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Regional Development Policies in Brazil, China, and Indonesia

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Of 75 developing countries with a population of more than 5 million, 60 have started to decentralize state power and resources to local governments (Dillinger 1995). Many countries view decentralization as a measure of regional development and a way to correct regional disparities. However, it sometimes increases regional disparities if it is implemented without an appropriate reallocation of resources or capacity building of local governments. Regional disparities lead to macroeconomic instability through friction among regions caused by unbalanced growth.

The objectives of this chapter are to

- Study the reasons behind slow development in backward regions
- Identify the problems of current regional development policies
- Derive lessons and recommendations for efficient and effective regional development.

Two large countries in East Asia are used for the first objectives, that is, China and Indonesia, which rank, respectively, as the largest and second largest recipients of Japan's official development assistance loans. Regional disparities in Brazil are also studied to compare the situation there with that in China and Indonesia. A large country generally has larger economic and social disparities than small countries because of its diversified ethnic groups and geography. Regional disparities in such a country are therefore more likely to lead to social and political instability. Identifying such problems may help Japan and the Japan Bank for International Cooperation to draw up an assistance policy for more effective and efficient regional development.

A number of researchers have studied decentralization and regional development in Brazil, China, and Indonesia. Wu and Takahashi (1996) characterized China's regional development model as the Guangdong model, which relies on foreign demand and exports, and the Jiangsu model, which depends on domestic demand. They concluded that the latter was superior to the former taking into account the circumstances of the world economy and the huge potential of China's domestic market.

The World Bank (1997) pointed out that China's increasing inequality was driven by the rural-urban gap. It recommended redressing the urban policy bias in housing; food; migration; credit; and state employment, which provides subsidies for urban residents. At the same time, the intergovernmental transfer scheme should be reformed to adjust the size of transfers, especially from the coastal areas to the interior, to reduce disparities. It concluded that additional research was needed to devise an appropriate package of regional growth policies given the lack of systematic analysis of the situation in China in the past.

As concerns Indonesia, Omura and Anwar (1994) found that Indonesia was not pursuing a coherent regional development strategy. Almost all the provincial governments lacked the institutional capacity to mobilize their resources. Although some local groups claim that they have undertaken further decentralization under the recent deregulation policy. Regional development accompanied by decentralization can succeed only under a suitable policy framework.

The World Bank (1994) found that fiscal centralization burdened Indonesia's central government and prevented it from providing adequate public services at the local level. It recommended that the government reconsider its extensive centralization of fiscal policy from the viewpoint of regional

development. However, Smoke and Lewis (1996) noted that weak capacity among local governments in Indonesia hampered effective decentralization.

In relation to Brazil, Nakata (1996) addressed the vicious circle between education and poverty observed in northeastern Brazil. Lavinias (1996) observed that expanding fiscal transfers to the poorer states and the self-revenues of local governments did not help correct regional disparities in Brazil. The institutional capacity of local governments was also a factor in regional development.

Dillinger (1996) proposed examining fiscal balances and carrying out financial risk analysis and management risk analysis as indications of the creditworthiness of state governments in Brazil.

Regional Disparities

This chapter focuses on regional disparities in China, Indonesia, and Brazil in terms of income and social development.

China

China is divided into 22 provinces, 5 autonomous regions, and 5 municipalities; however, this chapter will refer to all of them as provinces. The current status of regional disparities can be analyzed from two standpoints, income and the standing of each province on the Human Development Index (HDI). The province with the highest income level was Shanghai, with a per capita annual income of Y 15,204 (US\$1,764), 9.8 times higher than in Guizhou, the province with the lowest income. Reform and openness after 1978 brought a temporary downward trend in this disparity, bringing it briefly down to seven times in 1990, but it has been growing again in recent years.

In terms of HDI, Shanghai also has the highest score, placing it 29th on a ranking of 173 countries, with a score at the same level as Lithuania and Uruguay. Tibet has the lowest score in China, placing it between 127th-ranked Kenya and 128th-ranked Madagascar. That is, there is a gap of 98 country ranks between the two regions. In Brazil, which is said to suffer from dramatic regional disparities between the highest-scoring states in the south and the lowest-scoring states in the northeast, there is a disparity of 100 country ranks. However, in terms of social indicators, China's disparities are smaller than Brazil's, because such social services as education and health services have been brought up to minimum levels.

Indonesia

Indonesia has 26 provinces and 1 autonomous city, Jakarta. The western part of Indonesia, Jawa and Sumatra, equivalent to only 32 percent of the country's total area, has more than 81 percent of the population and accounts for 83 percent of national gross domestic product (GDP).

