

# INSTITUTIONAL CONSTRAINTS AND MULTIPLE EQUILIBRIA IN DECENTRALIZATION

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The economics of decentralization implies that it generates efficiency improvement (higher growth) due to local government's ability to respond to the needs of local communities. However, this is not always the case. While policies do matter, this paper argues that institutional factors hold the key to the problem. The interactions among these factors and the characteristics of leaders in the region determine the outcome of decentralization. By capturing these important properties, multiple equilibria can be generated, allowing the ambiguous effects of *local capture*. On this basis, a typology of local leaders is developed. To the extent that welfare-enhancing activities are often related to regional growth, the role of an incentive system in determining the local leaders' behavior is also analyzed. In essence, a lack of incentive mechanisms for local leaders to promote growth and the absence of a stick-and-carrot system explain why post-decentralization growth performance has been generally disappointing.

## I. Introduction

Decentralization is not about weakening central authority. The important goal is to *make local government more responsive to the needs of local people*. Theoretical and empirical investigations on decentralization and the performance indicators upon which the policy is to be evaluated should focus on this goal. To the extent that a greater ability of local government to respond to differences in needs of local communities can improve efficiency, one would expect that post-decentralization regional growth would be faster. The ability of the political system to innovate and to carry out policy changes at the regional level is also stronger, and this could stimulate growth as well (Feld, Zimmermann, and Döring, 2004).

Yet the evidence does not always support such a prediction. In many countries, the post-decentralization regional growth has been slower, accompanied by either stagnant or worsening social indicators. This paper attempts to explain why this is the case. I argue that institutional factors play a critical role in determining the net outcome of decentralization; for example, local accountability manifested among others by growing *local capture* (Blanchard and Shleifer, 2000; Bardhan, 2002; Bardhan and Mookherjee, 2005), people's participation (Wade, 1988), and initial conditions of poverty and income distribution (Avellaneda and Meng, 2005). Lack of a "stick" (e.g., legal penalty for a bribe) and "carrot" (e.g., promotion and re-election prospect for local leaders) reflects the absence of incentive mechanisms for local leaders to promote growth.

After elaborating the rationales and risks of decentralization, and describing some evidence from international experience in Section 2, I delineate the institutional aspects of decentralization in Section 3 by focusing on the role of local capture, people's participation, and poverty and income distribution in affecting the outcome of decentralization. A model explaining regional growth based on incentives system is discussed in Section 4. The model essentially contrasts the incentives of local government to promote growth against the probability that local government will fall into practicing local capture.

## **2. Benefits and risks of decentralization, and international experience**

### **2.1 Theoretical arguments**

Theoretical supports for decentralization originate in the *informational advantage* and *coordination (policy enforcement) capability* that local governments have. Although informational advantage can be secured by simply adopting a pro-market policy, a market system alone may not be sufficient to establish an effective coordination at the local level unless the decision-making is decentralized.

Other justifications for decentralization include: improving efficiency through reduced transaction costs, diffusing social and political tensions, strengthening people's participation, and ensuring political and cultural autonomy. But the most important ingredient (pre-condition) for the success of decentralization is to establish *local accountability* through effective checks and balances. This also implies that the use of local information (the region's informational advantage) is critically needed.

Like any policy, however, decentralization also carries some risks. There is a risk that local governments will create entry barriers in order to generate local own activities or simply to raise local own revenues. The general tendency for collusion among interest groups to be more cohesive at the local than at the national level, and more difficult to break, may cause the implementation of local projects to be less efficient owing to an insistence that the projects must be executed by locals. When a specific project is related to an important target such as poverty alleviation, the inefficient use of limited resources may not only fail to meet the target, but may also worsen income disparity by benefiting only select local interest groups. Increased barriers to entry would therefore prevent the region from growing optimally (efficiency objective) and affect adversely the intra-regional disparity (equity objective).

There is also a risk of undermining the problems associated with externalities: for example, pollution-generating activities in one region create external diseconomies in others; infrastructure development in one district provides benefits to other districts. Then, there is a risk of losing macroeconomic control. As evidenced in many Latin American countries during the 1970s and 1980s, decentralized policy-making resulted in coordination failure and a loss of control over the fiscal deficit at the subnational levels, such that their macroeconomic stability came under pressure.<sup>1</sup>

<sup>1</sup> Prud'homme (1995) and Ter-Minassian (1999) argued that coordination failures could cause local governments to spend inefficiently and beyond their means. This would then aggravate fiscal imbalances and endanger the overall macroeconomic stability. It is therefore suggested that decentralization should come with the provision of incentives or requirements for prudence in debt and expenditure management at the local government level. Meade (1979) also showed the importance of local administrative and organizational capacity in affecting the state government's fiscal performance.

