

On the Dangers of Decentralization

Rémy Prud'homme

Demand for decentralization is strong in most parts of the world. This close look at the negative side effects of improperly applied decentralization is not an attack on decentralization but an effort to prevent its misapplication — and to promote fuller understanding and wiser use of this potentially desirable policy.



Summary findings

Prud'homme highlights some of the dangers of decentralization:

- The benefits of decentralization in allocative efficiency are not as obvious as suggested by the standard theory of fiscal federalism. The assumptions of this theory are fragile.

- These doubtful benefits might carry a cost in production efficiency, but more empirical research is needed on this point. What is not doubtful is that decentralization runs counter to redistribution and stabilization.

- Decentralization makes redistributive policies, whether interpersonal or interjurisdictional, more difficult, if not impossible.

- Decentralization also makes macroeconomic stabilization programs more difficult to implement because subnational government fiscal policies can run counter to national policies. Serious drawbacks or potential drawbacks should be considered in designing any decentralization program.

The arguments Prud'homme develops make it easier to understand some of the real choices. These choices are

not so much whether to decentralize in general but rather what functions to decentralize — in which sectors, and in which regions. Guidelines can be provided on this.

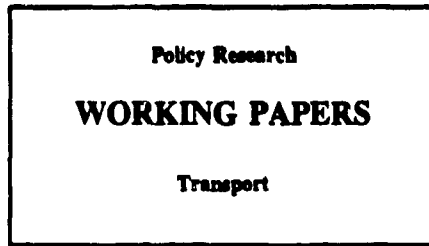
Often, the problem is not so much whether a certain service should be provided by a central, regional, or local government, since the service often has to be provided with the intervention of all three levels of government. The real challenge is how to organize the joint production of the service.

Decentralization refers simultaneously to a state and to a process. The virtues and dangers of decentralization are often discussed simultaneously for both concepts. This is a dangerous confusion because decentralization is path-dependent. What is desirable in a given country at a certain point in time depends on the present state of decentralization and the speed at which it has been reached.

Much more work, particularly empirical work, is needed — in reviews of decentralization (or centralization) experiences in general, as well as those encouraged or supported by the World Bank.

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INTRODUCTION

1.1 This paper is not an attack on decentralization, but on its misunderstanding and misapplication. Decentralization measures have enormous potential. They must, however, be properly designed and implemented if they are to increase the efficiency of the public sector and thus encourage growth and improve welfare. But decentralization measures are like some potent medicines: they must be taken at the right time, in the right dose, and for the right illness to have the desired salutary effect. Taken improperly, they can harm rather than heal. This paper studies some of the negative side-effects of improperly applied decentralization to promote better understanding of these effects and therefore wiser usage of this potentially desirable policy.

1.2 Demand for decentralization is strong in most parts of the world and increased efficiency is only one reason behind the demand. In some countries, decentralization may be part of the political strategy of ruling elites to retain most of their power by relinquishing some of it. In some former communist countries, such as Poland, however, free elections were held at the local level before they were held at the national level in an attempt by new political forces to consolidate a still fragile power. Elsewhere, the demand stems from a genuine desire to introduce more democracy in the country. In other countries, decentralization is not a strategy but is imposed by the pressure of local politicians and is conceded by national politicians. In yet other countries, it might be a "fashionable" idea that will satisfy the people but have little effect. In some other countries, of course, decentralization will be introduced to improve the supply and delivery of local public services. In most countries several reasons will combine to explain decentralization measures. But in all countries these measures will have political and economic consequences that are hard to predict but are potentially important.

1.3 The World Bank is engaged in this decentralization movement. A number of studies examining decentralization programs or policies in one or more countries have been completed in recent years. A partial list includes papers on Latin America (Campbell 1991), on Venezuela (World Bank 1992a), on Argentina (World Bank 1990a, Herzer 1992), on Africa (Silverman 1990), on Poland (World Bank 1992d), on the Philippines (World Bank 1992c), or on Russia (1992b). In addition, many of the projects that go to the Board include a decentralization component. For instance, out of the seventeen transport or transport-related projects that were examined in 1992, at least seven, or 40 percent, had an explicit decentralization dimension.

1.4 Despite this serious involvement, the Bank has no specific policy on the matter. The Bank usually favors decentralization, but it takes this implicit stand on a weak analytical basis. Israel (1992, p.76) presents decentralization as a "competition surrogate." In most Bank papers, the case for decentralization rests on the basic principles of fiscal federalism, which have been developed on the basis of U.S. institutions and practices and are not necessarily appropriate for all developing countries. The Bank needs to develop an analytical framework to clarify the issue, monitor the experiences undertaken and the design of research efforts in this area, and provide better-founded policy advice.

1.5 Being for or against decentralization is not enough. The following should also be clear: why, when and how decentralization is to be encouraged (or discouraged); what trade-offs are involved; at what speed it should proceed; in what sectors and for what functions decentralization

should be introduced first; what specific forms it should take; toward which levels of government it can most easily be implemented; and what precautions or correcting measures should be introduced with it.

1.6 This paper attempts to give operational content to the concept of decentralization. It focusses on only one aspect of decentralization, namely the dangers, or costs, associated with it. But the benefits have probably received more attention than the costs, and a better understanding of the costs is therefore useful for arriving at balanced views and effective policy recommendations. In the process that leads to the canonization of even the greatest saints, there is a devil's advocate who questions the virtues of the prospective saint. Decentralization must surely be submitted to this sort of questioning.

1.7 Decentralization is an ambiguous concept, its borders not well defined. Perhaps this ambiguity contributes to the appeal of the concept.

1.8 Minis and Rondinelli (1989) propose a useful typology that distinguishes between three types of decentralization: spatial, market, and administrative. *Spatial* decentralization, commonly called regional policy, is defined as a process of diffusing urban population and activities geographically away from large agglomerations. *Market* decentralization, or economic liberalization, is defined as a process of creating conditions in which goods and services are provided by market mechanisms rather than by government decision. *Administrative* decentralization is defined as the "transfer of responsibility for planning, management, and the raising and allocation of resources from the central government and its agencies to field units of government agencies, subordinate units or levels of government, semi-autonomous public authorities or corporations area-wide, regional or functional authorities, or nongovernmental private or voluntary organization" (Rondinelli and Nellis 1986, p.5).

1.9 Administrative decentralization, when so defined, can be subdivided into three types: deconcentration, delegation, and devolution. *Deconcentration* is the redistribution of decision making among different levels within the central government. *Delegation* is the transfer of responsibilities and power from the central government to semi-autonomous organizations (like a public corporation or a housing authority) not wholly controlled by the central government but ultimately accountable to it. *Devolution* is the transfer of powers from the central government to independent subnational governments.

1.10 Unfortunately, this typology does not seem to have taken hold, and the word "decentralization" is commonly used to refer to what is described above as devolution. This paper follows that usage. In addition, it uses the words "deconcentration" and "delegation" as defined above.

1.11 Defining "decentralization" as the transfer of powers from central government to independent subnational governments immediately raises a number of questions about the notions of transfer, independent subnational governments and powers.

1.12 First, the notion of transfer can refer to a process or to a state. In principle, decentralization should be used to describe the *process* by which a decentralized system of government replaces a centralized system. In practice, it is often used to describe the *state* that

results from this process, that is a decentralized system. The literature on fiscal decentralization, for instance, deals with the merits (or demerits) of a decentralized system, and, to most people, an "optimal rate of decentralization" would evoke the desirable state of national versus subnational governments in balance rather than the desirable speed to attain that ideal state. This ambiguity suggests that one meaning of the term should not be divorced from the other, and that we should look jointly at the state of decentralization and at the process by which it can be reached. This paper will use the word "decentralization" in its static as well as in its dynamic sense.

Decentralization to Whom?

1.13 Second, the definition of decentralization implies the existence of independent subnational governments. The notion of an independent subnational government is by no means clear. At one end of the spectrum, there are truly independent subnational governments that are under the control of locally elected councils and/or mayors, and hold views and carry out policies that can be in complete disagreement with those of the central government. At the other end of the spectrum, are subnational governments that are mere creatures of the central government, with mayors appointed and fired by it. They are simply the subnational hands of the national administration and their task is to carry out the policies of the central government. Only the first case example describes decentralization. The second case, there could only be deconcentration.

1.14 Reality is always more complicated. Subnational governments are never *totally* independent of some form of higher levels of government. Subnational governments fall somewhere on the spectrum between the two polar scenarios and can have elected councils and appointed mayors at the same time or act simultaneously as autonomous units and agents of the central government. Independence of subnational governments is a matter of more or less rather than of yes or no. In one-party states, for example in the former communist countries, local government officials are either appointed by the top or elected on top-controlled tickets and therefore belong to the party in power. In addition, the resources of the subnational governments are usually subject to strict national control. To that end, former communist countries adhered to basic theoretical "principles"—the principle of the unity of the state, and the principle of the unity of the state budget. Decentralization could hardly exist in such a setting. In practice, matters are often more complex. People appointed from above often have local origins. They serve both as spokespersons of the local people to the national ruler and as spokespersons of the national ruler to the local people. Giving them additional power is often more than deconcentration. Even in developed countries, mixed entities serve simultaneously as arms of a central government and as full-fledged local governments. The French *département*, until recently, was a case in point. It had most of the features of an independent subnational government, with a locally elected council, that freely elected a president and voted a budget. However, in every *département*, a central government appointed prefect chaired the meetings of the departmental council, prepared the budget, and controlled its execution by central government appointed civil servants. Similar complex arrangements are found today in Turkey and the Czech Republic. Words like quasi-local governments or pseudo local governments would have to be developed to fully describe the realities of central/local relationships. The notion of an independent subnational government is a relative concept.

Decentralization of What?

1.15 Third, the notion of powers given to the central government and the subnational governments is multidimensional. The two most common dimensions are taxation and expenditures. The most frequently used indicators of the state of decentralization are the *tax decentralization ratio* (subnational government taxes relative to total government taxes) and the *expenditure decentralization ratio* (subnational government expenditures relative to total government expenditures).

1.16 In addition to the power to *spend* and the power to *tax*, other important attributes of sovereignty are the power to *borrow* and the power to *regulate*. The power to contract, or the power to change, or the power to own, can be seen as combinations of the four basic attributes mentioned.

1.17 The powers to tax and to spend are full of ambiguities. Expenditures and tax decentralization ratios are equally hard to define because the notions of subnational expenditures and subnational taxes are not clear.

