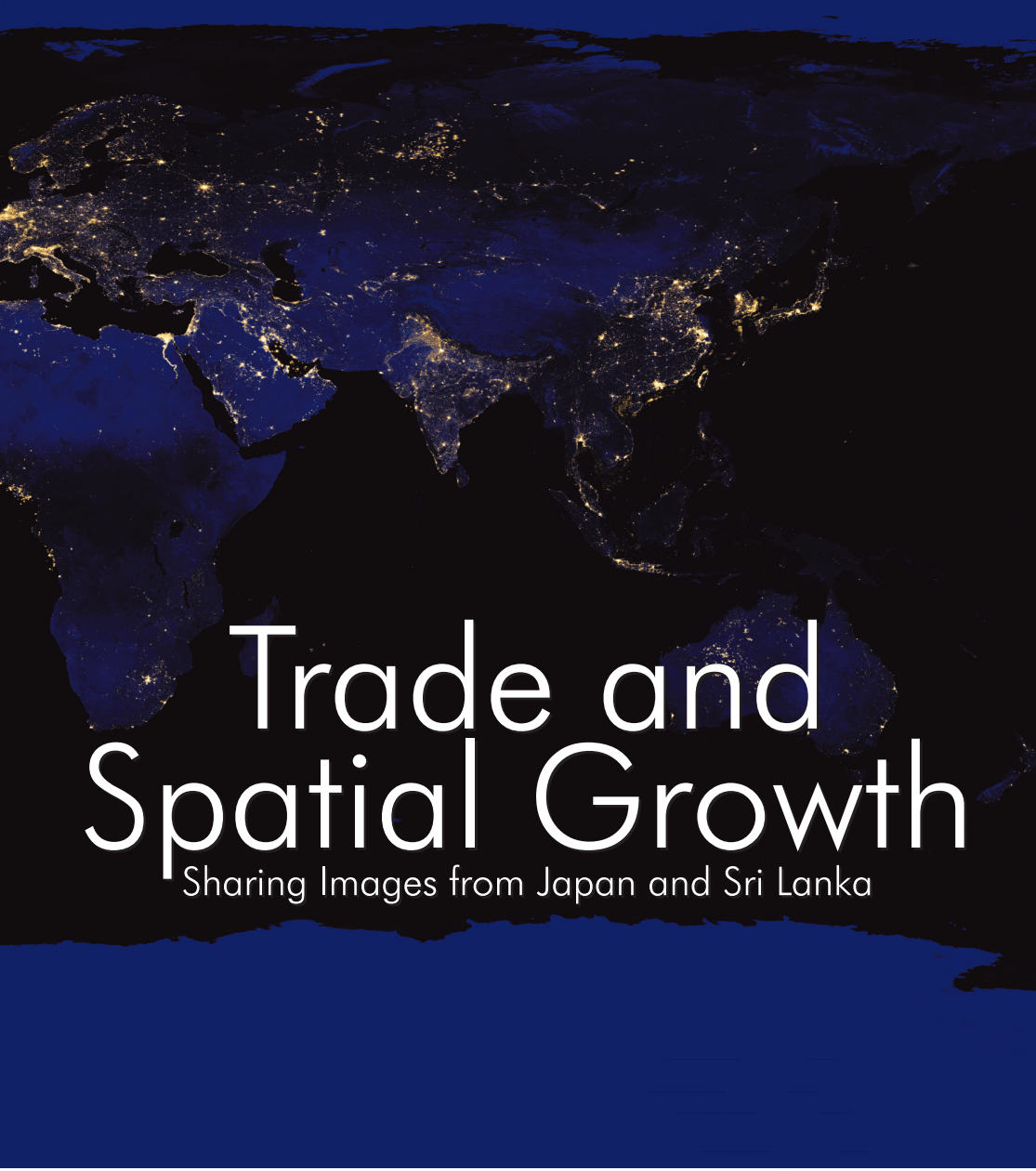

Trade and Spatial Growth

Sharing Images from Japan and Sri Lanka

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Sirimal Abeyratne
N. S. Cooray

Department of Economics
University of Colombo
Colombo
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Authors

Sirimal Abeyratne is a Professor in Economics of the University of Colombo. He has earned PhD from Free University of Amsterdam, MA and MPhil from International Institute of Social Studies, The Hague, and BA Honours from University of Colombo. Address: Department of Economics, University of Colombo, Colombo 00300, Sri Lanka; Email: sirimal@econ.cmb.ac.lk

N. S. Cooray is a Professor in Economics of the International University of Japan. He has earned PhD from University of Nagoya, MA from International University of Japan, and BA Honours from University of Colombo. Address: International University of Japan, 777, Kokusai-cho, Minami Uonuma-shi, Niigata 949-7277, Japan; Email: cooray@iuj.ac.jp

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Sirimal Abeyratne
N. S. Cooray
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INTRODUCTION

Some locations on the face of the earth illuminates with lights in the night, as satellite images of the globe show. The United States, Western Europe, and East Asia illuminate brighter than rest of the areas on earth. A close-up image of a region or a country makes clear that, not everywhere but only smaller locations illuminate leaving larger areas in darkness in the night. In East Asia, for instance, the Pacific coastal areas of Japan, the North Western and South Eastern regions of South Korea, the Eastern coastal areas of China, and the Western coast of Taiwan, illuminate brighter than the other areas of the respective countries.

Spatial concentration of night luminosity on earth shows the geographical location of economic activity and people. Economic growth has never been even across geographical space so that spatial growth is higher in locations where economic activity and people concentrate than elsewhere. There are valid economic reasons for people to concentrate in some places of a country rather than to spread everywhere, in order to invest, work, and live. Economic activities get concentrated in some locations because investors find these places offering better investment opportunities than elsewhere. People gather in such places where economic activity concentrates, because they also find better opportunities than elsewhere in order to make use of their human resources in economic growth (work) and to derive benefits from growth (live).

As World Bank (2009:81) states that, more than half of national income in about a quarter of the world's nations is generated on less than 5 percent of land; a third or more of national income in half of all nations is generated on less than 5 percent of land. When economies grow and

become developed, economic activity and people concentrate more. Given the pattern of spatial distribution of national income in the growth process, Williamson's (1965) seminal study depicts a Kuznets-type (1955) inverted U-shaped curve. Economic growth is associated with spatial concentration of production activities along with an accumulation of productive resources and transformation of production structures. The inverted U-shaped inequality curve shows a rise in regional income inequality at early stages and its decline at latter stages of growth. As growth concentrates, regional development disparities diverge at early stages of growth before they converge at the latter stages of growth. For this reason, the divergence of living standards between leading and lagging regions is much greater in developing than in developed countries.

1.1 Theoretical Groundwork

The shape of the world started to change rapidly since the 1980s as the borders of the nations that restricted trade flows and factor movements became thinner. The change was led by the processes of trade liberalization, deregulation, and the formation of regional blocs and trade agreements among both developing and advanced countries. In particular, the developing countries which began to get integrated with the rest of the world such as those in the Asian region experienced an acceleration of their economic growth as well as a concentration of growth in specific locations. Although this outcome appears to be somewhat contradictory to the premises of trade models that are based on strict assumptions, it was not so for early trade theorists.

The nexus between trade and spatial growth was not strange to Bertil Ohlin or Eli Heckscher – the co-authors of the Heckscher-Ohlin theory of comparative advantage. Bertil Ohlin who titled his publication in 1933 as Interregional and International Trade explicitly treated trade theory as part of the location theory (Ohlin 1967). In the heart of his analysis were the cornerstones of economic geography: mobility of goods and factors between locations, and both internal and external economies of scale. Plausibly, Ohlin must have been inspired to look at trade as part of the location theory by the publication of his teacher, Eli Hecksher who supervised Ohlin's doctoral research. As it was analyzed in his Swedish publication in 1919, Eli Heckscher (1950) already knew

income and distributive implications of the Ricardian assumption of factor immobility across the borders.

The Heckscher-Ohlin theory as well as the Ricardian theory is based on 'location-specific' factors as determinants of comparative advantage. In the subsequent applications and modelling exercises, the assumptions of the immobility of factors, zero transport costs, homogeneity of goods and factors, constant returns to scale, absence of non-tradable goods, and perfectly competitive markets all have become stumbling blocks that separated trade theory from location theory. It is clear that, however, Bertil Ohlin who analyzed the implications of all these explicit and implicit assumptions was not constrained himself by the self-imposed boundaries of a trade model. Nevertheless, even when location of production was approached within the premises of trade theory and in economic geography, unfortunately Ohlin's significant contribution to it did not appear to have been fairly acknowledged.

It was not explicitly within trade analysis, but generally spatial growth concentration in development process was not a new issue to economists from various traditions such as Alfred Marshall, Allyn Young, Albert Hirschman, Gunar Myrdal, Nicholas Kaldor and François Perroux. They theorized spatial concentration of production and built its premises up on underlying factors such as the benefits of agglomeration, economies of scale, circular and cumulative causation, forward and backward linkages, centripetal and centrifugal forces, and center-periphery relations.

Although there were attempts in mainstream trade analysis to model trade and spatial growth, for instance, such as the work of Couchene and Melvin (1988), these contributions did not generate discussions and developments within the subject area. The recent enthusiasm to bring about trade and spatial growth into academic discussions was led by the studies which came under the title 'new economic geography' (Fujita et.al. 2001, Fujita and Krugman 2004, Krugman 1991a, 1991b, 2011). The goal of new economic geography, as stated in Fujita and Krugman (2004:143) was to devise a modelling approach to location of production, in a general equilibrium framework allowing us to discuss simultaneously on centripetal forces that pull economic activity together and centrifugal forces that push it apart. As approaches to the issue could be different by depending on the purpose, World Bank

(2009) takes a three-dimensional policy approach by focusing on density, distance, and divisions – the first appears to be an 'end' result, and the other two 'means' to reach the end result.

Spatial growth concentration is a natural outcome of trade-growth nexus, but it raises academic and policy concerns over the resulting regional disparities within nations. Perhaps they lead to wrong interpretations and wrong policy recommendations, as they often were in many countries, retarding overall growth process, damaging commercial viability of industries, and initiating unsustainable distributive policies. This specific study presents the drivers of spatial growth under four headings: benefits of agglomeration, costs of connectivity, factor mobility, and size of the market. The two case studies of Japan and Sri Lanka are based on this conceptualization of spatial growth drivers, leading to outline policy guidelines for Sri Lanka.

1.2 Sri Lanka at a Crossroad

An application of the measurement of economic density over geographical space of Sri Lanka projects a high-rise economic mountain in and around Colombo in the Western province – the so-called Colombo Metropolitan Region[1], where the country's administrative, industrial, financial and commercial activities remain concentrated. This projection was portrayed by the World Bank (2010) in its country report on Sri Lanka's economic geography titled Sri Lanka: Reshaping Economic Geography – Connecting People to Prosperity. Economic density, which is defined as the economic mass per unit of land area, is measured by GDP generated per square kilometer of land (Gallup et. al. 1999: 180, World Bank 2009:49). In the World Bank's portrait, the rest of the land area of Sri Lanka looks almost like a vast plain valley, showing no signs of economic mountains rising in any other locations of the island[1].

[1]The term Colombo Metropolitan Region has been used in Sri Lanka's urban and regional studies and policy planning basically to signify the three most urbanized and contiguous districts of Colombo, Gampaha and Kalutara. Although these three districts together constitute the Western province of Sri Lanka, it needs to be understood that the entire Western province is not urbanized. The term is used in this study too to signify the 'metropolitan area' within the Western province, and not the entire province.

Nearly 29 percent of people in Sri Lanka live in the Western province occupying less than 6 percent of the country's land area, but contributing about half of total GDP. Although Colombo economic mountain still has a long way to rise further, many have looked at it in a negative sense as an unfavourable outcome of trade liberalization and globalization. From a pragmatic point of view, the main issue in question is not the 'too high' economic mountain in the Western Province, but the 'too low' plains below them stretching over the rest of the country.

In Sri Lanka, although the academic and policy focus on regional disparities is not new, and the regional development approaches continued to exist throughout its post-independent development history, the issue elevated to new heights in the recent past more than ever before. Regional growth concentration began to receive policy and political concern as the Central Bank of Sri Lanka started compiling and publishing provincial GDP accounts for 1996 onwards in its Annual Reports (CBSL 2003)[2]. Along with the change in government at the Parliamentary elections in 2004 and the Presidential elections in 2005 the issue of regional economic disparities received a facelift. The policy documents of the new government endorsed the fact that the country's economic growth in the past has bypassed rural areas and concentrated in the Western Province (MFP 2005). It actually justified the policy emphasis on 'spatial targeting' in development strategies and public spending in the post-2005 new policy regime.

The end of the 30-year long separatist war in 2009 raised hopes for a new pace of rapid growth in Sri Lanka with policy concerns over the economies of war-stricken Northern and Eastern provinces (MFP 2010). Internal political conflicts and decentralization of power are two interrelated issues that cannot be overlooked in an analysis of regional economic disparities in Sri Lanka as elsewhere. In fact, Sri Lanka's attempt for power devolution and decentralization in 1987 to newly-established Provincial Councils was a direct outcome of the ethnic conflict that led to a separatist war. However, even after 25

[2]An analysis of provincial GDP accounts for the period 1996-2000 was also published in the Central Bank's Staff Papers by Mutaliph et. al. (2002). The Ministry of Finance and Planning, perhaps for the first time, had compiled provincial GDP accounts of Sri Lanka for the period 1990-1995, but this exercise was not continued.

years of existence of the Provincial Council system, devolution and decentralization exercise in Sri Lanka remained an unfinished agenda; it neither progressed nor reversed, leaving governance at sub-national level at disarray.

Sri Lanka is, thus at a crossroad. As the government's main policy document, Mahinda Chintana envisaged (MFP 2010), economic growth needs to be accelerated beyond its long-term annual average of around 5 percent, and it needs to be dispersed reasonably across the regions. In its National Physical Plan 2010-2030, the government targets the rise of five metro regions around the island (including the Colombo Metropolitan Region), where 10.5 million people would concentrate by 2030 (NPPD 2007). The population of Sri Lanka is projected to be about 22 million by 2030 (Silva 2007:32), metro region population would be about 48 percent of the total population of the country. It is not clear why the 'new' metro regions would suddenly rise in accommodating a significant share of Sri Lankan population, and accordingly why the regions which have already been growing would diminish.

When growth accelerates, it concentrates too. There is no valid reason to anticipate that growth would be even across all provinces in Sri Lanka. Neither it is possible to justify that growth would continue to concentrate in a single location as it has been in the past. There could be valid reasons why other locations of spatial growth have not yet emerged in the island.

What would be the desirable and viable level of concentration versus dispersion? How can Sri Lanka face the challenges and create conditions for realizing this outcome? What is the facilitating role that the government can perform in operating at both central and sub-national levels? How do the political aspirations at sub-national levels fit into growth concentration that creates opportunities for sub-national entities to compete as well as to integrate? The answers to these questions demand for analysis from a theoretical and global perspectives in which there are a few key issues to be addressed: Firstly, growth concentrates in some locations and it concentrates even more when the country grows fast; secondly, policy reforms are necessary to accelerate growth, regardless of its implications on regional disparity as growth expands the range of choices to address regional issues; thirdly,

the government has a role to play in creating an environment conducive to spatial growth; fourthly the role of the government has limits so that spatial targeting is risky and costly; finally, the issue has bearing policy implications for a smaller country like Sri Lanka, which is at the crossroad of its development history.

1.3 Did Japan do well?

An analysis of Japanese experience provides a comparative perspective on the issue of spatial growth from the experience of an advanced country. Why Japan – a country that would hardly provide a particular 'growth model' that can be replicated in any other country? Under a different global economic environment and a unique indigenous political, economic, and cultural set up, Japan had already achieved its economic advancement much earlier than other developing countries in the region (Flath 2005, Iyoda 2010, Mosk 2008, Nakamura 1981, 1994). Apart from that, Japan has been in a prolonged economic recession since the late 1990s, and been struggling to find an effective macroeconomic policy mix to scape deflation and stimulate aggregate demand.

In spite of all above, there is one important element in the heart of the issue addressed in this study in a comparative perspective: Japan is considered to be one of the best cases among the most advanced countries in terms of reaching economic advancement and reducing regional economic disparities (Akita and Kataoka 2003, Karunaratne 2007, Fujita and Tabuchi 1997, Mutlu 1991). However, it does not mean that spatial growth concentration was not an issue in Japan.

As World Bank (2009: xix) portrays, there is a high-rise economic mountain in Tokyo Metropolitan Area, where 35 million people that make up 28 percent of population is crammed in a 3.5 percent of land area, but contributes 32 percent of GDP. However, it does not dilute Japan's distinguished regional economic concentration outside Tokyo in the prefectures such as Aichi, Osaka, Hiroshima, and Fukuoka, and more equitable distribution of per capita income across the prefectures. Spatial growth concentration does exist in Japan, but appears dispersed across the country – more along and around the Pacific Coastal Belt of the country than elsewhere. The remote regions appear to have made

a costly move to become inclusive in the mainstream growth process raising the questions on the historical regional development policies of the Japanese government. The lessons from the Japanese experience on spatial growth could be in either direction, giving a balanced insight into the issue in respect of desirable and feasible policy outcomes.

1.4 Objectives

The main objective of the study is to analyze trade and spatial growth in a comparative perspective with case studies of Sri Lanka and Japan, and to draw policy lessons. Sri Lanka as a developing country requires an approach different from spatial targeting to make a breakthrough in its historical monopolar system of spatial growth. Japan as an advanced country with reasonable dispersion of its spatial growth may provide policy lessons either to grasp or to elude. The specific objectives of the study are listed as follows:

i. To review the theoretical underpinnings of the issue of trade and spatial growth, in identifying drivers of spatial growth for policy making and setting the framework for analysis of Japan and Sri Lanka

ii. To assess issues of spatial growth concentration in Japan with underlying historical development strategy, regional development policies, and the role of the government at both national and sub-national levels.

iii. To examine the issue of spatial growth concentration in Sri Lanka in creating a single location in the Colombo Metropolitan Region in spite of the presence of a wide range of regional development policies, programmes, and projects.

iv. To derive conclusions and inferences from the cases of both Japan and Sri Lanka, and to provide policy lessons and guidelines for Sri Lanka, this is now at a crossroad of its post-independent development process.

The study is primarily based on secondary data sources in both countries representing national accounting, development indicators,

and demographic information at both national and sub-national levels. In Sri Lanka, most of these data are available at published sources of the Central Bank (CBSL), the Department of Census and Statistics (DCS), and the Ministry of Finance and Planning (MFP). Most of the data and information are centralized in Japan, and are available through published sources at the Statistics Bureau of Japan (SBJ). Apart from these main data sources, in both Japan and Sri Lanka various institutional data sources provide information on specific areas as required. In addition to the country-specific data sources, some of the comparative statistics are obtained from the online data sources of the international organizations. The key informants in both countries provided valuable supplementary information in qualifying the analyses based on secondary data. The study is also benefitted immensely from many studies on divergent aspects of the central issue that have been carried out at both ends.

1.5 Organization

The study consists of five chapters. The second chapter provides an analysis on the theory of spatial growth within the premises of international trade, and presents the key drivers of the concentration of the location of production and specialization. The third chapter presents a review on Japanese experience by focusing on its historical development strategies, regional development policies, public investment allocation, and local governance. Similarly, the fourth chapter is on the case of Sri Lanka with an emphasis on its historical development strategies, regional development policies, public investment and local governance. The final chapter presents a summary of the analysis drawing conclusions and inferences to guide policies of spatial growth.

2

ECONOMICS OF ECONOMIC CONCENTRATION

Trade leads to an acceleration of economic growth as well as its spatial concentration. The link between the trade and spatial growth was not bizarre to Bertil Ohlin, who seemed to have been inspired by his teacher Eli Heckscher – the co-authors of the Heckscher-Ohlin theory of comparative advantage. Ohlin, who titled his publication in 1933 as Interregional and International Trade, treated trade theory as part of location theory (Ohlin 1967). Eli Heckscher, in his Swedish publication in 1919 analyzed the distributive implications of Ricardian assumption of factor immobility, which constituted a cornerstone of location theory (Heckscher 1950). However, the initial contribution of Ohlin and Heckscher to economic geography has almost been forgotten now as there has been no fair acknowledgement to these contributions in the relevant studies. Apart from that until the recent past international trade and spatial growth appear to have developed as two distinct branches of Economics. The former that was concerned basically with the questions of why countries trade and how they gain from trade was occupied overwhelmingly by the analyses on trade-growth nexus. The latter was occupied by the analyses of regional inequality which received topical interest of diverse perspectives within development economics, apart from its overwhelming occupation in regional and urban studies and economic geography.

The purpose of this Chapter is to provide an overview of the theoretical premises of the link between international trade and spatial growth. The discussion is policy-oriented as it is intended to shed light on development strategy and choice of policies. Over the past few decades, policy reforms have led to a greater integration of the world, and consequently trade patterns changed too. In this context both

acceleration of growth and its spatial concentration posed new policy issues for discussions and debates.

2.1 Growth: Acceleration and Concentration

Economic activity and people concentrate on certain specific locations of the world regardless of their geographical scale, thereby creating metropolitan cities, urbanized areas, core and peripheral regions, and industrial clusters. At a global scale, according to the measures of GDP density (Gallup et.al. 1999), Western Europe, Northeast Asia (coastal China, Japan, and South Korea), and the Eastern and Western coastal regions of the United States and Canada are the core economic zones of the modern world. Although the focus of this study is more on geographical attributes of the global variation in GDP density[3], these regions were identified as "…the overwhelming providers of capital goods in global trade, contain the world's financial centers, and generate a large portion of global production" (Gallup et.al. 1999:180). However, this study did not find a simple relationship between population density and income levels, mainly because it was based on large geographic scales – countries and regions in the world.

2.1.1 Location of Economic Activity

Economic activity and people are spread unevenly within countries, concentrating in smaller geographical locations and leaving larger areas with lower economic and population densities. Spatial concentration of economic activity and people can be observed in both developed and developing countries, but economic growth speeds up the process of concentration resulting in "leading" and "lagging" regions within the same country. Naturally countries continue to develop with the growth of their cities which becomes the leading areas that promote national growth. World Bank (2009:48) states that "as countries become richer, economic activity becomes more densely packed into towns, cities,

[3] The study of Gallup et.al. (1999) which provides a measure of GDP density and a world map of the GDP density attempts to relate the spatial concentration of income levels to the geographical attributes such as the climatic conditions and the degree of latitudes of the countries and the regions, and the location of countries as coastal and land-locked countries.

and metropolises". Just as the world regions such as Western Europe, North America, and East Asia differ from the rest of the world in terms of economic density according to the global scale, growth results in differences in spatial growth within the countries.

Geographical attributes, historical events, and even accidents may have been important at initial stages in the choice of locations as leading regions, but the process of spatial concentration of economic activity and people in these locations is directly linked to economic growth. Rapid growth increases the gap between the leading and lagging regions, as production concentrates more in leading regions than in lagging regions. However, once these geographical locations begin to materialize the benefits of the self-sustaining stage, the initial factors of locational advantage become less and less important, and the multiplier effects of spatial concentration become more and more important.

In every country – developed or developing, there are main cities and metropolitan areas which play the most important role in their national economy in making a disproportionately high contribution to GDP. Generally, these locations in the respective countries appear as commercial and financial hubs, industrial agglomerations, political and administrative centers, and international gateways through rivers, seaports and airports. Even in smaller geographical units of a country such as remote regions, which do not possess these strategic features of national importance, business activities get concentrated in small townships. In large countries such as USA, China, and India as well as in smaller countries such as Netherlands, Belgium, and Sri Lanka, economic activity and people are concentrated in specific regions, cities and urbanized areas. In developed countries in the Western Europe and North America as well as in developing countries in Africa, Asia, and Latin America, there is spatial concentration of economic activity and people in urbanized areas, cities and metropolises.

There are centripetal forces in attracting economic activities together, in contrast to those centrifugal forces which push them away. There are both forward and backward linkages of economic activities which pull them together in specific locations against those forces which push them apart in remote areas. Economic activities find it advantageous for them to locate themselves close to their output markets (forward linkages) and input markets (backward linkages). It is even more attractive for

economic activities to stay close to the bigger markets than to smaller markets so that metropolises generate stronger centripetal forces than the smaller cities. For this reason, it is not unusual to observe that metropolises become even more concentrated, and grow even faster than the smaller cities.

The producers also find it important for them to stay close to each other even if they are rival firms producing same or differentiated commodities. The centrifugal forces naturally lead the rival firms to locate far from each other by preventing positive externalities, closing information exposure, avoiding competition, and protecting the market share. In spite of all these benefits, the centripetal forces that keep them together are much stronger than centrifugal forces that fall them apart.

Spatial concentration is not limited to the formation of industrial clusters – the location of firms operating within the same industry. Although there is a degree of specialization, divergent and un-related economic activities in a wide range could be seen concentrating in cities, metropolises, and industrial agglomerations. Although they are highly divergent and un-related, they all derive the benefits of being together.

2.1.2 Rise and Fall of Spatial Inequality

The seminal work of Williamson (1965) confirms the existence of regional inequality in the development process of a number of developed and developing countries. The study resembled the Kuznets-type inverted U-shaped inequality curve associated with economic growth; the study of Kuznets (1955) revealed a rise and fall in income inequality respectively at the early and latter stages of growth. As the study of Williamson (1965) concludes, there is increasing regional inequality at the early stages of growth, while matured growth in developed countries has produced a regional convergence or a reduction in regional inequality.

The economic disparity between leading and lagging regions falls at latter stages of growth, because of the spillover effects of growth on both production and consumption in lagging regions. As the countries become richer, they have the capacity to connect lagging regions to the leading ones, to transform the production patterns in the lagging

regions, and to divert the benefits of higher growth from leading to lagging regions.