All the above risks are serious. But perhaps the most critical—yet also most common—risk is the spread of *local capture*, defined as the vulnerability of local government to capture by local elites, especially in regions with a high degree of income disparity. The probability of a capture tends to be higher under the decentralized system. Since the possibility of power-sharing between contesting parties is typically smaller at the local than at the national level, in general the likelihood of capture by elites is greater at the local level.

During the early years of decentralization, lack of *local accountability* seems very common. To the extent that accountability pressures depend on the pressures imposed on elected officials, if much of the local population does not express its opinions due to a lack of proper information, low education, or other reasons, there is no incentive for politicians to espouse or implement policies in the public interest. They are accountable neither to central authorities nor to local constituencies. How can one expect that the goal of decentralization is achieved when local officials do not feel obliged to do good things for, or be accountable to, the local people?

The likelihood of a capture is even greater when the operational details (not just the functions) of what the region should do under the decentralization law are not clearly specified. Yet a thorough evaluation is critically needed to know whether most of the benefits accrued to local elites or to the majority of the population.

## 2.2 International experience

The provision of public and social services, and the regional capacity to reduce unemployment and poverty can be enhanced through growth.<sup>2</sup> When regional growth is robust, many positive things can happen through a set of multipliers and other ripple effects, including effects on non-economic factors. Indeed, growth is necessary, albeit insufficient, for welfare improvement.

In the context of institutional reform as a pre-condition for local accountability and lowering local capture, the *structure of incentives* should be altered to make regional officials more motivated to foster growth and able to reap benefits from various programs without receiving “gifts” from local elites. The town and village enterprise (TVE) program in China is a noted example. The program has successfully raised the efficiency of village production and incomes, ameliorating the inevitable trend of rural-urban migration and establishing a strong linkage between rural-based agricultural activities and the urban-based industrial sector.<sup>3</sup>

Central to the needed reforms to secure the benefits of decentralization is the creation of incentive mechanisms for local leaders to foster growth. International experience suggests that post-decentralization growth and economic performance has varied across sub-national regions. On the one hand, decentralization can generate a *regional shift* in resource allocation. For example, before decentralization 308 Bolivian municipalities divided a mere 14% of all devolved funds amongst them; while the three main cities took 86%; after decentralization their shares reversed to 73% and 27%, respectively (Faguet, 2005). A *sectoral shift* is also expected

<sup>2</sup> Many studies have shown that poverty change at the regional level is highly responsive to economic growth. The two are positively correlated, although the types of growth experienced by each region could significantly determine the resulting poverty change.

<sup>3</sup> The main reason for its success is that the pre-existing distribution of power was altered (i.e., land and property ownership was given to the locals, avoiding the influence of oligarchic owners) and a new incentive structure was introduced (i.e., the locals have full control over the operation of TVEs and are also the residual claimants).

to take place after decentralization. For example, public investment in Colombia shifted from economic production and infrastructure to social services and human capital formation. It also shifted to areas of greatest need, for example, investment in education and water and sanitation rose in areas where illiteracy rates were higher and water and sewerage connection rates lower.

International experience on the growth effect of decentralization, however, is mixed. There are particularly more diverse results with respect to investment and growth. In some countries, local investment increased significantly while running costs fell, in others the reverse occurred. Empirical findings in 68 countries show that the combined direct and indirect effects of decentralization on economic growth are negative for developing countries, but positive for high income countries. Using cross-country data for the period from 1997 to 2001, Iimi (2004) found that fiscal decentralization has a significant positive impact on per capita GDP growth. The effects on social indicators and on reducing inequality are usually more positive.<sup>4</sup> The patterns are more mixed when conditioned by a country's specific development (Meng and Avellaneda, 2005). Despite the mixed results, international experience also suggests that the explanation for diverse performances goes beyond just policy differences. Institutional, political, and historical factors have played a far more important role.