1.18 Take expenditures decentralization. Not all expenditures by local governments are fully controlled by local governments. In many countries, the visible hand of the central government is dictating, controlling, influencing, or restricting the freedom of local governments in their expenditures behavior. Establishing a typology of these manifold constraints would be a useful exercise (see World Bank 1992b for a first attempt at listing discretion-reducing practices utilized in Russia).

1.19 Another useful exercise would be to estimate what could be called a "discretion coefficient." The "apparent" expenditure decentralization ratio (i.e., the one most often used and quoted) would be multiplied by the coefficient to arrive at a "true" expenditure decentralization ratio. France, for instance, is much less centralized today than it was 15 years ago. But the change is poorly reflected by the evolution of expenditures decentralization ratios that may have moved from 16 percent to 19 percent. A better assessment of what happened would be to say that decentralization in France increased from 9.6 percent to 17.1 percent. Similarly, in comparing France and Italy today, it is customary to quote the apparent rates of expenditure decentralization, which are 19 percent and 30 percent respectively, and to conclude that Italy is much more decentralized than France. But it can be argued that the discretion coefficient is 90 percent in France and only 50 percent in Italy, and that the true expenditure decentralization ratios are respectively 17.1 percent and 15 percent, so that Italy is less decentralized than France.

1.20 A similar story can be told about tax decentralization ratios. At least five criteria can be used to define the "localness" of a tax: (1) who chooses the tax base; (2) who assesses the tax base; (3) who decides the rate(s) of the tax; (4) who collects the tax; and (5) who gets the proceeds of the tax. If the answer to these five questions is the subnational government, then no doubt the tax is a local tax. But this is rarely the case. Although there is no general agreement on this issue, many people would agree that the third criterion, rate setting, and of course the fifth, allocation, are more important than others. If only taxes, the rates of which are decided freely by local governments, were considered local taxes, tax decentralization ratios published in many international documents would decline significantly. In particular, the subnational share of "shared taxes" (taxes with rates decided by national governments, such as the German income tax for instance) would be considered transfers, not local taxes. Even this criterion would be difficult to apply. In some countries, where

local governments are free to set certain taxes, they all chose the same rate because either they follow ministry of finance "guidelines" or they all hit a low ceiling imposed by the ministry.

1.21 Another difficulty with tax and expenditure decentralization ratios is associated with the role and the weight of government "satellites." The satellites are often important in many countries, particularly at the local level, but vary greatly from country to country and over time. In certain countries or cities, such local public services as water, public transportation, and public housing are provided directly by local governments, and related income and expenditures *appear* in local governments' accounts; in other countries or cities, *exactly* the same services are provided by government-controlled entities (such as utilities, concessionaires) and related income and expenditures *do not appear* in local government statistics. The same reality is reflected in different measures of decentralization. Another example of this bias in many former socialist countries is local public services that were provided by central government-controlled satellites and have now been shifted to local government-controlled satellites. This significant increase in decentralization will not be reflected in current measures of decentralization.

1.22 These examples illustrate the many dimensions of decentralization and show the difficulty of producing simple estimates of complex realities. Thus, published expenditures and tax decentralization ratios based on local government accounts can deviate from true ratios, often by a very large margin, and one that differs over time and space. This limits the usefulness of studies that try to establish a link—often considered a causal link between the degree of tax or expenditure decentralization and some economic magnitude, such as the total size of government (verifying the Leviathan hypothesis), or the level of development, or even economic growth (Reid and Winkler, 1991).

1.23 This paper will attempt to describe and analyze some of the dangers associated with decentralization. Most of the analysis will refer to the "pure" decentralization of fiscal federalism theory, that is, a system in which pure subnational governments raise pure local taxes and undertake pure local expenditures, without the benefit of central government transfers. This is not a very realistic model, but it is the one used in the pro-decentralization theory, and it is useful for analytical purposes. In classical Musgravian fashion, the paper will examine the dangers of decentralization from the successive viewpoints of allocation (section 2), redistribution (section 3), and stabilization (section 4). The paper will then try to relax some of the questionable assumptions of the decentralization model to go beyond the centralization-decentralization dichotomy (section 5).

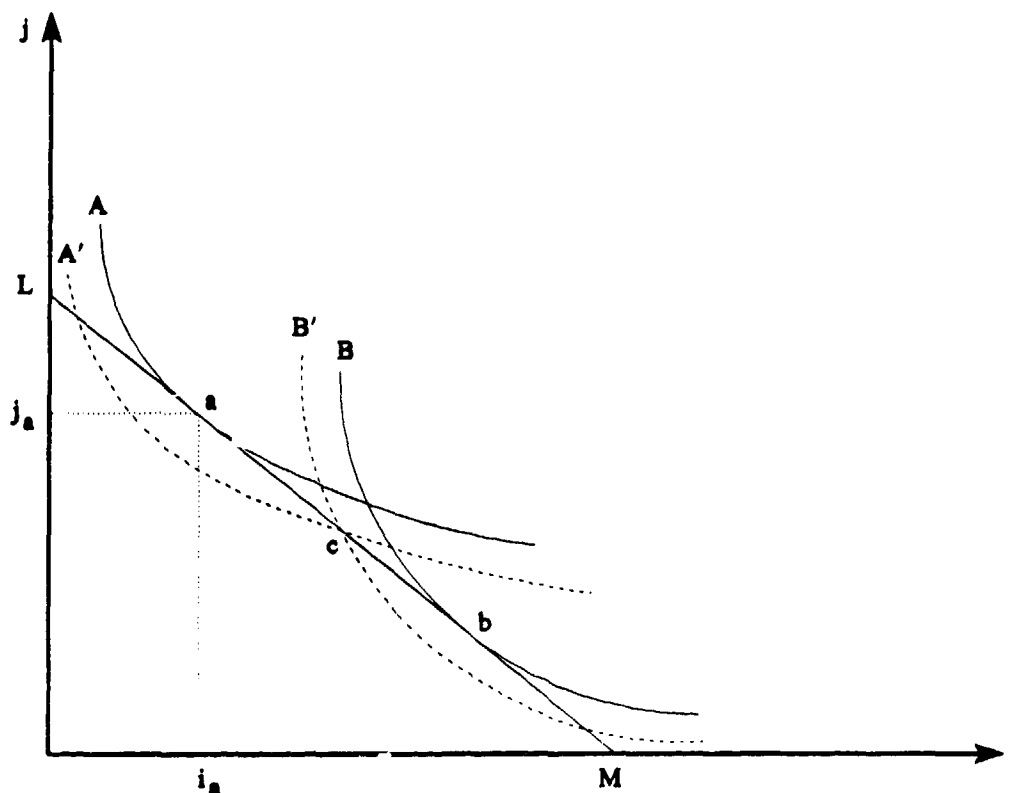
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DECENTRALIZATION CAN UNDERMINE EFFICIENCY

2.1 The case for decentralization is usually based on efficiency. The theory of fiscal federalism argues that tastes of inhabitants differ between jurisdictions. People under local government A prefer recreation; people under local government B prefer education. The central government's generalized provision for education and recreation will satisfy neither. But the decentralized allocation of resources will better match demand and will therefore increase welfare.

2.2 This can be represented graphically by figure 2.1, in which i and j are the per capita quantities of the two local goods to be provided. LM is a budget constraint showing the quantities of i and j that can be produced. A and B are (families of) indifference curves for local governments A and B, respectively. In a decentralized system, local government A will settle at point a (producing i_a and j_a), on indifference curve A ; and local government B will settle at b , on indifference curve B . In a centralized system, central government will settle in c , on indifference curves A' and B' . A' and B' are indifference curves inferior to indifference curves A and B . Centralized provision therefore implies a welfare loss.

Figure 2.1. *Welfare Benefits of Decentralization*



2.3 Exactly the same reasoning can be conducted with i representing total spending on publicly provided goods (that is taxes) and j representing privately produced, and paid for, goods. A decentralized system will be welfare-enhancing because it will better suit the various public-private preferences of the various jurisdictions.

2.4 This model, however, can be criticized on two grounds. First, it assumes a number of hypotheses that are unlikely to be met in a developing country. Second, it focusses entirely on demand efficiency, and ignores supply efficiency.

Decentralization and Allocative Efficiency

2.5 Most of the explicit or implicit assumptions of the fiscal federalism model are not met in developing countries. First, the model assumes that the main difference between the various local or regional jurisdictions is in their respective tastes or preferences. In reality, the main differences are in income, either in household incomes, which explain differences in tastes, or potential tax incomes. In most developing countries the problem is not to reveal the fine differences in preferences between jurisdictions but to satisfy the basic needs, which are, at least in principle, well known, and need not be revealed. The potential welfare gains associated with a better match of supply and demand are not large.

2.6 Second, the model assumes that the taxpayers/voters of each jurisdiction will express their preferences in their votes. This hypothesis bears little relationship to local electoral behavior in developing countries. Preferences are complex and manifold. They relate to the importance of the local public sector output (that is, the total amount of local taxes paid) and to the structure of this output, to the set of regulations that will be locally imposed, to the supply efficiency that is expected, to the distributional implications of the tax-expenditure package that will be decided. How could all that be expressed in a single vote? Local elections, when they exist, are usually decided on the basis of personal loyalties or of political party loyalties. People vote for a mayor they know or a party they like. This is true even in developed countries, where local elections are often a rehearsal for national elections and often do not reflect local preferences. In addition, the platforms on which local elections are fought (when they exist) are often vague and/or unrealistic. The menus offered for choice to the electorate are unlikely to be a good vehicle for expression of the electorate's preferences.

2.7 A third hypothesis, that locally elected mayors will satisfy the revealed preferences is rarely realized for several reasons. In most cases, as mentioned, the electoral mandate is structurally vague or inconsistent. Even if mayors wanted to fulfill it, they usually could not do it because of a gross mismatch between available resources and promised expenditures. Then, mayors often lack incentives to keep their promises. Some will not run for re-election, and most know that their re-election will depend little on their local performance. A "good" mayor, who has guessed the preferences of his electorate and tried to respond to it, may well be ousted because he belongs to a party whose national policies have become unpopular.

2.8 Finally, even if mayors wanted to satisfy the preferences of the electorate and had enough resources to do so (two heroic assumptions!) it is not sure that their local bureaucracies would follow. A mayor is merely a principal who gives orders to a local bureaucrat, his agent. The degree of control of the principal over his agent, the modalities of this control, and its efficiency, will vary

from country to country. But in many cases, local bureaucracies are often unresponsive. They are poorly motivated, occasionally poorly qualified, and they might have good reasons to pursue their own agenda rather than the agenda of their principal.