Looking at GDP per capita (excluding petroleum and gas), there is a large disparity of as much as 9.6 times between the province with the highest GDP, Jakarta, and the province with the lowest, Nusa Tenggara Timur. This disparity comes close to that of China (9.8 times), and is larger than that of Brazil (7.4 times). In a comparison using fluctuation coefficients, the disparities among the provinces of Indonesia are the highest among the three countries, and are increasing.¹

Social disparities are also extensive in Indonesia. The disparity in the literacy rate is 47 percent between Jakarta, which has the highest literacy rate with 98 percent and Timor, where the literacy rate is 51 percent. This disparity is higher than that of both Brazil (35 percent) and China (35 percent).

¹ The fluctuation coefficient is the standard deviation of the per capita income of provinces divided by the average value of the per capita income of provinces. A larger value indicates greater disparity.

Brazil

Brazil has 26 states and 1 federal district. Substantial regional gaps persist in terms of income and social development. As concerns per capita income by state, residents of Sao Paulo enjoy the highest incomes of all states in Brazil, and 7.4 times those at the lowest income level in Piaui. In terms of the HDI, the gap between Rio Grande do Sul with the highest HDI score and Paraiba with the lowest HDI is so wide that 100 countries are positioned between them.

The economic gap among Brazilian states, which decreased gradually in the 1970s, remained virtually the same throughout the 1980s, and began to widen in the 1990s. Analysis of the economic situation since 1990, after decentralization, shows that economic growth in the low-income regions has been sluggish compared with a marked recovery in the better-off regions.

Reasons behind Regional Disparities

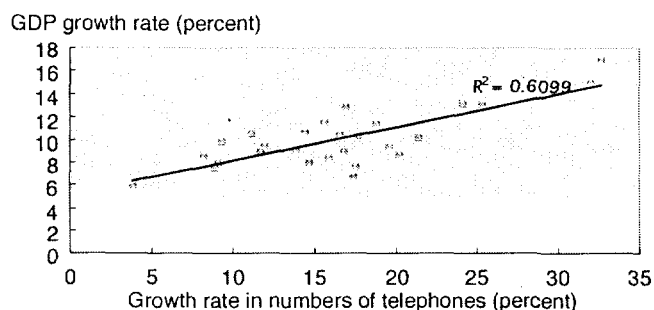
Several factors explain the slow development of backward regions in the three countries. This chapter focuses on infrastructure, human resources (education), and fiscal transfer systems.

Infrastructure

The development of infrastructure can, to some extent, explain the economic development of regions in all three countries.

In China, short-term analysis does not necessarily show a positive correlation between economic development and transport sector infrastructure, but in the long term, transport infrastructure is positively correlated with economic growth. Figure 5.1 shows a positive correlation between the rate of increase in the number of telephones and China's GDP growth rate.

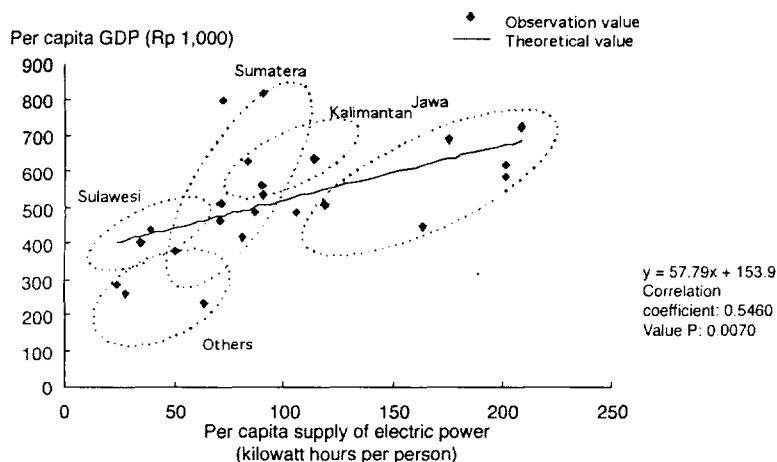
Figure 5.1. Correlation between Growth Rates of Numbers of Telephones and GDP Growth Rate, 1986–94



Source: Yamada (1999)

Similarly, a significant correlation is observed in Indonesia between infrastructure development (roads, electric power, telephones, and so on) and economic growth, as shown in figure 5.2 for per capita GDP and the per capita supply of electric power. This demonstrates that a level of the infrastructure in a province is correlated with its economic development, hence, government investment in infrastructure does play a substantial role in the development and reduction of regional disparities.

Figure 5.2. Correlation between GDP Per Capita and Per Capita Supply of Electric Power, Indonesia



Source: Takeda (1998).

The results of regression analysis for Indonesia indicate that provincial GDP per capita (excluding petroleum and gas) is significantly correlated with private sector investment (domestic and overseas) and the government's development expenditure (table 5.1). In other words, the government's expenditure on infrastructure development using its abundant revenues from petroleum and gas has prompted private sector investment and economic growth.

Table 5.1. Provincial GDP Per Capita and Amount of Per Capita Accumulated Investment, Multiple Regression Analysis, Indonesia, 1990 and 1993

Per capita GDP (excluding petroleum and gas)	Government development expenditure ^a	Private sector investment ^b	Constant	Adj. R ²
1990	0.0053**	0.2064**	165.4*	0.6416
1993	0.0052**	0.4943**	382.8	0.6237

* Significance level of 5 percent.

