also looks at middle class formation at the level of individual *states*. The analysis undertaken shows that even though the size of the middle class in all the states being studied has increased from 1992-1993 to 2015-2016, this increase has been much higher in the *southern* states---such as Kerala---followed by western states---such as Maharashtra. States in the central and eastern regions of India have fared poorly when it comes to expanding the size of the middle class.

Analysis in the final part of chapter 11 yields two results that are worth emphasizing. First, we learn that states like Uttar Pradesh, Bihar, Madhya Pradesh and the north-eastern states

[12] See Srinivasan (2003) for a more detailed account of these reforms.

in which a large proportion of the population is dependent on agriculture have a lower share of human capital and hence these states have experienced *lower* growth of the middle class from 1993-1994 to 2015-2016. Second, the growth of the net state domestic product per capita, income, and human capital are the major factors that have greatly influenced the growth of the size of the middle class in India. From the subcontinent of India we next proceed to Timor-Leste to study the impacts of a particular development project in the final chapter 12.

1.5.4. Community driven development

Major population movements during and after Timor-Leste's war against Indonesian occupation in 1975-1999 have converted Dili (the capital) from a small colonial outpost into a thriving cosmopolitan city. Chapter 12 points out that constant circular and cyclical rural-urban migration have invalidated what this chapter calls "standard dichotomies between rural and urban." Even so, Dili retains its colonial era system of administrative boundaries and hierarchies of local leadership and these continue to be relied on by both the state and development agencies to formulate and implement development projects. This chapter tells us that this reliance makes it *more* likely that colonial, class, and traditional hierarchies will be endorsed in contemporary thinking about economic development projects.

To see how some of these challenges play out in practice, chapter 12 describes the design and implementation of the National *Suku* or village Development Program (PNDS) which was put in place by the government of Timor-Leste in 2012. This decentralized development program was eventually rolled out in all of Timor-Leste's 442 *sukus*. A key feature of the PNDS is that it let communities choose what kind of development project they would like and the team that would carry out the project.

Because the PNDS relied on *suku* and *aldeia* (sub-village) boundaries, this program worked quite well in rural areas in ensuring, *inter alia*, that participants learned useful vocational skills. Even so, the program ran into problems in urban Dili not only because Dili "operates on very different principles" but also because of the explosive growth in this city's population that was driven in part by significant rural-urban migration during the war of independence fought against Indonesia. Because of these issues, chapter 12 makes two noteworthy points about the implementation of PNDS type development projects. First, we learn that because of repeated rural-urban migration that is both circular and cyclical, the concept of a "rural-urban divide" is largely meaningless. Second, ensuring the success of PNDS type projects involves not just design and implementation issues but also a clear comprehension of urban spaces and notions of community.

This chapter reports the results of research commissioned by the Asia Foundation between April and May in 2015 that involved seven focus groups in Dili urban *sukus*. The analysis undertaken shows clearly that because of significant variations in *suku* and *aldeia* size and in demographic and socioeconomic composition, it is *not* a good idea to use purely administrative boundaries either for the planning and the implementation of PNDS in urban Dili or, more generally, for urban governance. Second, we learn that in the urban context of Dili, it is *not* sensible to plan and implement projects on the assumption that large pools of labor will be available and willing to work for a few extra dollars. Finally, looking to the future, successful urban planning and development in Dili will require fresh thinking that recognizes the highly cosmopolitan, fluid, and dynamic nature of Dili's urban spaces and how power dynamics produce and reinforce "contemporary urban boundaries" and "conceptual frameworks."

1.6. Conclusions

Issues concerning rural-urban dichotomies and spatial economic development are of central concern to regions located in many different parts of Asia. After many millennia of uneven growth and development, the Asian continent in general now has great opportunities for broad-based spatial economic growth and development. As noted in section 1.1, the geopolitical and economic rise of Asia give rise to significant questions about existing rural-urban dichotomies and how these dichotomies relate to spatial development in this part of the world. In addition, given the present-day salience of Asia, lessons learned about the connections between different rural-urban dichotomies and the salutary impacts of spatial economic development in Asia are likely to prove useful for the design and implementation of regional development policies in other parts of the world.

Given this state of affairs, our goal in this book is to demonstrate how spatial economic development can be promoted by effectively targeting extant rural-urban dichotomies and, in the process, promoting economic growth and development across space in the different regions of Asia. We have done so by providing analytic accounts of many of the relevant research questions written by experts. These experts have great credibility because of two salient reasons. First, they are active researchers themselves. Second, they are also some of the leading contemporary voices on public policy concerning the nexuses between rural-urban dichotomies and spatial economic development in Asia.

In this introductory chapter, we have attempted to provide a plausible context within which one may view the emergence and the study of the different research questions that are dealt with in this tome. In addition, a perusal of the individual chapters clearly demonstrates the

salience and the policy relevance of the research questions that are systematically studied in this volume. Therefore, in the coming years, one may look forward to many interesting and policy relevant developments concerning the nexuses between rural-urban dichotomies and spatial economic development in Asia that are directly or indirectly related to the topics discussed in this book.

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