Regional differences in per capita GDP within the countries are substantial and larger in the rest of the world than among OECD countries, indicating that the level of development has implications on spatial growth and regional income disparities. According to OECD (2011:41) estimates of the Gini Index of inequality, the regional inequalities of per capita GDP are much larger in Russia, India, China, and Brazil than their OECD average. The evidence shows that the regional disparities resulting from spatial concentration of economic growth is a common phenomenon, and they tend to widen as the countries grow. As spatial growth concentration is accompanied by structural changes and demographic transition, the regional disparities in per capita income decline at mature stages of growth.

The demographic transition with internal migration contributes to the divergence of regional inequality at the early stages and to the convergence of it at the latter stages of growth. The spatial growth pulls population from lagging areas to leading areas. Leading regions provide better opportunities for human resources to be utilized more productively in the growth process as well as to derive the benefits of growth in terms of higher living standards. A detailed analysis of internal migration associated with spatial concentration of economic activity exhibits different patterns related particular to human resource development and specialization of economic activity. Therefore, it is also observed that skilled labour and educated people concentrate more in line with spatial concentration of economic activity, as they find more opportunities and tend to benefit more from their concentration in leading areas than in lagging areas.

The poor also concentrates more in leading areas than in lagging areas. This leads to poverty implications of spatial concentration of economic activity in a country. As World Bank (2009) also noted, lagging regions account for a greater share of poor because economic backwardness itself is the cause of poverty; but leading regions have more of the poor. Because the lagging regions are relatively less productive as denoted by the lower economic density, generally the share of poor is greater in lagging regions than in leading regions of a country. As people get concentrated in line with spatial growth, however, many poor also get concentrated in the leading than in the lagging regions. This is because

many poor find it more advantageous to live in leading areas where they can also find more opportunities than in lagging areas in order to escape from poverty.

2.1.3 Specialization of Economic Activity

Growth does not lead the same types of economic activities to grow and get concentrated over geographical space. As different economic activities grow differently, spatial growth is accompanied by structural transformation of economic activity. Even at a highly aggregated level of observation, it is quite apparent that manufacturing and service activities in a country are concentrated in one or few smaller locations, leaving large stretches of land as farms and forests. In the USA and the Western Europe where large-scale agriculture production exists, there is a clear distinction between sparsely populated large areas of farm belts and highly congested metropolitan cities and industrial agglomerations. Even in countries such as Japan where traditional institutions and regulatory barriers have blocked the formation of large-scale farm belts, the structure is not contrary to that, though magnitudes are different. Highly congested industrial agglomerations and metropolitan cities have emerged and continued to grow leaving large parts of the countryside as sparsely populated rural villages and forests.

The structural changes accompanied by economic growth have followed a pattern in the process of moving from an agriculture-based economy towards a modern economy dominated by industry and service sectors[4]. As a result, the share of agriculture output has declined to around 1 percent of GDP, and the share of employment in agriculture sector to less than 5 percent of the workforce in most of the advanced countries, allowing the rest of the output and employment to be replaced by growing industrial and service sectors. Even within the industrialization process, countries have begun with producing labour-intensive light

[4]It was believed that the share of industrial sector rises fast during the first stages of growth and falls at its latter stages (because service sector starts growing fast at this post-modern stage). This phenomenon could be depicted as an inverted U-shaped curve showing the change in the share of industrial sector as the economy grows. However, given the nature of policy reforms, technological changes, coupled to the locational advantages, many countries in the recent past did not appear to have followed the same growth path by the same degree of structural changes, because they flattered the inverted U-shaped curve.

manufactures, moving into capital-intensive heavy industries, and then to advanced types of manufactured production dominated by labour-saving, energy-saving, knowledge-based, and high-tech sectors. The process depicts the changes in comparative advantage as was observed and documented in the studies of emerging economies in Asia and elsewhere following policy reforms since the 1970s. Similarly, financial sector reforms in many countries have led them to grow and emerge as regional or global financial hubs which had implications on their output and employment structures.

2.2 Integration and Spatial Growth

The period after the 1980s has been marked by dramatic changes in the world economy, which have exhibited implications on the spatial concentration of growth at all forms of geographical scales – globally, regionally, and locally. The policy reforms towards trade liberalization have led to a greater integration of developing countries with the global economy. This was primarily led by the contemporary 'neoclassical revival' at the time which was reflected through both theoretical and empirical studies on trade liberalization. These empirical studies generally focused on the failure of postwar import substitution policies in most part of the developing world as well as the success stories of the East Asian newly industrialized countries based on the export promotion policies within their liberalized trade regimes.

2.2.1 Global Shift in Production

While developing countries in general and those of the Asian region in particular were accelerating their growth momentum on the one hand, the advanced countries started to experience a slowdown in their postwar high growth reaching an economic contraction on the other hand (Table 2.1). The two phenomena could be the 'two sides of the same coin', although the rise of developing countries has been primarily and typically attributed to their own policy reform process. It shows that there has been a process of shift in production from advanced countries to developing countries in general, and to those in the Asian region in particular.

Table 2.1
Rate of Real GDP growth in the World 1981-2010

	Average annual rates (%)			Annual rates (%)		
	1981-90	1991-00	2001-10	2008	2009	2010
High income OECD countries	3.1	2.6	1.5	0.0	-3.6	2.7
East Asia & Pacific (developing countries only)	7.5	8.4	9.1	8.5	7.5	9.7
South Asia	5.5	5.3	7.1	3.9	7.8	9.5
Latin America & Caribbean (developing countries only)	1.5	3.0	3.1	3.8	-2.2	5.6
Sub-Saharan Africa (developing countries only)	1.8	2.3	4.8	4.9	2.0	5.0
World	3.1	2.8	2.5	1.4	-2.2	4.0

Source: World Bank data

As a result of the global financial crisis that emerged in USA, the world output contracted by 2.2 percent in 2009. This is a massive loss of USD 3,250 trillion world wealth, compared to the world GDP in the previous year, and is equivalent to about 10 years of GDP in USA. Generally, the loss has been in advanced countries, and not in developing countries. The high income OECD countries reported a sharp decline in their aggregate GDP by 3.6 percent. The GDP in the Asian region did not contract as their rate of GDP growth though declined, did not turned into negative figures. This is important because it was not the usual experience in the world where developing countries had been more vulnerable to shocks than advanced countries did. It is because there has been a long-term process of shifting the location of investment and production from advanced to developing countries – a process that coincided with economic slowdown in advanced countries and liberalization policy reforms in developing countries.[5]

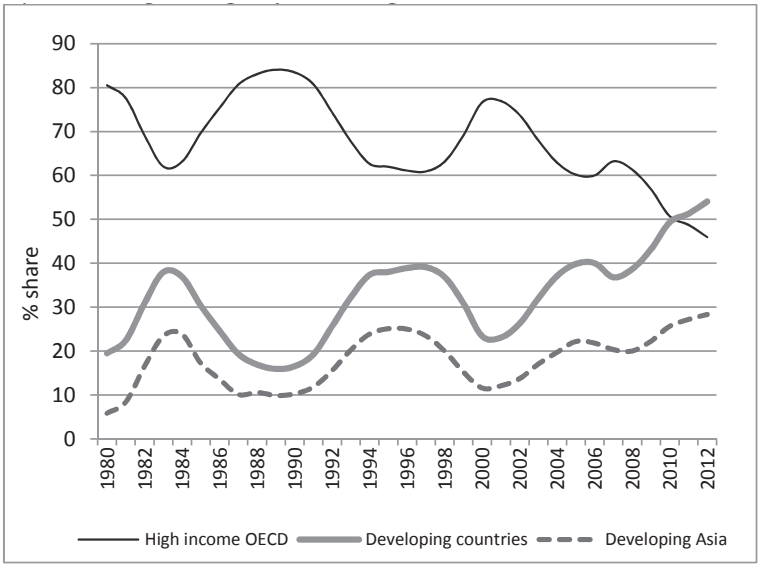
Historically the world FDI flows were used to be more within the advanced countries themselves than from advanced to developing countries. The period after the 1980s was marked by a changing pattern

[5]These divergent global events which converged into growth of Asia are, indeed, essential components of a long-term business cycle in advanced countries with a postwar expansion till the 1970s, and a subsequent recession began in the 1980s (Abeyratne 2013b, Nicholas 2013).

of FDI flows in the world. The first is the phenomenal growth of world FDI flows; as UNCTAD (2013:217) reported, the world FDI stock has increased from USD 2 trillion in 1990, to USD 7.5 trillion in 2000, and to USD 22.8 trillion in 2012. Secondly, the share of world FDI inflows into developing countries has increased and outnumbered that of the advanced countries. Despite the large fluctuations in annual FDI flows, the 3-year moving averages of the share of FDI inflows to advanced countries reflected a declining trend, with a corresponding increase in that of developing countries (Figure 2.1). In the 1980s and the 1990s, the FDI inflows to high income OECD countries were generally in the range of 60-80 percent of the world total, which has declined to below 50 percent during the first few years of the 2010s. Correspondingly, the share of FDI flows to developing countries increased, and accounted for a record 52 per cent of global FDI inflows, exceeding flows to developed economies for the first time ever, by $142 billion (UNCTAD 2013: xii). Along with that the share of the FDI stock in developing countries has also increased from one-fourth in 1990 (USD 500 billion) to over one-third in 2012 (USD 7.7 trillion), according to the data reported by UNCTAD (2013:217). The rising magnitudes of the world FDI flows, and their flowing directions have confirmed that the TNCs have been relocating their investment and production from advanced countries to developing countries in general, and to developing Asia in particular.

The exponential growth of the world FDI flows and their increasing diversion towards the developing countries were contributed by a number of contemporary economic phenomena. It was the time that developing countries started to adopt policy reforms and offered investment environs conducive to FDI inflows. Coincidently, the advanced countries had ended their postwar growth momentum, and a long phase of economic slowdown in which the FDI outflows started to rise more than ever before. Simultaneously, the advanced countries also adopted policy reforms aimed mostly at liberalizing the financial and foreign exchange markets which facilitated FDI outflows through the removal of barriers to trade and investment. The wage pressure at home and the import competition from developing countries pushed the TNCs in advanced countries to seek better locations with cost advantage in labour-abundant developing countries (Athukorala 2012b). Gradually the increase in the number of new TNCs from newly industrializing countries in Asia added to the world FDI outflows in creating their exponential growth momentum.

Figure 2.1
FDI flow to Advanced and Developing Countries 1980-2012
3-year Moving Averages of Percentage Shares



Source: UNCTAD data

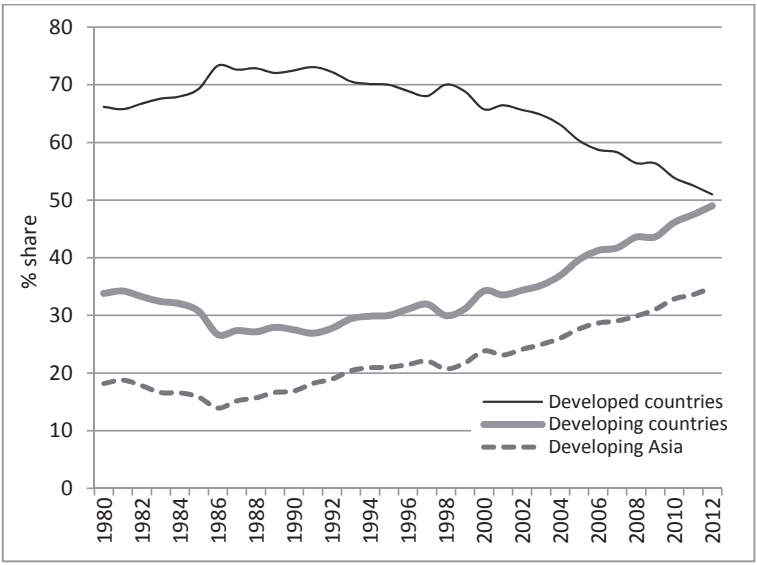
2.2.2 Export Growth and Change in Trade Pattern

World merchandise exports shared by advanced and developing countries have changed with rapid export growth over the past few decades. The merchandise exports from developing countries have increased 15 times during the period of 1985-2012, compared to those of advanced countries by 7 times. The share of merchandise exports from developing countries was around 30 percent of world totals during the 1980s (Figure 2.2). This has gradually and steadily increased since the early 1990s so that by 2012 the advanced and developing countries account for equal shares of world exports. Among the developing countries, the exports from the Asian region account for the highest increase in its share.

An important feature of exports expansion from the developing region in general, and from Asian region in particular has been the change

in trade patterns deviating from "old-styled" international trade. It is different from the type of exchange between "wine and cloth" as in traditional inter-industry trade models of comparative advantage. It is neither the exchange of "wine for wine" or "cloth for cloth" as in intra-industry trade models. A new facet of growing trade patterns is the global product sharing, led by the production and export of parts and components by different countries, followed by assembling activity and export of the final good by another country. The global product sharing has started in the labour-intensive light manufacturing industries such as electronics and clothing, and has spread into other high-tech and capital-intensive industries. The fragmented production activities which scattered across East and Southeast Asian region, as Ferrarini (2011) points out, have brought together advanced economies such as Japan and Korea to provide high value-added parts and components, middle-income countries such as Malaysia and Philippines to undertake further processing of parts and components, and labour-abundant emerging economies such as China to carry out final assembly.

Figure 2.2
World Export Shares of Advanced and Developing Countries 1980-2012



Source: UNCTAD data

The countries that have been integrating into global supply chains have been specializing in "performing tasks" instead of "producing goods" (WTO 2011). The process has led individual countries to gain from trade in tasks according to a different form of comparative advantage. Consequently, the rapid growth of "network trade" and the rising shares of parts and components in total exports have been an outstanding feature of the export-oriented growth process in East and Southeast Asia. While trade in parts and components and assembled products has generally grown faster than total world trade in manufacturing, East Asia's dependence on this new form of trade pattern is proportionately larger than elsewhere in the world (Athukorala 2011:65).

The slicing up of the value chain of a commodity into finer parts and components, and international outsourcing of their production and supply have been made possible by a series of factors that came into operation at the same time simultaneously. It is the TNCs which began to relocate their investment and production from advanced countries to developing countries that played the major role in the fragmentation of the production processes and the formation of globalized value chains. The globalized value chains are typically coordinated by TNCs with their cross-border networks of affiliates, contractual partners and arm's-length suppliers, while the TNC-coordinated global supply chains today account for some 80 per cent of global trade (UNCTAD 2013:xxii). Secondly, the technological developments, which were undertaken by the TNCs, opened up the technical feasibility of network trading. These technological developments in two basic dimensions allowed slicing up the value chains into finer parts and components on the one hand, and facilitated their international outsourcing due to a dramatic decline in transportation and communication costs on the other hand. Finally, the greater integration of different countries and regions through policy reforms towards liberalization and deregulation reduced the cross-border barriers to network trade.

Greater integration through policy reforms, change in production and trade patterns, and formation of globalized supply chains have been rather the global phenomena in which both advanced and developing countries were playing important roles. These are the result of the work of both advanced and developing countries, although there have been an economic slowdown in advanced countries and a global shift

in investment, production, and exports from advanced to developing countries. In fact, in the first place, it is mostly the TNCs from advanced countries which act as catalysts of the emerging global production and trade patterns. The USA in Northern America, Germany in Western Europe, and Japan in Asia are the global hubs from among the advanced countries which have integrated the most of the globalized supply chains (Ferrarini 2011). Apart from that, the advanced countries have also undertaken policy reforms since the 1980s mainly aiming at their financial markets, allowing for greater integration with the global economy and facilitating the growth of global financial centers.

An important turning point in regional integration among advanced countries was the progress of the Euro Zone through different stages of integration to an Economic and Monetary Union. The establishment of a single currency, the surrender of the monetary policy autonomy, and the removal of cross-border barriers to free movement of goods and services, and capital and labour, all led to an emergence of a virtually big and competitive economy as the USA. More importantly, the withdrawal of cross-border barriers of factor mobility called for revisiting the trade theories of comparative advantage in a new global environment. As the World Bank (2009) observed, thus greater integration in the world has shortened the distance, and reduced the divisions, facilitating the countries and regions to accelerate and concentrate their economic growth.

2.3 From International to Intranational Economics

Traditional trade theory, since its early stages of development, is concerned with 'location-specific' factors as the determinants of comparative advantage of the location, showing that the two branches of economics – international trade and spatial growth, emanate from the same source. This idea was in the heart of trade theory so that Bertil Ohlin who considered international trade theory as part of the 'location theory', titled his book first published in 1933 as Interregional and International Trade. His teacher, Eli Heckscher in his 1919 publication was aware of the implications of the assumption of 'immobility of factors' across the borders in Ricardian theory of comparative advantage. Although Hecksher-Ohlin theory of comparative advantage became a dominant analytical tool in trade analysis, it was trade-growth nexus, and not the

location of production and specialization that received much attention in subsequent trade analyses.

Over a long period of time in the history, trade-growth nexus was theorized and modelled without reference to its spatial dimension, and spatial growth without reference to international trade. The strict assumptions maintained in trade models appear to have become the stumbling blocks that prevented the 'location of production and specialization' as an analytical issue within trade theory. Therefore, both international economists and regional economists who worked in two different directions knowingly or unknowingly dealt with the same subject – the location of production and specialization in geographical space. As growth concentrates over geographical space, the issue in question in both international and intranational economics is spatial growth – the concentration of production and specialization in particular locations. As economic integration became stronger in both advanced and developing countries and its economic implications became increasingly manifested through spatial growth, today the location of production and specialization demand for new analyses within economics more than ever before.

2.3.1 Early Contributions to Spatial Economics

There has been a great concern in early development literature about the growing economic inequality across geographical space arising from national income growth as well as international trade. Some of the early contributions to the study of spatial concentration of production and specialization have come from development economics, urban economics, regional economics, and the analyses of industrial location. It is important to emphasize that the issues of spatial concentration of economic activity were not new to classical economics including traditional development economics, nor to economic geographers or to many urban geographers (Bandara and Jayasuriya 2011). Even though 'location of production' was not treated as an equally important issue in mainstream trade theory, it did not remain entirely out of sight in the field of economics.

Economic modelling on spatial growth began as far back as 200 years ago when Johann Heinrich von Thünen (1783-1850) who in his publication of the English translation in 1826, The Isolated State,

modelled the concentration of economic activity in the city surrounded by agricultural hinterland, and thereby the determination of wages and rents (Samuelson 1983). His model of spatial growth was based on that labour is mobile, but land is immobile, and that there is transport cost to move goods across the space – that is, between the city and the hinterland in an 'isolated state'. Interestingly, according to Samuelson (1983), Thünen worked out his model that determines wages and rents even before the work of the contemporary classical economist, David Ricardo (1772-1823), and used the exact opposite assumptions of Ricardian trade theory – factor immobility and zero transport costs. Thünen's work inspired economists such as Alfred Marshal and Joseph Schumpeter, but subsequently he was influential more in the area of economic geography than in the area of trade and development.

The spatial concentration of growth and the resulting regional inequality in the development process received much attention of early economists such as Alfred Marshall, Allyn Young, Albert Hirschman, Gunar Myrdal, Nicholas Kaldor, and François Perroux. To a certain extent, the topic was also of the interest to development theorists in the dependency and neo-Marxist traditions which were based on the notion of "center-periphery" exploitative relationships.

It was Myrdal who conceptualized "circular and cumulative causation" which can operate in either direction leading to the rise of economic concentration in some locations and to the fall of that in other locations. Myrdal (1957:17) explained that the whole system that starts moving in one direction due to changes in the forces working in the same direction, because the variables are so interlocked in circular causation; "…a change in anyone induced the others to change in such a way that these secondary changes support the first change, with similar tertiary effects upon the variable first affected, and so on." He acknowledged that migration, capital movements and international trade are rather the media through which the circular and cumulative process evolves.

The circular and cumulative process in the growing regions which are the lucky regions would thwart the other regions – the unlucky ones, which enter the downward path of the circular and cumulative causation:

> If things were left to market forces unhampered by any policy interferences, industrial production, commerce, banking, insurance, shipping and, indeed, almost all those economic activities which in a developing economy tend to give a bigger than average return –

> and, in addition, science, art, literature, education and higher culture generally – would cluster in certain localities and regions, leaving the rest of the country more or less in a backwater. (Myrdal 1957:26)

This is true enough, and reflects the outcome of circular and cumulative causation. However, it means that Myrdal did not perceive that spatial growth concentration could have a positive impact on lagging regions through connectivity or that regional disparities could converge at latter stage of development after they diverged at its early stage.

Nicholas Kaldor, referring to Myrdal's concept of circular and cumulative causation, attributed it nothing more than to the presence of increasing returns to scale, both internal and external to the firm:

> This is nothing else, but the existence of increasing returns to scale – using that term in the broadest sense – in processing activities. These are not just the economies of large-scale production, commonly considered, but the cumulative advantages accruing from the growth of industry itself – the development of skill and knowhow; the opportunities for easy communication of ideas and experience; the opportunity of ever-increasing differentiation of processes and of specialization in human activities. (Kaldor 1970: 480)

While economies of large scale production, as referred to by Kaldor, means the presence of increasing returns to scale due to the expansion of the productive capacity of a firm as permitted by the larger size of input and output markets. In addition, the term returns to scale is used in its broadest sense to capture the advantages arising from the externalities within the business environment in which the firm is located.

According to Hirschman (1958), growth is necessarily unbalanced, and it must be so in order to lift a country to a higher income levels because it has to first develop within itself one or several regional centers of economic strength. The "…need for the emergence of "growing points" or "growth poles" in the course of the development process means that international and interregional inequality of growth is an inevitable concomitant and condition of growth itself" (Hirschman 1958:183-184). Growth poles within a country emerged and progressed through backward and forward linkages of industry so that input-output relations of industry can guide the formulation of development strategy.

A distinguished and influential branch of modern theoretical developments on spatial growth was centered on François Perroux's "growth pole theory", spurting debates and discussions on the concept, theory and its policy implications in the 1960s and the 1970s. Perroux viewed that economic space of a firm is more important than its banal space, and that this economic space is a field of centrifugal and centripetal forces:

As a field of forces, economic space consists of centres (or poles or foci) from which centrifugal forces emanate and to which centripetal forces are attracted. Each centre being a centre of attraction and repulsion, has its proper field, which is set in the fields of other centres. Any banal space whatever, in this respect, is a collection of centres and a place of passage for forces. (Perroux 1950:95)

Being a critique of mainstream economics, François Perroux believed in the role of the state in economic development. Thus, his growth pole theory guided the contemporary regional development planning and state-led resource allocation programmes. As early as late-1960s Perroux observed that "growth does not appear everywhere and all at once; it reveals itself in certain points or poles, with different degrees of intensity; it speeds through diverse channels" (Higgins and Savoie 1988: 6). It is necessary to identify such growth poles in regional development planning, and fulfill the conditions to accelerate self-sustained economic growth. The approach has guided regional development policies and planning exercises in most of the advance countries during the early post-war period.

A wide range of dissent views on growth disparities across the space could be found in contemporary trade and development literature emerged in the neo-Marxist and dependency traditions particularly during the early postwar period. During the early postwar period, the work of Raul Prebisch and Hans Singer contributed initially to the development of the dependency theory, which shared much in common with the neo-Marxist economists such as Paul Baran, Paul Sweezy, Samir Amin, and Arghiri Emmanuel.

The theories were primarily presented in international context, focusing on the exploitative or unequal trade relations between industrialized and underdeveloped countries. The industrialized countries were playing

the role of the "centre" and the underdeveloped countries that of the "periphery". Even within a country, the metropolitan areas that are connected to the "centre" play a mediating role accumulating resources and surplus from the remote peripheral areas of the country resulting in a regional polarization within the countries. Regardless of geographical scale, the "centre-periphery" relations through capital accumulation in the centre and unequal exchange between the centre and the periphery lead to a polarization of regions across the space. By implication, therefore, studies in this tradition established rationale for delinking the periphery from the centre in order to initiate a self-sustaining growth process. In addition to their influence in the contemporary global political spheres, these economic perspectives had a bearing impact on shaping import-substitution and the state's interventionist strategies in developing countries during the early post-war period.

The academic vigour and policy relevance of the perspectives as such did not continue to remain as strong as they used to be during the early postwar period. They were weakened, on the one hand by the revival of neoclassical Economics and trade liberalization reforms among developing countries since the 1980s. On the other hand these developments in the field of International Economics were supported by the contemporary empirical evidence on growth concentration in newly industrialized countries (NICs) in East Asia against dismal growth performance in most of the developing countries.

2.3.2 International Trade and Spatial Growth

The strict adherence to the simplifying assumptions of traditional trade theories of comparative advantage constrained its space to focus on spatial growth irrespective of the boundaries of nations and their countries. By implication, the basic assumptions of traditional trade theory – such as the immobility of productive factors across the countries, their aggregation into homogeneous categories particularly as labour and capital, constant returns to scale, and the absence of transport costs, have created hardly any space to approach the issues of spatial growth within the countries as equally as across the countries. The basic issue in question is not the assumptions that were meant to simplify the complex matters at the beginning, but the fact that they were made conditional within the subsequent developments in theoretical and empirical studies. Apart from that, the intellectual drift

away from "modelling the world" to "developing the models" that came to dominate mainstream economics led to ignore even the important analytical issues as such from mainstream economic theory (Bandara and Jayasuriya 2011). However, the recent contributions in the areas of new trade theory and new economic geography, and the dynamics of the world economy through greater integration and changing trade patterns, have created much space within international economics to look into intra-national economics of spatial growth.

(a) Heckscher, Ohlin, and Heckscher-Ohlin Theory

The economic implications associated with strict assumptions of trade theory were not new topics in the discussions and debates on trade theory. David Ricardo's theory of comparative advantage is founded on the assumption of factor immobility and zero transport costs between the countries, apart from its other assumptions.[6] The theory established the that cross-country differences in relative labour productivity or, generally the comparative cost advantage in producing different commodities as the basis for trade and gains from trade. As we have already seen, by employing the exact opposite of the above two assumptions Thünen constructed his model to explain location of production and trade between the city and hinterland, and the determination of factor prices.