** Significance level of 1 percent.

a. The first entry indicates the accumulated per capita provincial government development expenditure by provinces (1987-90). The second entry indicates the accumulated per capita provincial government development expenditure (1987-94).

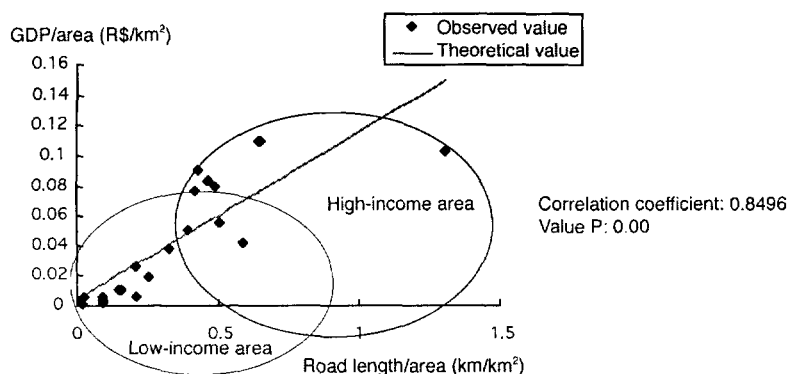
b. The first entry indicates the total value of the accumulated per capita provincial domestic private sector investment (1968-90) and the accumulated overseas private sector investment (1967-90). The second entry indicates the total value of the accumulated per capita provincial domestic private sector investment (1968-93) and the accumulated overseas private sector investment (1967-93).

Note: Per capita GDP excludes petroleum and gas.

Source: Computed from Bank of Indonesia (various issues).

Regional disparities in Brazil are also correlated with infrastructure development. For example, figure 5.3 shows the positive correlation between the development of roads and economic growth. Figure 5.3 also shows that some states in low-income areas have a similar level of road density as states in high-income areas. This suggests that road development does not automatically lead to economic development. Thus, infrastructure is not the only factor to determine economic development.

Figure 5.3. Correlation between GDP Per Area and Road Length Per Area, Brazil, 1994

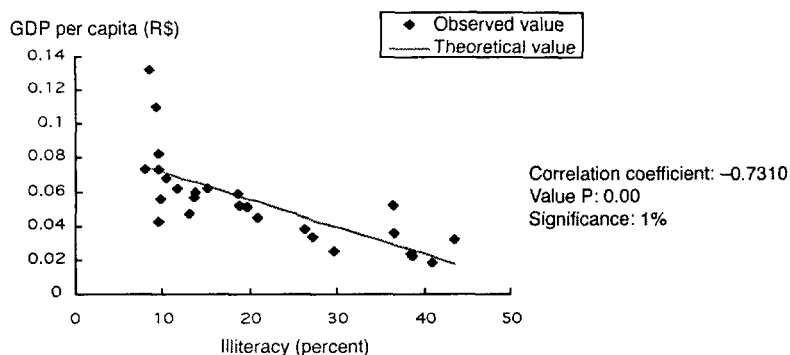


Source: Sano (1997).

Human Resources

Figure 5.4 shows the relationship between the illiteracy rate of each state in Brazil and its GDP per capita. At first glance, a huge gap is apparent between high-income areas and low-income areas. The illiteracy rate in the low-income states varies from 44 to 26 percent, in stark contrast to the average illiteracy rate of 10 percent in the high-income states.

Figure 5.4. Correlation between GDP Per Capita and the Illiteracy Rate, Brazil, 1990

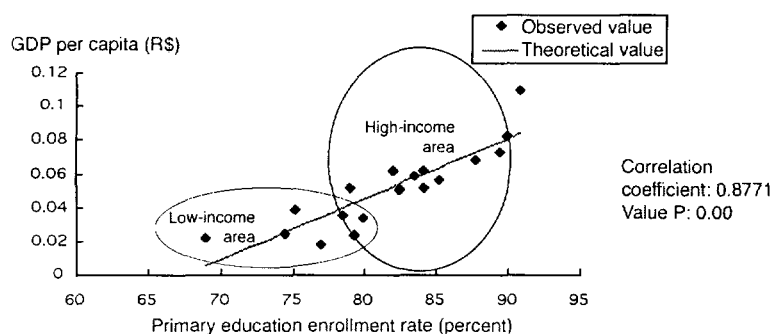


Source: Sano (1997).

Figure 5.5 shows the strong correlation between per capita GDP and the primary education enrollment rate in Brazil. While states in high-income areas enjoy a high primary education enrollment rate of 80 to 90 percent, states in low-income areas have a corresponding rate of less than 80 percent.

By contrast, in China and Indonesia the literacy rates of provinces are not significantly correlated with economic development. Figure 5.6 shows a weak relationship between the per capita GDP of each province and its literacy rate in Indonesia. This is because the East Asian countries have already achieved a good level of human development, as illustrated by the fact that the lowest literacy rates of Indonesian and Chinese provinces are 72 percent.