Take the case of China versus Russia. China's regional growth accelerated during the post-decentralization policy, while the reverse was evident in post-1990 Russia. The initial rent holders and seekers were weaker in China because, unlike Russia, China started its transition from a very low level of economic development such that the potential for local capture, for example by oligarchs, was more limited (Blanchard and Shleifer, 2000). Also, unlike Russia's transition that came with the emergence of a partly dysfunctional democracy (see Shleifer and Treisman, 1999), in China, the transition has taken place under the tight control of the Communist Party, which is in a strong position to reward local governments with the "carrot" or to punish them with a "stick."<sup>5</sup>

A useful analysis must, therefore, be anchored in understanding how post-decentralization investment and output growth can be enhanced while social indicators improve. A number of studies have revealed that rich and faster-growing regions have generally been more effective in reducing poverty, while poor and slower-growing regions have had very little success in generating private sector jobs (see Purfield, 2006, for the Indian case; Dollar and Kray, 2000 for the standard argument that growth is good for poverty reduction).<sup>6</sup>

Resource misallocation associated with national policy is one example of the problems that could derail the intended outcome of decentralization. Often it has its root in institutional

<sup>4</sup> Other issues of interest are: inter-regional disparity (convergence issue) as a result of decentralization; see Serra *et al.* (2006) for the case of Latin America, and Zhang (2006) for the case of China; for local fiscal discipline following decentralization, see De Mello (2000).

<sup>5</sup> To the extent that regional growth is often in tandem with national growth, Noland (1995) and Angresano (2005) pointed out that China's post 1978 performance was more successful than Russia's post-1990 performance because China developed a new, pragmatic development strategy, while Russia's strategy continued to retain elements of the orthodox economic tenets that the International Monetary Fund and World Bank (OIBW) have advocated. Fogel (2006) also referred to the fact that China's progress in addressing fundamental constraints that might limit rapid economic growth and the promotion of increasing local autonomy in economic matters augur well for the success of its economic goals.

<sup>6</sup> Poorer regions also generally experience greater volatility of growth. It is worthwhile to note, however, that in the case of India the gap in real per capita income between rich and poor states has widened over time; labor, and capital flows appear to do little to close the gap in incomes between poor and rich states.

constraint; more specifically, the *lack of a pro-growth incentive system*. How such a system interacts with the practice of local capture is discussed next.

### 3. Determinants of local capture and outcomes of decentralization

Local capture can occur in all levels of government. As the literature of collective action suggests, however, group size and proximity matter (i.e., collusions tend to be stronger if the size and proximity of the groups are smaller). This explains why local capture is often more widespread at the local than at the national level. Local capture arises when political contestability of local elections under decentralization is limited. It poses a risk that local governments tend to over provide and undercharge public services to local elites (who usually value the services more), implying that the non-elites bear a disproportionate share of the costs. Thus, when local capture is present, the weight of the elites in the welfare measure is higher than that of the non-elites. This occurs because the former has a superior capacity to form a special interest group (Grossman and Helpman, 1996). Local capture can also reduce the amount of resources available for social welfare enhancing activities, both in the short run (e.g., local budget used for unnecessary projects takes away funds for other important projects) and in the longer run (e.g., extraction of non-renewable resources). Thus, local capture can be inequitable and inefficient.

The degree of vulnerability of local government to capture by local elites depends on the following factors: (i) re-existing distribution of power at the local level (e.g., allocation of social and economic power within communities); (ii) lobby and campaign contributions by wealthier groups; (iii) fairness and regularity of elections; and (iv) transparency in local decision-making processes. Establishing these conditions may require institutional and bureaucratic reforms, yet it is precisely this type of reform that is most difficult to conduct. Overcoming institutional factors is always more difficult than choosing the policy itself. It is complicated, involving a strong path dependence, and is often frustrating. In the absence of this reform, higher local capture tends to produce lower benefits of decentralization.<sup>7</sup>

Literature on decentralization also tends to stress the importance of a *participatory* process.<sup>8</sup> The degree of political participation differs between countries and regions. One of the most determining factors is the initial conditions of poverty and income inequality. Greater inequality and a larger proportion of the poor imply a smaller fraction of informed voters or lower political awareness (*concavity* implies that upward mobility at the lower end tends to raise political awareness more significantly than at higher end). When political awareness is low, critical voice

<sup>7</sup> From this perspective, it is wrong to suggest that central governments retreat into a minimalist role. On the contrary, they should play an active role in conducting the necessary reforms. It is also the responsibility of the center to facilitate institutional supports for a successful decentralization. These include supplying technical services toward building local capacity, promoting mobilization of people in local participatory development, helping to set quality standards, auditing and evaluation, providing supra-local support to local finance (including being responsible in the coordination efforts to optimize externalities across regions), and investing, when necessary, jointly with local government in infrastructure. This is particularly important for large countries with diverse local conditions and capacity.