Hecksher-Ohlin theory disclosed a new dimension of comparative advantage that is founded upon the cross-country differences in factor endowment. The standard assumptions of the theory include, among other things, the immobility of productive factors and their fixed supply, the absence of transport and information costs, and the existence of linearly homogeneous production functions (constant returns to scale). Thus the Hecksher-Ohlin theory predicts that under free trade condition countries gain from trade by specializing and producing the commodities which intensively utilize its relatively abundant factors, and exchange them (export) for other commodities (import) which are

[6]It has been a debatable issue in whether the theory of comparative cost advantage was discovered by David Ricardo (1772-1823) or by Robert Torrens (1780-1864), who wrote on international trade prior to Ricardo, while neither of them used the term "comparative cost", which was by James Mill (1773-1836); for a recent synthesis on this debate, see Ruffin (2002).

intensively utilized its relatively scare factors. In spite of the fact that the Heckscher-Ohlin model is based on simplifying assumptions, its co-authors – Eli Heckscher and Bertil Ohlin, did not adhere to such assumptions in their trade analyses which led them to analyze trade implications on a borderless geographical space.

Eli Heckscher, in his paper on 'The Effect of Foreign Trade on the Distribution of Income', published in 1919 categorically referred to the Ricardian assumption of "complete immobility of factors", and Edgeworth's account that "international trade means exchange on the basis of immobile factors of productions" (Heckscher 1950:285). This implies, in other words, that trade without borders cannot exist, or that the existence of trade within borders needs to be explained in a different context. However, Heckscher (1950: 277) noted that "if Ricardo's assumption of immobility of factors of production between countries is dropped, it can easily be seen that the determination of factor prices has an important bearing upon factor movements". As the assumption of the immobility of productive factors is only partially valid for labour and capital both, though it is not so for land, Heckscher's analysis was concerned with trade effects on factor prices under different scenarios of factor mobility. If there is full mobility of productive factors, apart from transportation costs, factor prices tend to be equalized and trade tends to cease, which is an outcome that is beyond the scope of Ricardo's model.

Bertil Ohlin who considered interregional trade as equally important as international trade, disclose the interrelationship between the location theory and international trade in his book Interregional and International Trade, first published in 1933 (Ohlin 1967). According to Ohlin (1967: 97), "…the important distinction is not between domestic and international trade theories, but between a one-market and many-market theory of pricing". Ohlin did not rule out the assumption of the immobility of productive factors, but did consider that distance between the locations matter so that exchange is costly whether it is international or domestic trade. This approach essentially removes some of the important barriers within trade theory to the analysis of the location of production and exchange irrespective of the geographical scales:

It is true that in a study of location in international trade the lack of factor mobility is perhaps the most important element (although there are also

special obstacles to international commodity movement that must be reckoned with); but international trade theory cannot be understood except in relation to and as part of the general location theory, to which the lack of mobility of goods and factors has equal relevance (Ohlin 1967: 97).

By the clause, the lack of mobility of goods and factors which has equal relevance to trade and location, Ohlin stressed the trade and locational implications of the assumptions of both factor mobility and transport cost. Generally, natural resources (land) are immobile, but there are non-economic obstacles to labour and capital mobility which might be overcome through an additional economic cost – the payment of higher factor prices. Thus, according to Ohlin, the degree of factor mobility has a bearing impact on factor prices and commodity prices as well as on trade. Ohlin (1967: 26) did not, however, anticipate a complete equality of factor prices, which he considered as "almost unthinkable and certainly highly improbable". He asserted that industry demand for factors of production is always a "joint demand" for several factors so that even within a country "a set of factors" is not completely mobile, and justified the existence of obstacles to free factor mobility. This postulation implies that productive factors are not homogeneous aggregates as they assumed to be as labour, capital or land, but there exist even within each category a wide variation of a set of factors.

Ohlin incorporated economies of scale emanating from the regional concentration of labour and capital, perhaps for the first time in trade analysis, as an important determinant of export expansion:

> …The large-scale economies effected when the market is enlarged through the influx of labour and capital affect the various industries quite differently. If these economies are felt chiefly in export industries, trade tends to increase. However, increased effectiveness, particularly in industries that produce goods competing with import commodities, must have the opposite effect on the volume of trade. (Ohlin 1967: 120)

He extended the discussion on the benefits of the large scale economies, both internal and external to the firms, to cover the transport sector, thereby asserting the importance of the linkages between transport services and the industries producing commodities. The variations

in factor supply and factor prices also change the costs of transfer as transport services depend, in turn, on the same factor prices as well as the economies of scale. Therefore, according to Ohlin (1967: 121), "harbors, and railroads, for example, may be built and cheaply operated, which must markedly affect the volume and character of trade".

Ohlin has employed the basic premises of the Heckscher-Ohlin theory to analyze trade without geographical scales (i.e. international and domestic) and the location of production and specialization. While qualifying and maintaining the assumption of "imperfect" factor mobility, he has brought about many of the basic elements of the link between trade and spatial growth into the analysis; these aspects included the transport costs, geographical concentration of productive factors, presence of economies of scale, and the location of input and output markets. In fact, Ohlin has already worked on much of the basic premises of trade and spatial growth as far back as 1933.

(b) Neoclassical Model of Regional Trade

The theoretical premises of international trade has provided with scope for analyzing the geographical location of production and trade. In the words of Higgins and Savoie (1988:9), "…the trade approach, when applied regionally, would see regions specialize in their areas of strengths and comparative advantage". For instance, Couchene and Melvin (1988) presented a standard neoclassical trade model in order to explain regional growth and income disparities within two regions of a country, where trade exist both domestically between the two regions, and internationally with the rest of the world. A criticism of growth pole theorists on standard neoclassical trade model was that it has failed to offer a theoretical application to both international trade and domestic trade. In response to this criticism, Couchene and Melvin (1988) attempted in their trade model to show that neoclassical theoretical premises has adequate space to analyze regional locations of economic activity within a country which is open to free trade between the regions with the rest of the world.

As it is argued in this paper too, the issue in question is centered on the strict assumptions of neoclassical trade model which limits its application to domestic trade. The standard trade model is based on the production possibility frontier, terms of trade, and community

indifference curves which are constructed on the basis of standard neoclassical assumptions. The paper is simply an extension of the neoclassical model on trade between two countries to one between one country with two regions and the rest of the world; by implication there is domestic trade between the two regions, and international trade with the rest of the world. This extension requires a modification of the standard assumptions of the two-country trade model to suit the extended trade model of two-countries and, one of them with two regions.

Under the different scenarios related to the assumptions of resource endowment, factor mobility, transport costs, and consumer preferences, the paper is aimed at modelling interregional disparities. According to the authors, "…this extension has implications both for the standard theory of international trade and for regional economic policy analysis" (Couchene and Melvin 1988: 171). As far as spatial growth is concerned the policy relevance of the extension is limited, but the paper clearly shows that the interregional trade and its implications on regional income disparities can be analyzed within standard trade models by modifying the underlying assumptions.

(c) New Economic Geography

The use of trade theory in analyzing the location of production and specialization gained momentum in the early 1990s with the publications of Krugman (1991a, 1991b), and continued to receive attention with theoretical contributions as well as policy analysis (Bandara and Jayasuriya 2011, Fujita et. al. 2001, Fujita and Krugman 2004, Venables 2009, World Bank 2009). The goal of new economic geography was to devise a modeling approach to location of production, by incorporating and amalgamating its key elements, as following:

> The first is the general-equilibrium modelling of an entire spatial economy, which sets apart our approach from that of the traditional location theory and economic geography. The second is increasing returns or indivisibilities at the level of the individual producer or plant, which is essential for the economy not to degenerate into "backyard capitalism" (in which each household or small group produces most items for itself). Increasing returns, in turn, lead to the market structure characterised by imperfect competition. The

> third is, of course, transport costs (broadly defined), which makes location matter. Finally, the locational movement of productive factors and consumers is a prerequisite for agglomeration. (Fujita and Krugman 2004: 142)

The key aspects of new economic geography approach to location of production have been in the heart of trade and development theories. According to Ohlin's (1933) detailed analysis, the conditions of factor mobility, cost of transportation of both productive factors and commodities, and the cost advantage of large-scale production exhibit underlying conditions of location theory – concentration of production and specialization. In fact the contributions to new trade theory since the late 1970s had already incorporated economies of scale into trade modeling, which showed that "…trade need not be a result of international differences in technology or factor endowments" (Krugman 1979: 479). Instead, trade grows with the expansion of the market and the exploitation of economies of scale within imperfectly competitive market structures. Although in new trade models it was the internal economies of scale that lead to imperfect market structures and product differentiation, as Ohlin (1933) also recognized both internal and external economies of scale play an equally important role in the location of production and specialization.

There are both centripetal and centrifugal forces operating in specific locations, as conceptualized in Perroux's (1950) growth pole theory, and as became the cornerstones of the modeling of new economic geography. Centripetal forces attract economic activities together, when the increasing returns to scale are present and when the transportation has a cost. Then firms have an advantage of locating themselves closer to their suppliers (input markets) and buyers (output markets). Hirschman's (1958) backward and forward linkages, and Myrdal's (1957) circular and cumulative causation which was nothing other than returns to scale (Kaldor 1970), all explain why centripetal forces bring together economic activities and bring about spatial growth into self-sustaining stage.

In contrast, centrifugal forces disperse economic activities away, when the costs of agglomeration outnumber its advantages and when the productive factors are immobile. Agglomeration also has costs in terms of higher factor prices resulting from rising demand, inelastic supply,

and the costs of non-tradable goods, as well as the costs of congestion. As Ohlin (1933) also observed, economies of large scale production could lower part of these costs. However, the types of industries matter too, as some of the economic activities (such as those in agriculture and tourism) do not concentrate in the same locations as many others do. While natural resources categorized under land are an immobile factor, as Ohlin (1933) explained, industry demand is mostly for a set of factors which is less mobile.

World Bank's (2009) 'three-dimensional' approach to geographical concentration of economic activity is based on the concepts of density, distance, and division. Out of the three dimensions defined in economic terms, the first is an outcome of the latter two. Economic density, which is defined and quantified as the economic mass per unit of land area or the geographic compactness of economic activity (World Bank 49) shows how growth has concentrated or dispersed over geographical space. The other two concepts – distance and division, are some of the important drivers of economic density. The economic distance is "… the ease or the difficulty for goods, services, labour, capital, information and ideas to traverse space" (World Bank 2009: 75). Thus it is a broader definition of distance, which is not limited to physical distance only. It includes all dimensions of distance over space affecting differently for different things to traverse. The third concept of division in economic sense, i.e. economic division, includes a range of restrictions on the flow of goods, capital, people, and ideas as well as more severe divisions caused by political disputes and security issues (World Bank 2009: 97). Therefore, reforms towards trade liberalization and deregulation are an important step in the direction of reducing economic divisions between and within countries.

2.3.3 Spatial Growth: from Theory to Policy

Whatever the 'geographic scale' of the unit of analysis – inter-national or intra-national, in response to the process of policy reforms growth was seen as accelerating and concentrating. While integration of nations, as we have already discussed, has called for trade analyses in different forms, it has also paved the way for looking at the location of production and specialization within as well as without the territorial boundaries of countries. In the case of trade blocs and agreements too, a greater degree of policy coordination has emerged as a requirement

of integration of nations. The integration has been progressing far deeper as in EMU even by surrendering national policy autonomy and transforming into a single currency union. Factor mobility is largely free within a country, although divisions and restrictions could still exist mostly beyond economic spheres. In the progressive stages of integration too, national borders that restrict factor mobility, including labour mobility, have begun to disappear.

Even though in trade models the assumptions were relaxed and specifications were changed, the fascinating outcome of trade liberalization and integration has been that it still accelerates trade, and hence promotes growth, as evidenced in high-performing developing countries. Secondly, growth concentrates, and that concentration tends to be faster in high-performing economies than in other countries. Policy reforms and technological progress that have expedited global integration lead to a decline in costs of trading across nations, but make centripetal forces stronger than centrifugal forces; in other words, when trade is growing faster growth is concentrating more.

The theoretical underpinnings of spatial growth based on international economics leads to rephrase the determinants of the spatial growth as follows:

Benefits of agglomeration: These are the economic advantages of 'being together' that lead to a concentration of economic activity and people in particular locations. These benefits can be approached in two respects as those accruing to the individual economic activities or households at micro level, and as those accruing to the country or nation at macro level. The presence of internal and external economies of scale is an important mechanism of receiving the benefits of agglomeration by firms and industries. The developmental achievements through trade expansion and rapid economic growth as well as improvements in related components are the benefits aggregated at macro levels. People also agglomerate as suppliers of labour and consumers of output, as well as the beneficiaries of agglomeration. What is important from a policy point of view is that the choice of policies can operate in either direction, in facilitating or hindering the benefits of agglomeration to firms and households and thereby to the national economy. Thus policies can activate and generate either centripetal forces leading to agglomeration of economic activity or centrifugal forces to push them away from concentration.

Costs of connectivity: Connectivity of a particular location is an important part of the cost of economic activity concentrated in that location. The costs of connectivity are associated with connecting the economic activity with various types of input and output markets, and are measured in terms of monetary costs, time delays, and quality of traversing. A wide range of connectivity costs explains how efficient and effective is the connectivity of an economic activity to various markets such as labour markets, financial services, business services, regulatory mechanisms, information sources, communication networks, energy sources, and transport corridors. Transport cost is, in fact, an important cost component of connectivity, but the overall connectivity grid of an economic activity is not limited to physical distance or transport costs. Some of the important connectivity costs need to be identified as emanating from a wide range of non-tradable service sectors such as trade and commerce, seaport and aviation services, domestic transport, information and communication, personal and social services, most of the health and education services, utility supply, law and order, security, and administrative and regulatory services. One way of reducing the costs of connectivity is, in fact, agglomeration – a choice made by the firm, but not limited to the agglomeration alone because policy environment and infrastructure also account for, perhaps a greater share of it.

Factor mobility: It is clear that factor mobility is not perfect internally or internationally, but from an economic point of view the benefits of agglomeration and the costs of connectivity account for its greater flexibility. Given the broader classification of all productive factors into homogeneous categories, capital is almost freely mobile, labour is more flexible domestically than internationally, and land is immobile. The world experience suggests that global capital which freely traverses across the world concentrates in some locations of some countries only. Where capital accumulates, human resources concentrate too. The policy choices can either accelerate or decelerate the capital and labour concentration. Education and human resource development can encourage spatial concentration of labour, thereby facilitating growth as well as specialization of production. On the contrary, the policy choices can discourage spatial concentration of labour as well as capital, but at a cost to the firms and households as well as to the economy as a whole. At the same time it is necessary to acknowledge the immobility of some

factors as well as that of a 'set' of factors, but they could also generate centripetal forces of spatial growth. As industry demand is often for a set of different factors in terms of volumes and types; for instance, different categories of labour skills and their adequate quantity do not move together so that a set of factors as such is not be available evenly across the geographical space. Apparently, natural resources and locational advantages constitute the sources of regional comparative advantages within a country, and create spatial growth impetus.

Market size: The size of the market limits the extent of concentration of economic activity and specialization of production as well as the capacity for deriving benefits from economies of scale. Trade liberalization expands the boundaries of the market, resulting in both an acceleration of growth and its spatial concentration. Centripetal and centrifugal forces of spatial growth become stronger in the context of liberalization policy reforms as firms shift their focus from limited domestic markets to international markets. Therefore, access to larger international market though 'international gateways' is an important factor underlying spatial concentration of economic activity. For this reason, most of the outstanding economic agglomerations in the world are located in and around international gateways to global markets that have transformed the respective locations into global hubs of economic activity. The point is more important for smaller countries which have to worry more about the size of their domestic markets than the larger ones which can rely on their larger domestic market at least for a relatively longer period.

When the issue of regional growth concentration and specialization is addressed in the context of trade theory, it is not necessarily about the specialization and trade between two regions of an isolated country in a closed economy model. It is an open economy within which liberalized trade regime leads to an acceleration of international trade and economic growth, and it simultaneously shapes spatial location production and specialization. Unevenness in spatial growth is an inevitable outcome of trade-growth nexus, due to higher benefits of agglomeration, lower cost of connectivity, greater degree of factor mobility, and the larger size of the market. The choice of policies and reforms can work in either direction in facilitating or constraining spatial growth concentration. Particularly, the policies need to contribute to the centripetal forces, and

not to the centrifugal forces which could disperse economic activities and people at a cost to them as well as to the economy.

2.4 Summary

The theories of comparative advantage are based on the location-specific factors as the determinants of trade. This was not strange to Bertil Ohlin who considered trade theory as part of location theory, and to his teacher who might have inspired him without doubt, Eli Heckscher – the co-authors of Heckscher-Ohlin trade theory, who did not get locked in the assumptions of trade theory. What prevented trade theory capturing spatial growth were the strict assumptions of traditional trade theory of comparative advantage. As a result, for decades the trade theory and location theory developed independent of each other as two separate disciplinary branches.

Although trade was less explicit than it was in Ohlin's analysis, location of production was not a peculiar issue to many of the early economists from divergent traditions. Mainly within the premises of development economics, they conceptualized the location of production by focusing on the factors which occupied the central position of economic geography. A modeling approach to economic geography within a general equilibrium framework was presented in a series of studies categorized as 'new economic geography' which incorporated theoretical premises of both traditional and new trade theories as well as conceptualizations within development economics.

As the world began to change in its shape due to greater integration and globalization within which trade expanded and growth accelerated, most of the assumptions of trade analysis became obsolete and space for location analysis within international economics resurfaced. The economic analysis within international economics is a not only fills the gaps in knowledge, but also contributes to emerging policy debates on trade and spatial growth. The main factors underlying the spatial growth concentration can be categorized under the benefits of agglomeration for firms and people, costs of connectivity to input and output markets, the degree of factor mobility and immobility, and the size of the markets. As revealed in the case studies of the next two chapters, trade strategy appears to be far more important than anything else in reshaping spatial growth within a country, given the nexus between trade and growth.

3

JAPAN: DISPERSING THE CONCENTRATION

The purpose of this chapter is to present a case study of spatial growth in Japan. As an advanced country Japan has sustained rapid economic growth, while connecting different regions to the locations of growth. There is no possibility of growth being even across the regions or prefectures as the experience of Japan revealed, but they can be integrated with the locations of growth. Sustained and rapid growth momentum is fundamental to the expansion of the choices of creating environment for the concentration of spatial growth and its dispersion across the country.

The chapter presents a description of historical growth process and its spatial concentration along the Pacific Coastal Belt which connect Tokyo and Osaka, and the surrounding prefectures. The drivers of spatial growth are examined in terms of factor mobility, connectivity, public investment, and the role of local governance. Although the government has played an important role in both creating conditions for spatial growth and connecting regions to locations of growth, economic activities concentrates and the remoteness continues to matter. However, it was sustained and rapid growth of the Japanese economy that all were made possible for Japan, including its capacity to afford to costly and risky regional development policies, programmes, and projects.

3.1 Economic Growth: Take-off, Maturity, and Stagnation

As Japan's modern development process commenced in the latter part of the 19th Century, by the time of the World War II it had already established conditions for its industrialization and international trade

(Flath 2005, Iyoda 2010, Mosk 2008, Nakamura 1981, 1994). Japanese economic growth through the stages of a developing country is strongly distinguished by extensive industrialization and export growth. The rapid economic progress that started during the early postwar period was followed by an export-oriented industrialization strategy and an indicative economic planning process. In the context of contemporary development thinking, economic development was seen as resembling industrialization, and development planning as the instrument of state guidance and resource allocation. While the export-oriented industrialization strategy and development planning exercise continued to remain as main policy thrust, the Japanese economy achieved its rapid economic growth and sustained it reaching the stage of a developed country by 1970s.

Japan's post-war development history of over 60 years shows three distinguished periods of economic growth:

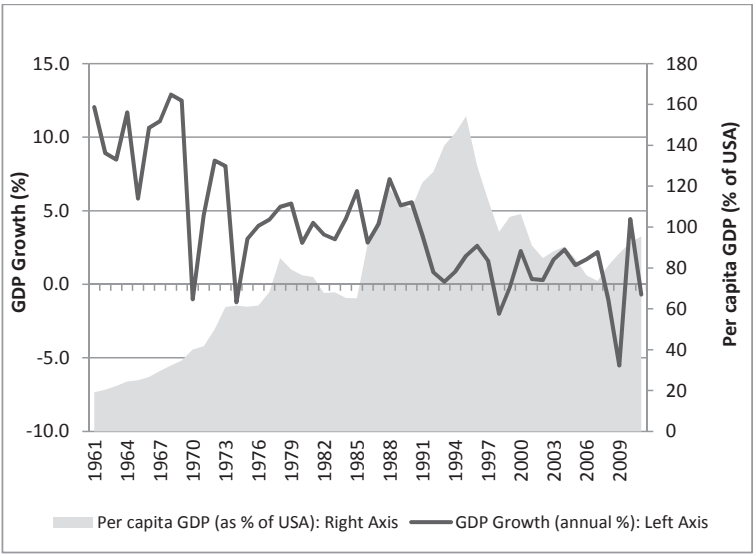
a) The first is the period of rapid economic growth from 1950-1973 during which Japan sustained its economic take off, recording the average rate of real GDP growth over 8 percent per annum; for most of the years in the decade of 1960s, the rate of GDP growth was around 10 percent, and in certain years reaching over 12 percent. The high-growth period ended with a contraction in real GDP by 1.2 percent in 1974.

b) The second is the period of moderate growth from 1975-1990 during which Japan sustained its average rate of GDP growth at 4.5 percent per annum, and reached economic maturity to be in par with the Western high-income countries. The end of the period was also marked by an inflating asset price bubble in the second half of the 1980s.

c) The third is the period of slow growth and recession commenced after 1990 with the burst of the Japan's asset price bubble. During the subsequent period of two decades from 1991-2010, the average rate of real GDP growth remained below 1 percent per annum. Although as a matured economy the average rate of growth was due to fall in Japan, the fall appeared to be too sharp, and remained too long, reflecting the features of a prolong economic recession.

Along with its rapid economic growth, Japan was a fast-performing economy to enter into the group of high-income countries, and even to surpass the per capita income level of USA (Figure 3.1). In 1961, the per capita GDP of Japan which amounted to USD 560 was only 20 percent of that of the USA. Within the next 25 years, it reached the USA per capita GDP level, and continued to rise further; by 1995 Japan's per capita GDP was USD 42520, compared to USD 27560 in the USA. However during the subsequent period after 1995, Japan was unable to sustain its high economic status against the USA and continued to shrink due to economic recession. Nevertheless, Japan continued to remain as the largest economy in Asia until China surpassed it in 2010, and the richest country in Asia until Singapore surpassed it in 2011.

Figure 3.1
Growth of the Japanese Economy 1961-2011



Source: World Bank data

Growth is accompanied by structural changes. The production structure in Japan has shifted from the initial agriculture-based economy to an industry-based economy during 1950s-1970s. The contribution made by the service sector, which was growing since the 1950s started to lead the economy after the 1980s. As the economy was growing rapidly,

during the period of 20 years from 1955-1975, the share of agriculture sector has declined from 19.2 percent to 5.3 percent, and the share of industrial sector has increased from 33.7 percent to 38.8 percent (Table 3.1). Transformation of employment structure has followed the suit with a decline in the share of employment in agriculture from 41.1 percent to 13.8 percent, and an increase in the share of employment in industrial sector from 23.4 percent to 34.1 percent during the same period. By 2010, the share of agriculture sector accounted for only 1.2 percent of GDP, and its share of employment only 4.2 percent. The industrial sector is occupied by 25.2 percent of employees, contributing 25.2 percent of GDP, thereby allowing the service sector to play the major role in the post-industrial Japanese economy.

Table 3.1
Structural Change in Output and Employment in Japan 1955-2010

	Share of GDP (%)			Share of employment (%)		
	Agriculture	Industry	Services	Agriculture	Industry	Services
1955	19.2	33.7	47.0	41.1	23.4	35.5
1960	12.8	40.8	46.4	32.7	29.1	38.2
1965	9.5	40.1	50.3	24.7	31.5	43.7
1970	5.9	43.1	50.9	19.3	34.0	46.6
1975	5.3	38.8	55.9	13.8	34.1	51.8
1980	3.5	36.2	60.3	10.9	33.6	55.4
1985	3.0	34.9	62.0	9.3	33.1	57.3
1990	2.4	35.4	62.2	7.1	33.3	59.0
1995	1.8	30.4	67.8	6.0	31.3	62.7
2000	1.7	28.5	69.8	5.2	29.5	65.3
2005	1.2	25.8	73.0	4.9	26.4	68.6
2010	1.2	25.2	73.6	4.2	25.2	70.6

Note: Due to the changes in industrial classification systems and estimation methods in certain years, figures are not strictly comparable; for details, see the original data source.

Source: SBJ (2012: 34)

During the post-war period, rapid economic growth in the context of capitalist political-economic system has been the policy priority in Japan which led the country to realize its goal of catching up the West. The government's policy priority placed upon rapid economic growth was embodied in Japan's development planning exercise. In fact, until the beginning of 1970s the actual rate of real GDP growth exceeded

its planned rate of growth (Iyoda 2010: 43). The sustained rapid growth was in line with industrialization process which progressed through stages, shifting from light labour-intensive industries to heavy industries such as steel and machinery, and then to automobile and electronic industries. Japan's achievement in science and technology that supported industrialization process was based on the combination of numerous imported technologies to create low-cost mass production systems (Nakamura 1981). Although Japan depended on imported technology, it did not have to resort to foreign capital for financing development at its initial stages, as both private and public savings remained high.