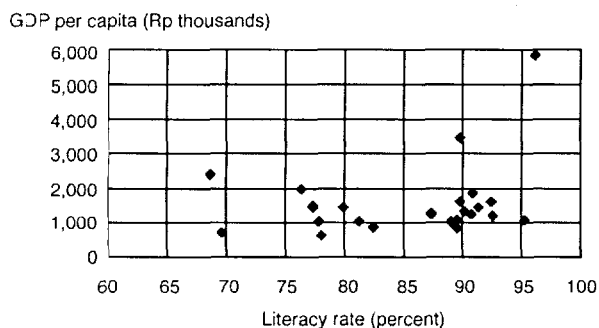
Figure 5.5. Correlation between GDP Per Capita and the Primary Education Enrollment Rate, Brazil, 1990



Note: Excludes Tocantins.

Source: Instituto d Pesquisa data.

Figure 5.6. Correlation between GDP Per Capita and the Literacy Rate, Indonesia, 1990

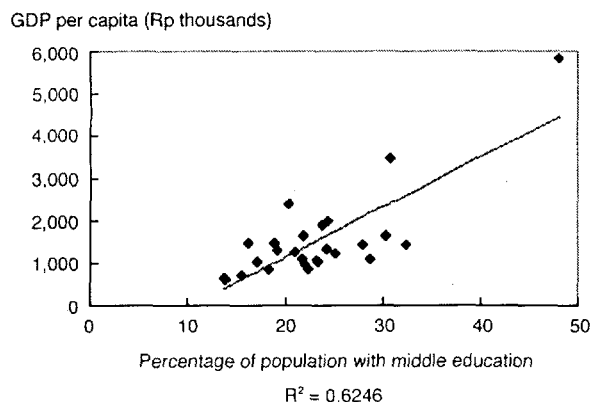


Source: Author.

However, secondary education is still a bottleneck to economic development in both China and Indonesia. Figure 5.7 shows the correlation between the ratio of the population with a secondary education and per capita GDP by province in Indonesia. The correlation between per capita GDP and secondary education is more significant than between per capita GDP and the literacy rate.

Even though education is essential for development, the construction of school buildings and the provision of equipment and teachers alone cannot contribute to the improvement of human development. The important point for human development is to consider demand-side factors as well. The factors that could influence the demand for education include the direct costs of education, the indirect costs of education (for example, the income lost by children going to school instead of working), and income from future employment. Substantial problems are not found in the direct cost of education in Brazil. However, as a factor of indirect costs, more children are working among the poor than among better-off families, and many more in rural areas than in urban areas. This means that the indirect or opportunity cost for poor families to send children to school is large.

Figure 5.7. Correlation between GDP Per Capita and Lower Secondary, Indonesia, 1990



Source: Author.

Regarding the economic returns to investment in education in Brazil, table 5.2 shows that the increase in the coefficient of wages per additional year of education among the group with eight years or more of education is larger in the northeastern region than in other regions. However, the coefficient of the group with fewer years of education is lower in the northeast than in the south and east. This indicates that returns to primary education are lower in the low-income states than in the richer states.

Table 5.2. Wage Increase per Additional Year of Education, Selected Areas in Brazil, 1990 (percent)

Area	0-4	4-8	8-11	11-15	11-16
Rio	0.099	0.121	0.161	0.185	0.201
Sao Paulo	0.134	0.114	0.120	0.143	0.160
South	0.133	0.132	0.167	0.136	0.158
East	0.147	0.136	0.163	0.150	0.159
Northeast	0.124	0.111	0.188	0.203	0.200
North/Central-west	0.118	0.104	0.152	0.155	0.162

Source: Nalcata (1996).

The large gap in returns on educational investment between regions may indicate that the labor market is segmented by region. The lack of people with more years of education creates a shortage of highly qualified workers in the northeast region, potentially raising returns to investment in more years of education. The poor, however, face many constraints that hinder turning their potential demand into effective demand; for example, low mobility between social classes and low employment opportunities reduces their expected returns to educational investment.

Fiscal Transfer Systems

Government investment should play a major role in the development of infrastructure and human resources, which, as noted earlier, are essential for economic growth. Given the revenue limitations of undeveloped areas, a major portion of the revenues of poor provinces or poor state governments are fiscal transfers from the central government. Thus, fiscal transfers might also play an important role in regional development.

In Indonesia, regional governments' budgets are insufficient. In 1994 the total revenues of provincial governments reached Rp 9,709 billion, which represented only 13 percent of the revenue of the central government that same year. As table 5.3 shows, this total provincial revenue is much less than that of Brazil (356 percent of central government revenue), China (92 percent), and Japan (69 percent).