<sup>8</sup> A World Bank study covering 121 countries' completed rural water supply projects shows that projects with high participation in project selection and design are much more likely to have the water supply maintained in good condition than would be the case without a participatory system, e.g., irrigation in South Korea versus South India (there is no relation between the strength of democracy at the national political level and that of accountable institutions at the local level, see Wade, 1988). Improved opportunities for participation and voice, involving the disenfranchised groups, tend to improve the desired outcomes of decentralization (*concave* function).

and checks and balances are constrained. This can limit the quality of public services, and hence lower the benefit of decentralization.

All of the above are associated with the *quality* of the decentralization outcome. Each of them can be adversely affected by the increasing intensity of local capture. Although in most cases the effect of capture is negative, empirical evidence shows that this is not always the case. In some countries, problems arising from local capture are neutralized by the beneficial effects of targeting development programs across communities, although the governance issue remains problematic. Thus, the net outcome can be ambiguous, implying that the system generates *multiple equilibria*. If local capture is detrimental, and the ultimate goal is to raise societal welfare ( $W$ ), attempts should be directed towards finding an equilibrium point whereby  $W$  is maximized, given a certain level of local capture, or local capture is minimized, given  $W$ . The attainment of such a goal can be facilitated both by creating more participatory activities and by reducing the income inequality and poverty. While the latter can raise political awareness that will limit the possibility of capture, the policy of favoring participatory activities is superior, because a greater degree of accountability will produce lower capture and higher welfare at the same time.<sup>9</sup>

A greater accountability can be achieved when the following are present: (i) clear specifications of the tasks of regional government; (ii) clear performance indicators with appropriate incentive systems; (iii) No conflicting regulations; (iv) conducive distribution of socio-economic power - that is, not dominated by wealthy powerful groups; (v) transparency in decision making; and (vi) fair and open direct election of regional officials and representatives. But at the end of the day, social identities and one's identification with social groups determine the extent to which participation and collective action can actually be increased, because individual identification is crucial for interpreting individuals' involvement in participatory activities. Among those who are highly identified with a group (e.g., poor community, farmers, labor union), feelings toward the group's relative deprivation strongly influences involvement in collective action. On the other hand, in a situation where group identification is low, participatory activities are more difficult to organize. In such a case, perceived effectiveness matters more than group identification and, therefore, efforts must be made to generate public feeling that participatory activities can be effective and beneficial for the community.<sup>10</sup>

Some cautionary notes, however, are in order. Increased participation is indeed crucial for improving the outcome of decentralization, but it is important not to be drawn into the "halo effect" in declaring that "*participation is always good.*" One should also refrain from assuming a unidirectional causal relation between participation and improved project performance, because improved performance can also encourage higher participation (simultaneity problem). In a similar manner, decentralization may have resulted from ongoing political and economic changes, but the latter may also produce good performance (endogeneity problem). Thus, it is not a universal truth that "*better performance is the result of decentralization.*"

While *quality* is important, *quantity* can also play an important role. The number of activities and public services can determine the outcome of decentralization. They can be influenced not

<sup>9</sup> Elsewhere I have shown that this can be demonstrated by using a stylistic model of decentralization (see Azis, 2007).

<sup>10</sup> The literature of social psychology stresses the importance of individuals' motivation for involvement in collective action and participatory activities. Using theoretical and empirical frameworks, Kelly and Breinlinger (1996) argued that by viewing individuals as members of collective groups, one can make some predictions about when people are likely to pursue collective actions or get involved in participatory activities.

only by the size of the budget but also how the budget is managed.<sup>11</sup> Does local capture produce lower or higher *quantity*? Empirical evidence shows that there is no definite answer (ambiguous). In some cases, local capture drains local resources, while in other cases it augments the amount of resources available for local development activities. Hence, from the quantity side the system can also generate *multiple equilibria*. In this context, the type of local leaders turns out to be an important determinant.