Japan has provided an interesting source of empirical studies on the popular postwar debate on trade strategy, as one could easily find evidence to support contradicting theoretical positions. In an overall assessment in the context, however, it would be difficult for anyone to reject the fact that the Japanese economic success was based on export expansion in particular, and greater integration with the international economy. Those who assert that Japan adopted protectionism rather than free trade infer that protectionism brought about benefits to Japan, but actually it was not true (Flath 2005: 156). At the time of embarking upon the postwar development process in Japan, there were differences in opinion whether to focus on production for the domestic market or, as Japan did during the prewar period to concentrate on export markets – the differences that emerged from time to time in connection with individual industries (Nakamura 1994: 175). There were indeed policy measures to protect infant industries, to extend government assistance to industries, and to adopt state interventionist measures as well as to control over capital flows. The main argument is whether these are the policy measures that enabled Japan to sustain its rapid economic growth or its overall 'free trade' policy environment which ensured Japan's competitive integration with international markets.

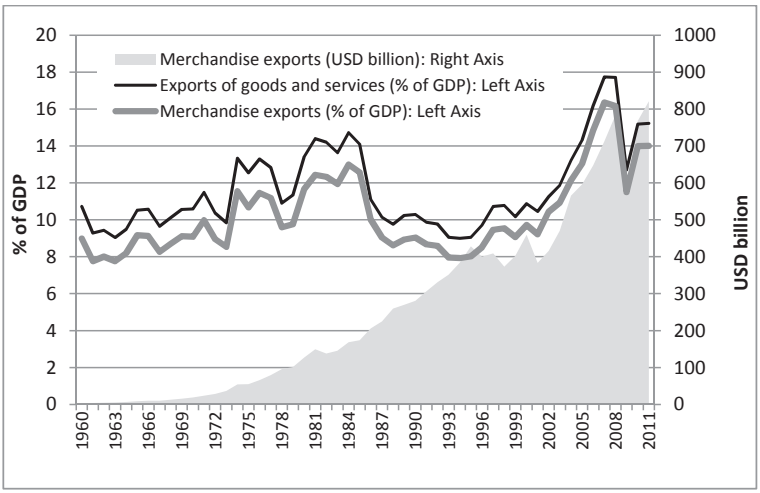
Japan's rapid economic growth was based on export expansion in the context of 'free trade' policy, although there were measures adopted for infant industry protection and for capital account controls (Iyoda 2010). Therefore, Japan's economic success with export-oriented

industrialization owed much to its overall trade policy environment, in spite of the adoption of protectionist and interventionist measures. Whether these protectionist and interventionist measures were right or wrong in the sense of their either positive or negative contribution to overall growth outcome is a different issue.

During the period of 25 years from 1960-1985, merchandise exports of Japan as a percentage of GDP rose from around 8 percent to 12 percent only; even at its peak points in 2007 and 2008, merchandise exports were just above 16 percent of GDP (Figure 3.2). Japan did not have impressive trade ratios like in many other high-performing countries in the region, including the large countries such as China. However, statistical indicators as such do not show much more than what they intend to show. It is not surprising that being a large country Japan's trade ratio can remain lower than those of high-performing smaller countries. However, it is true that Japan has recorded a massive increase in exports in absolute terms, resulting in a dramatic change in its export structure and penetrating competitively into the world market.

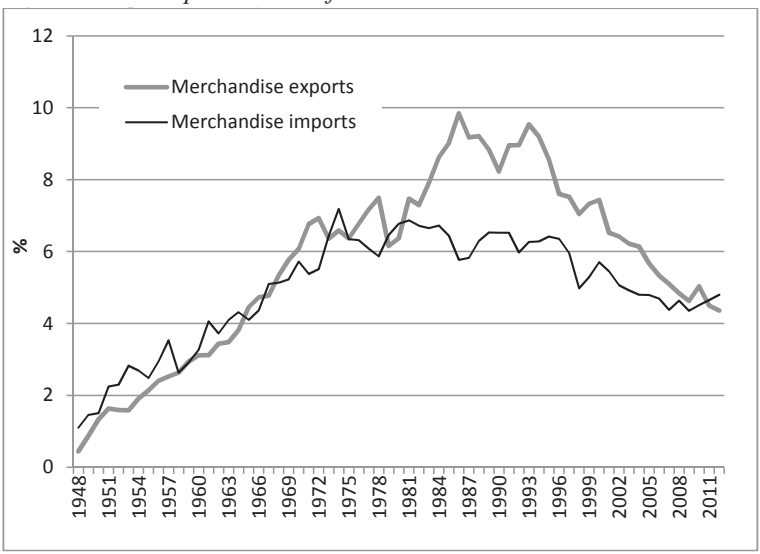
Japan's merchandise exports, which amounted to less than USD 1 billion in 1950, increased to USD 4 billion within 10 years by 1960, and to over USD 100 billion by 1979. In spite of slowing down of the rate of GDP growth after the mid-1970s, export expansion remained resilient and, continued to grow exceeding USD 800 billion in 2011. Japan's penetration into the world market is shown by its rapidly growing trade shares (Figure 3.3). Japan's merchandise exports that accounted for less than 0.5 percent of world exports in 1948 recorded an impressive growth reaching 8-10 percent in the second half of the 1980s and the first half of the 1990s. This was also accompanied by a massive trade surplus which started to grow since the late 1960s. The period after 1980s was marked by rising trade shares of developing countries, resulting in a corresponding decline in those of Japan and other developed countries.

Figure 3.2
Exports Expansion in Japan 1960-2011



Source: World Bank and SBJ data

Figure 3.3
Japan's Share of World Trade 1948-2012



Source: UNCTAD data

While nearly half of Japan's exports comprised manufactured goods by 1962, a bulk of them emanated from textile and heavy industries (Table 3.2). By 1990, industrial exports accounted for over 90 percent of total exports, and general machinery, electric machinery, and transport equipment alone for over 70 percent of total exports. A notable feature of the rapid export expansion in Japan has been an increase in the share of high-value added products manufactured with advanced technology (SBJ 2012: 114), which resulted in a dramatic shift within its manufactured export structure.

Table 3.2
Manufactured Exports in Japan (% Shares) 1962-2010

	Textile, textile products	Metal products	General machinery	Electrical machinery	Transport equipment	Total manufactured exports
1962	25.6	15.1	na	na	na	49.8
1970	12.5	19.7	10.4	12.3	17.8	84.5
1980	4.8	16.5	13.9	14.4	26.5	88.3
1990	2.5	6.8	22.1	23.0	25.0	90.9
2000	1.8	5.5	21.5	26.5	21.0	90.1
2010	1.2	5.4	19.8	18.8	22.6	97.3

Source: SBJ (2012)

During the early postwar period Japan's rapid economic growth in general and its export expansion in particular took place in the context of a unique international economic and political environment. A sharp turning point in international relations was observed since the mid-1940s as a number of international institutions were formed, and a series of international agreements were established (Flath 2005, Iyoda 2010, Mosk 2008, Nakamura 1981 and 1994). They not only brought the industrialized countries to a stage of greater economic cooperation, but also forced them to adopt trade liberalization. Japan's role in this new international order was important in general, its new form of bilateral relationship with the USA was instrumental the country's economic and political destiny. Given this economic and political background during the early postwar period, the world economy began to expand rapidly during 1950-1973. Coincidently, Japan was prepared to exploit the world economic prosperity for its trade expansion and economic development. According to Nakamura (1994: 178), for Japan it would not have been able to exploit that competitive edge that it had developed, if the global economy had not been growing so strongly.

3.2 Spatial Unevenness of Growth

While growth was accelerating, it was concentrating across Japan's geographical space too. The striking feature of Japanese growth acceleration and concentration is the operation of both centripetal and centrifugal forces simultaneously due to market forces, infrastructure development, and government push; centripetal forces pushed economic activities towards the centre, and centrifugal forces away from the centre. As a result, there has been a process of spatial concentration of economic activity, but more importantly that concentration has spread across the geographical space of Japan; consequently it is observable that there are a number of locations, regions, and belts in Japan where growth has concentrated – dispersion of concentration. For this reason, according to Japanese experience, it is not surprising to postulate that spatial concentration of growth as well as spatial dispersion of growth can co-exist without contradicting each other. However, the differences in opinion continue to remain depending on the differences in perspectives.

3.2.1 Pacific Coastal Belt

As GDP density indicates, there is a greater concentration of economic activity in Tokyo Metropolitan Area which consists of four Prefectures – Tokyo, and its adjoining Saitama, Chiba, and Kanagawa (Table 3.3). Nevertheless, at a different level of analysis, a relatively higher concentration of economic activity could be seen stretching along the Pacific Coastal Belt covering Tokyo, Aichi, and Osaka, and then to a somewhat lesser extent further to the south – Hiroshima and Fukuoka. It could also be seen that these metropolitan centers acting as centripetal points for the surrounding areas to get connected to them showing greater economic density than in other areas. Thus Tokyo growth has spilled over to adjoining Prefectures, mainly Saitama, Chiba and Kanagawa in the first place, and then further down to Ibaraki, Tochigi, and Gunma which reflect medium level of growth concentration. Furthermore, Shizuoka Prefecture with a medium level economic concentration is in between Kanagawa and Aichi Prefectures, receiving the benefits of both regions. Osaka is also surrounded by Kyoto and Hyogo which have a

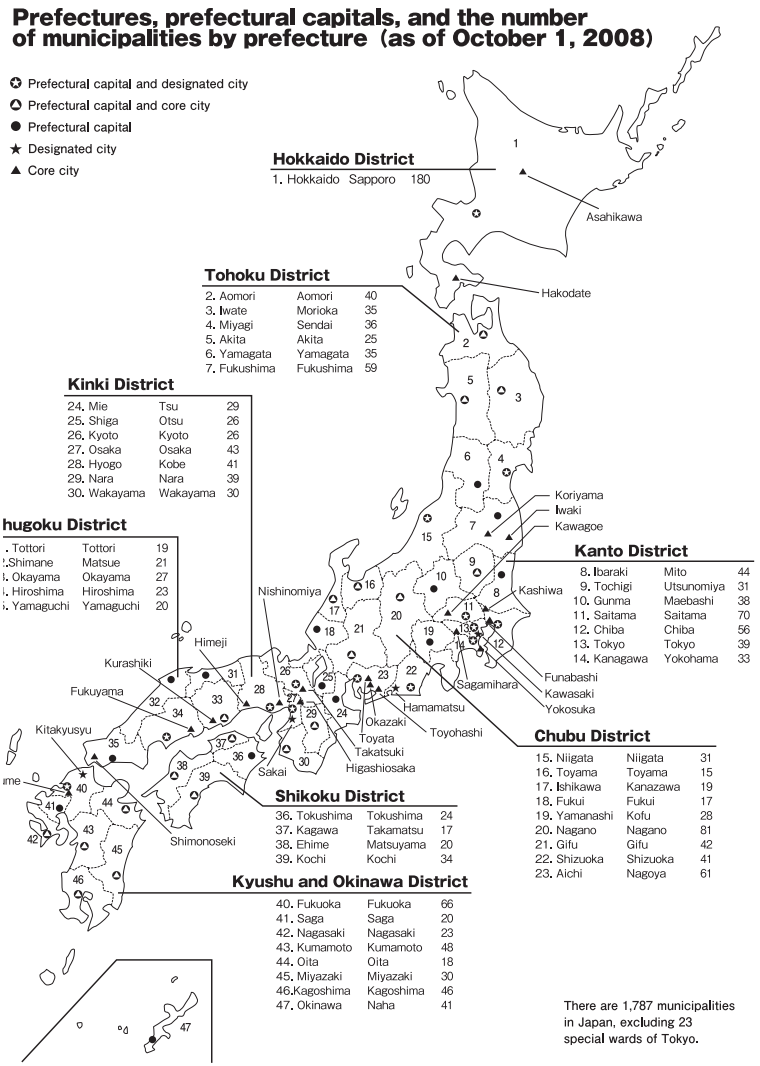
higher concentration of economic activity and then other Prefectures such as Shiga, Mie, and Nara which reflect medium level economic concentration.

Table 3.3
Prefecture Classification by Output and Population Density in Japan

Population per sqkm, 2010	Prefecture	GDP/sqkm (JPY billion) 2009
Over 3000	Tokyo, Osaka, Kanagawa	Average: 23.9 Maximum: 40.5 (Tokyo) Minimum: 12.3 (Kanagawa)
1000-3000	Saitama, Aichi, Chiba, Fukuoka	Average: 4.8 Maximum: 6.2 (Aichi) Minimum: 3.6 (Fukuoka)
400-1000	Hyogo, Okinawa, Kyoto, Kagawa, Ibaraki, Shizuoka	Average: 1.9 Maximum: 2.1 (Hyogo) Minimum: 1.6 (Okinawa)
200-400	Nara, Shiga, Saga, Nagasaki, Hiroshima, Miyagi, Mie, Gumma, Tochigi, Ishikawa, Okayama, Toyama, Ehime, Kumamoto, Yamaguchi, Wakayama	Average: 1.1 Maximum: 2.0 (Toyama) Minimum: 0.7 (Wakayama)
150-200	Gifu, Yamanashi, Fukui, Tokushima, Niigata, Oita, Kagoshima, Tottori, Nagano	Average: 0.7 Maximum: 0.8 (Niigata) Minimum: 0.5 (Tottori)
100-150	Fukushima, Miyazaki, Aomori, Yamagata, Kochi, Shimane	Average: 0.5 Maximum: 0.6 (Yamagata) Minimum: 0.3 (Kochi)
Below 100	Akita, Iwate, Hokkaido	Average: 0.3 Maximum: 0.3 (Akita)

Source: CLAIR (2010), SBJ (2012)

Map 3.1
Prefectural Map of Japan



Source: CLAIR 2010

As both output and population get concentrated across geographical space, the higher the GDP density the greater is the population density. Population density across the Prefectures in Japan varies from over 3000 per square km in Tokyo, Osaka, and Kanagawa to less than 100 per square km in Akita, Iwate, and Hokkaido; GDP per square km on average also varies from nearly JPY 24 billion in the former to JPY 0.3 billion in the latter. The demographic and economic concentration is also followed by specialization; the Prefectures with high economic and demographic concentration tend to be more industrialized than others which generally account for larger share of agricultural output. Prefectures like Tokyo, Osaka, and Kanagawa where the share of the primary sector is less than 0.2 percent, the share of industrial sector is also relatively low due to the overwhelming expansion of the service sector (Table 3.4). In terms of sectoral shares of output, many Prefectures in Japan stand as more industrialized than the metropolitan areas like Tokyo and Osaka which perform today as more service-oriented economies. Being an industrialized country, generally Japan does not have Prefectures with a significant share of agricultural output, which is less than 5 percent of GDP even in the most agricultural-oriented Prefectures such as Hokkaido, Kochi, Aomori, and Miyazaki.

Table 3.4
Prefecture Classification by Sectoral Shares of Output in Japan 2009

Share of Primary Sector (%)	Prefecture	Share of industrial sector (%)	Share of service sector (%)
0.0 – 0.2	Tokyo, Osaka, Kanagawa	15.8	84.1
0.3 – 0.9	Kyoto, Aichi, Hyogo, Saitama, Shiga, Fukuoka, Hiroshima, Nara	26.9	72.5
1.0 – 1.9	Yamaguchi, Okayama, Ishikawa, Shizuoka, Gifu, Fukui, Chiba, Toyama, Mie, Kagawa, Gumma, Miyagi, Tochigi, Okinawa, Nagano, Wakayama	29.1	69.5
2.0 – 2.9	Yamanashi, Shimane, Fukushima, Niigata, Tokushima, Ehime, Oita, Tottori, Ibaraki, Nagasaki, Kumamoto, Saga, Akita	25.8	72.0
3.0 – 4.9	Yamagata, Kagoshima, Iwate, Hokkaido, Kochi, Aomori, Miyazaki	17.6	78.7

Source: SBJ (2013)

In fact the most outstanding two centers of spatial growth in Japan have been Tokyo and Osaka. There is a historical and strategic significance in both locations. In the Japanese economic history Osaka has emerged as the most important business center, prior to Tokyo. After Tokyo was designated as the political and administrative capital of Japan, it has grown faster than Osaka and transformed itself into the most industrialized region as well as the biggest commercial and financial center of the country. One important advantage is the location of the most-connected international gateways in both Tokyo and Osaka, including the historically significant international Ports in and around them. International connectivity of Japan through airports and seaports are not limited to Tokyo and Osaka. While Tokyo International Airport is among the top 5 international airports in the world in terms of passenger traffic flows, a number of international seaports located along the Pacific Coastal Belt such as Tokyo, Yokohama, Chiba, Kobe, Nagoya, and Osaka are among Japan's largest seaports.

3.2.2 Historical Transformation of Spatial Growth

The historical transformation of spatial growth concentration in Japan has been induced by (i) growth strategy and policy planning, (ii) structural changes in industrial production and (iii) public investment allocation. Japan's rapid economic growth that was based on an export-oriented industrialization strategy has generated resources in excess for regional distribution and provided opportunities for labour mobility (Mutlu 1991). Both mechanisms contributed to spatial concentration of economic activity and its dispersion across the country.

Export-oriented trade strategy of Japan has been accompanied by development planning that was initiated in 1948, and continued to date. The plans were, however, more indicative than directive, and more forecast-oriented than target-oriented; in most of the cases, in fact, the actual rate of economic growth was greater than the planned rate of growth (Iyoda 2010, Nakamura 1981). The Japanese planning, as Nakamura (1981:89) explains, indicated "desired direction" of economic and social development of Japan, and in consistent with that it provided policy direction for the government, and guidelines for business and people.

While economic and social development was the prime goal of development planning, regional distribution of industrialization and regional development issues have received its attention since the early 1960s. In fact, it was the ten-year National Income Doubling Plan (1961-1970) that proposed dispersing industrialization along the Pacific Coastal Belt, connecting the populated cities of Tokyo, Nagoya, Osaka, and Kitakyushu. The subsequent National Development Plans in the 1960s and the 1970s aimed at addressing regional issues such regional inequality, depopulation, and overcrowding as well as dispersing industrialization further away from the Pacific Coastal Belt to other regions (Akita and Kataoka 2003). As proposed in development planning, the Japanese government also passed specific laws to disperse industrialization across the country, by promoting designated industrial cities and regions, and devising strategies to relocate factories in relatively less-developed remote areas.

While there was a significant effort on the part of the government to disperse industrialization along the Pacific Coastal Belt as well as away from that region towards the remote areas, this effort was facilitated by public investment in infrastructure and the provision of basic services. The resources generated through rapid economic growth were needed to finance the massive infrastructure development across the country in reducing regional economic disparities. As discussed later, the massive fixed investment in the provision of infrastructure and public services across the country was widespread to the extent until it became a choice between "efficiency and equity", but given the rapid economic growth Japan could afford it.

The decade of 1970s was crucial for Japan as well as for other developed countries, which encountered a series of economic challenges – the slowing down of the engine of world economic prosperity, the inability to sustain the Bretton Woods fixed exchange rate system, the aggravating price stability, rising interest rates, and the oil shocks that hit twice in the same decade. The pressure on Japanese export-oriented industries was mounting due to oil shock, currency appreciation, and the competition from emerging newly industrializing countries in East Asia. In the backdrop of world economic and policy turmoil in the

1970s, Japan started liberalizing and deregulating the capital market, the financial market, and the foreign exchange market.

Given the internal and external shocks in the decade of 1970s and the policy reforms since the late 1970s and the 1980s, Japan experienced a drastic structural transformation which had a bearing impact on regional growth and migration. During the postwar period of rapid growth, Japan's manufacturing structure had transformed from light to heavy industries, and its regional concentration along the Tokyo-Osaka corridor had expanded covering the Pacific Coastal Belt. After the 1970s, while Japan shifted from its heavy industries to high-tech industries within the manufacturing sector, the service sector with an overwhelming emphasis on knowledge-intensive and financial services started to grow rapidly. Consequently, the Tokyo Metropolitan Area started to grow over the rest of the country as a major financial and service center of Japan, leaving its mass production activities mostly to the rest of the regions. As Fujita and Tabuchi (1997) observe, this trend has shifted the regional economic transformation from the Pacific Coastal Belt System to a Tokyo-based monopolar system, while the internal migration followed the suit in consistent with regional transformation. This transformation which has led to a growth concentration more in the Tokyo Metropolitan Area than in the rest of the country appears to have widened the regional economic disparities in Japan.

3.3 Factor Mobility and Connectivity

Japanese experience on spatial concentration of economic activity exhibits a historical process of labour and capital mobility over geographical space and their specialization in line with the transformation of the economy. This historical process of specialization and spatial concentration of economic activity follows not just a structural change between agriculture and industry, but transformation within industry and service sectors (Fujita and Tabuchi 1997, Mutlu 1991). During the postwar period, as the Japanese economy was transforming from the labour-intensive light and heavy industries to knowledge-based industries and service sectors their concentration has followed spatial specialization.

3.3.1 Business Concentration and Specialization

Spatial concentration of economic activity, however, brings together the establishments in divergent industrial and service sectors as they provide a large market for one another as suppliers and buyers; thus in a specific location where a particular economic activity concentrates, there needs to be a concentration of many other economic activities creating both input and output markets. In an area where manufacturing activity concentrates, there should also be a concentration of the supply of goods and services such as electricity, utilities, information and communication, transport, financial services, health and education, and many other services. In fact, much of these services are non-tradable in nature so that they should concentrate and create centripetal forces for economic activity and people to concentrate. As industry demand is not for just 'labour' as a homogeneous category, but for different categories of labour with preference over educated and skilled labour to uneducated or unskilled, migration patterns follow the suit. Accordingly, the spatial distribution of economic activity and people is uneven across the space, generating circular and cumulative causation of spatial growth.

According to the highest density of the number of people engaged in business establishments (i.e. over 500 per square kilometer), Tokyo, Osaka, Kanagawa, Aichi, and Saitama prefectures together account for more than one-third of the business establishments, and nearly 40 percent of the persons engaged in such establishments in Japan (Table 3.5). The second category includes Fukuoka, Chiba, Hyogo, Kyoto, Kagawa, Okinawa, Shizuoka, and Ibaraki which together account for over 20 percent of total business establishments as well as over 20 percent of total persons engaged in such establishments. Compared to this, the prefectures with the least density of the number of people engaged in business establishments (i.e. below 50 per square kilometer), Kochi, Akita, Iwate, and Hokkaido together account for only 7 percent of total number of establishments, and 6.3 percent of total number of persons engaged.

Table 3.5

Spatial Distribution of Business Activities in Japan 2009

		Establishments[a]		Persons engaged	
Persons/km	Prefecture	No. (1000s)	% of total	No. (millions)	% of total
Over 500	Tokyo, Osaka, Kanagawa, Aichi, Saitama	2071.1	34.3	24.9	39.6
200 - 500	Fukuoka, Chiba, Hyogo, Kyoto, Kagawa, Okinawa, Shizuoka, Ibaraki	1264.2	20.9	12.8	20.4
100 - 200	Hiroshima, Shiga, Saga, Gumma, Mie, Miyagi, Tochigi, Nagasaki, Ishikawa, Toyama, Nara, Okayama, Ehime, Yamaguchi, Kumamoto, Fukui	1262.7	20.9	12.2	19.5
50 - 100	Gifu, Niigata, Yamanashi, Wakayama, Oita, Tokushima, Kagoshima, Nagano, Tottori, Fukushima, Miyazaki, Aomori, Yamagata, Shimane	1020.2	16.9	9.0	14.3
Below 50	Kochi, Akita, Iwate, Hokkaido	425.0	7.0	4.0	6.3
Total	Japan	6043.3	100.0	62.9	100.0

a: In the source of data, an establishment refers to a unit of the place where economic activities are performed fulfilling two conditions: (1) a unit of place which occupies a certain space performing economic activities under a single management agency, and (2) that unit has persons engaged in and equipment and manufactures utilized, and sells objects and provides services on a continual basis.

Source: Economic Census for Business Frame 2009, SBJ data

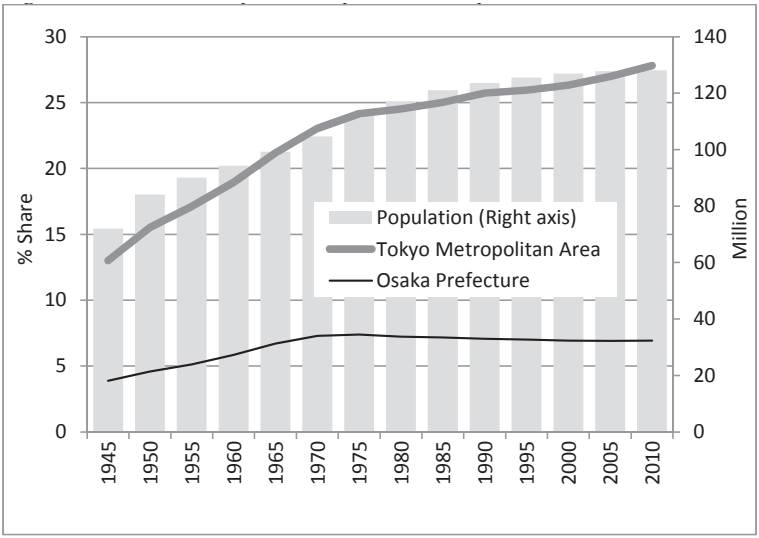
Economic growth has also contributed to spatial growth through labour mobility by shifting populations from less-productive sectors and regions to more-productive non-agricultural sectors and metropolitan regions. Internal migration of people from rural areas to urbanized areas and metropolitan cities was a byproduct of postwar rapid economic growth of Japan (Fujita and Tabuchi 1997). This trend has helped not only to raise the average per capita income level of Japan but also to reduce its cross-regional disparities.