Table 5.3. International Comparison of Provincial Revenues and Central Government Revenue, Selected Countries, 1990

<i>Country</i>	<i>Central government revenue</i>	<i>Provincial revenues</i>	<i>Provincial revenues as a percentage of central government revenue</i>
Indonesia (Rp billions)	353	9,709	13
China (Y billions)	325	298	92
Brazil (R\$ millions)	481	1,710	356
Japan (¥ billions)	73,430	933	69

Source: Financial Statistics (BPS), China Statistics Yearbook, Government Finance Statistics Yearbook (IMF), Financial Statistics of 1996 (Survey Department of Budget Bureau, Ministry of Finance, Japan), Regional Financial Statistics Yearbook of 1996 (Regional Finance Research Society of Japan).

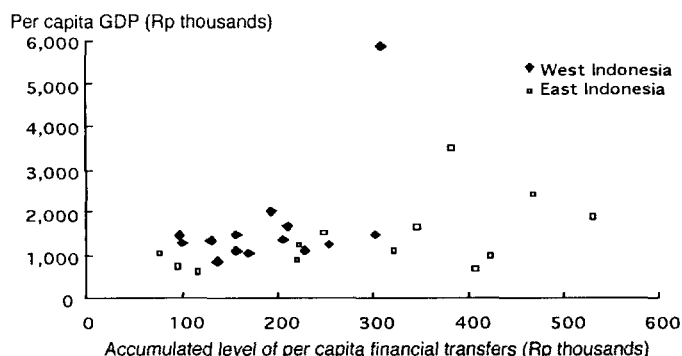
The provincial revenues of Indonesia consist of own revenues (31 percent), revenue distribution from the central government (8 percent), central government subsidies (55 percent), and the amount carried over from the previous year (6 percent). Provincial governments can spend their own revenues and some portion of the central government subsidies, which means that 57 percent of total revenues under their control.

Therefore, fiscal transfers have a major role in correcting regional disparities. Figure 5.8 shows the relationship between the level of fiscal transfers and income (per capita GDP) in provinces in Indonesia. Regression analysis between accumulated amounts of per capita fiscal transfers from the central to provincial governments and provincial GDP per capita does not reveal any significant correlation. Consequently, fiscal transfers do not necessarily help reduce disparities between provincial GDP and infrastructure development.

In China during the planned economy period, 1964–72, 63 percent of total investment was directed to inland regions. Since 1978, the policy guidelines for investment have given priority to the efficiency of investment. Under this new emphasis, the share of investment directed to inland regions fell to 41 percent during 1982–90. In the latter half of the 1980s, the contract system was introduced in tax collection. Under this system, the provinces are responsible for collecting all taxes and cede a portion of tax collections to the central government. This led some wealthy provinces to conceal their resources, which led to a further decline in the redistributive functions of fiscal administration. In response to this problem the central government introduced the tax separation system in 1995, under which collection was divided between central taxes, regional taxes, and common distribution taxes. The central government distributes common distribution taxes to the regions based on their shares of tax collection. This change was an effort to secure financial resources for the central government. However, recent research reveals that the following results have not yet been obtained:

- The delineation of administrative authority between central and regional governments remains unclear.
- The new policy fails to establish a rational mechanism for fiscal redistribution between regions, so it can have little effect in adjusting inter-regional industrial structures.
- The amount disbursed to regions by the central government should be inversely proportional to the region's per capita GDP level. In practice, this is not the case.

Figure 5.8. Relationship between Per Capita GDP and Accumulated Level of Per Capita Fiscal Transfer, Indonesia, 1986–94



Note: GDP are from 1993 data.

Source: Financial Statistics (BPS), Statistics Indonesia (BPS).

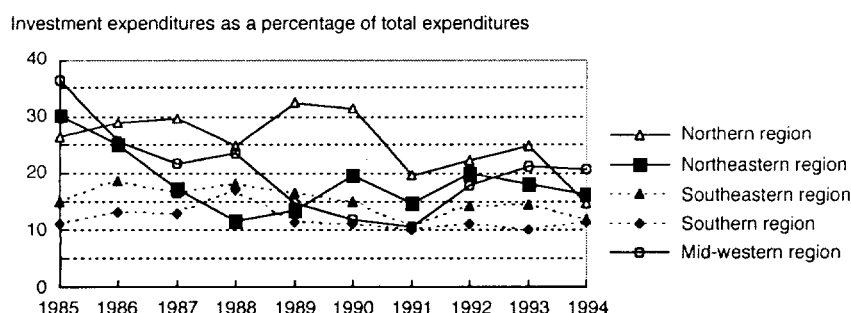
What has happened is that the regional governments have diversified their revenue sources by such means as allowing the introduction of foreign capital. As a result, the share of investment by the central government fell from 7 percent in 1991 to 3 percent in 1995. In the coastal provinces, which are the most able to attract foreign capital, there is a growing trend not to expect financial assistance from the central government. However, inland provinces, such as the autonomous region of Tibet, receive up to 70 percent of their investment from the central government. Therefore, the central government must strengthen its fiscal functions and invest a certain amount in inland regions to encourage their development.