Through the contributions of the powerful and wealthy elites, additional resources can be made available in a system with local capture, allowing the regional government to operate using resources in excess of the official budget. Whether or not the regional government actually takes advantage of such an opportunity depends on its type of leaders. If the leaders manage to reap the additional resources for local budget, they are of Type-A. This scenario is probably close to what Acemoglu and Robinson (2006) referred to as “captured democracy.” They argued that a captured democracy can be sustained by the high provision of public goods. If, on the other hand, the local leaders fail to convert any proceeds from local capture into additional resources available for local activities - that is, all proceeds are reaped for private benefits- the leaders are of Type-B. Under the worst-case scenario, local leaders abuse their power by not only obtaining private benefits from capture but also draining local resources to repay the elites. In such a case, the leaders are of Type-C.

Thus, the overall effect of decentralization is not only determined by policies but also by the type of local leaders. In this context, it is imperative to look more deeply into the behavior of local leaders. To the extent that welfare-enhancing activities are often related to regional growth, one needs to understand how the incentive system can impinge on the growth-promoting behavior of local leaders. This is discussed next.

#### 4. Regional growth model, incentive system, and policy implications

Let  $p^g$  = probability that local government stays in power if it fosters growth and  $p^c$  = probability that local government stays in power if it kills growth by intensifying local capture. The latter could happen because local governments have had few incentives either to resist capture or to rein in competition for rents (e.g., Bardhan and Mookherjee, 2002; and Shleifer and Treisman, 1999 for the case of Russia). Denote  $C$  for the benefits accrued to local officials through local capture; and  $R^r$  for regional own revenues, the size of which is determined by the local rates that include both tax rates and other revenue collection rates,  $\theta$ , and regional output  $Y^r$ . The share of central government revenues (from additional growth) going to local governments is denoted by  $\alpha$ . Thus,  $\alpha \cdot t \cdot Y$  is the actual revenue received by local governments where  $t \cdot Y$  is the central government’s total revenue determined by the revenue transformation rate  $t$  (e.g., tax rate) and the national output level  $Y$ . In this context, how much local government values growth is proportional to  $\alpha \cdot t \cdot Y$ . Central government can use  $\alpha$  as the “carrot” in promoting regional growth.

Define  $PROB = p^g / p^c$ , the value of which depends on whether local officials are appointed (by the center) or elected locally. If they are appointed, then presumably the center can choose  $PROB$  freely and make it as high as it wants. If they are elected locally, the outcome depends

<sup>11</sup> For example, revenue decentralization and central-local financial transfer without clear expenditure assignment are likely to fail. They are not welfare enhancing, especially when the capacity of budget management is limited, and are prone to corruption and overprovision.

on the ability of central government to affect the outcome of the election, for example through non-endorsement or non-support of specific candidates. Thus, the center can use *PROB* as the “stick.” If, however, the center has little control over the election outcome, and capture becomes an important factor, *PROB* may be less than unity; that is, local government may be more likely re-elected if it kills growth than if it fosters it.

Under the above specifications, local governments chooses growth if

$$p^g \cdot (\alpha \cdot t \cdot Y + R^r) > p^c \cdot C \quad (1)$$

or

$$PROB \cdot (\alpha \cdot t \cdot Y + \theta \cdot Y^r) > C, \quad (2)$$

that is, if the incentive for growth is higher than the incentives to obtain private benefits from local capture (Bardhan and Mookherjee, 2005).<sup>12</sup> To put it another way, local governments are more likely to choose growth under the following conditions: stronger “stick” (higher *PROB*), larger “carrot” (higher  $\alpha$ ), higher national growth potential (higher *Y*), more effective generation of national tax revenues (higher *t*), and higher local own revenues  $\theta \cdot Y^r$ . On the other hand, one can also focus on efforts to lower the potential private benefits from local capture, *C*, by attacking the negative factors such as corruption, a weak legal system, and ineffective law enforcement.