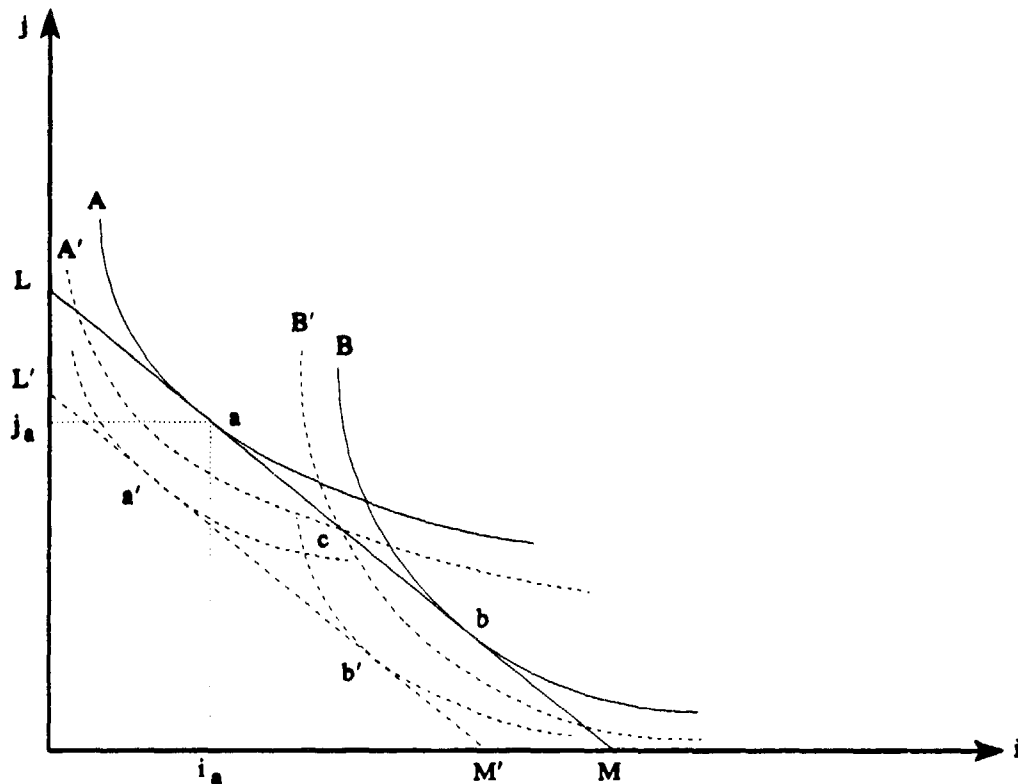
2.9 The hypotheses on which the decentralization model rests therefore appear fragile, particularly (but not exclusively) in developing countries. Yet, they are essential to the conclusion that decentralization will improve allocative efficiency. Of course, it can be argued that the mechanisms which have proven to work imperfectly for decentralization do not work at all for centralization. This view is only partly true. Central provision of local public services can also be modulated to better suit local demand. There is no compelling reason why central government provision would be uniform over space, as is postulated in theory and in figure 2.1. Higher level governments might differentiate the services they provide according to space, just as private enterprises operating on a national or international scale have done for centuries. It is true that there is no formal electoral mechanism to ensure adaptation to local needs in the case of central provision. But there might be other mechanisms, such as the will to serve people, deconcentration, pricing mechanisms, survey devices. These alternative mechanisms might be as efficient (or as inefficient) as the electoral mechanism implied in decentralization. On the whole, the potential gains in allocative efficiency resulting from decentralization are likely to be small. This finding is particularly important in view of what can be said about the impact of decentralization upon productive efficiency.

Decentralization and Production Efficiency

2.10 The standard decentralization model says nothing, or next to nothing, about production efficiency. The welfare gains to be obtained from decentralization (if one believes the model) will accrue only because supply will better match demand. There is a hidden assumption here, that supply itself is always efficient. This assumption, derived from consideration of the private sector (where it does not always hold), is not acceptable for the public sector. Kranton (1990) and Heggie (1991) make this important point in their critique of marginal cost pricing practices. A real issue is whether local provision is more cost effective than national provision. We cannot, and should not, take for granted that we always operate on the production frontier, or referring to figure 2.1, that line LM is a given. The shift from centralization to decentralization may well imply a shift from LM to L'M', with L'M' being either to the left or to the right of LM. In fact, this could be the real question, and the impacts of the two different regimes are much more important in terms of productive efficiency than in terms of allocative efficiency. As shown in figure 2.2, if decentralization resulted in a downward shift of LM to L'M', even if we assume that centralization was unable to differentiate between A and B, then decentralization will result in A consuming a' and B consuming b' , which represents a welfare loss relative to the situation in which they were both consuming c .

2.11 Whether decentralization will increase or decrease productive efficiency (move LM upwards or downwards) is a matter of empirical studies. Not much information is available on the subject, but several a priori reasons suggest why one should fear that decentralization will decrease productive efficiency.

Figure 2.2. Welfare Losses of Decentralization



2.12 One reason is that the provision of a given local public service could include economies of scale. This point is widely recognized in the literature, and even the most decided decentralists acknowledge that services with economies of scale should *not* be decentralized. Studies of economies of scale in local public services are scarce, but the prevailing view is that few local public services involve economies of scale implying nationwide supply. For most local public services, the provision in a given city is independent of the provision in other cities. The welfare losses implied by decentralization because of economies of scale are probably minimal.

2.13 Another, more compelling, reason is that economies of scope might exist and that central bureaucracies may be more efficient than local bureaucracies. Decentralization not only transfers power from central to local government, but also from central to local bureaucracies. Some indicators show that central bureaucracies are likely to operate relatively closer than local bureaucracies to the technical production frontier. For one thing, central government bureaucracies are likely to attract more qualified people, not so much because they offer higher salaries, but because they offer better careers, with a greater diversity of tasks, more possibilities of promotion, less political intervention, and a longer view of issues. Furthermore, central government bureaucracies invest more in technology, research, development, promotion, and innovation. Only large institutions can do this in the public sector, just as in the private sector. In many developing countries not enough of these investments are made by central government bureaucracies; but then, local bureaucracies make almost none.

2.14 The problem is compounded by the progress of privatization. In most countries, and for good reasons, the border line between private and public sector provision is being shifted. The sphere of public provision is therefore shrinking. Decentralization shifts the border line between central and local public provision, and it also reduces the share of the former. As a result, the role of central government activities and bureaucracies is rapidly being curtailed. This retrenchment is probably done at a cost that may well be high. The best people leave, morale is lowered, the sense of public service is shaken, networks are broken, investments in research and development are sacrificed. The examples of France and Brazil would probably support this pessimistic assessment. In France, the prestigious and efficient corps of *Ingénieurs des Ponts et Chaussées*, which has been the driving force behind most infrastructure provision in France, is presently losing its strength, largely as a result of decentralization. In Brazil, for much the same reason, the highly qualified corps of road engineers and sanitary engineers, which existed at the national level, is also being partly dismantled. The obvious costs associated with this loss of technology and expertise are probably not compensated by potential progress made in the private sector or in local government bureaucracies.

2.15 Whether these retrenchment costs are related to the size of the central public sector (because it goes below an unknown threshold), or to the speed at which the process takes place, is important, however, for policy prescription. If retrenchment costs are a matter of absolute size, then decentralization could be pushed more strongly in large countries than in small ones. This obvious point is completely ignored in the standard analytical approach. If, on the other hand, retrenchment costs are a function of the speed at which decentralization proceeds, they could be minimized or perhaps eliminated by a slower process.

2.16 A number of case studies of actual decentralization measures have expressed fears that decentralization might undermine efficiency. Thus, for instance, a recent World Bank document on Peru, looking at the water supply and sanitation sector, states, "The regionalization process underway and the corresponding changes in sector organization assign all the operational responsibilities to regional and local governments. In general, this is a desirable trend as it brings the level of responsibility closer to the users. A great challenge, however, is being placed on these levels of government to create the necessary institutions to respond effectively to local needs. The management of services in more than 400 urban centers of less than 100,000 inhabitants is of particular concern. These towns do not benefit from economies of scale in operations, and are unable to offer attractive working conditions and salaries to qualified personnel and to plan and run water and sanitation operations at a satisfactory level.... In the next two or three years, it is likely that response capacity of the new sector will be even worse than it is today as new institutions need time and assistance to develop this capacity" (World Bank 1990b, pp.xi-xii).

Decentralization and Corruption

2.17 Another reason that decentralization might not be desirable in terms of efficiency and that has to do with both allocative and production efficiency, is that decentralization *might* be accompanied by corruption. The corruption would probably be more widespread at the local level than at the national level. But if true, decentralization would automatically increase the overall level of corruption in a given country. This, by the way, might not be bad in terms of redistribution, because the benefits of decentralized corruption are probably better distributed than the benefits of centralized corruption. Corruption is costly in terms of allocative efficiency because it leads to a

supply of services for which kickbacks are higher rather than to those for which there is a demand. It is also costly in terms of production efficiency because it leads to corruption-avoiding strategies that increase costs, favor ineffective technologies, and waste time.

2.18 Corruption is hard to assess and measure, but several reasons can be given for greater corruption at the local level than at the national level. On one hand, more opportunities for corruption probably exist at the local level. Local politicians and bureaucrats are likely to be more subject to pressing demands from local interest groups (whose money and votes count) in matters such as taxation or authorizations. They also usually have more discretion than national decision-makers. In fact, this discretion is the major theoretical advantage of decentralization. That national bureaucrats, at least in some countries, are moved from place to place makes it more difficult for them to establish unethical relationships with local interest groups, unlike local bureaucrats who make their careers in the same location.

2.19 On the other hand, fewer obstacles to corruption exist at the local level. Corruption in many cases requires the cooperation of both politicians and bureaucrats, and the distinction between them is generally less rigorous at the local level. Local bureaucrats have less independence relative to local politicians than national bureaucrats do relative to national politicians. In some countries at least, national bureaucracies have a tradition of honesty which is often absent at the local level. Monitoring and auditing are usually better developed at the national level than at the local level. The pressure of the media would also be greater for national corruption than for local corruption.