By contrast, Brazil has a relatively fair system of fiscal transfers in terms of both quantity and quality. The 1988 Constitution expanded the scope of local autonomy and enhanced the self-financing sources of local governments. Of the federal government's total revenue, more than 20 percent is transferred to local governments. This high level of fiscal transfer places a burden on the federal government. Of the federal tax revenues earmarked for transfer to local governments, 80 percent is collected in high-income areas. Approximately 40 percent of this amount goes to low-income areas and another 40 percent goes to frontier areas.

Nevertheless, investment expenditure by state governments in low-income states is relatively less than that in high-income states (figure 5.9). With the exception of a few years, in the northeastern and northern regions, investment expenditure has declined steadily since 1985. In 1994 the level of investment expenditure of these two regions was far below levels in other regions.

The expenditure structure of low-income state governments is heavily burdened by personnel cost and debt service, which is why they have not invested as much as other regions despite the fiscal transfers from the central government. In the northeastern region, the share of personnel costs in total revenues increased from 37 percent in 1992 to 57 percent in 1995, and in the southern region it increased from 34 to 49 percent. Therefore, the governments of poor states should make greater efforts to implement administrative and fiscal reforms.

Figure 5.9. Investment Expenditure by State Governments, Brazil, 1985–94



Source: Sano (1997).

Current Regional Development Strategies

This section addresses the current regional development strategies of the three countries to examine the appropriateness of the strategies.

China

The Chinese government addressed the issue of income gaps for the first time in the Ninth Five-Year Plan, covering 1996 to 2000. The plan includes a resolution to implement policies to halt the expanding trend in regional disparities. However, governmental authority is highly decentralized in China. The central government's expenditures account for only 40 percent of total government expenditures, compared with an average of 78 percent among developing countries as a whole. China's success in addressing the income gap problem will depend on the development strategies adopted by each province.

In response to the Ninth Five-Year Plan, the provinces are hammering out their own long-term development strategies. A study team from the Japanese Overseas Economic Cooperation Fund's (OECE's) Research Institute of Development Assistance collected information from most provinces. The research revealed the following three striking points:

- Although the inland provinces are concentrating their energies on infrastructure development, they are paying little attention to creating the systems that underpin any market economy. For example, only 10 of China's 18 inland provinces and 10 of 12 coastal provinces are designing market development initiatives (table 5.4). As concerns foreign trade policy, only 8 of the inland provinces are targeting increasing foreign trade, while 10 of the coastal provinces want to expand such trade. Some 16 inland provinces are pushing infrastructure development. However, the weak economic performance—rather than the low investment in infrastructure—of the inland economies accounts for their slow development of market economy systems. The growth rate of each province is heavily influenced by the relative development of the nonstate sector. Also clear is the correlation between economic growth on the one hand and the degree of state sector reform and development of a market economy on the other. The systems supporting the emergence of a market economy are indispensable for growth.
- The provinces, including inland provinces, are promoting similar types of industries. This problem is an outcome of each province's desire to attract foreign capital as well as central government subsidies and tax breaks. For instance, 24 of the 30 provinces are targeting automobiles and machinery as base industries and about 22 are seeking to develop the electronics and electrical machinery sectors. The geographic location of the inland provinces affords poorer market access than their coastal

counterparts. It would be more effective for the inland provinces to map out development strategies that capitalized on their relative advantages, such as cheap labor or abundant natural resources. For instance, a number of provinces along the Yangtze River are preeminent in agriculture. It would make sense for them to develop food processing, fertilizer production, and other industries tied to agriculture. Similarly, those provinces that border Indochina and central Asia should focus on industries that can take advantage of trade with neighboring nations.

- The coastal provinces, buoyed by big revenues, are projecting higher growth targets. The current five-year plan calls for an annual growth rate of 8 percent, but no province is aiming for growth under 8 percent. Almost all the coastal provinces are pegging their growth targets at a minimum of 10 percent. Thus the provinces' investment plans are not correlated with the central government's policy blueprint. The provinces are forecasting combined investment of Y 16 trillion (US\$1.9 trillion), well above the state goal of Y 13 trillion. The development plans of the coastal provinces contain no concrete measures to close the regional income gap.

The analysis indicates that regional disparities, if not addressed, will continue to widen, which may lead to macroeconomic instability accompanied by huge costs for dealing with the distortions caused by unbalanced growth. It may be necessary for the central government to coordinate the development strategies of individual provinces for development to be better balanced. The provinces' plans for developing industry will certainly need this coordination. Of course, this adjustment of interests will have to be transparent and objective, based on legal standards. China's wide disparity among regions should be considered a distortion stemming from the country's high economic growth.

Indonesia

Throughout the First Long-Term Development Program (1969–93), Indonesia's regional development made significant progress through the development of infrastructure. The progress of development in individual provinces, however, is uneven, and various regional disparities have been created.