The above formula provides a convenient way of identifying a set of policies without singling out one or only few of them alone (e.g., conveniently labeled “non-economic factors”). In reality, however, not all countries can alter some policies for either historical or political reasons. In these cases, the focus can be directed towards exploring new instruments to complement the existing ones (modifying some parameters in the model). Take the case of  $\alpha$ . It is important to distinguish between ex-ante and ex-post  $\alpha$ . If central and regional governments can commit to a tax sharing schedule or to a particular system of center-local transfer, the two will be the same. But if central government is broke, and desperately needs funds to keep down its deficit, ex-ante  $\alpha$  may be higher than the ex-post  $\alpha$ . The one that is relevant to local governments’ decisions is obviously ex-post  $\alpha$ . As indicated earlier, central government can use this  $\alpha$  as a “carrot” to provide growth incentives to local governments. If, on the other hand, a fixed proportion of national revenues has been accepted (by law), then a new fraction of revenues, say  $\lambda$ , can be introduced:

$$PROB \cdot [(\lambda + \alpha) \cdot t \cdot Y + \theta \cdot Y^r] > C \quad (3)$$

The point is, central government should be able to control a policy instrument that will function as the “carrot.” Further modifications can also be pursued by attaching the regional

<sup>12</sup> The distinction between private and social benefits is well known. Like the production of a good or service that yields a benefit, the making and executing of a pro-growth policy (by local leaders) also generate a benefit. It is a social benefit in so far as they are welfare creating. For some of the benefits, a price is charged that appropriates the social benefits and yields private benefits (to local leaders, the appropriators). This implies that private benefits relate to social benefits through the part that is appropriated (see Pearce and Sturmev, 1966). In reality, some social benefits are unappropriated, but this does not mean that they cannot be appropriated. Thus, social benefits (e.g., enhanced growth and welfare) and private benefits (e.g., resources appropriated for private use) can be generated simultaneously. When put in the context of motivation and incentive to obtain the benefits, however, social and private benefits can be in a competitive mode. That is, local leaders’ incentive to obtain private benefits from local capture may either forgo or exceed the incentive to obtain social benefits. Or, the reverse may hold as shown in inequality (2): i.e., local leaders’ incentive to obtain social benefits (e.g., from enhanced growth and welfare) exceeds the incentive to obtain private benefits.

growth variable  $Y^r$  to  $\lambda$  so that stronger growth incentives are imposed on regional governments

$$PROB \cdot [(\lambda(Y^r) + \alpha) \cdot t \cdot Y + \theta \cdot Y^r] > C \quad (4)$$

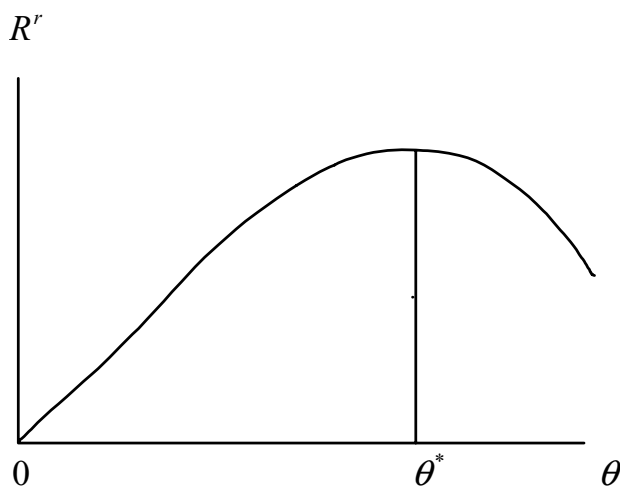
A potentially misleading policy implication from the above setting, however, could arise. From inequality (4), one could erroneously imply that by raising  $\theta$ , ceteris paribus, growth incentives for regional governments could be achieved. Wrong! In reality, higher  $\theta$  deters investment flows that could reduce the growth of  $Y^r$ . Thus, the level of  $Y^r$  can be inversely related to the size of  $\theta$ . To clarify further, consider the following regional production function under the usual assumptions, including the assumption of no income leakage through imports:

$$Y^r = Y^r(K^r, L^r, N^r) \quad (5)$$

where  $K^r$ ,  $L^r$ , and  $N^r$  are capital, labor, and other inputs, respectively. Decomposing the regional capital stock into: (i) initial stock adjusted by the depreciation rate  $\bar{K}_0^r(1 - \delta)$ ; and (ii) the regional investment flow  $\Delta K^r$ , and considering that  $\Delta K^r$  is inversely related to the regional tax and other revenue rates  $\theta$  - that is,  $\Delta K^r = f(\theta)$  where  $\partial f(\theta)/\partial \theta < 0$  - the total regional-own revenue is:

$$R^r = \theta \cdot Y^r \{ [\bar{K}_0^r(1 - \delta) + f(\theta)], L^r, N^r \} \quad (6)$$

Two important points are worthy of note. Since increased capital is often accompanied by increased imports (income leakage), the true  $R^r$  is likely lower than what is stated in (6). Notice also that if local governments fervently want to raise  $\theta$ , regional own revenues may at first increase. As regional investment begins to be affected adversely by higher  $\theta$ , total revenues will instead decline.<sup>13</sup>



<sup>13</sup> The same analogy applies to the specifications of national revenues  $t \cdot Y$  in (3) and (4).