2.20 Few, if any, empirical studies have been done on the matter. Prud'homme (1992), found informal taxation (defined as the "nonformal means utilized to finance the provision of public goods and services") at the local level in Zaire to be at least eight times more important than the formal taxation recorded in the books of local governments. Informal taxation includes pinch, extortions and requisitions (public informal taxes), but also contributions, gifts and donations (private informal taxes). The study did not attempt to estimate similar figures for national informal taxation, but they would probably not have the same relative magnitude. This study supports the idea that more corruption exists at the local level than at the national level. Widespread agreement could be found in France or in Italy that local level corruption is more significant than national level corruption. Virtually all the cases of corruption that have been identified in these countries in recent years are local-government related. For the reasons suggested, locally elected politicians, in cooperation with politically appointed local bureaucrats, found it easy to extract money for granting local authorizations or of local procurement contracts.

2.21 The issue of corruption only reinforces the point that, from an efficiency viewpoint, decentralization is not always beneficial and that it can be dangerous. These a priori considerations should be supported by empirical studies of decentralization or centralization experiences. One such study, on water collection and treatment in Tunisia, can be found in Khellaf (1992).

A Case Study of Centralization in Tunisia

2.22 Sewage services in Tunisia provide a successful example of centralization. Until 1974, used water collection and treatment was the responsibility of local governments. The level of technical expertise was very low. In 1974, a sample survey of people employed in the sector revealed that only about 4 percent of them had any skills related to sewage, and practically all of

them were attached to the municipality of Tunis. The service was provided directly, by force account, with no accounting information on costs and no form of cost recovery. Service quantity and quality were bad. In 1970, only 20 out of 150 municipalities had some form of sewage treatment, and what there was, was inefficient. Only eight municipalities had some form of treatment plants, but all were overloaded and malfunctioning. Many of the sewer systems were poorly designed and/or poorly maintained. More than half of the sewer accessories, such as manholes and grit-traps, were out of service. Out of 27 lift-stations that were visited by a World Bank team in 1974, only 5 were functioning. The implications were serious. The Lake of Tunis, into which used water was discharged with little or no treatment, was eutrophying rapidly. Infectious and parasitic diseases were prevalent. Some cases of cholera were reported in the early 1970s. Something had to be done.

2.23 Instead of trying to help local governments deal with the problem, the central government of Tunisia decided to take the provision of service from local governments and entrust it to a specialized parastatal agency, ONAS (the Office National del'Assainissement), created for that purpose in 1974. The World Bank was instrumental in this decision and played a significant role in the development of ONAS. ONAS was given a monopoly position over the service, first in the Tunis metropolitan area, then gradually in all other major urban centers of the country. In other parts of Tunisia, municipalities continue to operate their own system (if any), some of which will eventually be integrated into ONAS's operations. From the outset, the emphasis was put on autonomous management, appropriate personnel policy, and sound financial procedures.

2.24 By most accounts, this centralization has been successful. ONAS developed into an effective and efficient institution. The training programs that started in 1978 have been particularly important. By 1987, 23 percent of the personnel were technical professionals (not counting 6 percent who were managers), and all of the foreign assistants had been replaced by competent, well-trained Tunisians. Even though the central government continues to provide important subsidies to the sector, a surcharge on water consumption covers most operating costs, investment costs of the network are partly recovered by a form of property tax, and individual connection costs are entirely recovered from the beneficiaries. ONAS benefitted from important loans by the World Bank and other donors. The level of sewage services increased significantly in Tunisia. By 1988, ONAS was providing full sewage services to the 30 largest cities, accounting for about 50 percent of the urban population of Tunisia, which had been growing rapidly in the 1975-1988 period.

2.25 It might be unfair to compare the success of this centralized provision of sewage services with the failure of the decentralization provision that preceded and to attribute the difference to centralization. The important resources that were mobilized, both domestically and internationally, and allocated to the sector played a key role. But there are strong reasons to believe that these resources could not have been mobilized under a decentralized system, and that, had they been mobilized, they would not have been utilized so efficiently. The successful training that took place would have been much more difficult to conduct in 30 different municipalities, and the need for trained personnel would have been greater. Reforming the accounting and financial procedures, which did not prove easy at the level of ONAS, would have been impossible if it had been attempted in 30 different municipalities. In other words, because resources would have been less efficiently utilized under a decentralized regime, they would not have been forthcoming under such a regime. In terms of production (or supply) efficiency, the centralization of sewage services in Tunisia was successful.

2.26 Was this done at a cost in terms of allocative (demand) efficiency? ONAS has not yet provided sewage services in all parts of the country, and some smaller cities rightly complain that they have not benefitted much from the system. ONAS' answer is that it focused on the larger cities, where needs were greater or more urgent. Had the same resources been spread more evenly over the country (assuming equal supply efficiency), the benefits of sanitation, measured in terms of sanitary hazards avoided, would probably have been reduced. Had the previous, decentralized system prevailed, it is even more likely that these smaller cities would not have been better off in terms of sanitation.

2.27 The real cost, if any, of this experiment in centralization is elsewhere, outside the sanitation sector. The creation of ONAS weakened already weak local governments. Depriving municipalities of one of their natural responsibilities made it more difficult for them to change, to learn, to grow, to improve. As a result, they are perhaps providing less efficiently other services, such as garbage collection or physical planning.

3

DECENTRALIZATION CAN INCREASE DISPARITIES

3.1 Decentralization should also be examined in terms of redistribution. Equity, one of the main objectives of public finance, can refer to two types of income redistribution issues: (1) interpersonal redistribution, and (2) interjurisdictional redistribution. Both can be impacted by decentralization.

Interpersonal Redistribution

3.2 Interpersonal redistribution or equity can be adversely affected by decentralization. Public finance literature states that redistribution (which implicitly means interpersonal redistribution) should remain a central government responsibility for two reasons.

3.3 One reason is decentralized attempts at redressing income redistribution patterns are likely to be unfair, as illustrated by the following example. Consider a country consisting of six households (A, B, C, D, E, F) regrouped in two regions: region Rich, regrouping A, B, and C; and region Poor regrouping D, E, and F. Interpersonal income redistribution can be done at the central government level or at the regional level, as indicated in table 3.1.

Table 3.1: Interpersonal Income Redistribution Compared at National and at Regional Levels

<i>Households</i>	<i>Rich</i>			<i>Poor</i>		
	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>
Income before distribution	10	8	6	6	4	2
<i>Redistribution at the central level</i>						
Taxes and subsidies	-2	-1	0	0	+1	+2
Income after redistribution	8	7	6	6	5	4
<i>Redistribution at the regional level</i>						
Taxes and subsidies	-1	0	+1	-1	0	+1
Income after redistribution	9	8	7	5	4	3

3.4 This example highlights two important points. One is that decentralized redistribution is likely to lead to different treatment of equals in a country. Households C and D, which had the same income (6) before redistribution, now have different incomes (7 for C, and 5 for D). The unequal treatment of equals is a definition of unfairness. Note that this might happen even if region Rich and region Poor have the same redistributive functions. In the example given, it takes place because Rich and Poor have different income distributions. But a similar unfair results would be achieved if the two regions had similar initial income distributions but different redistribution

policies. When different regions have at the same time different income distributions and different redistributions policies—which is more likely—the outcome can become more erratic and unfair.

3.5 The other conclusion from table 3.1 is that decentralized redistribution is less redistributive than centralized redistribution. The maximum/minimum ratio, which is 5 before redistribution, is reduced to 3 by decentralized redistribution as opposed to 2 by centralized redistribution. This happens because average incomes are higher in region Rich than in region Poor. This, by itself, does not mean that centralized redistribution is better. But it means that, if an effective redistribution is a policy objective, it will be more easily achieved by a centralized system.

3.6 A second reason for centralized redistribution is more compelling, as decentralized redistribution is self-defeating. Consider a political jurisdiction that undertakes active redistributive policies, imposing high taxes on the rich and providing high benefits to the poor. The rich from this jurisdiction will tend to move out. Our generous jurisdiction will soon be unable to sustain its policy.

3.7 Thus interpersonal redistribution should primarily be conducted by the central government. For the central government to conduct strong redistributive policies, it has to control a significant share of taxes and public expenditure. Centralization is not a sufficient condition of redistribution, as there are many centralized countries with little or no redistribution. However, it is a necessary condition, for it is hard to think of a country with important redistribution carried out at a subnational levels. Decentralization therefore makes it more difficult to pursue interpersonal redistributive policies.

Interjurisdictional Redistribution

3.8 Redistribution, however, can take place between places (or jurisdictions or regions or communes) as well as between people. This is not widely considered in the literature of fiscal federalism. First, interjurisdictional disparities are rarely recognized. They are considered abnormal phenomena, resulting from accidental shocks that will not last because they will be automatically reduced and eliminated by movements of goods, capital, and labor. Second, if interjurisdictional disparities persist, interpersonal disparities should be corrected by policies. A poor person is a poor person and should be aided irrespective of where the person happens to live. Transfers given to low income areas are not guaranteed to benefit the poorer citizens of these areas. Reducing interpersonal income disparities will automatically achieve a reduction in interspatial disparities as well. These arguments are not convincing.

3.9 First, large interjurisdictional disparities exist in most countries. They do not disappear as predicted by standard economic theory. These disparities are particularly wide in developing countries. The belief was long held that they increased in the first phase of economic development and decreased in a second phase, according to the Williamson law (Williamson 1965). This view has been challenged (Krugman, 1987, Myrdal, 1957, and Kaldor, 1970) and also contradicted by recent trends observed in several industrial countries, where interregional disparities have increased in the late 1980's—leading to an unexpected upturn of the Williamson curve. Interspatial disparities are present and can increase.

3.10 Second, a reduction of interpersonal disparities does not necessarily lead to a reduction in interspatial disparities. If the lower income region has a more equal income distribution than the higher income region, then transfers to the poorer citizens might well benefit primarily the richer region, increasing interregional disparities.

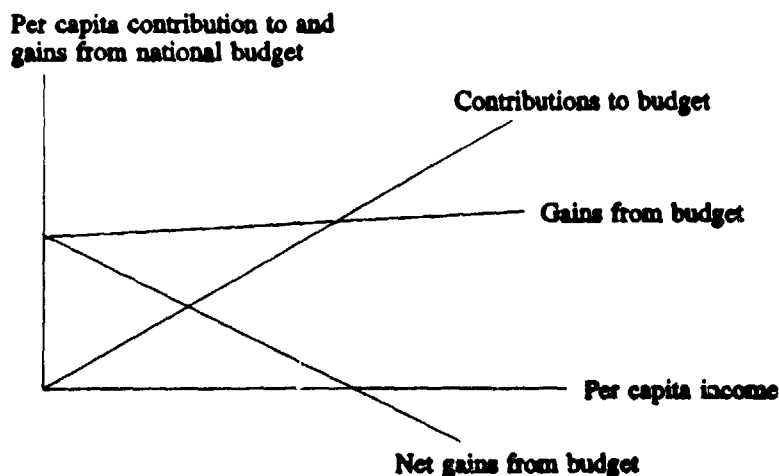
3.11 Third, a low income region is not only an area where there are low income people. It is also a place where there are less economic opportunities, less infrastructure, less agglomeration economies and other locational externalities. Increasing individual incomes in the area is not the same thing as increasing the development potential of the area.