During the period of 30 years from 1945-1975, population in Japan has increased from 72 to 112 million, i.e. by 40 million (Figure 3.4). The population share of Tokyo Metropolitan Area has increased from 13 percent to 24 percent, while that of Osaka Prefecture from 3.9 percent to 7.4 percent. In the mid-1970s the demographic trends appear to have taken a turning point, as population growth slowed down and migration patterns changed. During the next 30-year period from 1975-2005, only 16 million people have been added to Japanese population. The share of population in Tokyo Metropolitan Area continued to rise though at a slower rate reaching 27 percent by 2005. However, the population share of Osaka Prefecture has decreased by 0.5 percent. The changes in migration patterns after the mid-1970s appear to have followed

the policy reforms and the resulting structural changes in output and employment, all which have given a competitive edge for Tokyo Metropolitan Area to expand further over the rest of the country.

According to the number of business establishments and the number of persons engaged per square kilometer, Tokyo, Osaka, Kanagawa, Saitama, and Aichi can be classified as the 'top five' among the total number of 47 prefectures in Japan. The ranking order of these five prefectures remains the same for all of the industry and service sectors (Table 3.6). Compared to the country's average number of business establishments of 15.6 per square kilometer, the business concentration in the top five prefectures is overwhelming. The same is true for the concentration of persons engaged in business establishments. In terms of human resource density, Japan has on average 155.1 persons per square kilometer whereas the top five prefectures occupy an overwhelmingly high position (Table 3.7). In fact, Tokyo and Osaka respectively account for 14.8 percent and 7.6 percent of the total number of persons engaged in business establishments in the country.

Figure 3.4
Rise in Metropolitan Population in Japan 1945-2010



Source: SBJ (2013)

Table 3.6
Top 5 Prefectures with Spatial Distribution of Business Activities in Japan 2006

Industry and Service Sectors	No. of establishments per sqkm					
	1 Tokyo	2 Osaka	3 Kanagawa	4 Saitama	5 Aichi	Japan average
Construction	20.5	13.5	10.9	7.1	5.5	1.5
Manufacturing	30.0	28.5	8.7	8.9	8.8	1.5
Electricity, Gas, Heat Supply and Water	0.2	0.2	0.1	0.1	0.1	0.0
Information and Communications	10.1	2.7	1.0	0.4	0.6	0.2
Transport	9.7	5.7	2.9	1.6	1.4	0.3
Wholesale and Retail Trade	83.8	61.9	30.3	16.7	17.2	4.2
Finance and Insurance	4.7	2.7	1.4	0.8	0.9	0.2
Real Estate	24.6	15.9	10.4	3.7	2.9	0.8
Restaurants and hotels	48.0	32.5	17.1	8.2	9.1	2.1
Medical, Health Care and Welfare	19.1	13.8	8.4	4.1	3.5	0.9
Education, Learning Support	9.7	7.1	5.2	3.1	2.8	0.6
Compound Services	1.3	1.1	0.6	0.3	0.4	0.1
Services, n.e.c.	65.4	39.1	21.7	12.3	12.0	3.0
Government, n.e.c.	1.0	0.6	0.5	0.3	0.3	0.1
All business activities[a]	328.2	225.5	119.6	67.6	65.6	15.6
(% of country total)	(11.7)	(7.2)	(4.9)	(4.3)	(5.7)	(100)

a: All business activities include, in addition to those listed in the Table, the business activities in agriculture, forestry, fisheries and mining sectors as well.

Source: Establishment and Enterprise Census 2006, SBJ data

Table 3.7
Top 5 Prefectures with Spatial Distribution of Persons engaged in Businesses in Japan 2006

Industry and Service Sectors	No. of persons per sqkm					
	1 Tokyo	2 Osaka	3 Kanagawa	4 Aichi	5 Saitama	Japan average
Construction	212.9	129.1	85.8	46.1	46.4	11.0
Manufacturing	426.6	388.1	213.3	184.1	139.9	26.3
Electricity, Gas, Heat Supply and Water	14.8	12.1	5.7	3.6	2.5	0.7
Information and Communications	360.9	74.7	40.5	13.8	8.4	4.2
Transport	193.7	126.3	76.5	38.9	44.6	7.7
Wholesale and Retail Trade	880.4	536.0	280.1	149.4	142.3	32.8
Finance and Insurance	170.1	60.6	24.7	14.4	13.3	3.8
Real Estate	118.2	59.7	32.6	10.0	12.0	2.7
Restaurants and hotels	369.1	193.2	127.6	60.0	54.2	12.9
Medical, Health Care and Welfare	277.3	221.3	136.4	53.9	62.2	14.8
Education, Learning Support	192.6	110.4	78.5	32.6	37.6	7.8
Compound Services	29.0	17.8	12.9	6.1	6.3	1.9
Services, n.e.c.	776.3	361.9	225.7	106.2	91.2	23.0
Government, n.e.c.	112.6	51.3	37.0	15.2	19.0	4.9
All business activities[a]	4137.3	2343.6	1379.3	735.4	681.3	155.1
(% of country total)	(14.8)	(7.6)	(5.7)	(6.4)	(4.4)	(100)

a: All business activities include, in addition to those listed in the Table, the business establishments in agriculture, forestry, fisheries and mining sectors as well.
Source: Establishment and Enterprise Census 2006, SBJ data

Source: SBJ data

3.3.2 Public Investment and Connectivity

Regional distribution of public investment has been an important policy tool of Japanese growth strategy because regional development was seen as an essential aspect of its postwar development process. Historical growth of public investment expenditure has been massive, and grown at a faster rate than the growth of private investment in the country. The share of public investment as a percentage of GDP has doubled in three decades, rising from around 6 percent in the early 1970s to 12 percent in the late 1990s (Figure 3.5). As a share of gross domestic fixed capital (GDFC) formation this is an increase from below 20 percent to over 40 percent, implying a corresponding decline in the share of private investment. In fact, public investment appears to have prospered during the period after the early 1970s, when the Japanese economy started reaching maturity as an advanced economy. It recorded an abrupt decline since 2000, as the recession in Japan was mounting and the fiscal space was shrinking with rising public debt[7]. Even if public investment has declined substantially, its ratio around 4-5 percent of GDP in a big economy is still substantial in absolute terms.

This was, in fact in consistent with planning objectives and policy measures of pushing economic activities towards the Pacific Coastal Belt as well as towards remote areas. Without government's effort for public investment allocation across the regions, its attempt for regional distribution of industrialization would not have been as productive as it was. As far as the long-term economic benefit of public investment allocation is concerned, it is not unusual to observe a trade-off between efficiency and equity objectives. This has formed a source academic controversy. The notion of trade-off does not exclude the existence of the possibilities of achieving both efficiency and equity objectives simultaneously, as it was observed in the case of Japan (Kataoka 2005). Nevertheless, as Yamano and Ohkawara (2000) quantified, productivity of public investment is greater in more-developed metropolitan regions such as Tokyo and Osaka than in the less-developed regions.

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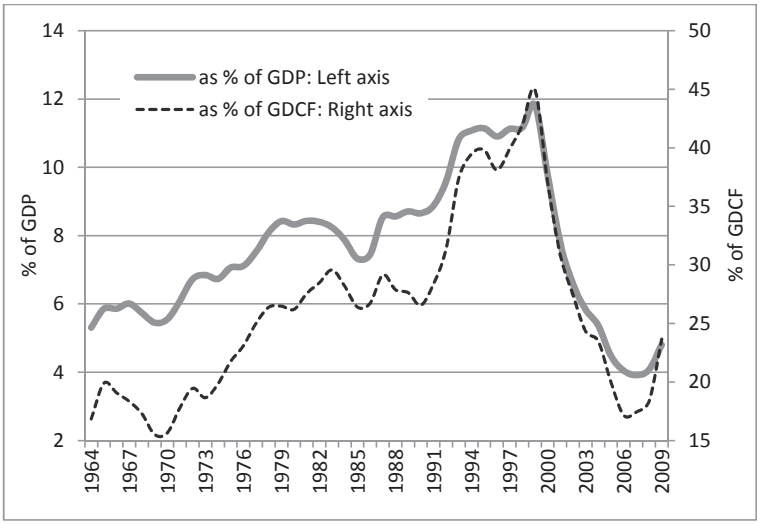
[7]Japan's public debt also started to rise above 100 percent of GDP since late 1990s, reaching over 200 percent by the early 2010s. According to SBJ data, Japan's GDFC formation has also declined from over 30 percent of GDP in early 1990s to around 25 percent in the early 2000s, and further down to 20 percent by 2010. The sharp decline in public investment as well as in the country's total GDFC explains part of the circular and cumulative causation of Japan's contemporary economic recession.

Figure 3.5
Public Investment in Japan 1964-2009



GDCF: gross domestic capital formation
Source : SBJ data

The issue in question is that the policy focus on public investment has contributed to improve the connectivity and reduced the divisions across the regions, removing the important bottlenecks of spatial growth, though it may have not been effective to the same degree everywhere. Even with that, as Rodríguez and Nakamura (2011) suggest, prefectural remoteness to market access matters in the determination of inter-prefectural economic disparities. As far as the spatial connectivity in Japan is considered, regional disparities have lessened considerably, but at a cost which may be greater than its economic benefit in some areas. As a determinant of the location of economic activity or people, the lack of connectivity has become less and less important due to well-developed infrastructure and supply of services and utilities connecting regions within the country, as well as connecting the country with the rest of the world.

There are a number of economic and policy issues emanating from an analysis of public investment allocation across the prefectures in Japan. Given the rapid economic growth, apparently Japan was able to afford

the sink fixed cost of the regional distribution of public investment allocation as well as its subsequent maintenance cost, regardless of its economic benefits. While it helped spatial concentration of economic activity as well as the 'dispersion' of spatial concentration across many prefectures, it is not uncommon to observe that in most of the remote areas the returns to fixed investment has been depleting over time due to shrinking businesses and populations. Even though widespread public investment allocation has reduced the urban-rural gap affecting both the location of economic activity and living standards, it has not been a strong centripetal force in many regions to attract and retain businesses and people. Public investment and connectivity are important factors shaping spatial growth concentration in Japan, but apparently their economic and social benefits diverge significantly.

3.3.3 Rural Development: How Deep into Remoteness?

The government at both national and subnational levels has continued to make a substantial effort through policy intervention and public investment to develop and sustain the country's rural village economies regardless of their remoteness. As a result Japanese traditional village economies and their agriculture systems continued to survive to-date, but apparently at a cost. Apart from the benefits of agglomeration and close proximity to larger markets, plausibly for a firm there is little difference in cost advantage or for a household there is little difference in living standards to choose between a metropolitan city and a rural village as the location. Perhaps, choosing a rural location would be more advantages for some firms to lower the costs of congestion and to receive special incentives from the government, and for some households to keep the living cost low and to enjoy living in a quiet and green environment.

As far as the availability of rural road network, the physical connectivity, and the basic services and utilities are concerned, there is hardly any difference in the supply of their quantity demanded in adequate quality between a metropolitan city and a remote rural village. In many far remote rural areas in Japan, it is not unusual to observe road networks used by a fewer motorists, schools teaching to a fewer number of children, hospitals serving a fewer number of patients, public parks and museums with fewer number of visitors, and small townships serving smaller communities. As part of its regional development strategy,

Japan has also promoted pushing research and development activities to, and establishing research institutes, universities, and vocational colleges in remote regions and rural areas since the early 1980s (Suzuki 2004). Given the high fixed cost including its substantial sunk cost component as well as the costs of operations and maintenance, the commercial viability of all above is clearly a challenge, entailing continuous government support. Although the rate of return to investment is considerably small and the economies of scale are far from being significant due to small size of the market, the presence of social benefits associated with such economic activities might be a point of discussions and debates. The most pressing issue within the context of the present study is that such policy effort by the government has not been able to discontinue the concentration of economic activity and people in metropolitan locations though it might have slowed down the process.

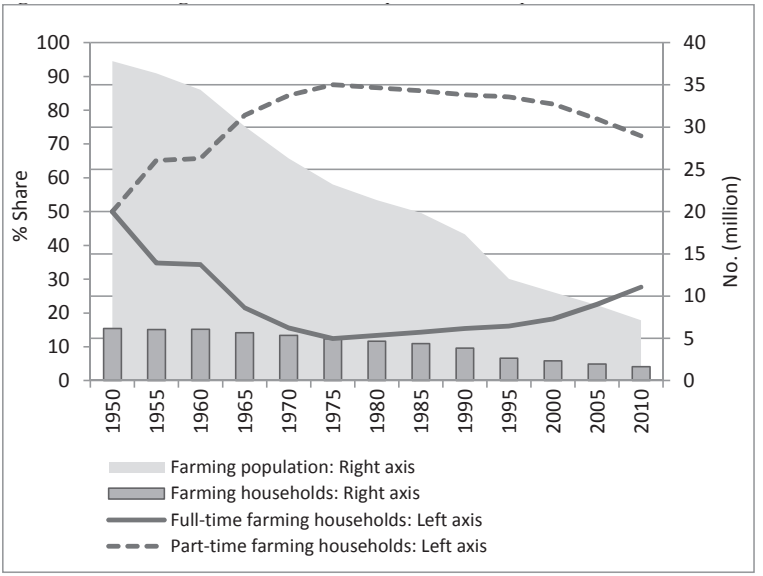
In fact even in relatively more agriculture-oriented prefectures such as Hokkaido, Aomori, Kochi, and Miyazaki the contribution by the non-agriculture sector is as high as over 95 percent of GDP. Within the non-agriculture sector, Japan also inherits a widespread small-scale industrial sector, including family businesses. Most of them have emerged as part of the country's rural industrialization process, and are competitively linked to their own niche markets or to large-scale companies or to the global markets.

In general agriculture is the economic activity that requires much attention in a discussion on rural development. While spatial growth leads to specialization of locations in terms of economic activity, part of the specialization is the industrialization of core areas, leaving large peripheral regions to develop as farm belts (Krugman 1991b). In spite of all that, in the context of spatial growth agricultural transformation in Japan has deviated significantly from other advanced countries and regions in the world. While the structural changes in agricultural sector have been far short of Japan's rapid economic growth, the sector has continued to shrink compelling the country to increase its dependence on imports. According to Kawamura and Jin (2006), Japan is the only country among the developed countries that has experienced a significantly decreasing self-sufficiency in food, leave agricultural exports aside. From an economic point of view the challenge of the

Japanese agriculture is primarily a result of the policies and regulations which have undergone a slow process of reform, although social, cultural, geographical and political factors may have played a role on their part.

As a natural outcome of rapid economic growth in Japan, farming population and the number of farming households have declined steadily. Nearly 9 million farming population in 2005 was less than one-fourth of that existed 50 years ago; during the same period the number of farming households have declined from 6 million to 2 million (Figure 3.6). However, the performance in the agriculture sector does not seem to be consistent with what would have otherwise anticipated in a similar advanced economy.

Figure 3.6
Farming Households and Population in Japan 1950-2010



Source: SBJ (2013)

Farming has become increasingly a part-time occupation for more than 80 percent of the farming households from 1970s, though this share has declined after 2000. Large part of the Japanese rural agriculture is characterized by small-scale farms cultivated mostly by an elderly age cohort of the labour force, whose retirement has caused an increasing abandonment of cultivated land (Table 3.8). Average farm size is less than 1 hectare, except in the sparsely populated largest prefecture – Hokkaido, where farm size average is over 16 hectares. The sector is extensively supported and protected by the government's agricultural policies. Even though the Japanese government has progressively reduced its support to agriculture sector in the past few decades, the average price received by farmers is still 1.89 higher than the border price. In spite of that, agriculture sector has been shrinking over the past few decades in terms of land area cultivated as well as output produced.

Table 3.8
Some Basic Features of Agriculture Sector in Japan

	Indicator	Year
Average farm size		
- Hokkaido prefecture (hectares)	16.45	2005
- Ratio of increase over 40 years	4.0	1965-2005
- Rest of Japan (hectares)	0.95	2005
- Ratio of increase over 40 years	1.2	1965-2005
Agriculture output (JPY trillion)	11.5	1990
	9.1	2000
	8.1	2010
Abandoned cultivated land (hectares 1000s)	123	1980
	244	1995
	396	2010
Ratio of producer price to border price	2.65	1986-1988
	2.31	1995-1997
	1.89	2009-2011
Elderly farmers, aged 60 years and above[a] (% share)	27.8	1980
	46.0	1990
	66.5	2000
	74.4	2010

a: Farmers are the core persons engaged in farming
Source: SBJ (2013), MAFF (2013), OECD (2009, 2012)

Given the technological improvements and mechanization process, agricultural productivity in Japan has indeed increased in spite of declining agricultural output. During the period of 45 years from 1960-2005, Japan has experienced average annual labour productivity growth in agriculture by 3.9 percent, and in manufacturing by 4.3 percent; the difference is, however, the former is associated with a decline in employment index on annual average by 3.4 percent rather than the increase in production, and the latter with an increase in production index by 4.7 percent rather than that of employment (OECD 2009: 24). The main issues in question are centered on the structural rigidities within the agriculture sector, which have continued to survive with the support of policies and regulations. In spite of that, spatial concentration of economic activity and people has continued with stronger centripetal forces than the centrifugal forces in the rural sector, which may have only slowed down the process at a cost.

3.4 Local Governance and Fiscal Decentralization

Japan has inherited a historically evolved and well-established decentralized system of governance with high degree of political, functional and financial autonomy, although decentralization reforms continued to exist (Aoki 2008, Mochida 2008). This is an important element of spatial growth concentration and regional economic performance, as the growth drivers at sub-national levels need to be released from the grip of a centralized system of governance by creating an environment for competitive performance among them. In particular, globalization of trade and economic activity of a growing economy tests the ability of its different regions to adapt, exploit or maintain their competitive edge (Gooneratne 2013). In the historical growth process of Japan, the effective fiscal decentralization and the competitive governance at sub-national levels have enabled spatial growth concentration as well as a fairly reduced in regional inequality.

Japan's decentralized system of governance consists of three tiers: Central government, and at local level 47 Prefecture governments and 1788 Municipalities, while the municipalities comprise 783 cities, 812 towns, and 193 villages as of 2008 (CLAIR 2010). As the demarcation of affairs dealt with by different layers of the government is based on the "principle of subsidiarity" and the "principle of municipal priority"

(CLAIR 2010: 17), the municipalities stand as the most important government layer close to local community as well as to local economy. The next layer, prefecture governments need to be involved only in the affairs which cannot be dealt with at municipalities, and finally the central government only in the areas which cannot be handled at prefecture levels.

The Constitution of Japan adopted in 1946 has recognized the three tiers of Japanese governance structures ensuring local autonomy of prefecture governments and municipalities. The Local Autonomy Law amended in 1999, which abolished even the system of delegated functions to local governments, further improved the local autonomy of the prefecture governments and municipalities which do not have to function as the subordinate administrative agencies of the central government. Even from a political point of view the three tiers are independent, while the members of the local governments do not represent the political divisions at higher levels. Thus, the local governments in Japan are independent administrative and political entities within their respective jurisdictions having responsibilities and carrying out a wide range of functions that are guaranteed by the Constitution.

The financial autonomy of the local governments including their greater participation in the country's tax revenue generation is an important feature of the Japanese system of local governance which enables them to play a major role in the economy. The government revenue from most of the direct taxes is generated by the local governments which enjoy a greater degree of financial autonomy through fiscal decentralization. The local government structures share 45.3 percent of the consolidated tax revenue and 58.7 percent of the consolidated government expenditure in 2010 (Table 3.9). In addition to local tax revenue which accounts for 35.2 percent of the local government revenue in 2010, the central government provides local allocation tax and treasury disbursement which together account for 32.3 percent of the local government revenue. They also issue local government bonds through which their borrowings in 2010 amount to 13.3 percent of the total revenue. The expenditure structure of the local governments is a reflection of their duties and responsibilities in a wide range of activities. Among these, the important expenditure items include welfare, education, civil engineering, general administration, and economic activities (expenses

on Commerce and industry, and Agriculture, forestry, and fisheries sectors). Within the local government structures, the budget of the municipalities remains greater than that of the prefecture governments, indicating that the government layer closest to local community and economy has a bigger role to play.

Table 3.9
Financial Structure of Local Governments in Japan 2010

Revenue (% share)	
Local taxes	35.2
Local allocation tax	17.6
National treasury disbursements	14.7
Local government bonds	13.3
Other[a]	19.2
Total	100
Expenditure (% share)	
Public welfare	22.5
Education	17.4
Public debt payments	13.7
Civil engineering work	12.6
General administration	10.6
Economic activities[b]	10.4
Other[c]	12.8
Total	100
Local share of consolidated budget (%)	
Tax revenue	45.3
Expenditure	58.7

a: Other revenue sources include local transfer taxes, usage charges, and fees.
b: Economic activities includes Commerce and industry expenses (6.8%) and Agriculture, forestry and fishery expenses (3.4%).
c: Other expenditure items include sanitation (6.1%), police (3.4%), firefighting (1.9%), labour (0.9), and other.

Source: CLAIR Fact Sheet, from http://www.clair.or.jp/j/forum/series/pdf/fact_en02.pdf

The importance of the local governance system in the Japanese economy is the scope for greater participation by local governments in local economic spheres, competitively with each other and collaboratively with the central government. The local governments work competitively within their purview in creating and sustaining a better environment for the location of economic activity and people. They also work competitively to attract private investment, perhaps even by extending their collaboration far to the extent of offering incentives and sharing costs, particularly in respect of strategically important investment projects. The local governments have an extensive role to play in their respective local economies representing local interests and local advantages.

3.5 Summary

Spatial growth in Japan needs to be approached in two respects. The first is the importance of rapid economic growth and trade expansion that contributed to the creation of centripetal forces of spatial growth and the corresponding migration flows, as elsewhere. The second is the government which has played a diverse role in facilitating spatial growth concentration and its dispersion across the regions and prefectures of the country. In fact, the role of the government could be analyzed from different perspectives, as it has been. The most important point is that, given the rapid growth momentum sustained over a long period of time, the Japanese government has created environment throughout the country either for the emergence of dispersed locations of spatial growth or for the establishment of an efficient connectivity of the regions to the locations of spatial growth.

Even from an economic point of view, the historical role of the government in its regional development policies does not appear to be right in every way or successful to the same degree. The most important issue is that, on the one hand, Japan's rapid economic growth expands the choices of the government allowing it to play a massive role in regional development and dispersing spatial growth. On basis of the same growth momentum, on the other hand, the economy was in a position to afford the costs of failures and less successful cases. An important aspect of the role of government in Japan with regard to regional development is the presence of a set of 'small economies'

which are competitive at sub-national levels, and enjoy a higher degree of political, administrative, and financial autonomy.

Even though spatial growth has concentrated in specific locations mainly along the Pacific Coastal Belt, no region has been left out without integrating into spatial growth. The integration has penetrated far deep into remoteness as well; it has not discontinued spatial concentration of economic activity and people, but incurred a continuing cost of maintenance.

4

SRI LANKA: CONCENTRATION VERSUS DISPERSION

The purpose of this chapter is to present an analysis of spatial growth in Sri Lanka. In spite of fairly comparable basic social development standards across the regions, growth and industrialization has concentrated in the Colombo Metropolitan Region leaving the rest of the island in an uncompetitive economic position. Sri Lanka never had a period of sustained rapid growth during its post-independent development history so that the peculiar status of spatial growth concentration of the country as well as its lack of geographical dispersion needs to be analyzed in the context of resource constraint and limited choices. Apart from that, the historical approaches to regional development and the space for local initiatives at sub-national levels are reviewed.

The analysis in the chapter is centered on key issues of spatial growth concentration in Sri Lanka: Why Sri Lanka in its historical development process failed to create locations of spatial growth other than Colombo Metropolitan Region? How the country's regional development approaches deviated from this issue? What was the space available at sub-national levels to bring about local initiatives? As Sri Lanka is at a crossroad of its historical development process with renewed emphasis on its regional development and spatial growth, a review of the country's spatial growth would be timely in generating policy concerns and academic discussions. The analysis is intended to provide an analytical framework useful in policy planning in order to create space for spatial growth locations, ousting many popular myths on regional economic disparities.

4.1 Colombo Prosperity

In spite of greater policy concern on regional disparities and distributive equality, spatial concentration of economic growth of Sri Lanka continued to remain a major policy issue throughout its post-independent development history. The monopolar concentration of economic activity in the Western province in general, and in Colombo and its contiguous urbanized areas in particular appears to have been overwhelming. However, the issues arising from the rising economic gap between the leading and lagging regions in Sri Lanka are quite different from the general perception which has also been shared in academic and policy discussions. While the general perception is dominated by spatial inequality issues calling for policy interventions, the distributive implications of policy regimes have also received much attention. It is however clear that the Western province itself has a long way to grow and expand further. The main issue in question in the Sri Lankan context is that growth has not being strong enough so that it did not concentrate in more than a single location, while the historical policy interventions did not lead to a breakthrough in the typical pattern of spatial growth.

Sri Lanka's extensive welfare policy has significant implications on urban-rural and rich-poor differences in social development standards, but the spatial location of people and businesses matter in sustaining the progress. In spite of considerable and repeated concerns at policy circles on the issues of dispersing economic activity and development outcomes, Sri Lanka continued to experience the concentration of economic activity and human resources in and around Colombo – the commercial and administrative hub of the island, leaving the potential locations of spatial growth behind.

4.1.1 Growth and Trade Performance: Historical Overview

There are two distinct attributes of the Sri Lankan economy, emerging in most of the analytical studies on development process of the country. The first is that the country never had a period of sustained high growth throughout its post-independent development history for over 60 years.

The second is that, in spite of the lack of sustained high growth it has maintained sound human development standards. Both claims have become a source of academic and policy debates and controversies, because opinions differ due to subjective nature of the assessments and the comparative perspectives of the analyses.