Thus, the policy choice concerning  $\theta$  depends on the initial condition. If the current  $\theta$  is so high that it lies to the right of optimal  $\theta^*$  (defined as  $\theta$  that gives the highest level of  $R^r$ ), raising it further will kill growth. Reducing  $\theta^*$  under such circumstances will raise not only the regional own revenues but also investment flows and hence growth.

The above cautionary notes are important because with the new autonomy and greater responsibility for the provision of local infrastructure, local government tends to focus on efforts to raise local own revenues. Yet, it is rather surprising that in most cases the actual  $\theta$  (in net terms) after decentralization is often larger than the optimal  $\theta^*$  despite the fact that such conditions damage the local investment climate, and thus lower the potential to raise local tax revenues (e.g., from property tax). This occurs because the increase of  $\theta$  results in a lesser increase in  $R^r$ , such that there is a strong incentive for local governments to raise  $\theta$  further, beyond the optimal  $\theta^*$ .

To sum up, a “*fundamental regional growth equation*” is obtained by combining (4) and (6):

$$PROB \cdot \{(\lambda(Y^r) + \alpha) \cdot t \cdot Y + \theta \cdot Y^r [(\overline{K}_0^r(1 - \delta) + f(\theta)), L^r, N^r]\} > C \quad (7)$$

To foster growth, central government could use the “stick” ( $PROB$  and  $C$ ) and the “carrot” ( $\lambda$ ,  $\alpha$ ). Note that it is also the case that a growth-oriented strategy at the national level (higher  $Y$ ) can to help secure the fulfillment of (7).

Thus, the disappointing regional growth after decentralization observed in many countries can be explained by the fact that growth incentives among local leaders are often very limited. In the absence of a stick-and-carrot system, the incentives for local leaders to obtain private benefits through local capture are far greater.

## 5. Concluding remarks

With democracy sweeping throughout the world, decentralization is coming to be seen as a fundamental democratic principle. It makes the government closer to the people, allows greater opportunities for political participation, and provides an additional check against the abuse of power. From a purely economic rationale, the policy is also desirable, as it can generate improvements in efficiency due to local government’s ability to respond to the differences in needs of the local communities. Decentralization should therefore enhance economic growth and reduce inequality. This explains why, despite the fact that there are also political and economic risks involved in a decentralized system, the policy is increasingly championed by many countries, even those that are less democratic.

And yet, evidence shows that in many cases growth performance has been generally more disappointing after decentralization. This raises a fundamental question: what prevents the policy from generating the intended outcomes? Some of the causes can be associated with policies within the jurisdiction of local governments (e.g., collection of unnecessary fees, misuse of funds, white-elephant projects), and others may be related to national policies (e.g., too stringent fiscal and monetary policies, misallocation of resources, over-regulation). While policy matters, however, I argue in the paper that it is the institutional factor that holds the key to the problem. By focusing on the important properties of the decentralization process, it is shown that some pre-conditions need to be met before a shift to a decentralized system can generate the

intended benefits. One of such pre-conditions relates to the quality of, and interactions among, a set of institutional factors such as local accountability, people's participation, and poverty-cum-income distribution. Taking these factors into account, local capture has an ambiguous effect on the decentralization outcome. Equally important are the characteristics of local leaders in terms of their ability to channel the augmented resources derived from local capture into welfare-enhancing activities. In this context, local capture can be favorable or detrimental, depending on the type of leaders. Thus, the system may result in multiple equilibria.

To the extent that regional growth performance is affected by these institutional factors and the incentive system for local leaders, it is argued that the poor growth performance during the post-decentralization period cannot be analyzed by looking only at the policy aspect. More emphasis ought to be given to the institutional analysis, as many development issues faced by decentralized local government tend more to deal with organizational and administrative structures that can influence the overall incentive system. By using a stylistic model that integrates economic variables and institutional factors, it is shown that a lack of incentive system based on a stick-and-carrot approach can explain the unflattering performance after decentralization in many countries.