Indonesia's strategies contain the following major problems:

- Despite a stated intent to reduce regional disparities, detailed measures to realize this target are insufficient. In the Third Five-Year Development Program (1979–83), the central government for the first time announced the reduction of regional disparities as a prime target and endeavored to reduce these disparities through the subsequent five-year development program. The central government is planning in the current Sixth Five-Year Development Program and Second Long-Term Development Program to pursue regional development as an important policy issue, with the active autonomy of regional governments. However, there are no detailed measures to promote development.
- In the five-year program, decentralization is a concept used to promote regional-based development, but the program's fiscal policy emphasizes the central government. Only 13 percent of the central government's revenues are transferred to the provinces. The level of fiscal transfers is 1.6 percent of GDP in Indonesia, which is far less than that of Japan (5.8 percent), India (5.5 percent), and Brazil (4.6 percent). The small scale of fiscal transfers is caused by poor institutional capacities at local government levels, which do not have adequate expertise and experience to mobilize resources for effective development. Therefore, decentralization should be implemented alongside capacity building of local government.

Table 5.4. Reforms Under Way in Chinese Provinces

Region	Reform			Openness			Factor inputs			Advancement of industrial structure			
	Establishment of market system	Reform of state enterprises	Establishment of nonstate economy	Development strategies	Strengthening of foreign trade	Liberalization of foreign policy	Investment and loan policies	Enhancement of quality of work force	Infrastructure preparation	Environmental preservation	Primary industry	Secondary industry	Tertiary industry
<i>Coastal region</i>													
Beijing	•	•	X	X	X	X	X	•	•	X	•	•	•
Tianjin	X	•	•	•	•	•	X	•	•	•	•	•	•
Hebei	•	•	X	•	•	•	•	•	•	X	•	•	•
Liaoning	•	•	•	•	•	•	X	•	•	X	•	•	X
Shanghai	•	•	•	•	•	•	•	•	•	•	X	•	•
Jiangsu	•	•	•	•	•	•	•	•	•	•	•	•	•
Zhejiang	•	•	•	•	•	•	•	•	•	•	•	•	•
Fujian	•	•	•	•	•	•	X	•	•	•	•	•	•
Shandong	•	•	•	•	•	•	X	•	•	•	•	•	•
Guangdong	•	•	•	•	•	•	X	•	•	X	•	•	•
Guangxi	X	•	•	•	•	•	X	•	•	X	•	•	X
Hainan	•	•	X	X	X	•	X	•	•	X	•	•	•
<i>Middle region</i>													
Shanxi	X	•	•	X	X	•	•	•	•	•	•	•	•
Inner Mongolia	X	•	•	X	•	•	•	•	•	•	•	•	•
Jilin	•	•	•	•	X	•	•	•	•	•	•	•	•
Heilongjiang	X	•	•	X	•	•	X	•	•	X	•	•	X
Anhui	X	•	•	•	X	•	X	•	X	•	•	•	X
Jiangxi	•	•	X	•	X	•	X	•	•	•	•	•	•
Henan	•	•	•	•	X	•	•	X	•	•	•	•	X
Hubei	•	•	•	•	•	•	•	X	•	X	•	•	•
Hunan	•	•	•	•	•	•	•	X	•	X	•	•	•
<i>Western region</i>													
Sichuan	•	•	•	•	X	•	X	•	•	•	•	•	•
Guizhou	•	•	•	•	•	•	•	•	X	•	•	X	X
Yunnan	X	•	X	•	X	•	•	•	•	X	•	•	•
Tibet	X	•	X	•	X	•	X	•	•	X	•	•	•
Shaanxi	•	•	•	•	•	•	X	•	•	•	•	•	•
Gansu	•	•	X	•	X	•	•	•	•	•	•	•	•
Qinghai	•	•	•	X	•	•	•	•	•	•	•	•	X
Ningxia	X	X	X	X	X	•	•	•	•	X	•	•	•
Xinjian	X	•	•	X	•	•	X	•	•	•	•	•	X

• Taken into consideration.

X Not taken into consideration fully.

Source:

A u t h o r

Brazil

Under the military regime (1964–84), regional development was led by the federal government. As hyperinflation deprived the federal government of the financial maneuverability to assist regional development, the federal government delegated the authority for regional development to state and municipal governments following the establishment of the civil government in 1985. As a result, local governments have been playing an increasingly critical role in local development. However, the 1988 Constitution only established a general framework concerning the relationship between the authority of the federal government and the authority of state and municipal governments. Thus large gray areas remain in regard to the demarcation of authority between the federal and local governments. In addition, various interests have delayed the process of transferring administrative functions from the federal government to state and municipal governments.