3.12 Fourth, jurisdictions are social and political entities. They exist beyond the individuals that compose them, in the minds of these individuals. In their utility functions, the citizens of one region enter not only their own income, but also the income of their fellow citizens, more than the income of inhabitants of other regions. Interregional disparities are not merely statistical artifacts; their perception is a sociological reality. As a result, there is a political demand for action to reduce interjurisdictional disparities.

3.13 A decentralized system is therefore not likely to reduce interjurisdictional disparities more than a centralized system. A decentralized system in which all taxes would be collected and all expenditures undertaken on a jurisdiction by jurisdiction basis would not redistribute revenues between jurisdictions. By contrast, a centralized system will almost always redistribute income from a richer jurisdiction to a poorer jurisdiction. This will occur even with a proportional or regressive tax system coupled with a regressive expenditure system (a system in which per capita expenditures or per capita benefits associated expenditures increase as per capita income increases). This apparent paradox can be illustrated analytically and empirically.

3.14 Annex 1 presents a simple model of budget-induced transfers. The model shows that there are only three main avenues to increase spatial transfers in a given country: (1) increase the size of the central budget, (2) increase the equalizing nature of budgetary expenditures, or (3) increase the progressiveness of taxes. Figure 3.1 is a graphical presentation of this mechanism.

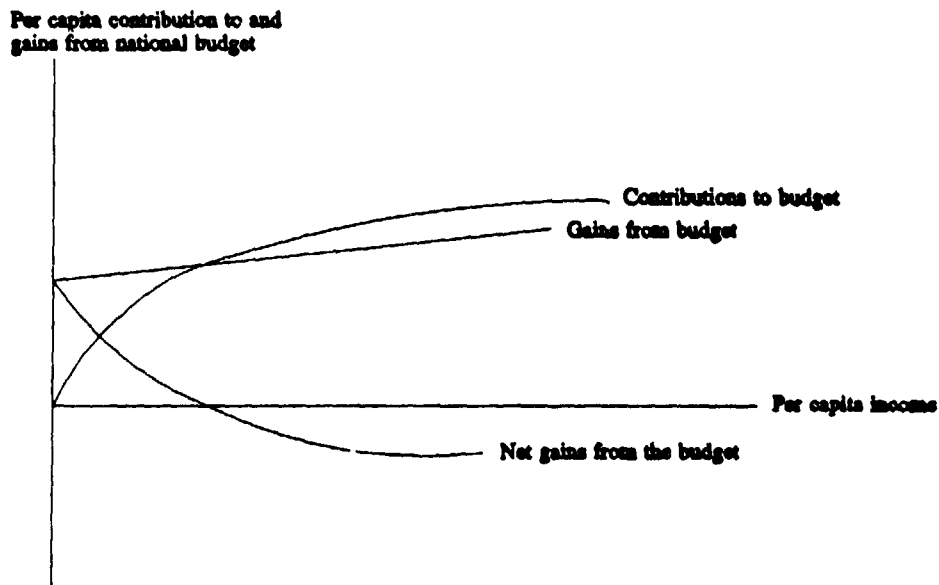
Figure 3.1. Budget-Induced Transfers



3.15 Figure 3.1 presents a budget financed by taxes proportional to income. The amount contributed by a region, on a per capita basis, is a simple function of income. Expenditures by region, always on a per capita basis, are assumed to be independent of income. It follows that poor regions get more from the budget than they contribute to it, and that the reverse is true for the rich regions. Net gains from the budget decrease as income increases.

3.16 Such transfers can take place, even with a regressive tax system and regressive expenditure system (see figure 3.2 below).

Figure 3.2. Transfers Induced by a Doubly Regressive Budget



3.17 Empirical studies support this hypothesis. Davezies (1989) studied the contribution to and the gains from the French national budget for 90 départements; Oliveira (1991) conducted the same exercise for 22 Brazilian states. For Cote d'Ivoire, Thailand, and Morocco, similar estimates were made for the contributions and the gains of the metropolitan area and of the rest of the country (Davezies, Nicot, Prud'homme 1985; Davezies, Nicot, Prud'homme 1987; Nicot, Letrung, 1989). In spite of the conceptual and statistical difficulties of this exercise (which were solved by the multiplication and generalization of sensitivity analysis), the results emphasized that richer areas do subsidize, through national budgets, poorer areas.

3.18 Table 3.2 summarizes the magnitude of these transfers between the large cities and the rest of the countries for the five cases studied.

Table 3.2: Budget-Induced Transfers Between Large Cities and the Rest of the Country (percent)

	<i>Abidjan</i>	<i>Bangkok</i>	<i>Casablanca</i>	<i>Sao Paulo</i>	<i>Paris</i>
	1984	1987	1982	1985	1985
Share of country population	18	14	12	12	18
<i>Share of national budget</i>					
Contribution to budget	54	41	34	20	26
Gains (benefits) from budget	25	28	18	14	19
Gains (flow) from budget	34	35	21	9	21
Transfers (benefit)	25	13	16	6	7
Transfers (flow)	18	7	13	12	5
<i>Amount (U.S. \$)</i>					
Transfers (benefit) per capita	200	160	400	90	870
Transfers (flow) per capita	160	80	330	160	630
<i>Share of GDP</i>					
Transfers (benefit)	5.3	2.5	6.5	7.4	1.7
Transfers (flow)	4.2	1.3	5.5	13.9	1.3

3.19 The conclusion that emerges from this analytical and empirical research is that national budgets nearly always automatically reduce interjurisdictional disparities. Any reduction in the importance of national budgets relative to subnational budgets—a definition of decentralization—will therefore increase interjurisdictional disparities, or, more precisely, decrease the decreasing impact of policies upon disparities.

3.20 Table 3.3 illustrates this point. Consider a country composed of two regions A and B of equal population and unequal income. Both central and local tax systems are assumed to be proportional to income. Central government public expenditures (equal to central government taxes) are assumed to be divided and/or to benefit equally each region. Local taxes finance local expenditures. In a first case, the central government is assumed to be twice as important as the local governments (in terms of taxes and expenditures). The poorer region sees its income increased by 10 percent. The income ratio, which was 2 before budget change, is reduced to 1.72. In the second case, decentralization has taken place. The central government is now only half as important as the local governments. The poorer region sees its income increased by only 5 percent, and the income ratio is reduced to only 1.86.

Table 3.3 Changes Induced by Decentralization, Hypothetical Example

	Region A	Region B	Country
Income per capita	100	200	150
<i>Public sector before decentralization</i>			
Central taxes (20%)	20	40	60
Local Taxes (10%)	10	20	30
Total taxes (30%)	30	60	90
Central public expenditures (1/2)	30	30	60
Local public expenditures (=)	10	20	30
Total public expenditures	40	50	90
Gain	+10	-10	0
Gain as share of income (%)	+10	-5	0
<i>Public sector after decentralization</i>			
Central taxes (10%)	10	20	30
Local taxes (20%)	20	40	60
Total taxes (30%)	30	60	90
Central public expenditures (1/2)	15	15	30
Local public expenditures (=)	20	40	60
Total public expenditures	35	55	90
Gain	+5	-5	0
Gain as share of income (%)	+5	-2.5	0

3.21 A decentralized system will produce less automatic interjurisdictional transfers than a centralized one. This mechanism is not only static but also dynamic. It is likely to start a vicious circle. The richer jurisdictions will have larger tax bases (whatever tax bases are chosen). Their tax rates will be either equal to the tax rates of other, less rich, jurisdictions, or lower. In the first case, they will have more tax income and therefore provide more local public services. In the second case, they will offer the same service, but with lower tax rates. In both cases, these jurisdictions will be more attractive to households and enterprises. Households and enterprises will settle preferentially in these jurisdictions, enlarging their tax bases and increasing the gap between richer and poorer jurisdictions. Decentralization will thus foster segregation. The story of United States local governments offers an illustration of this disparity-increasing mechanism. By contrast, a fully centralized system would automatically reduce disparities because of the redistributive properties of budgets discussed above.

3.22 A corollary is that, all other things being equal, the decentralization of taxes and expenditures (the one discussed here) works against activity decentralization. It is likely to lead to a concentration of activities and growth in a few cities and locations.

3.23 Some cynics could consider this a virtue of decentralization. The concentration of activities is likely to contribute to growth, then a decentralized system is likely to be growth inducing. Cynics would find support for this thesis in the experience of some former socialist countries. In these highly centralized countries, where the principle of the unity of the budget prevailed, it was possible to locate activities where planners found it desirable. In a country like Poland, for instance, industry was created in many parts of the country, including those parts with no comparative advantage. The net result was a balanced spatial development, coupled with a low growth.

3.24 The issue of interjurisdictional differences in policies (particularly tax policies) arises, leading to interjurisdictional competition. The various subnational governments might be led to compete with each other to attract enterprises by lowering tax rates or raising subsidies. While some competition may be desirable, particularly if it induces subnational governments to become more efficient, too much competition may be destructive. If subnational governments offer enterprises the same advantages, spatial allocation will not be modified, but the balance between the public and private sectors will be modified away from an initial equilibrium that was supposed to be optimal. The greater the degree of decentralization, the greater this possible misallocation. There are possible solutions to this problem. Subnational governments can cooperate, either spontaneously or as a result of national government incentives. And the national government can intervene to limit or regulate interjurisdictional competition. Destructive competition between jurisdictions is nevertheless a danger associated with decentralization.

4

DECENTRALIZATION CAN JEOPARDIZE STABILITY

4.1 Together with allocation and redistribution, stabilization is a major function of public finance. It is easy to show that decentralization, or rather a decentralized system, makes the execution of macroeconomic policies more difficult.

Theory

4.2 The two main instruments of macroeconomic policy are monetary policy and fiscal policy. Fiscal policy (the control of the amount and structure of taxes, the control of the amount and structure of expenditures, and the control of the budgetary deficit or surplus) is a powerful instrument to stabilize the economy. It is an instrument that can only be manipulated by the central government.