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## References

- Acemoglu, D. and Robinson, J.A. 2006. Economic Backwardness in Political Perspective. *American Political Science Review* 100, 115–131. Cambridge University Press.
- Angresano, J. 2005. China's Development Strategy: A Game of Chess that Countered Orthodox Development Advice. *Journal of Socio-Economics* 34(4), 471–498.
- Avellaneda, C. and Meng, C.-C. 2005. Assessing the Effects of Decentralization on Economic Inequality, Human Development, and Economic Growth: A Simultaneous-Equations Models Analysis. Paper presented at the annual meeting of the Midwest Political Science Association, Palmer House Hilton, Chicago, Illinois.
- Azis, I.J. 2007. Disappointing Results After Six Years of Decentralization. Paper presented at a conference on decentralization, Nikko Hotel, Jakarta, July 4–5.
- Bardhan, P. 2002. Decentralization of Governance and Development. *Journal of Economic Perspectives* 16(4), 185–206.
- Bardhan, P. and Mookherjee, D. 2005. Decentralization, Corruption and Government Accountability: An Overview. In: Rose-Ackerman, S. (ed.), *International Handbook on the Economics of Corruption*. Edward Elgar.
- Blanchard, O. and Shleifer, A. 2000. Federalism With and Without Political Centralization, China Versus Russia. *Working Paper* 00-15, Department of Economics, MIT.

- De Mello, L.R. Jr. 2000. Fiscal Decentralization and Intergovernmental Fiscal Relations: A Cross-Country Analysis. *World Development* 28(2), 365–380.
- Dollar, D. and Kray, A. 2000. *Growth is Good for the Poor*. Development Research Group, World Bank, March.
- Faguet, J.-P. 2005. Governance From Below: A Theory of Local Government With Two Empirical Tests. STICERD Political Economy and Public Policy Paper Series 12.
- Feld, L.P., Zimmermann, H. and Döring, T. 2004. Federalism, Decentralization, and Economic Growth. *Working Paper*, 30., Philipps-Universität Marburg.
- Fogel, R.W. 2006. Why China is Likely to Achieve its Growth Objectives. NBER Working Papers 12122.
- Grossman, G. and Helpman, E. 1996. Electoral Competition and Special Interest Politics. *Review of Economic Studies* 63, 265–286.
- Imi, A. 2004. Decentralization and Economic Growth Revisited: An Empirical Note. *Journal of Urban Economics* 57(3), 449–461.
- Kelly, C. and Breinlinger, S. 1996. The Social Psychology of Collective Action: Identity, Injustice, and Gender. In: *European Monographs in Social Psychology*. London: Taylor & Francis.
- Meade, L.M. 1979. Institutional Analysis for State and Local Government. *Public Administration Review* 39(1), 26–30.
- Noland, M. 1995. China and the International Economic System. *Working Paper 95-6*, Peterson Institute for International Economics, Washington D.C.
- Pearce, D.W. and Sturmey, S.G. 1966. Private and Social Costs and Benefits: A Note on Terminology. *The Economic Journal* 76(301), 152–158.
- Prud'homme, R. 1995. On the Dangers of Decentralization. *World Bank Research Observer*, August, pp. 201–210.
- Purfield, C. 2006. Mind the Gap - Is Economic Growth in India Leaving Some States Behind? *IMF Working Paper*, WP/06/103, April.
- Serra, M.I., Pazmino, M.F., Lindow, G., Sutton, B., and Ramirez, G. 2006. Regional Convergence in Latin America. *IMF Working Paper*, WP/06/125, May.
- Shleifer, A. and Treisman, D. 1999. *Without a Map: Political Tactics and Economic Reform in Russia*, Cambridge MA: MIT Press.
- Ter-Minassian, T. 1999. Decentralization and Macroeconomic Management. In: de Mello Jr., L.R. and Fukasaku, K. (eds.), *Fiscal Decentralization, Intergovernmental Fiscal Relations and Macroeconomic Governance*. Paris: OECD Development Center.
- Wade, R. 1988. The Management of Irrigation Systems: How to Evoke Trust and Avoid Prisoners' Dilemma. *World Development* 16(4), 489–500.
- Zhang, X. 2006. Fiscal Decentralization and Political Centralization in China: Implications for Growth and Inequality. *UN University WIDER Research Paper*, No. 2006/93.