A Research Institute of Development Assistance/OECF study team analyzed the multiyear plans from 1996 to 1999 of all the states from the viewpoint of fiscal structures and conformity with the federal plan. The study found that the revenue sources of local governments have increased, but have not yet resulted in effective regional development, and pointed to the following three issues:

- States in the northeastern region should secure investment funds for infrastructure and human resources by reducing personnel costs and debt restructuring measures. They should also foster value added industries from the long-term point of view, making the best use of such comparative advantages as their geographical proximity to the United States and to European markets, their low handling costs in ports, and their low labor costs.
- States in the northern and mid-western regions should continue with infrastructure development while also paying attention to the importance of developing the social sectors, such as education.
- To improve the fiscal structure of the state governments, the federal government should take several measures, such as establishing fiscal statistics based on common definitions to provide an accurate picture of the fiscal condition of each state government. Technical guidance for state governments is also necessary to establish a debt management system.

Conclusion

Examining regional disparities in terms of the incomes of and social development by subnational governments, this study finds the following:

- Income disparities are larger in China and Indonesia than in Brazil, and income disparities in all three countries widened in the 1990s.
- Economic growth is positively correlated with the development of infrastructure such as roads and telecommunications in all three countries. Government investment in infrastructure is essential for economic growth.
- Human resource development sometimes becomes a bottleneck to economic development. Brazil, in particular, shows a significant correlation between basic education and economic growth.
- Fiscal transfers from the central government to local governments should play an important role in correcting regional disparities. However, such a system has not worked in all three countries because of the weakness of the central government's tax collection system in China; the fiscal transfer system, which does not reflect economic disparities among provinces, in Indonesia; and a fiscal system burdened by personnel costs and heavy debt burdens among state governments in Brazil.
- Current regional development policies have the following problems. In China, the development plans of underdeveloped provinces pay little attention to creating market economy systems, which are indispensable to efficient resource mobilization; no coordination has been carried out in relation to the industrial policies of each province; and neither provincial governments nor the central government have plans to reduce disparities by reallocating investment. In Indonesia, the five-year development

program has no detailed plan for reducing disparities, the size and quality of provincial government budgets are insufficient for promoting locally-based development because of a lack of capacity, and the size of fiscal transfers from the central to local governments does not reflect its income level. In Brazil, the state governments of backward region cannot invest much in infrastructure and education because of their heavy indebtedness, and the central government does not have an accurate picture of the fiscal situation of each state because of the lack of a statistics and monitoring system.

Clearly, a market economy mechanism alone cannot solve these problems. The government sector should, therefore, play an important role in addressing the problems. The central governments should establish national frameworks to tackle widening regional disparities under market economy mechanisms, such as fiscal transfers to backward regions to develop economic and social infrastructure. They should also coordinate regional development plans to ensure balanced growth of the whole country, with a clear recognition of regional problems in fiscal structure, investment plans, and human resources.

Under decentralization, the role of local governments becomes more important. Autonomy does not mean being given a free hand by the central government. It should be followed by a delegation of responsibility to local governments to administer development plans and fiscal systems.

References

- Bank of Indonesia. Various years. *Financial Statistics*. Jakarta
- Dillinger, W. 1995. *Decentralization and its Implication for Urban Services Delivery*. Urban Management Program Discussion Paper no 16. Washington, D.C.: World Bank.
- _____. 1996. *Assessing States' Creditworthiness in Brazil*. Economic Notes no 8. Washington, D.C.: World Bank.
- Lavinas, Lenas. 1996. "Desigualdades Regionais como Limite a Decentralizacao." *Economia Brasileira em Perspectiva*. 1.
- Nakata, Ryosuke. 1996. *Issues in the Development of Low-Income States in Brazil* Research Paper no.12. Tokyo: OECF.
- Okita, Saburo. 1975. *Economics of Regional Development*. Tokyo: Chikumashobo. In Japanese.
- Omura, Keiji, and Muhammad Anwar. 1994. *Regional Development in Indonesia*. Tokyo: Institution for Developing Economies.
- Sano, Hiroaki. 1997. *The Regional Development Strategies in Brazil*. Research Papers no.21. Tokyo, OECF.
- Smoke, Paul, and D. Blane Lewis. 1996. "Fiscal Decentralization in Indonesia: A New Approach to an Old Idea." *World Development* 24(8).
- Takeda, Teturo. 1998. *Regional Disparities in Indonesia*. Research Paper no. 23. Tokyo : OECF.
- Tuji, Kazuto, and Hiroshi Ueno. 1995. *Integral National Physical Development Planning for Developing Countries*. Research Paper no.4. Tokyo, OECF.
- Yamada, Junichi. 1999. *Japanese Official Development Assistance in Southeast Asia*. Kuala Lumpur. Center for Japan Studies at the Institute of Strategic and International Studies, Malaysia.
- World Bank.1994. *Intergovernmental Fiscal Relations in Indonesia: Issues and Reform Options*. Washington, D.C.
- _____. 1997. *China 2020: Sharing Rising Incomes*. Washington, D.C.
- Wu Jun-Hua, and Takahashi, Susumu. 1996. *A Study of Regional Economic Disparities and Development in China: Regional Development in China II*. Tokyo: New Industries Research Agency.