4.3 Subnational governments have little or no incentives to undertake stabilization policies. The impact that a particular regional (and *a fortiori* a local) government could have on national global demand and price is negligible. Even if the taxing and spending patterns of a given subnational government could have such an impact, much of this impact would be outside the jurisdiction of this particular subnational government. Subnational economies are much more open than national ones, and, therefore, leakages associated with overspending or underspending are great. A given subnational government would have to pay the full political cost of a policy that would only bring in partial benefits. There are very important positive externalities associated with stabilization policies by subnational governments. As a result, there will never be enough of it provided by regional and local governments. Stabilization must be conducted by central governments.

4.4 For national governments to affect overall demand by manipulating taxes and expenditures, the weight of national taxes and expenditures must be sufficiently heavy relative to total taxes and expenditures as well as relative to GDP. In all cases, a large share of expenditures and taxes is already committed and cannot be easily changed, at least not downwards for expenditures or upwards for taxes. Stabilization policies can only be undertaken at the margin. But the margin is a function of the whole, and if the whole is small, the margin will be very small.

4.5 Consider a country in which total government spending represents 30 percent of GDP. Assume that the central government can, for stabilization purposes, increase or decrease its expenditures by 10 percent (a generous assumption). Then, in a decentralized country with local government accounting for 60 percent of total government spending, the central government will be able to increase or decrease total demand by about 1.2 percent. In a centralized country, with local government accounting for 10 percent of total government spending, the central government margin of action will represent 2.7 percent of GDP. The difference between 1.2 percent and 2.7 percent may well be the difference between an ineffective macroeconomic policy and an effective one.

4.6 Furthermore, there is the possibility that the fiscal policies of subnational governments will run counter to the fiscal policy of the central government. In many countries, local government policies are influenced by the political cycle: taxes increase immediately after local elections, and expenditures increase immediately before election. But there is no reason why this political cycle would coincide with the business cycle. In practice, local governments may end up increasing local public expenditures or local taxes at the time when the central government is trying hard to depress expenditures or taxes.

4.7 This is what happened in the United Kingdom in the early 1980s. As the central government was trying to decrease public expenditures (for structural reasons as much as for countercyclical reasons), local governments were increasing them, thus frustrating the central government efforts. This was one reason for the introduction of the ill-fated poll tax in the United Kingdom, a tax that would make it politically more difficult for local governments to increase expenditures. The opposite is said to have happened in the United States as the time of the Great Depression, when subnational governments ran high budget surpluses, thereby countering the central government budget deficit (Perloff, 1985).

Examples

4.8 The case of Argentina in the 1980s provides a good illustration of this "fiscal perversity" (Perloff 1985) of subnational governments (World Bank 1990a). Argentina, a federal country, has always been decentralized. In the early 1980s, the expenditure decentralization ratio was well over one third (ignoring public enterprises). Provincial expenditures rose rapidly, reaching over 11.2 percent of GDP in 1986. But revenues of provincial governments actually dropped from 5.6 percent of GDP in 1980 to 5.0 percent of GDP in 1986. As a result, the (pre-transfer) fiscal deficit of the provinces in 1986 was 6.2 percent of GDP. This important deficit was either financed by transfers from the central government or by borrowing, in both cases inflationary. Transfers were (at least until 1988) mostly *a posteriori* discretionary grants from the Ministry of Finance. This system in practice fostered provincial mismanagement, leading to a large central budget deficit. Borrowing by the provincial governments from the Central Bank or from provincial Banks (entirely controlled by the provincial governments) was also a problem. "These provincial/national financial practices have contributed to unsustainable public sector fiscal and quasi-fiscal deficits, and their continuation would undermine national efforts to attain price stability and to promote sustainable economic development" (World Bank, 1990a, p.ii).

4.9 The 1988 reform of the Constitution of Brazil significantly reduced the freedom of the central government to conduct macroeconomic policies. Table 4.1 indicates the share of the central government in taxes and net-of-transfers expenditures before and after the reform.

Table 4.1: Central Government Share of Total Taxes Before and After 1988 Constitution of Brazil

	<i>Previous Constitution</i>	<i>New Constitution</i>
Taxes raised nationally	100	100
Taxes raised by central government	57	52
Transfers from central to other government	-27	-30
Share of national taxes left to central government	30	22

Source: Prud'homme 1989, p.32

4.10 Before the changes in the Constitution, the share of taxes raised by the central government was relatively small (the tax decentralization ratio was high), and the share of the central government expenditures was smaller (the expenditure decentralization ratio was very high). This, however, must be qualified by the fact that the rates of most state taxes were set by the central government that had a degree of control over the overall fiscal burden (although taxes raised in Brazil are a function of tax administration—controlled by the States—as much as a function of tax rates).

4.11 The new Constitution reduces the ability of the central government to conduct macroeconomic policies in three ways. First, it decreases the share of taxes raised by the central government (it increases the tax decentralization ratio), as shown in table 4.1. Second, it gives more tax freedom to the states in terms of rate setting, thereby increasing the tax discretion ratio (see section 1). Third, it increases automatic transfers from central to subnational governments, thereby increasing even further the share of states and municipalities in total expenditures (the expenditure decentralization ratio). As a result, macroeconomic policy was made difficult in Brazil. The changes in the Constitution certainly contributed to the poor macro-economic performances of the country in recent years.

4.12 The extreme case of Yugoslavia can also be cited as an example (Bogoev 1991). Yugoslavia, during the 1970s, became one of the most decentralized countries of the world. In 1986, the central government (the Yugoslav Federation) accounted for only 22 percent of total public revenues. In addition, central government revenues consisted primarily of sales taxes and custom duties, a revenue type not appropriate for stabilization policies. Furthermore, the central government revenues were insufficient to discharge its responsibilities. It relied upon “contributions” from lower levels of government negotiated each year. The federal government found it impossible to conduct stabilization policies, resulting in high inflation and poor macroeconomic management.

4.13 Thus theory and experience suggest that fiscal decentralization creates problems for a country's macroeconomic management.

5

BEYOND THE CENTRALIZATION/DECENTRALIZATION DICHOTOMY

5.1 This paper has reviewed the issue of centralization versus decentralization of taxes and expenditures. This is the framework of the literature on fiscal federalism that concludes that decentralization is a preferable alternative. This paper argues, however, within this framework that fiscal decentralization can create difficulties.

5.2 But it can further be argued that this centralization versus decentralization framework is not very meaningful, for two reasons. First, decentralization policies are often “predetermined” by political parameters. In many countries, a decision to decentralize (or, more seldom) to centralize is taken for purely political reasons. In these cases, the problem is not the “how much?” but the “how to?”. The issue of whether to decentralize becomes a moot one. Ideas and concepts are needed that will help make the best of this predetermined level of decentralization and minimize the costs of achieving this political objective.

5.3 Second, there are many dimensions of decentralization, and many forms of government intervention exist to which decentralization can apply. Some are more appropriate or more desirable—or less dangerous—than others. This section drops the simplicity of the centralization-decentralization dichotomy and attempts to explore dimensions related to the differentiation between taxes and expenditures, geographic areas, sectors, and functions, as well as the joint provision of services.

The Case for a Different Treatment of Taxes and Expenditures

5.4 The case for a different treatment of taxes and expenditures is presented in the tax assignment and expenditure assignment literature. The arguments cited in favor of expenditure decentralization are independent of the reasons that argue in favor of tax decentralization. There is no reason why they should lead to similar results. Many public expenditures (according to this theory) lend themselves to decentralization. The optimal decentralization ratio in these cases is high. In contrast, few taxes lend themselves to decentralization and the optimal tax decentralization ratio is low. Subnational governments are therefore unlikely to have enough tax money to finance their expenditure, and transfers will be necessary.

5.5 Fiscal federalists are uncomfortable with this case as it counters the concept that subnational governments should be self-financing, a concept at the heart of the justification of decentralization. For decentralized decisionmaking to be efficient, to ensure that the people of each local government jurisdiction will get the quantity and structure of local public services they want, they must pay the price attached to the provision of this desired bundle of services. This is not what happens with fiscal transfers. If, however, the key issue is the marginal price paid by each local government and its electorate for the services provided, and not the total price, a case can be made

for this theory. As long as transfers are given, providing an additional unit of a service will require additional local taxation. This will ensure the smooth functioning of the welfare maximizing mechanism.

5.6 Rather than elaborating on these niceties, it might be more fruitful to recognize that expenditures should be more decentralized than taxes and that the resulting transfers can be desirable and useful. Virtually everywhere expenditures are more decentralized than taxes, and transfers are prevalent. A possible exception is China (and the former communist European countries) where taxes collected locally, at least in the richer areas, are higher than expenditures made locally, and where transfers are upward transfers rather than downward transfers. But these locally collected taxes are not really local taxes because their rates have been decided nationally. Alternatively local governments in China are not legitimate local governments. Therefore this exception is more apparent than real.

5.7 Transfers from central to subnational governments are the rule. They are normally large, both relative to central government expenditure and to subnational government income. In many countries they account for more than 10 percent of central government expenditures and a third of subnational government income. In countries such as Italy or the Netherlands (with well developed and reasonably efficient local governments) transfers represent more than 90 percent of the resources of local governments.

5.8 Transfers should not be seen as an unavoidable evil, but as a welcome good. They can be utilized to control some of the dangers of decentralization. An example is related to *redistribution*. Formulae utilized to allocate block grants between various subnational governments can (and should) include a tax base or an income component, so that the poorer areas will receive less, or much less, in transfers than the richer areas. In this fashion, the inequality-enhancing or "segregative" consequences of decentralization can be minimized, or even reversed. There are such redistributive elements in the grants allocation formulae used in many countries, particularly developed countries, such as the United Kingdom, France, Germany, Japan and Korea. They should be introduced elsewhere.

5.9 Transfers can also be designed to mitigate the potentially negative impact of decentralization *stabilization*. The total amount of transfers given by the central government can be made proportional to the total amount of non-transfers expenditure. When the central government pursues an expansionary (or a restrictive) policy, this will make it more difficult for subnational governments to do the opposite. Then, this impact will be increased if transfers are of the matching grant type, covering only a share of the local government expenditure. In this case, a dollar decrease (increase) in grants is likely to generate a greater than a dollar decrease (increase) in local government expenditures. But there are limits. First, matching grants are in general not as desirable as block grants, because they distort local government choices instead of simply enlarging them. Second, the total amount of transfers should not be too flexible, as too much flexibility makes it impossible for subnational governments to do serious planning.