Sri Lanka, as most of the other countries in Asia, started its post-independence development process after gaining political independence from Britain in 1948. Unlike many of them, however, Sri Lanka had a unique beginning. The colonial inheritance included a high human development standard, well-developed infrastructure, a well-functioning judiciary and a democratic political system of the Westminster type. As the World Bank mission that visited Sri Lanka in 1951 mentioned, although its rapidly growing population has trebled during the past 75 years, the living standards of Sri Lanka have been maintained and certainly enhanced in bringing the country to one of the highest positions among the neighbouring Asian countries (IBRD 1953:1). Along with its high income, the country's achievements in health and education were exceptional among the developing countries and were comparable with those of developed countries. In referring to the favourable initial conditions as well as the peaceful transfer of power from colonial rule to independence, Snodgrass (1999: 89) questioned: "What more could a newly independent nation want?" Whatever the differences in opinion regarding Sri Lanka's developmental achievements, given its favourable initial conditions conducive to embark upon its rapid economic growth among the countries in the Asian region, it is not peculiar to assert that Sri Lanka continued to miss much of its opportunity.

Sri Lanka's post-independent development history shows three distinct phases of policy regimes during which the differences in economic performance are associated strongly with policy-making:

a) 1948-1956, Continuation of the colonial policy regime: During this brief period of time under the first national government, the free-market policy regime that had been established by the British colonial government was continued to remain in place. While the dual nature of the economy reflected by the export-oriented

plantation agriculture and the domestic subsistence agriculture constituted the backbone of the economy, there was little policy attempt for industrialization or structural transformation.

b) 1956-1977, Import substitution regime: The economy moved to an import substitution and an interventionist policy regime in order to achieve the balance of payments objective and the industrialization and development objective. As the import controls were gradually tightened, and the state intervention became stringent, the Sri Lankan economy was seen as moving from a 'soft-phase' of an import substitution regime to its 'hard phase' in 1970.

c) Post-1977, Liberalized trade regime: Policy reforms in Sri Lanka towards a liberalized trade regime were marked by a dramatic shift in policy regime; the initial policy package included reduction in tariffs, removal of quantitative restrictions, relaxation of foreign exchange controls, adoption of a unified and flexible exchange rate, and a withdrawal of excessive government intervention in economic affairs. In spite of intermittent policy changes and even reversals, the liberalized trade regime in Sri Lanka continued to exist to date.

According to Central Bank data (CBSL 2012), the Sri Lankan economy which grew on average at 4.3 percent per annum during 1951-1955, reported a slower average rate of growth at 3.5 percent per annum during its import substitution regime of 1956-1977. A further distinction could be made between the 'soft phase' of the import substitution regime in the 1960s and its 'hard phase' in the 1970s in terms of the decline in average rate of GDP growth from 4.7 percent (1960-1969) to 3.1 percent (1970-1977). During the initial 'soft phase' of the import substitution regime, the economy had room for expansion by exploiting the easy import substitution opportunities, while the protective barriers and the interventionist measures were relatively mild; during the 'hard phase' of the import substitution regime which began in 1970, Sri Lanka entered into one of the most controlled policy regimes prevalent

among the contemporary developing countries (Abeyratne and Rodrogo 2006, Athukorala and Rajapatirana 2000). In fact, its dismal economic outcome and the consequent hardship of the public paved the way for a radical shift into a liberalized trade regime in 1977.

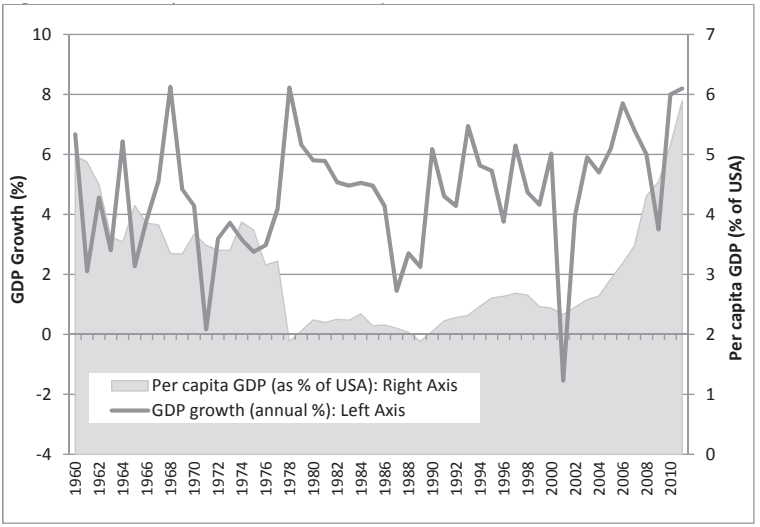
During the past 35 years (1978-2012) of the liberalized trade regime in Sri Lanka, the average rate of GDP growth remained at 5.2 percent. Even though the Sri Lankan economy had made a significant progress and structural transformation during its post-1977 liberalized trade regime, it failed to sustain a long-term high rate of growth as in many other high performing economies in Asia. The initial growth spurt of trade liberalization slowed down in the early 1980s, first due to an emerging macroeconomic instability, and secondly due to an outbreak of political conflict and violence (Abeyratne 2004, Athukorala and Jayasuriya 1994). Moreover, the liberalization process was only half-way through, as it failed to ensure a consistent and steady reform process. There were many gray areas such as public sector, regulatory mechanism, labour market, governance, and privatization where reforms were not consistent with trade liberalization which also had policy inconsistencies and reversals. In spite all above, Sri Lanka's ability to sustain a moderate rate of growth alone with its social development standards in the midst of a prolong conflict that lasted till 2009 was commendable, and was made possible by policy reforms in 1977 prior to the outbreak of armed conflict in 1983[8].

Although the initial per capita GDP of Sri Lanka was relatively higher than most of the other Asian countries, its performance lagged behind. Sri Lanka's per capita GDP as a percentage of USA level continued to fall during the country's import substitution regime, and started to rise

[8]During this time Sri Lanka has to face a 'twin' conflict – one is the separatist movement emerged in the Tamil community in the North, and engaged in a war with the military forces from 1983-2009; other is the youth insurgency emerged from the Sinhala community in the South, which had already launched their first abortive attempt to seize the state power in 1971, and engaged for the second time in an armed struggle from 1986-1989. Although they were typically interpreted as 'external shocks' affecting the development process of the country, both these conflicts were the products of the 'inner contradictions' of Sri Lanka's historical development process itself (Abeyratne 2004).

in the liberalized trade regime (Figure 4.1)[9]. Sri Lanka commenced its modern development process with favourable economic and political environment, but the negative effects of the policy choice appear to be simply a loss of almost a quarter of the Century. In fact, during the contemporary period of time it was the policy choice of many developing countries. But the Sri Lankan experience confirmed the fact that the losses were greater in a small country than in a large one, and when the restrictive trade regime was longer and deeper. Sri Lanka's economic expansion commenced, and continued to progress only during the past three decades in spite of a worsened political turmoil that constrained much of its potential outcome.

Figure 4.1
Growth of the Sri Lankan Economy 1960-2011



Source: CBSL (2012) for GDP growth, and World Bank data for per capita GDP

[9]The sharp drop in per capita GDP ratio in 1978 reflects the impact of devaluation of the exchange rate. As part of the liberalization policy package introduced in 1977, exchange rate of the rupee was devalued by 46% against the US doller. With the second wave of policy reforms in 1989, the srilankan rupee was devalued again by about 12% against the US doller. As a result, Srilanka's per capita GDP measured in USD terms, declined by 34.6 percent in 1978, and 1.2 percent in 1989

The economic transformation with structural changes in Sri Lanka was generally slow, but corresponded to the change in policy regime. Throughout the period of 50 years from 1960-2010, the contribution of the agriculture sector to GDP has declined from 37.8 percent to 12.8 percent of GDP (Table 4.1). During the same period, the employment in agriculture has declined from more than half of the labour force to about one-third. Correspondingly the importance of the industrial and service sectors in the economy has increased. The industrial sector, occupied by nearly a quarter of the total employment as of 2010, contributes to 29.4 percent of GDP. The service sector with its 42.9 percent of employment share contributes to 57.8 percent. The output share of the service sector has increased faster than that of the industrial sector, while the employment-share of the service sector slower than that of the industrial sector.

Table 4.1
Structural Change in Output and Employment in Sri Lanka 1950-2010

	Share of GDP (%)			Share of employment (%)[a]		
	Agriculture	Industry	Services	Agriculture	Industry	Services
1950	46.3	19.6	36.9	na	na	na
1960	37.8	16.8	45.4	52.6	12.1	35.3
1970	28.3	23.8	47.9	50.1	12.5	37.4
1980	27.6	28.2	44.8	45.3	14.0	40.7
1990	26.3	26.0	47.7	46.8	18.7	34.5
2000	19.9	27.3	52.8	36.3	23.4	40.3
2010	12.8	29.4	57.8	32.5	24.6	42.9

a: Employment data refer to 1963, 1971, and 1981 as the closest years of those recorded in the table; employment data for 1990, 2000, and 2010 do not cover Northern and Eastern provinces.
Source: GDP data from CBSL (2012); employment data for 1961, 1971, and 1981 are from DCS (various issues) Census of Population and Housing reports and for 1990, 2000, and 2010 are from DCS (annual issues), Labour Force Survey reports.

Sri Lanka's trade performance which reflected little change during its import substitution regime, made a remarkable progress due to the liberalized trade policies practiced by that regime. At the time of Independence, Sri Lanka's exports were dominated by agricultural exports, comprising mainly the plantation crops – tea, rubber, and coconuts. During the period of 25 years from 1950-1975, the share of agriculture exports declined from nearly 94 percent to 81 percent, while during the next 25 years till 2000, it dropped sharply to around

18 percent (Table 4.2). Correspondingly, the share of industrial exports which accounted for 12.7 percent in 1975, increased to 77.6 percent by 2000. Textile and garments have been the fastest growing export commodity which contributed more than half of industrial exports. Although the expansion of labour intensive light manufactures at the initial stage of trade liberalization was in line with the country's comparative advantage among other things, structural changes within the industrial exports appear to remain stagnant.

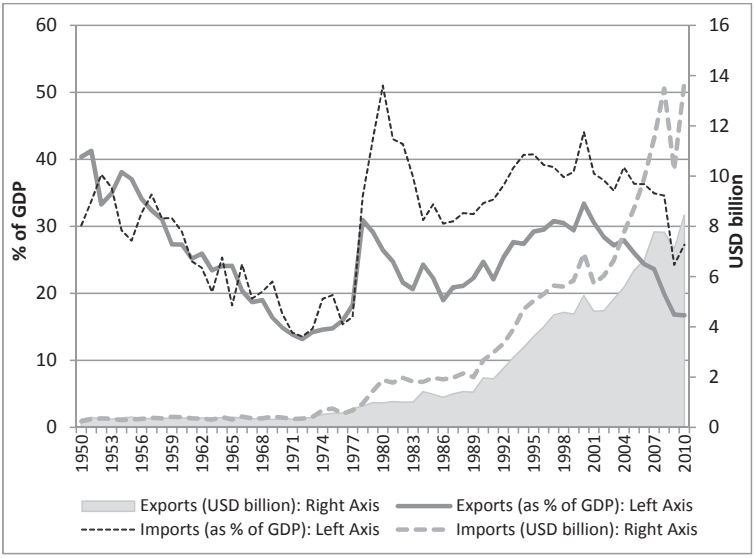
Table 4.2
Change in the Structure of Exports in Sri Lanka 1950-2010

	1950	1975	1980	1990	2000	2010
Agricultural exports	93.7	80.1	61.8	36.3	18.2	26.7
Industrial exports	-	12.7	33.0	52.2	77.6	70.7
(of which) Textile and garments	-	-	10.4	31.7	54.0	38.9
Other exports[a]	6.3	2.6	5.2	11.5	4.3	2.6

a: Other exports are classified as mineral exports (including gems) and unclassified exports. Until 1975, industrial exports are also included in this category.
Source: CBSL (various issues) Annual Reports

In response to the pre-1977 restrictive trade regime, Sri Lanka's export and import ratios as percentage of GDP recorded a steady decline (Figure 4.2). Trade expansion during the post-1977 liberalized trade regime was remarkable, but trade deficit continued to remain a major issue. Trade performance in the decade of 2000s has also become an issue of concern due to declining trade volume as a percentage of GDP. According to many policy analyses (Abeyratne 2010, Athukorala 2012), this has been seen as more a market response to the policy reversals than a result of the adverse external shocks. In an overall assessment of economic performance of Sri Lanka during its liberalized trade regime, it appears that the country has performed relatively better than it did during the pre-1977 restrictive trade regime. Nevertheless, it is difficult to dispute the argument that even in its liberalized trade regime it would have performed better than it did. This appears to be particularly true, when Sri Lanka's economic performance is compared with that of high performing economies in Asia.

Figure 4.2
Trade Performance in Sri Lanka 1950-2010

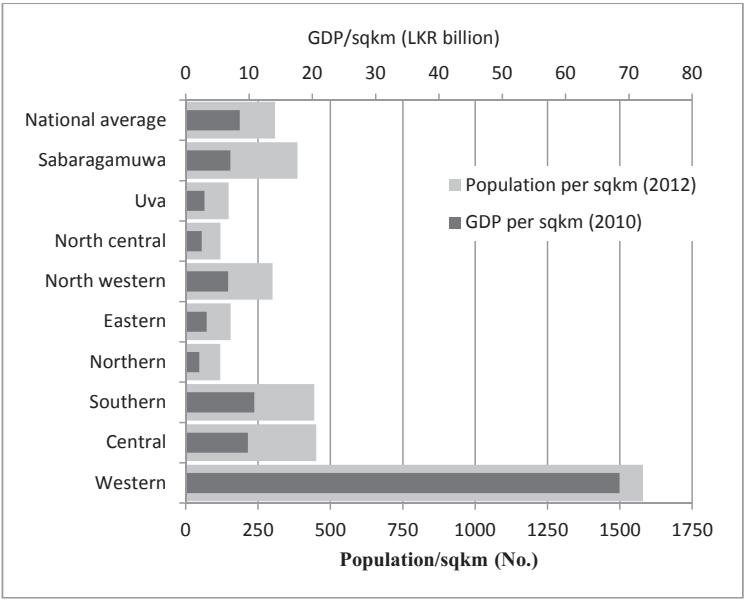


Source: CBSL (various issues), Annual Reports

4.1.2 Regional Disparities in Economic Performance

Spatial distribution of economic and population densities in Sri Lanka show that the Western Province has the highest GDP per square kilometer amounting to LKR 68.5 billion (Figure 4.3). This is overwhelmingly high compared to LKR 10.8 billion – the second highest in the Southern Province. While the national average of economic density is LKR 8.5 billion, all other provinces remain at lower positions than the national average. The land-abundant provinces – Uva, North Central, Northern, and Eastern Provinces account for the lowest economic density ratios. The economies of the latter two provinces remained depressed due to the adverse effects of the prolong conflict on economic activities. In spite of being a similar land-abundant and populated province, the North Western province occupies a special position due to its relatively higher economic density of LKR 6.7 billion per square kilometer.

Figure 4.3
Output and Population Density in Sri Lanka



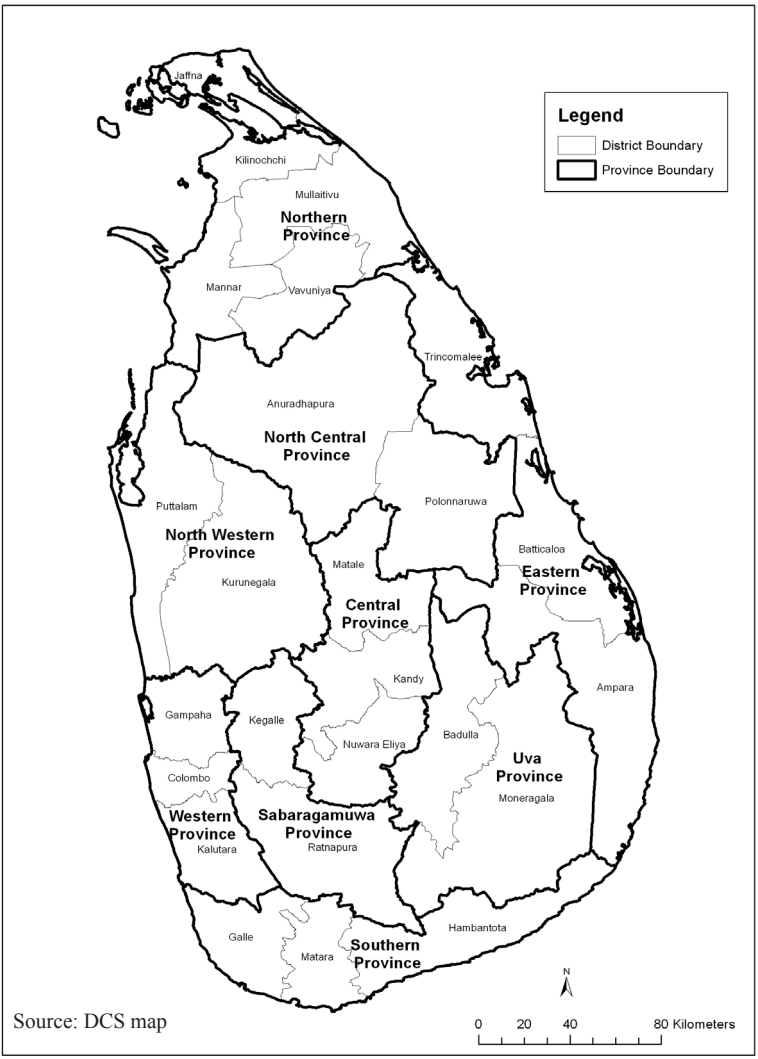
Source: CBSL (2012) and DCS (2012a)

Spatial variation in economic density is closely followed by population density so that the Western Province has the highest population density of 1620 persons per square kilometer. While Southern and Central Provinces occupy the second highest positions with population density close to 500 persons per square kilometer. The provinces with lower economic density – Uva, North Central, Northern, and Eastern Provinces account for the lower population density in the range of 120 – 165 persons per square kilometer.

Population distribution has been used as a proxy to identify leading and lagging regions. In fact, regional variation in spatial concentration of economic activity, production specialization, and social development indicators closely move with population distribution (Danaglle 2005). Although the leading and lagging regions do follow the exact administrative boundaries of the provinces and districts, as an approximation the periphery, inner periphery, and the core regions of the island have been signified in regional studies. Following this distinction, the Western province appear as the core, its adjoining

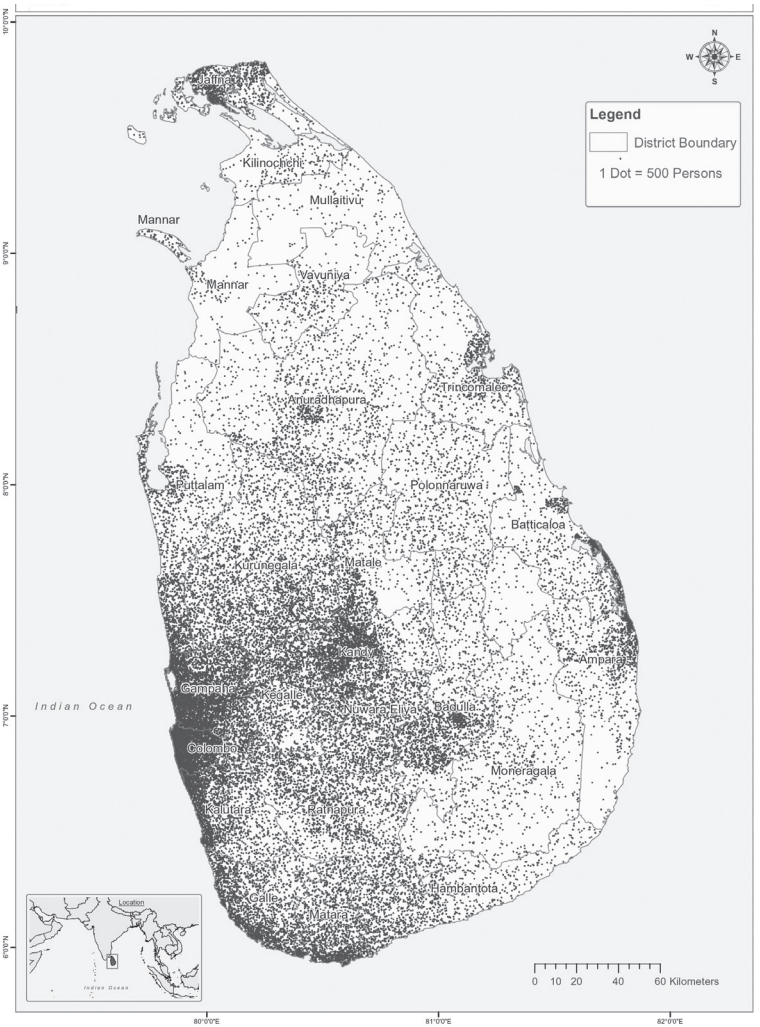
Southern, Central, and North Western provinces as the inner periphery, and the remaining five provinces as the periphery. The map of Sri Lanka with population distribution (Map 4.1) depicts the picture of core, inner periphery, and periphery.

Map 4.1
Map of Sri Lanka by Provinces and Districts 2012



Source: DCS map

Map 4.2
Spatial Distribution of Population in Sri Lanka 2012



Source: DCS map

The Western Province that consist of three administrative districts – Colombo, Gampaha, and Kalutara achieved its overwhelming economic and population density due to historical development of Colombo as the commercial and administrative hub of Sri Lanka. Gampaha was part of Colombo District until it became a separate administrative district in 1978. Kalutara district, though benefitted by being in the Western Province has performed relatively slowly in comparison to Colombo and Gampaha districts, as large part of the district consists of agricultural hinterland and extends away from Colombo. Colombo also serves as the international gateway of Sri Lanka to the rest of the world through its seaport and airport, as we discuss later.

As the concentration of spatial growth continued, the Western Province increased its contribution to GDP from about 40 percent in 1990 to more than half of GDP by 2005 (Table 4.3). Central, Southern and North Western provinces occupy intermediate positions in terms of their relative contribution to GDP, while the lowest contributions emanate from the rest of the provinces. The overwhelming importance of the Western Province, however, changed by 2010 for two reasons. The first is the deliberate policy focus of the government to shift economic activities and public expenditure away from the Western Province to the rest of the country and to rural areas. The second is the revival of the conflict-stricken economies of the Northern and Southern provinces after the end of the war in 2009. This was also accompanied by the government's policy focus on the two provinces under the special post-conflict development programmes.

Table 4.3
Provincial Contribution to GDP in Sri Lanka, 1990-2010 selected years

	1990	1995	2000	2005	2010
Western Province	40.2	42.3	49.6	50.8	45.1
Central Province	12.1	11.7	9.4	8.5	10.0
Southern Province	9.5	9.5	9.4	8.9	10.7
Northern Province	4.4	3.1	2.2	3.0	3.4
Eastern Province	4.2	4.6	4.5	4.7	5.9
North Western Province	11.1	9.6	10.4	8.9	9.4
North Central Province	4.8	6.3	3.9	4.3	4.8
Uva Province	8.1	7.7	3.9	4.5	4.5
Sabaragamuwa Province	8.1	7.7	6.7	6.4	6.3

Source: CBSL (various issues) Annual Reports for 2000, 2005, and 2010, and the Department of National Planning, Ministry of Finance and Planning unpublished data for 1990 and 1995.

Although the economy of the Western Province is dominated by the service sector, the province can also be considered as the most industrialized region of the country. The service sector contributes 65 percent, and the industrial sector 32 percent of the provincial GDP of the Western Province (Table 4.4). This does not however, rule out the importance of the agriculture output of the Western Province. Although out of the provincial GDP, the share of agriculture sector is 3 percent, it stands par with the contribution of other provinces to the country's total agriculture output. This implies the greater productivity of the Western Province that could be seen in all economic activities, compared to that of other provinces. Furthermore, the share of the Western Province to the country's total industrial and service sector output remains as high as around 50 percent.

Table 4.4
Sectoral Output and Provincial Output in Sri Lanka 2010

	Provincial Share of Sectoral GDP			Sectoral Share of Provincial GDP		
	Agriculture	Industry	Services	Agriculture	Industry	Services
Western Province	10.6	48.7	50.5	3.0	31.9	65.0
Central Province	14.2	9.8	9.3	18.1	28.7	53.3
Southern Province	14.0	12.5	9.0	16.7	34.5	48.8
Northern Province	4.3	1.7	4.0	16.3	15.2	68.5
Eastern Province	10.3	6.0	5.0	22.1	29.5	48.4
North Western Province	13.6	9.8	8.5	18.2	30.3	51.4
North Central Province	10.8	3.3	4.2	29.0	20.6	50.5
Uva Province	11.5	3.0	3.8	32.5	19.4	48.1
Sabaragamuwa Province	10.8	5.2	5.8	22.2	24.3	53.5
Total	100	100	100	12.8	29.4	57.8

Source: CBSL (various issues), Annual Reports

Sri Lanka's population has nearly doubled during the past 50 years, reaching 20.3 million in 2012 (Table 4.5). The population share in the Western Province continued to remain high, but it increased further during the period of liberalized trade regime from 26.4 percent of total in 1981 to 28.7 percent in 2012. Along with that, the Central, Southern, and Northern provinces recorded a notable decrease in their population shares. As far as the migrated population by province is concerned, the Western Province dominates with its share of 36.9 percent of the total migrated population in the country (Table 4.6). Although the second highest share of 12.4 percent is in the Northern Province, a significant part of that is associated with returning people since the end of the conflict. A noticeable feature of migrant population in the Western

Province is the importance of employment as the reason for migration[10]. While more than 60 percent of people migrated across the provinces for employment is in the Western Province, this share nearly accounts for as high as 32 percent of all migrant population in the Province.

Table 4.5
Provincial Shares of Population in Sri Lanka (%), census years 1953-2012

	1953	1963	1971	1981	2001	2012
Western province	27.6	26.8	26.8	26.4	28.6	28.7
Central province	16.9	17.0	15.4	13.5	12.9	12.6
Southern province	13.9	13.5	13.1	12.7	12.2	12.2
Northern province	7.0	7.0	6.9	7.5	5.6	5.2
Eastern province	4.4	5.2	5.7	6.6	7.6	7.7
Northwestern province	10.6	10.9	11.1	11.5	11.5	11.7
North central province	2.8	3.7	4.4	5.7	5.9	6.2
Uva province	5.8	6.2	6.4	6.2	6.2	6.2
Sabaragamuwa province	11.0	10.6	10.4	10.0	9.5	9.5
Total population (million)	8.1	10.6	12.7	14.8	18.7	20.3

Source: DCS (2012, 2011)

Table 4.6
Inter-Provincial Migrant Population in Sri Lanka 2012

	Migrant population		Migration for employment		
	No. (1000s)	Share (%)	No. (1000s)	% of migrants	Provincial share (%)
Western Province	1352.5	36.9	431.3	31.9	60.6
Central Province	358.6	9.8	52.2	14.5	7.3
Southern Province	276.9	7.6	35.4	12.8	5.0
Northern Province	455.4	12.4	23.0	5.1	3.2
Eastern Province	186.1	5.1	26.2	14.1	3.7
North Western Province	343.5	9.4	45.3	13.2	6.4
North Central Province	295.5	8.1	36.8	12.5	5.2
Uva Province	177.8	4.9	31.8	17.9	4.5
Sabaragamuwa Province	215.1	5.9	29.3	13.6	4.1
All Island	3661.4	100	711.4	19.4	100

Source:DCS (2012a)

The statistical evidence related to the spatial concentration of economic activity and people point to the advantageous position enjoyed by the Western Province due to centripetal forces of Colombo. Although the Central, Southern, and North Western provinces account for

[10] According to the data source, other reasons for migration are marriage, education, displaced, resettled after displacement, development projects, accompanied a family member, and other (DCS 2012).

intermediate positions, even their status of economic concentration continued to remain far lower than that of the Western Province. It is clear that the long-term growth performance of the economy was sluggish, and not adequate in order to create centripetal and centrifugal forces outside Colombo for spatial concentration of economic activity and people.

4.1.3 Growth Strategy and Development Planning

Sri Lanka missed about 30 years of its post-independent development history because firstly it was comfortable with its initial economic prosperity, and secondly it disregarded the benefit of international markets in its choice of growth strategy. Both aspects were reflected through policy making, until the economy encountered a virtual 'dead end' in its policy direction by 1977.

The initial economic prosperity which was taken for granted, did not last long. It was primarily based on the thriving plantation agriculture since the nineteenth Century and the favourable world market prices of plantation crops at the time. While continuing with the plantation-based economic structure, the economic policy making appears to have directed towards reviving the domestic agriculture sector as a strategy to substitute food imports, and the expansion of the welfare status of the country. In spite of rhetoric, there was no industrialization attempt at policy level.

During the early years of import substitution era of 1956-1977, the fortune of the Sri Lankan economy based on the plantation agriculture and their favourable world market conditions had disappeared. The notion of 'export pessimism' that was approved by the contemporary development thinking as well, dominated policy making (Abeyratne and Rodrigo 2006). It was considered that while expansion in primary exports would further dampen their world market prices, developing countries have no hope for manufactured exports which cannot compete with those exports from advanced countries. Given this economic ideology governing import substitution strategy in Sri Lanka, the country adopted a gradually tightening import controls and interventionist measures to achieve growth and balance of payments objectives.

The policy making that did not lead to achieve either objective, however, got 'inter-locked', because the policy makers found no

way out as the economic outcome worsened (Abeyratne and Rodrigo 2006). The small size of the domestic market and the lack of export expansion both constrained economic growth. Both private and public consumption increased in response to short-lived economic booms that emanated largely from the fluctuating world prices of primary exports, but even in the 1960s as Snodgrass (1966) noted, they were irreversible during recessions and unsustainable in the absence of long-run growth. Having understood the disadvantage of primary export dependence and the importance of export promotion, there were intermittent policy attempts aimed at promoting and diversifying exports. Nevertheless, all these attempts were proved futile within the broader policy framework of import substitution and state intervention.

Sri Lanka did not have a systematic line of development planning over its post-independence development history, although its planning history that comprised various types of national economic plans started as early as in 1950. National planning exercise during the period of 1948-1956 was confined to the allocation of public expenditure among agriculture, industry, and service sectors. There were two important long-term development plans prepared during the import substitution regime; the Ten Year Plan 1959-68, and the Five Year Plan 1972-76. Both plans were of the "directive" nature with development targets to achieve during the plan period. However, the first one was never brought to the implementation, while the other was abandoned during implementation, both mainly due to the changes in assumptions underlying the achievement of the targets. There was no direct concern in development plans over the issue of regional issues of growth. Neither there was any need as such, because the main issue is question was the lack of growth and not its spatial distribution. The failure of the development planning exercise in Sri Lanka further confirms the choice of the "wrong" policy regime that itself made the development planning a futile attempt.

During the post-1977 liberalized trade regime, national planning was changed to short-term public investment programmes embodied in a long-term policy framework, and was indicative and flexible by nature. As the planning was limited to the government's investment programmes and projects, the regional issue emerged only in the case of the location of such programmes and projects. Even though regional development did not emerge as a policy issue in public investment programmes, the government was involved in specific regional and

rural development programmes and in implementing policy measures to promote regional economies, as discussed below.

4.2 Approaches to Regional Economic Disparity

The Sri Lankan development history has been, characterized by various policies, programmes, and projects aimed at promoting regional economies and addressing regional development issues. A striking feature of most of these approaches was that, though they were important in generating livelihood opportunities and sustaining people's living, their importance in creating conditions for spatial growth concentration was limited. Sri Lanka's historical approaches to regional economic development generally exhibit few important characteristics that are important in an assessment of the contribution made by such approaches to spatial growth in the respective regions.

4.2.1 Sectoral Approaches to Economic Development

The early approaches to regional growth adopted since the time of Independence were based overwhelmingly on the importance of domestic agriculture, often accompanied by settlement programmes. These programmes initiated at the time of independence were more a response to the economic and political needs at the time rather than a broad-based policy towards spatial growth. They were also consistent with the main policy thrust of the government, which was biased towards agriculture development. As Sri Lanka was depending heavily on imports to meet its food requirement, there was a rationale for promoting domestic agriculture. In consistent with this requirement, the agriculture bias of the development policy appeared to be an answer to the country's contemporary problems of landless peasantry and population pressure in the South.

The agriculture bias of the approaches to regional growth continued to dominate as one of their main features throughout all policy regimes of Sri Lanka. The import substitution regime had a strong bias towards import substitution in agriculture, while the government also gradually entered the agriculture production through various government initiatives. Along with that the government-owned manufacturing units were also established in various locations of the regional economies outside Colombo as an important component of the contemporary import substitution industrialization.

During the liberalized trade regime too, large scale irrigation projects of which the largest has been the Mahaweli Diversion Scheme were carried out in order to promote agriculture development alone with creating new townships and settlements. Apart from that, the Integrated Rural Development Programme (IRDP) was a special long-term regional development initiative commenced in 1978. The IRDP was based on donor funds, and focused on "districts" of Sri Lanka as the geographical units were aimed at promoting economic and social development in the respective districts. Later the IRDP was replaced by the Rural Economic Advancement Programme (REAP) which focused on enterprise development. A major regional development initiative was commenced under the Southern Development Authority (SDA) in 1996 by focusing on a larger geographical region than a District. The SDA covered four districts in the South of the country – Galle, Matara, Hambantota, and Moneragala. In the recent past the government initiated "Northern Spring" and "Eastern Awakening" development programmes in order to address the issues of reviving the conflict-stricken Northern and Eastern provinces.

There are differences in opinion over the success of the development-related activities carried out under the above programmes and projects. However, a common feature that was observed in most of the historical regional development initiatives in Sri Lanka was their focus on a unit of a geographical space by isolating it from the rest of the world. In other words, by intentionally or effectively the regional development approaches were "inward-oriented" so that they overlooked the need for integrating the respective geographical units with the national and global markets. In the absence of 'connectivity' to the wider national and global markets, the economies of smaller geographical units do not grow in isolation.

A unique feature of the historical regional development approaches was related to their objectives, often dominated by or mixed with various aspects of poverty alleviation. This was justified on the basis of statistical evidence from poverty reports and studies which suggest that poverty is largely a rural phenomenon associated with agriculture sector. In this context, the delivery of welfare services and livelihood-supportive activities dominated most of the regional development programmes and projects. Even at the time that economic activities were focused on, they appear to have been narrowed down to income-generating or employment-creating activities to reduce poverty. In

effect the development programmes and projects that were planned under most of the rural development approaches have not been aimed at little more than upgrading and sustaining the rural livelihoods. More importantly, the programmes and projects designed for promoting rural economies were hardly directed at addressing structural problems of rural economies, and thereby facilitating economic and population concentration and creating globally productive environs.

The regional development approaches were mostly originated, planned, financed, implemented, and managed by the center, reflecting the weak capacity for participation at regional level. Because a region's ability to grow, prosper, and sustain its prosperity is a function of what it can do better than other regions, the absence of an "endogenous effort" on the part of regional economies was seen as a major setback in Sri Lanka's regional development approaches (Gooneratne 2005). In general, economic advancement of a region in Sri Lanka is a subject matter to be addressed at central level. This apparently limits the indigenous initiatives of the sub-national political and administrative authorities. As we discussed later even the appropriate sub-national authority of the country and the appropriate level of devolution and decentralization continued to remain an inconclusive issues in Sri Lanka.

The Sri Lankan government has also adopted intermittently various policy measures and incentives to push economic activities away from Colombo. During the liberalized trade regime special incentives were made available for the private sector to set up their factories away from the Western Province. In an overall assessment it appears that most of these establishments initiated in response to the government incentives did not survive, while some others ended up in locations as much as close to the Western Province – mostly in the adjoining North Western Province (World Bank 2010).

The establishment of 'industrial parks' or similar setups across the country may have produced mixed results, but the most pressing issue is that any of these initiatives have not been competitive enough to expand the investors' choice of industrial location beyond Colombo metropolitan area. In the absence of international demand for port and aviation services from the newly set up international seaport and airport in the Southern Province, the government has stepped into use policy measures and generous incentives to divert demand away from Colombo to the new location in Hambantota. This implies that until the

economy achieves a sustainable rapid growth momentum, the second international gateway of the country, located in Hambantota would have to benefit merely from the diversion of already existing economic activities located in Colombo.

4.2.2 Welfare and Social Development

In spite of being a developing country, Sri Lanka's early achievement of its 'high social development standards' through welfare policy has been widely referred to in academic and policy debates. The overall welfare policy that the country inherited from its colonial past primarily consists of free health care at both curative and preventive levels, free education combined with ancillary supplies, consumer subsidies on essential goods and services and, other welfare programmes including targeted poverty alleviation schemes. As a result, when the future development vision of developing countries was shaped in 1990 on the basis of Millennium Development Goals (MDGs) and targets to be achieved by 2015, Sri Lanka had an easier path to follow.

An important feature of the Sri Lankan welfare policy was its universal approach to social development covering the whole island and the entire population, and its historical expansion and continuation in spite of the slow pace of economic growth. The importance of economic growth in sustaining social development standards is indisputable. Many countries in the Asian region which lagged far behind Sri Lanka in terms of social development standards have surpassed it by executing social development through rapid economic growth. At the same time, Sri Lanka attempted to maintain its welfare policy and social development standards labouriously without economic growth – an attempt that has implications on quality and distribution.

While Sri Lanka is positioned among the countries with 'high human development', its human development performance is better in health than in education, and low in terms of income (Table 4.7). This confirms that Sri Lanka's achievements in human development standards have been policy-driven in spite of limitations imposed by a slow pace of economic growth. Although there are spatial variations in Human Development Index (HDI) among the districts, they all fall within a narrow range of 0.752 and 0.625. The districts in the Western Province have the highest HDI values, while the lower HDI values are reported by conflict-stricken Northern and Eastern provinces, and the districts

dominated by the estate sector (particularly Nuwara Eliya and Badulla), and the economically-backward and less-urbanized remote areas. Among all the districts and provinces, health index scored the highest values ranging over 0.800 along with seven districts over 0.900, with an exception of Northern Province (0.766) and Colombo district (0.767). In general, education index is lower than the health index, while its higher values over 0.7 are reported in more urbanized districts. While all the districts perform relatively poor In terms of income index, even the most-urbanized two districts of the country – Colombo and Gampaha, also depict low income indices as 0.620 and 0.628 respectively.

Table 4.7
Spatial Disparities in Human Development in Sri Lanka 2010

Province	District	HDI	Income Index	Education Index	Health Index
Western province	Colombo	0.710	0.620	0.754	0.767
	Gampaha	0.752	0.628	0.742	0.914
	Kalutara	0.733	0.597	0.716	0.922
Central province	Kandy	0.670	0.513	0.701	0.836
	Matale	0.673	0.506	0.683	0.884
	Nuwara Eliya	0.635	0.502	0.593	0.862
Southern province	Galle	0.688	0.524	0.700	0.889
	Matara	0.699	0.526	0.697	0.930
	Hambantota	0.709	0.538	0.681	0.973
Northern province[a]		0.625	0.471	0.677	0.766
Eastern province	Batticaloa	0.637	0.516	0.610	0.822
	Ampara	0.666	0.520	0.655	0.868
	Trincomalee	0.656	0.507	0.664	0.839
North Western province	Kurunegala	0.688	0.534	0.700	0.873
	Puttalam	0.667	0.547	0.617	0.882
North Central province	Anuradhapura	0.669	0.518	0.688	0.838
	Polonnaruwa	0.677	0.525	0.675	0.876
Uva province	Badulla	0.650	0.507	0.636	0.852
	Moneragala	0.671	0.497	0.642	0.944
Sabaragamuwa province	Ratnapura	0.661	0.492	0.650	0.902
	Kegalle	0.688	0.498	0.711	0.919
Sri Lanka		0.692	0.552	0.694	0.866

a: Indices for the five districts in the Northern province are not available separately in the data source.
Source: UNDP (2012)

Given the policy-driven approach to human development and its spatial coverage within the country, its policy implications and current challenges are distinctively associated with issues of growth and spatial growth. It is true and undisputable that historically Sri Lanka has sustained superficially impressive human development standards. While state has continued to be the primary provider of welfare services, the state capacity to improve and sustain the human development standards of the country depends heavily on the government's ability to finance it. The slow pace of economic growth along with sluggish improvement in government's tax revenue has been a major constraint affecting the improvement and expansion in overall welfare services and their equitable distribution across the districts and provinces. There are significant spatial differences in access to welfare services, and in the improvements in quality standards (UNDP 2012, World Bank 2009). For the same reason, even the public is increasingly tended to bypass the service delivery at community and local levels and to approach that at higher and national levels, as noticeable in health and education sectors. As a result, the provision of welfare services such as health and education at lower levels remains highly underutilized, and that at higher and national levels over utilized.

The issues related to policy-driven achievements in human development and their reasonable distribution across the country are not limited to the capacity of the state to meet the challenges. Economic growth appears important again here, as it is through economic growth that the economy expands its capacity to absorb the enhanced capabilities of the people (Dangalle 2005). In fact, the 'inner contradictions' of Sri Lanka's historical development process formed by an extensive welfare system in the context of sluggish growth performance have been the economic roots of the country's long-standing political conflicts (Abeyratne 2004). Given the lack of opportunities, it is a natural outcome that spatial growth concentration in Colombo continued to act as a centripetal force in absorbing the bulk of human resources from the rest of the country.

4.3 Factor Mobility and Connectivity

While land as an immobile factor has naturally confined the resource-based industries to the respective locations in Sri Lanka, trade and growth has led to a greater degree of labour and capital mobility in favour of the Western province. The existence of different forms of natural resources that are classified under the term land, and the presence of related non-tradable services have been important for the location of resource-based activities such as agriculture, fishery, forestry, mining, and certain sections of tourism industry. Yet the Western province dominated in terms of its benefits of agglomeration and the presence of relatively better corridors of domestic and international connectivity. Thus its centripetal forces continued to operate attracting the bulk of capital and human resources for the concentration of industrial and service sectors. It is not surprising that, even in the case of the economic activities that are located outside the Western province due to the lack of land mobility, business activities are concentrated and coordinated in Colombo. In spite of all that, it is also clear that the economic concentration in the Western province has also been limited by the extent of growth.

4.3.1 Concentration of Businesses and Human Resources

The mobility of the country's population and labour clearly depicts the nature and the degree of the accumulation of the bulk of productive resources in the Western province. According to the country's Labour Force Surveys (DCS 2012b), out of 8.1 million labour force employed in Sri Lanka, 2.4 million (30 percent) is employed in the Western Province (Table 4.8). As was already discussed, while the Western Province shares a great majority of interprovincial migrant population, over 60 percent of its migrant people have moved to the Western province for employment. Apart from that, according to Colombo Metropolitan Regional Transport Plan (DTLM 2012), about 5 percent of the total population in Sri Lanka amounting to over 1 million people enter Colombo city (Colombo Municipal Council area) on an average working day, while the public transport sector comprising railway and buses, carries 62 percent of these commuters.

Table 4.8
Some Employment Statistics: Western Province in Sri Lanka 2012

	Western Province	All Island
By production sector (%)		
Agriculture	8.3	31.0
Industry	34.1	26.1
Services	57.6	42.9
By employment status (%)		
Public sector employees	14.6	15.1
Private sector employees	52.8	41.3
Employers	4.6	2.8
Own account workers	23.4	31.9
Unpaid family workers	4.6	8.9
Total employment (millions)	***2.4***	***8.1***

Source: DCS (2012b)

The employment in agriculture sector in Sri Lanka still accounts for a significant share of 31 percent of the total employment. In contrast, the structural changes in production in the Western province with specialization in non-agriculture production have led to a decline in this share to 8.3 percent. According to the employment status, the shares of the private sector employees and the employers are greater, and those of own account and family workers are lower in the Western province than in their national averages.

The choice of location for a great majority of manufacturing activities has been the Western province in particular, and Colombo and Gampaha districts in particular (Table 4.14). Over 40 percent of small-scale manufacturing units with 5-24 persons engaged, and over half of large-scale manufacturing units with 25 persons engaged are located in the Western Province. While the Central, Southern, and North Western provinces occupy intermediate positions in terms of manufacturing concentration, the Central and Southern provinces are important for a significant share of large-scale establishments, and the North Western province for small-scale establishments. The Western

province contributes to over 71 percent of the country's manufacturing value added in large-scale establishments, and over 48 percent of that in small-scale manufacturing establishments. Employment concentration follows the pattern manufacturing concentration. Over 43 percent of employment in small-scale manufacturing establishments, and 62 percent of that in large-scale establishments are concentrated in the Western province.

Table 4.9
Provincial Share of Manufacturing Industries in Sri Lanka (%) 2010

	Persons engaged: 5-24			Persons engaged: 25 or more		
	Establishments	Persons engaged	Value added	Establishments	Persons engaged	Value added
Western Province	41.2	43.3	48.1	54.6	62.0	71.2
Colombo District	18.3	19.7	25.7	26.7	24.6	35.5
Gampaha District	18.9	19.1	17.4	21.0	30.1	30.4
Kalutara District	4.0	4.5	5.1	6.9	7.3	5.3
Central Province	11.2	10.6	9.6	12.3	8.6	5.4
Southern Province	8.9	8.1	5.9	11.6	9.4	6.5
Northern Province	2.5	2.0	1.7	0.5	0.1	0.1
Eastern Province	3.5	3.6	1.9	0.4	0.5	2.8
North Western Province	23.3	22.9	21.7	7.4	8.7	6.6
North Central Province	3.7	4.1	6.7	1.6	2.3	1.0
Uva Province	1.8	1.6	0.6	3.2	1.7	1.4
Sabaragamuwa Province	3.9	3.8	4.2	8.4	6.7	5.0
All Island	100	100	100	100	100	100

Source: DCS (2011)

The government has continued to offer generous incentive packages to FDI under the Board of Investment (BOI), and to take considerable interest to push investment away from the Western province to other provinces of the country. The government has also opened up special industrial parks and zones throughout the country by providing infrastructure needed to set up business ventures. In spite of all efforts, FDI inflows to Sri Lanka compared to those in many other countries in the region continued to remain considerably low as at less than USD 1 billion a year, while investment continued to concentrate more in the Western province than in other provinces. According to CBSL data, 77 percent of 4816 industrial establishments in Sri Lanka registered under either the BOI or the Ministry of Industry and Commerce by 2012 are found located in the Western province; this figure includes 72 percent of industrial establishments registered under the BOI, and 84 percent of industrial establishments registered under the Ministry of Industry and Commerce (CBSL 2012).

4.3.2 Domestic and International Connectivity

As far as the domestic and international connectivity is concerned, Colombo has been the single most important location of the country with the presence of related infrastructure and non-tradable services. The connectivity of Colombo much more than that of any other location of the country is important for people, goods and services, productive factors, and information to traverse across space. It is also the most important location of the country that connects economic activities to larger input and output markets, domestically and internationally.

Sri Lanka is physically connected to the rest of the world mostly with its main international seaport and airport in the Western province. The Colombo seaport became the country's main seaport during colonial period under British, ousting the historically important seaport of Galle in the Southern province. It expanded as an important international port in the region more due to the strategic location of the island by a major international sea route than due to the volume of cargo that the island economy generated (Dharmasena 2009). Colombo port accounts for about 95 percent of total cargo handled in all Sri Lankan seaports. Out of over 4 million total container traffic handled in Colombo port, transshipment container traffic amounts to 75 percent (CBSL 2012:84). The Colombo international airport (located in Gampaha District) handles all international air traffic in the country amounting to about 7 million passengers in 2012 (CBSL 2012:83). Being an important transit point in the region, Colombo international airport also accommodate more transit passengers than the country's inbound and outbound passengers.

In spite of being the international gateway to the rest of the world, the performance in both the Colombo seaport and the airport points to an important weakness as well. Compared to the rapid expansion in seaports and airports in the region, long-term performance in the Colombo seaport and airport continued to remain sluggish. There is a strong justification for developing more than a single point of international connectivity (Dharmasena 2009). Yet the slow pace of economic growth on the one hand, and the continuous negligence of this need at policy level on the other hand appear to have constrained the development of port and aviation services in other locations until the recent initiatives.

Hambantota in the Southern province became the country's second international gateway with public investment in infrastructure, including the international seaport opened in 2010 and the international airport in 2013. The internal and international connectivity of Hambantota is yet to grow with economic acceleration and concentration, rather than through a diversion of existing port and aviation services from Colombo to Hambantota. In spite of the locational advantage, there are few reasons why Hambantota must take time to show its expansion as an international gateway. It is entirely a fresh initiative and did not have a historical record of port and aviation services in the region. Given the limited amount of economic activities concentrated in the region, infrastructure is expected to be the spatial growth driver in Hambantota. In fact, given the heavy government expenditure including public investment, in the past few years Southern province in general and Hambantota in particular have shown remarkable economic progress and reduction in poverty.

Trincomalee in the Eastern province is potentially an important location of international connectivity with a large natural harbor and a deep draft. Yet it continued to remain highly underutilized for commercial purpose due to the lack of infrastructure, poor domestic connectivity, and the war-stricken depressed economy in the region. In spite of all that, the National Physical Planning Department in its National Physical Plan 2010-2030 projects Trincomalee to grow as a 'metro city' with 1 million population by 2030; Trincomalee is also projected to be part of the largest metro region of the country with 4 million population, covering Anuradhapura, Dambulla, and Polonnaruwa (NPPD 2007)[11]. It is, however, not clear how an agriculture-dominated region as such would suddenly emerge as the country's largest metro region with spatial concentration of economic activity and population. The plan also projects Hambantota and Batticaloa to emerge as the focal points of new metro regions.

[11]According to the National Physical Plan 2010-2030 (NPPD 2007), 10.5 million people of Sri Lanka which is nearly a half of the population by 2030 would concentrate in five metro regions: 4 million in the North Central Metro Region, covering Trincomalee, Anuradhapura, Dambulla, and Polonnaruwa; 3.5 million in the Western Metro region, covering Colombo, Gampaha, and Kalutara; 1 million in each of other regions, namely Eastern Metro Region (Ampara and Batticaloa), Hambantota Metro Region, and Jaffna Metro Region. It is, however, not clear in the Plan, how and why the 'lagging' regions would suddenly rise, while the 'leading' regions would diminish in terms of their position in the economy.

Mannar in the Northern province has been important for small-scale sea transportation between Northern Sri Lanka (Talaimannar) and Southern India (Rameswaram). This regional connectivity ceased to function since the outbreak of war after 1983, but the enthusiasm has arisen again since the early 2000s to connect Talaimannar and Rameswaram for transportation by constructing a land bridge between Sri Lanka and India. It is, however, the extent of spatial growth at both ends which might create demand for strengthened connectivity to the Indian sub-continent through Mannar.

The issues of connectivity associated with domestic transport corridors are even more critical than the country's international connectivity. As far as the physical connectivity is concerned, even with a single point of international gateway traversing between Colombo and rest of the world is seems easier than traversing within the country. The issue is related especially to the monetary and time costs, and to the quality standards of traversing. In spite of the geographical smallness of the country, the physical distance still remains high in terms of international standards for people and goods to traverse within the country. High domestic transport cost of freight in Sri Lanka is an important constraint to export growth, the travel time to the centre of Colombo city has been continuously on the rise (Rathnayake et. al. 2013, World Bank 2009). The limited capacity of the infrastructure appears to be a major constraint to mobility. Along with that, the presence of a single location of spatial growth has forced all types of transport corridors from every corner of the country to converge in Colombo.