5.10 Can transfers be used to increase the *efficiency* of decentralized subnational governments? Probably not. Allocative efficiency is achieved by local governments choosing freely between various expenditures alternatives. A transfer system can only limit this freedom of choice and therefore its allocative efficiency properties. There is more hope for production efficiency. Some

transfers can be made conditional upon decentralized units providing minimal levels of service and technology. Other transfers can be utilized to induce decentralized governments to work jointly to achieve economies of scale.

5.11 Thus, transfer systems are an important component of any fiscal decentralization program. Designing a good transfer system, however, is a delicate task because the features which are desirable to reach certain objectives are not desirable to reach other equally desirable objectives. Trade-offs must be identified and compromises arrived at. This is a promising area for policy improvements because in many developing countries transfer systems are often crude. They have often developed as a product of administrative conveniences or of political pressures and can in many cases be easily amended at low technical and even political costs.

The Case for a Different Treatment of Different Geographical Areas

5.12 Most discussions of decentralization (including the one presented in the preceding sections) ignore geography. Decentralization in India is discussed with the same concepts and words as decentralization in Tunisia; and decentralization to metropolises is treated just like decentralization to villages. This is of course absurd.

5.13 Population size matters. Decentralization is more warranted in a populated country, where the second level subnational units are bigger than many small countries. The same is true of geographical size. In a large country like Brazil or Zaire, particularly if communications are difficult, decentralization is more desirable than in a small country like Jamaica. The same is true of levels of development. Statistical analysis suggests that decentralization, as conventionally measured, tends to increase with income levels. Although such correlations do not reflect underlying causalities, decentralization success is more likely or "less dangerous" in middle and high income countries. "For the lowest income countries, decentralization may be limited to rhetoric" (Bahl and Linn 1992, p. 393).

5.14 Large cities should be treated differently from smaller places, even if they have the same legal status, because they are more able to benefit from decentralization (Bahl and Linn 1992).

5.15 Similarly, special quasi political government agencies might be created covering geographic areas to which some function could be decentralized. A classic example is the French River Basin Agencies. For water resource management, France has been divided into six areas, corresponding to six major river basin areas. These agencies are quasi-political bodies, with mostly locally elected officials on their boards. They are responsible for both water quantity and water quality management. They have quasi-governmental powers, such as the power to determine the rates of water consumption fees and water pollution fees and taxes, and to collect these fees, as well as the power to spend the income thus generated on water production programs or water treatment subsidies. The central government has basically decentralized its water resource responsibilities to these Basin Agencies. They have the appropriate geographic coverage to internalize the externalities associated with water resources management.

5.16 In geographically differentiated decentralization, the key concept is the critical mass. For decentralized units to be efficient and achieve the potential benefits of decentralization, they must be sufficiently big in terms of population, activities, and income. This critical mass can be increased

by personal training and institution strengthening. But decentralizing taxes and even expenditures to small and weak local governments is unlikely to be successful.

5.17 The concept of critical mass also applies to central governments. Decentralization should not make them shrink below a certain quantitative and qualitative level. This level is of course different from the level required for efficient subnational governments, because the functions to be performed by central governments are different. This sets two constraints to decentralization. The powers transferred from central to local governments should not jeopardize central government efficiency, and these powers should be transferred to local government that have the critical mass required to use them effectively.

The Case for a Different Treatment of Different Sectors

5.18 Different urban or local public services exhibit different characteristics. The issue has been explored by Christine Kessides (1992) with regard to privatization. The author reflects the characteristics of the good (its subtractability and its excludability), the characteristics of the market (the existence of monopolies and/or externalities), and the characteristics of the demand (its price elasticity and its substitutability), to produce typologies of services meaningful from the viewpoint of privatization. A similar exercise can be conducted to find out which services or sectors would lend themselves more easily to decentralization. From this view, three characteristics are particularly relevant: (1) the "externality" of the service, (2) its "chargeability", and (3) its "technicity".

5.19 The "externality" of a service refers to the quantity and types of external effects and geographical spillovers associated with the service. Some infrastructure services, like highways or power production and transportation, matter very much outside the area in which the infrastructure is located or the service provided. This is the case with most network infrastructure, as opposed to point infrastructures, although a spatially small network (such as a water distribution network) is really more like a point infrastructure, with a reduced externality. The smaller the externality of a service, the easier it is to decentralize it. By contrast, services with important network effects or spillovers are not easy targets for decentralization.

5.20 The "chargeability" of a service refers to the ease with which the service can be financed by charges, as opposed to taxes. It is widely recognized that services that are excludable and subtractable can and should be sold (financed by fees) rather than given for free (financed by taxes). Services are more or less "chargeable." Water or power can easily be charged. Urban public transport is more difficult to finance by fees only; it is extremely difficult to make people pay for the amount of garbage collection or of street usage they consume. It should be noted, however, that technological progress constantly extends the domain of chargeability. Forty years ago, it appeared difficult to charge for street usage; electronic road pricing devices are about to make it possible. Chargeability also has a social dimension. Some services, like education, which could technically be financed by charges, are often financed, at least in part, by taxes, either because they are considered merit goods or because there are externalities associated with the provision of the service. The greater the chargeability of a service, the easier to decentralize. With few good local taxes, financing by taxation will mostly mean financing by the central government, which makes it difficult, but not impossible, to decentralize.

5.21 The “technicity” of service refers to the degree of technical and managerial expertise required to provide the service. It is easier to provide garbage collection than to provide bulk clean water. The lower the “technicity” of a service the easier it is to decentralize it. This is because the economies of scale and of scope associated with the provision of the service, which are difficult to achieve in the case of decentralized provision, will be less important, and therefore the (potential) production efficiency losses discussed in section 2 will be minimal.

5.22 In table 5.1, the externality, chargeability, and technicity of a number of local public services have been estimated on a scale of 1 to 5, with 5 the value most favorable to decentralization. The values of the three characteristics have been added to yield a gross indicator of “decentralizability.”

Table 5.1: Decentralizability of Selected Local Public Services

	<i>Externality</i> (High 1, 2, 3, 4, 5 Low)	<i>Chargeability</i> (Low 1, 2, 3, 4, 5 High)	<i>Technicity</i> (High 1, 2, 3, 4, 5 Low)	<i>Decentralizability</i> (Low 3, 4, 14, 15 High)
Highways	1	1	2	4
Sanitation	2	2	2	6
Railroads	1	4	2	7
Power production & transmission	1	5	1	7
Primary education	3	2	2	7
Rural roads	2	1	5	8
Telephone	1	5	2	8
Airports	3	4	2	9
Water production & storage	2	5	2	9
Ports	4	4	3	11
Garbage collection	5	1	5	11
Power distribution	4	5	3	12
Urban transport	4	4	4	12 ⁱ
Water distribution	4	5	4	13
Street cleaning	5	4	5	14

5.23 The concept, the rating, and the weighing formula in table 5.1 can be discussed and improved. This simple exercise, however, indicates some services are better adapted to decentralization than others and why. Street cleaning, water distribution, urban transport (in the form of provision or of regulation) or power distribution appear the most interesting candidates. At the other end of the spectrum are such services as highways, sanitation, railroads, power production or primary education, for which decentralization should be pursued with great caution and prudence, if at all.

The Case for a Different Treatment of Different Functions

5.24 The provision of local public services is the outcome of a complex set of functions. Six different functions can be distinguished: (1) the design of investment, (2) the choice of investment, (3) the construction of facilities, (4) the operation or regulation of facilities, (5) the maintenance of facilities, and (6) the monitoring and auditing of service performance. Not all these functions are required for every type of service and tasks are often interdependent. But, for a given public service in a given geographical context, the desirable degree of decentralization is likely to differ from function to function.

5.25 The design of infrastructure investments or facilities is often a difficult, technical task, and will be more and more so in a world of rapid technological progress. This function, which is often marked by important economies of scale, cannot easily be decentralized to local governments. It must either be contracted out to private firms or remain a central government function.

5.26 The choice of investments has both a technical dimension (what design to retain), a geographic dimension (where to locate the investment), an institutional dimension (what agency should be in charge of it), and a social dimension (who should benefit). This is the function most easily decentralized. If local decisionmaking can improve allocative efficiency, it is through the exercise of this function. This is where the detailed, first-hand, knowledge of local realities (which will be higher at the decentralized level than at the central level) can best be applied. This is also where the election/reelection control mechanism can be expected to play a role.

5.27 The construction of facilities function is probably not for a government, be it local or central, to undertake directly, and should, in most cases, be contracted out to the private sector. There will nevertheless always be a role for government in this area, either to construct on force account, or to contract out the work and supervise it. This role would in many cases be better conducted by a central government than by a local government and is not particularly suited for decentralization. In the case of road construction, for instance, the fragmentation of technical staff and construction teams can lead to serious production efficiency losses. In practice, unfortunately, it is not always easy to divorce the allocation of the construction of investment function from the allocation of the choice of investment function. But in theory, the decentralization of the former is more dangerous than the decentralization of the latter.

5.28 The operation and/or the regulation of the facility is often the most important function required for the provision of the service. It includes the setting of prices and fees. This function lends itself easily to decentralization. It cannot be performed well by the central government, which does not have the appropriate information or the appropriate incentive.

5.29 The maintenance of facilities should also be decentralized. In many cases it should be privatized, that is, contracted out to private enterprises under the supervision of a government. This government can be the central government, particularly when the central government is financing, but it can also be the local government, which will again have a comparative advantage in terms of information and of incentives.

5.30 A last function is monitoring and auditing. It is a function best suited for the central government which has the expertise, the independence, and the elements of comparison that make monitoring useful.

The Case for the Joint Provision of Services

5.31 This paper has focussed on desirable allocation of different powers or services or functions to the different levels of government. The problem, however, is not to decide which level of government will be in charge of which local public service and draw up a matrix of services and level of government and fill it in. For many, if not most, types of service two or three levels of government will have to be involved, as different levels of government will have different, but equally legitimate reasons to be involved.

5.32 Consider the case of primary education. One can argue that it should be decentralized to local governments because the needs and the specifics of each local group of pupils are likely to differ between local communities and could only be recognized and satisfied in a decentralized system. But one can also argue that primary education should be a regional responsibility because of economies of scale in the production of the service (in the production of curricula, or in the recruitment of teachers, for instance) and because purely local financing is going to create inequality in the quality of the service. Finally, one can also argue that primary education should be a central government responsibility because the central government has an interest in the education of all its citizens and because migrations will create externalities and spillovers that must be corrected by a higher level of government intervention. All three arguments are strong and convincing. The conclusion they suggest is that all three levels of government must simultaneously be involved in the provision of the service.