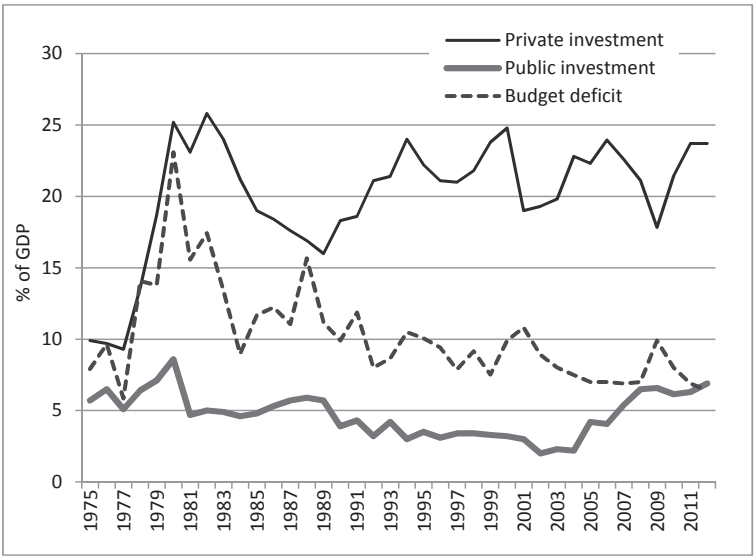
4.3.3 Public Investment under Stress

Infrastructure development in Sri Lanka has remained almost entirely in the hands of the government, in terms of investment, operation, and ownership. As a result the government's fiscal position and public investment has continued to determine the performance in infrastructure development of the country. The statistical evidence clearly suggests that public investment which did not expand adequately continued to perform under stress. This explains why Sri Lanka continued to suffer from the capacity problem of connectivity which is based on public investment in infrastructure.

Sri Lanka did not sustain an impressive investment ratio. For about 25 years from 1985-2010, the total investment of the country remained on average around 25 percent of GDP along with its public investment

component less than 5 percent of GDP (Figure 4.4). In fact, public investment recorded a declining trend from over 5 percent of GDP in the early 1980s to around 3 percent in the early 2000s, although there was a slight increase in the second half of the 1980s. On the one hand this decline reflected the contemporary policy thrust of the government and the policy advice that the country received from international advisory bodies which emphasized the need to contain the budget deficits; in response, at the implementation level, it was often directed first at slashing public investment. On the other hand, the fiscal operations were increasingly under strain partly due to the escalation of defence expenditure against the country's political conflicts; it remained above 3 percent of GDP during the second half of the 2000s, and reached the maximum 3.9 percent of GDP in 2009 (MFP 2011:122). Despite, due to inadequate growth performance in the economy and the presence of a narrow direct tax base, the fiscal operations in Sri Lanka continued to suffer from fundamental problems.

Figure 4.4
Public Investment and Budget Deficit in Sri Lanka 1975-2012



Source: CBSL (various issues) Annual Reports

The budget deficit remained higher than public investment until 2012, indicating that entire public investment has been financed through public borrowings. In fact, the government revenue which has recorded a declining trend as a percentage of from around 20 percent in the 1980s to below 15 percent by the end of 2000s, has been insufficient to cover the current expenditure resulting in a primary account deficit. Given these fundamental issues in fiscal operations, the public investment continued to lag behind resulting in an accumulated stock of infrastructure problems. The recent increase in public investment since the mid-2000s have only began to ease the problem, but the weak fiscal position, lack of private capital, an inadequate FDI inflows in the sector appear to have made it a labourious exercise for the government.

4.4 Local Governance: Confusions multiplied

As at present, the system of local governance in Sri Lanka remains a source of confusion in the political, administrative, information and financial spheres creating inefficiencies in the process of local development and exerting excessive burdens on public finance. There is no evidence to suggest that Sri Lanka has ever made a purposive and deliberate attempt to alter its colonial heritage of centralized political power, with decentralization. Yet the country continued to superimpose and add up elements of decentralized governance in response to somewhat contradictory imperatives of socio-economic and regional development on the one hand, and those of ethnic and political conflict on the other hand (Gunawardena and Lakshman 2008). As a result the system of governance consists of parallel lines and horizontal layers, among which the problems of authority and capacity, and the problems of coordination and duplication got multiplied. But they continued to remain politically irreversible, and to drain public resources for maintenance.

The system of local governance is represented by three parallel lines: (a) The local political system comprising nine Provincial Councils, and of 335 Local Governments – 23 Municipal Councils, 41 Urban Councils, and 271 Pradeshiya Sabhas; (b) The bureaucratic line of the central government, represented by 25 District Secretariats, 332 Divisional Secretariats, and 14,022 Grama Niladhari divisions at Community or

Village levels. (c) In addition, the local institutions and agents to carry out the de-concentrated functions of the central government bodies, such as Police, health, education, agrarian services, and the branches of various Statutory bodies.

Horizontally, the governance structure is represented by five layers as National, Provincial, District, Local or Divisional, and Community or Village levels. The local political system is not represented at District level, but its administrative layers extend through all lower levels reaching the villages. The bureaucratic line of the central government does not have a representation at provincial level, but it is the administrative arm of the central government to running through all levels reaching the bottom. Deconcentrated activities of the central government are present at all levels, but the territorial demarcations are different from the others. The administrative divisions (332 units) which come under the Divisional Secretariats and the Local Governments (335) represented by the Municipal Councils, Urban Councils, and Pradeshiya Sabhas are two distinct entities, but quiet similar in terms of size of land area and population. There is much scope for simplifying and rationalizing the various parallel lines and horizontal strata of the local governance, by improving efficiency and reducing the waste of resources (Cooray 2013). All three parallel lines reached the bottom at community and village levels through their own extension officers. A multiple authority systems and, hence multiple reporting do exist among the parallel lines, making the local governance a confusing exercise even for those who are involved in. The involvement of both the national political system and the sub-national political system in local governance further contribute to the disarray.

The attempt for devolution of power with the introduction of the thirteenth amendment to the Constitution in 1987 was seen as the most significant turning point to share the power (Amarasinghe et. al. 2010, Gunawardena and Lakshman 2008, Leitan 1990). The initiative that came as a response to the ethnic conflict under the influence of the Indian government, created Provincial Council system as the most important political entity at local levels, but without altering the existing systems. The local governments which were already in place were brought under the purview of the Provincial Councils as Municipal Councils, Urban

Councils, and Pradeshiya Sabhas. Even if the powers devolved to Provincial Councils were listed out, the central government retained its authority to carry out the same functions affecting Provincial Council activities, and constrained their capacity with financial dependence on the centre. (Amarasinghe et. al. 2010). Whether the unit of power devolution is the Province or any other unit larger or smaller than the province is a different issue. What is important from a development perspective is the devolution of functions,, that means, in creating opportunities to accelerate the development process by allowing the sub – national units to compete against each other by using local initiatives.. In practice, Provincial Councils have undertaken part of the same functions carry out or rather the services delivered by the central government such as administration, welfare, community services, agrarian services, health, education, and local infrastructure, and rural development.

The Provincial Councils share only 4.1 percent of the consolidated revenue of the central government and the Provincial Councils as of 2010 (Table 4.10). With their minimum involvement in tax collection, the tax revenue of the Provincial Councils also accounts for only 4.1 of the consolidated tax revenue of the country. Thus, the own revenue of the Provincial Councils is only a quarter of their total expenditure in reflecting the revenue constraint of the system. However, the Provincial Councils spend nearly 11 percent of the consolidated public expenditure, after receiving the central government transfers amounting to 8.0 percent of the consolidated expenditure. As the local governments are under the purview of the Provincial Councils, according to the Annual Report 2009 of the Finance Commission (2009:65), the finances of the Municipal Councils, Urban Councils, and Pradeshiya Sabhas are part of the Provincial Council budgets. Therefore, the statistics of the Provincial Council finances show the 'smallness' of the role and the capacity of the government at sub-national levels. However, they are not as small as they appear to be: the expenditure on salaries and wages of the public sector employees of the Provincial councils remained greater than those of the central government, excluding National security, and Police and public security (MFP 2011:122).

Table 4.10
Provincial Council Finance in Sri Lanka 2010

	LKR billion	as % of expenditure	as % of consolidated budget[a]
Revenue	36.8	25.3	4.1
Tax revenue	31.0	21.3	4.1
Expenditure	145.5	100.0	10.9
Current expenditure	119.2	81.9	12.1
Capital expenditure	26.3	18.1	8.3
Central government transfers	107.0	73.6	8.0[b]

a: percentages of the respective revenue and expenditure items of the consolidated government budget.
b: percentage of consolidated government expenditure
Source: CBSL (2012)

The expenditure patterns at provincial levels show that much of the responsibilities vested upon the Provincial Councils are related to the service delivery on behalf of the central government, limiting their capacity to focus on provincial development needs. The Constitutional arrangements alone with financial constraints provide little space for the Provincial Councils to play a facilitating role in regional economic growth. Rather they are confined to engage in either duplicating or supplementing the central government's operations at sub-national levels, which are often perceived as 'inferior' to those carried out by the central government. Public perception on service delivery is met with a certain degree of discrimination. For example, the preference between the Provincial Councils and the central government is clearly visible as people select schools and hospitals in their needs and wants. As World Bank (2009) has also noted, whenever there is a choice people prefer to bypass the service delivery of the Provincial Councils and to reach that of the central government.

All structures of the local governance are represented largely by the same political parties representing at national levels so that they are subservient to the national politics as well as to the central government. While the limitations of power devolution and financial dependence

have made them subservient to the national politics, this subservient nature is clearly visible when the Provincial Councils and the Local Governments are elected from the same political parties holding power of the central government. The Provincial Council and Local Government elections, which appear to be part of the national politics, serve as a testing ground for all political parties at national levels to assess and rehearse their electoral strength frequently prior to the national elections. Perhaps, this may be the important reason why the current system of local governance and fiscal decentralization continues to exist as it is.

4.5 Summary

The basic feature of spatial growth that has emerged through the historical development process of Sri Lanka is seen as the distinction between the leading Colombo Metropolitan Region and the rest of the country. Contrary to popular beliefs on regional economic disparity, it is rather a natural outcome of the presence of centripetal forces at a single location of the island which attracted economic activity and people to concentrate. The benefits of agglomeration are much more in Colombo than anywhere else. Connectivity to larger input and output markets, including its historical importance as the single point of international connectivity, is in Colombo facilitating traverse of people, goods, factors, money, and information. The supply of non-tradable services for the location of economic activity and people are in Colombo more than anywhere else. Productive factors accumulate in Colombo, as non-homogeneous sets of labour and capital. However, in a relative sense all appear less progressive than what is needed for a rapid growth.

Colombo itself has a long way ahead to grow and prosper with concentration and without congestion. The main issue of regional economic disparity is not the spatial growth of Colombo, but the lack of policy and physical environment enabling locations of spatial growth to emerge anywhere else. The lack of growth momentum and trade expansion did not permit spatial growth outside Colombo, and constrained choices of the government. The focus of the regional development approaches was hardly on creating conditions for the emergence of spatial growth and for establishing connectivity to such locations. The paralyzed system of local governance did not permit

local development initiatives, but formed conditions for confusions, inefficiency, and waste of resources. In the absence of a rapid growth momentum, the policies of spatial targeting and pushing economic activities to peripheral regions appear to be damaging and costly. Thus Sri Lanka, faced with sluggish growth performance and lop-sided regional development policies, together with inefficient local governance system, failed to provide conditions for facilitating the locations of spatial growth outside the Colombo Metropolitan Region.

5

CONCLUDING REMARKS

Growth matters the most so that the range of options are wide enough to make choices, and even the cost of wrong choices can be affordable. Two distinct cases of spatial growth – one from Japan as an advanced country, and the other from Sri Lanka as a developing country, converge at this point. Growth is uneven across geographical space, and its acceleration makes it concentrated even more. Given the rapid economic growth during the early postwar period, regional development policies could fulfill the conditions needed for spatial growth across the country. Some have succeeded, while others failed in the case of dispersing spatial growth. Sri Lanka, which also had strong regional distribution policies never succeeded in dispersing spatial growth away from its single location of concentration. Given the slower growth performance in its historical development process, Sri Lanka has confronted with limited choices which did not succeed in creating more than a single location of spatial growth.

This concluding chapter summarizes the theoretical and empirical analysis of the study, drawing policy lessons from the historical experience of both Japan and Sri Lanka. It is, however, acknowledged that in respect the experience of both Japan and Sri Lanka, differences in opinion may continue to exist as subjective value judgments over the cases of success or failure are often based on comparative perspectives on the issues.

5.1 From Trade Theory

As Bertil Ohlin categorically claimed, ‘trade theory is part of location theory’. In both Ricardian and Heckscher-Ohlin theories of trade,

the determinants of comparative advantage are location-specific factors. While Eli Heckscher knew the implications of the Ricardian assumption of factor immobility across the borders, Ohlin had already set the theoretical ground work to analyze location of production within the premises of trade theory. Ohlin based his analysis of the location of production on factors such as the different degrees of factor mobility, industry demand for a set of factors, transport cost of goods and factors, internal and external economies of scale, and the presence of non-tradable goods. However, Ohlin's contribution to trade and spatial growth was forgotten or overlooked until now. Besides, for many decades even location analysis was dropped from trade theory. Trade models did not allow location analysis to remain within as it was excluded due to their strict assumptions.

Location of production was part of the development analyses of early economists from various traditions, who conceptualized it on the basis of the benefits of agglomeration, economies of scale, circular and cumulative causation, forward and backward linkages, centripetal and centrifugal forces, and centre-periphery relations. However, there was little reference to trade as part of the location theory. Even the sporadic analyses within trade theory did not spur academic enthusiasm, until the recent past. The revival of studies of economic geography began since the early 1990s, deriving benefits from the theoretical premises of traditional and new trade theories, and incorporating the conceptual properties of the development analyses.

The shape of the world became different since the 1980s so that it did not fit into traditional analyses of trade models. Integration and globalization became a dominant feature of the new shape under which barriers to trade and to factor mobility declined. However, trade was strengthening and expanding, instead of weakening and shrinking. As many countries and regions of the developing parts of the world experienced, trade led to an acceleration of economic growth on the one hand, and regardless of geographical scale, its spatial concentration on the other hand.

A review of theoretical grounds and empirical evidence within trade analysis postulates that the factors underlying spatial growth can be classified under four headings: (a) Benefits of agglomeration incorporate the advantages of the firms as well as people as the suppliers

of productive factors to firms and as consumers of the output of firms to agglomerate in certain locations. (b) Connectivity to various input and output markets which can exist domestically and internationally signify the costs of traversing, including transport cost. (c) The degree of factor mobility or immobility depends, apart from the border restrictions, on the type of the factor, its heterogeneity, volume of supply, and industry demand. (d) Finally, the size of the market is important as the acceleration of growth and its spatial concentration is limited by the size of the demand for outputs and the supply of inputs.

5.2 From Case Studies

Economic growth, as evidence suggests, concentrates over geographical space leading to economic disparities between leading and lagging regions. Nevertheless, sustained and rapid growth is important to reduce regional disparities: First, the lagging regions get connected to leading regions as input and output markets of the locations of production, and as the beneficial regions through the spillover effects of spatial growth concentration. Secondly, the choices of the government expand in order to support regional growth with public investment, which would improve connectivity to locations of productions, and would create conditions for new locations of production to emerge. Thirdly, the government would also have a wide range of choices in respect of its regional development and distributive policies in order to make the lagging regions inclusive in development. Even if the interventions are not always right in a sense that they may be costly compared to the benefits and risky as the outcome is not clear, an economy with sustained and rapid growth has the capacity to afford the mistakes.

Japan has sustained its rapid economic growth during the postwar period and experienced its concentration in a few locations such as Tokyo and Osaka to a great extent, and Aichi, Hyogo, Hiroshima, and Fukuoka to a lesser extent. At the same time, Japan through its historical regional development policies and public investment allocations, has created environment conducive to growth concentration along the Pacific Coastal Belt covering these prefectures, and for surrounding regions to get connected to the locations of spatial growth and to derive the benefits of growth. In fact, Japan has taken steps through its regional development policies and massive public investment allocations to wipe

out economic disparities and to establish conditions of connectivity between leading and lagging regions, including in far remote rural areas. Yet interventions as such do not appear to have wiped out the fundamentals of spatial growth concentration. Investment in rural infrastructure and agricultural policies did not keep rural economies. Some locations as metropolitan cities and industrial regions continued to grow with the concentration of economic activities and people through cumulative and circular causation of centripetal forces.

Japan's high growth sustained over a long period of time was led by an expansion of international trade on the one hand, and the higher rate of domestic investment on the other hand. Whether the rapid expansion of trade was led by government's selective intervention or free trade policies is apparently a source of controversy in which one would find examples to support or dispute any argument. What is important is that it is the overall policy environment which favoured trade expansion, in spite of the individual cases of special favours by the government which may have been successful or not. Secondly the high rate of domestic investment out of growing income has come from both the private and the government sectors. In fact, the public investment in Japan against its rapid growth has grown faster than private investment, reflecting the fact that the government has played a major role in creating infrastructure for sustaining growth and development.

Sri Lanka never had a period of sustained rapid growth throughout its post-independent development history of over 60 years. With a moderate rate of long-term growth, spatial growth concentrated much in a single location – the Colombo Metropolitan Region, making it the country's commercial and financial hub, and the most industrialized region. Apart from the location of the administrative capital, Colombo also developed as virtually the single location of international connectivity. As a natural outcome of trade liberalization, thus the Colombo Metropolitan Region grew faster than the rest of the country, creating a widening gap between the two regions. The main issue in question is not the concentration of economic activity and people in Colombo Metropolitan Region, but the inability of any other regions in the country to emerge as competitive locations of spatial growth.

Being constrained by resource limitation against the country's slow growth process, Sri Lanka was unable to do much in establishing

conditions for locations of spatial growth to emerge rather than confining to a single place, and for connectivity of the regions for people, goods, factors, and information to traverse efficiently. Although Sri Lanka had a well-established welfare and regional development policies as priority areas of the country's historical development process, they were implemented as separated from the country's growth strategy, but depending on the resources generated from growth. Given its extensive welfare policy, Sri Lanka was one of the early achievers of sound human development standards, which were, however, maintained labouriously in the absence of adequate economic growth. The policies, programmes and projects that were aimed at regional and rural development focused on regions, provinces, districts, and villages primarily as isolated units on the one hand, and emphasized poverty issues and social services delivery as more important than economic advancement on the other hand. In effect, such policies have hardly aimed at either creating conditions for spatial growth concentration or improving their connectivity for traversing efficiently.

Sri Lanka has also adopted numerous policy measures to push economic activities away from where they naturally concentrate to peripheral regions. There is no evidence, and neither in Japan where this strategy has been practiced to a large extent, to suggest that a strategy as such would lead to create locations of growth. However, the outcome would be more damaging in a country like Sri Lanka than in an advanced country like Japan which has the economic and financial ability to afford the cost of relocating and diverting economic activities. When the infrastructure for efficient connectivity is poor, provision of non-tradable services is weak, and the supply of productive factors as a set is inadequate, apparently the affordability of the cost is crucial even if they have a potential long-term benefit. Precisely for these reasons, the failure of Sri Lanka's historical efforts in pushing industrialization to peripheral regions is more revealing than their success stories.

The current problem of rural agriculture in Japan is the mirror image of Sri Lanka's rural agriculture sector, if not worse than Japan. In respect of rural agriculture, in fact, the two countries share many structural features and weaknesses in common, in spite of the different stages of modernization. The protection and subsidies to the sector, along with massive public investment in rural infrastructure and the substantial

involvement of the local governments, Japan has been experiencing a gradual fall in agriculture sector in Japan against which the government has been responding with reforms. When the Sri Lankan domestic agriculture sector presents a worse case than that of Japan, there is no valid reason to overemphasize the role of agriculture in future development of Sri Lanka. A large fraction of the work force is still locked up in the agricultural sector, not due to a choice but due to a lack of choice, while the programmes and projects of external assistance sustains this sector as it is. Even with infrastructure development and continued external assistance, it is not possible for the Sri Lankan rural agriculture to transform into a commercially viable economic activity.

As far as the issues of local governance and fiscal decentralization in Sri Lanka are concerned, the economic argument is neither in favour of nor against a particular unit of local governance such as the Provincial Councils. Whatever the unit of governance, it is rather the local governance which is considerably weak functionally, financially, and politically on the one hand, and the confusing nature of vertical and horizontal involvements and coordination on the other hand. Both elements make the system of local governance inefficient in decision-making and uncompetitive among themselves in achieving development objectives. In contrast, the Japanese system of local governance which enjoyed a higher degree of local autonomy and a wide range of involvement in local activities play a major role in local economic activities as well as in the life of local communities and households.

5.3 Policy Directions for Sri Lanka

When growth accelerates and concentrates over the geographical space, the image of economic geography of Sri Lanka would begin to change. One possibility is that, as an advanced portrait of the current shape of spatial growth, Colombo Metropolitan Region would continue to grow further allowing some other intermediate locations of spatial growth to emerge from the rest of the country. According to statistical evidence, though at a slower rate intermediate locations of spatial growth were already emerging in the inner-peripheral regions of Southern, Central, and North Western provinces.

Second possibility, which is perhaps admired as better than the above, is the emergence of new locations of spatial growth around the island,

particularly in relation to seaports and international connectivity. They are absolutely new locations of spatial growth, because according to historical evidence there were no locations that have been growing with international connectivity other than Colombo. In fact, the third possibility is a combination of the first two possibilities: Colombo Metropolitan Region and its surrounding provinces would continue to grow, while seaports and international connectivity would give rise to new locations of spatial growth benefitting their adjoining regions. Being an island with a small domestic market but located at a strategic point of the global and regional air and sea routes, there is much potential for Sri Lanka to change its shape of spatial growth with international connectivity.

Whatever the shape that Sri Lanka's spatial growth would change its image, spatial growth would concentrate in few locations of the island and these locations would connect the rest of the country as well as the international markets. As the Colombo Metropolitan Region has created centripetal forces to gather economic activity and people over the past few decades, these locations would attract investment and economic activity on the one hand, and people to work and live on the other hand. There is no valid economic reason to anticipate geographical locations of spatial growth as such would be dispersed among the political or administrative units such as provinces or districts, but they will benefit by integrating competitively with the locations of spatial growth. In fact, the rural population would also diminish considerably as urban centres begin to grow, and many rural villages in the remote areas would even disappear for good.

Even the government for its physical planning purpose envisaged a similar outlook of the country even sooner than warranted. But the basic problem of such an outlook, as depicted in its National Physical Plan 2010-2030, is its inability to justify why the new locations of spatial growth would emerge and why the already growing regions diminish. It is exactly the issue that needs to be considered: why would growth concentrate in some locations, and how does the policy facilitate or hinder it?

Firstly, as sustained and rapid economic growth is the utmost important factor, growth strategy should receive policy priority. The nexus between trade and growth as well as between trade and spatial growth shows that

it is trade expansion that would enable Sri Lanka to achieve growth momentum and to sustain it. The different possibilities for a change in the future image of Sri Lanka's spatial growth are, in fact, associated with different levels of growth. The emergence of new locations of growth in relation to seaports and international connectivity is strongly associated with sustaining a rapid growth momentum which would generate centripetal forces in new locations to attract economic activity. Even if infrastructure is available for international connectivity, it is the volume of economic activity leading to higher growth that generates demand for infrastructure. Furthermore, it is the rapid economic growth that expands the range of policy choices of the government and that relaxes the resource constraints for both private and public investment.

Secondly, the availability of infrastructure would ease or obstruct connectivity, internally and internationally, affecting traverse of people, goods and services, productive factors, money, and information. The ease of connectivity reduces cost of traversing in terms of money and time, and upgrades quality standards of traversing, while benefitting from the internal and external economies of scale. Infrastructure associated with non-tradable services delivery connects the locations of spatial growth to both input and output markets. The area of connectivity, thus, covers a wide range of activities in which both public and private investment would have the ability to play an important role. Ease of connectivity creates a level playing field by removing barriers to spatial growth concentration. It is understandable that infrastructure alone may not ease traversing, because regulatory mechanism is also playing either facilitating or obstructing role affecting traverse. Therefore, regulatory reform process supplements the improvement in connectivity.

Connectivity with larger input and output markets is more important than focusing on individual geographical units which do not have the ability to grow in isolation. Regional and rural development approaches with diverse development objectives are secondary or supplementary to the approaches to connectivity. Rural development is a special case of regional development, which needs to be understood in a different context along with spatial growth concentration. An important element of spatial growth concentration is the depletion of rural populations leaving a smaller share of people in agriculture and compelling agriculture to become a commercially viable economic activity. Thus,

the policy and regulatory reforms need to be directed at facilitating this change rather than obstructing it, and preparing both rural and urban sectors to accommodate the change. In fact, rapid economic growth would accelerate population concentration in the locations of spatial growth.

From an economic point of view, an efficient system of local governance is a development strategy to establish an environment for regional growth on differences in local comparative advantages, to create sense of competition among regions allowing them to act on it, and to prepare the smaller regions to face the challenges of globalization. The reforms are necessary in respect of two fundamental issues of local governance in Sri Lanka, although both seem to be difficult choices for any government which wish to centralize power. The first is simplifying and rationalizing local governance, which requires a consolidation of parallel political and administrative lines as well as streamlining the horizontal layers. The second is the set of reforms that enables the local authorities to perform independently from centre and competitively among them. Whatever the unit of power devolution and fiscal decentralization for local governance, there is no valid economic or political justification to prevent transferring the responsibilities of areas such as education, health, welfare, community services, local transport, poverty alleviation, and local economic affairs to the local authorities.

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UNCTAD: United Nations Conference on Trade and Development, Web link: http://unctad.org/en/Pages/Statistics.aspx

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Sirimal Abeyratne
N. S. Cooray

Trade accelerates growth as well as spatial concentration of growth. Unlike trade-growth nexus, spatial growth has not received much attention in trade analyses. While reviewing this conceptual issue, the study shares experience of spatial growth concentration of Japan and Sri Lanka – the former as an advanced country where its historical growth has dispersed significantly across the country and the latter as a developing country where its spatial growth has been concentrating in a single location. As countries begin to grow with trade expansion and global integration, economic activity and people tend to concentrate in creating dense locations across geographical space. The study reveals that there are significant spatial growth implications of the role of the government along with the country's growth strategies and regional development approaches.

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Department of Economics
University of Colombo
Sri Lanka