5.33 The problem therefore is to determine how the different levels of government could and should cooperate. There are many instruments available to this effect, such as: subsidies (of many types), mandates, constraints, guidelines, floors and ceilings, coordination mechanisms, contracts signed between various levels of governments. These instruments should be studied and compared. Some mechanisms work, others don't. In the United States, for instance, bridge maintenance is a state responsibility, but whenever a bridge quality goes below a certain threshold, the bridge becomes eligible for federal money. This form of central-regional relationship is especially perverse and a sure recipe to lower the quality of bridges. Much more is known on certain instruments, such as grants, than on others, such as mandates. Coordination is the essence of polyphonic music. The part of every instrument must have its own horizontal coherence and its interest: this is melody. But at every moment, all instruments must be vertically coordinated and synchronized: this is harmony.

6 CONCLUSION

6.1 This paper has highlighted some of the dangers of decentralization. First, the benefits of decentralization in allocative efficiency are not as obvious as suggested by the standard theory of fiscal federalism. The assumptions of this theory are fragile. Second, these doubtful benefits might carry a cost in terms of production efficiency, although more empirical research is needed on this point. What is not doubtful is that decentralization runs counter to redistribution and stabilization. Third, decentralization makes redistributive policies, whether interpersonal or interjurisdictional, more difficult, if not impossible. Finally, decentralization also makes macroeconomic stabilization programs more difficult to implement because subnational government fiscal policies can run counter to national policies. These are serious drawbacks, or potential drawbacks, that should be taken into consideration in the design of any decentralization program.

6.2 The arguments developed in the analysis of these dangers can also help understand some of the real choices. These choices are not so much whether one should decentralize in general, but rather what functions of what sectors for what areas can most fruitfully be decentralized. Guidelines can be provided to that effect. Furthermore, in many cases, the problem is not so much whether a certain service should be provided by a central, regional, or local government since the service has to be provided with the intervention of the three levels of government; the real challenge is how to organize the joint production of the service.

6.3 Decentralization refers simultaneously to a state and to a process. The virtues, and the dangers, of decentralization are discussed simultaneously for both concepts. This is a dangerous confusion because decentralization is path-dependent. What is desirable in a given country at a certain point in time depends on the present state of decentralization and the speed at which it has been reached.

6.4 Much more work, especially empirical work, is needed. Important are reviews of decentralization (or centralization) experiences, especially of experiences encouraged or supported by the World Bank.

Annex I

A SIMPLE MODEL OF BUDGET-INDUCED TRANSFERS

Consider a country with population P , a GDP of Y , per capita GDP of y , and regions i . The country's budget E is balanced. Let:

- t_i be the per capita taxes paid by region i to the central budget,
- e_i be the per capita expenditures or benefits of the central budget in region i ,
- g_i be the per capita budget-induced transfers for region i ,
- G_i be the budget-induced transfers for region i ,

Parameters a , b , c , describe the tax and expenditure systems, which are:

$$t_i = a y_i^b \quad (1)$$

$$e_i = c + d y_i \quad (2)$$

$$g_i = e_i - t_i \quad (3)$$

Parameter a is an indicator of the budget size. Parameter b reflects the progressivity of the tax system, where $b=1$ means a proportional tax system; $b>1$ a progressive one. Parameter d denotes what could be called the "equalizingness" of the expenditure system; $d=0$ means that expenditures per capita benefit equally all regions and are independent of regional per capita income; $d<0$ that they decrease with per capita income and $d>0$ that they increase with per capita income.

$$g_i = c + d y_i - a y_i^b \quad (4)$$

$$G_i = c P_i + d y_i P_i - a y_i^b P_i$$

$$E = a \sum y_i^b P_i$$

We can substitute for c in equation (4) by introducing the balanced budget constraint $\Sigma G_i = 0$:

$$c P + d Y - a \sum y_i^b P_i = 0$$

$$c = E/P - d y$$

Equation 4 becomes:

$$g_i = E/P - a y_i^b - d (y - y_i) \tag{5}$$

Equation 5 shows that the budget-induced transfers for region i are a function of four factors:

- The size of the budget E of the country, which in turn depends upon a and b , the parameters of the tax system and upon the regional income distribution;
- The magnitude of the transfers also depends upon the progressivity of the tax system, as indicated by b : for $b > 1$ and for higher values of y_i , $a y_i^b$ will be large, and the transfer negative;
- Transfers are also a function of the "equalizingness" of the expenditure system, represented by d , the slope of the expenditure curve; if the expenditure system is equalizing, that is if expenditures are greater in low income regions, then the lower the income of region i , the greater the positive transfer it will receive;
- For a given region i , the transfer is of course also related to its relative per capita income, or more precisely to the difference between its income and the average country income.

This simple model can be further simplified. If the tax system is proportional, $b=1$ and equation 5 becomes:

$$g_i = E/P - a y_i - d (y - y_i) \tag{5a}$$

One can also take the expenditure system to be equalization-neutral, that is independent of regional income. In this case, $d=0$, and equation 5 becomes:

$$g_i = E/P - a y_i^b \quad (5b)$$

One can also consider the two modifications jointly. In this case, equation 5 becomes:

$$g_i = a (y - y_i) \quad (5c)$$

- The model shows that there are only three main avenues to increase spatial transfers in a given country:
 - (a) Increase the size of the central budget;
 - (b) Increase the equalizingness of budgetary expenditures;
 - (c) Increase the progressiveness of taxes.

REFERENCES

- Bogoev, Ksente (1991), "The Dangers of Decentralization: the Experience of Yugoslavia," in Prud'homme, R., ed., *Public Finance with Several Levels of Government*, Foundation Journal Public Finance, The Hague/Koenigstein (Proceedings of the 46th Congress of the International Institute of Public Finance, Brussels 1990), pp. 99-112.
- Campbell, Tim, et al. (1991), *Decentralization to Local Government in LAC: National Strategies and Local Response in Planning, Spending and Management*, The World Bank, LAC, Regional Studies Program, Report 5, 61 p.
- Davezies, Laurent (1989), *La redistribution interdépartementale des revenus induite par le budget de l'Etat en 1984*, L'OEIL, IUP, Université de Paris XII, Créteil, mimeo, 30p. + Annexes 60 p. for DATAR.
- Davezies, L., Nicot, BH, and Prud'homme, R. (1985), *La place de Casablanca dans le budget de l'Etat Marocain*, L'OEIL, IUP, University of Paris XII, Créteil, mimeo., 20 p. + Annexes 43 p.
- Davezies, L., Nicot, BH, and Prud'homme, R. (1987), *La contribution des grandes villes au développement: Abidjan suventionne-t-elle le reste de la Côte d'Ivoire?* UNCHS (Habitat), mimeo, 40 p.
- Heggie, Ian G. (1991), *Improving Management and Charging Policies for Roads: An Agenda for Reform*, Report INU 92, 81 p.
- Herzer, Hilda Maria (1992), *Local Governments in Argentina*, INURD WP 94, 35 p.
- Israel, Arturo (1992), *Issues for Infrastructure Management in the 1990s*, Washington, The World Bank, 103 p. (World Bank Discussion Paper 171).
- Kessides, Christine (1992), *Institutional Arrangement for the Provision and Production of Infrastructure: A Framework for Analysis and Decision-Making*, World Bank, INURD, 19 p.
- Kellaf, Assia (1992), *Decentralization and Centralization of Local Public Services in Tunisia*, PhD Dissertation, MIT, Cambridge, MIT, 271 p.
- Kranton, Rachel (1990), *Pricing, Cost Recovery, and Production Efficiency in Transport: A Critique*, The World Bank, PRE WPS 445, 43 p.
- Minis, Henry and Dennis Rondinelli (1989), *Promoting Economic Development and Employment Generation Through Decentralization in Senegal*, USAID Working Paper, mimeo, 122 p.
- Nicot, B.H., and Letrung, N. (1989), *The Share of Bangkok in the National Budget of Thailand*, L'Oeil, IUP, University of Paris XII, mimeo, 65 p.

- Oliveira, Yara (1991), *Les redistributions spatiales induites par le budget: le cas du Brésil*, PhD dissertation, The University of Paris XII, mimeo, 290 p.
- Perloff, Harvey (1985) "Fiscal Policy at the State and Local Level," in Burns, L.S. and Friedmann, J., ed., *The Art of Planning: Selected Essays of Harvey S. Perloff*, New York, Plenum Press, pp. 241-257.
- Prud'homme, Rémy (1992), "Informal Local Taxation in Developing countries," *Government and Policy*, vol. 10, pp. 1-17.
- Reid, Gary and Donald R. Winkler (1991), "Decentralization and Government Size in Latin America," paper prepared for the 47th Congress of the International Institute of Public Finance, Leningrad, 25-29 August 1991, 28 p.
- Rondinelli, Dennis (1989), "Decentralizing Public Services in Developing Countries: Issues and Opportunities," *Journal of Social, Political and Economic Studies*, 14,1.
- Rondinelli, Dennis and John Nellis (1986), "Assessing Decentralization Policies in Developing Countries: The Case for Cautious Optimism," *Development Policy Review* 4:3-23.
- Silverman, Jerry (1990), *Public Sector Decentralization [in Africa]: Economic Policy Reform and Sector Investment Programs*, World Bank, Africa Technical Department, Division Study Paper 1, 143 p.
- Williamson, J. (1965), "Regional Inequality and the Process of National Development: A Description of the Patterns," *Economic Development and Cultural Change*, 13:3-45.
- World Bank (1990a), *Argentina: Provincial Government Finance Study*, Grey Cover Report 8176-AR, 114 p. and 101 p.
- World Bank (1990b), *Peru: Sector Reform and Investment Review*, Technical Department, Latin America and the Caribbean, 245 p.
- World Bank (1992a), *Venezuela: Decentralization and Financial Management: Issues and Options*, Yellow Cover Report 11160-VE, 121 p.
- World Bank (1992b), *Russia: Intergovernmental Fiscal Relations in the Russian Federation*, Country Economics Department, CECPE, Unnumbered Yellow Cover Report, 131 p.
- World Bank (1992c), *The Philippines: Fiscal Decentralization Study*, Yellow Cover Report 10716-PH, 141 p.
- World Bank (1992d), *Poland: Decentralization and Reform of the State, A World Bank Country Study*, 113 p.
- World Bank (1992e), *Indonesia: A Strategy for Infrastructure Development*, Report No. 9672-IND, 139 p.

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