Economic theory has much to say about the organization of the State in various levels of government and their relationships. It tells us why, and therefore when, devolution of taxes and responsibilities to lower levels of governments is desirable. The benefits to be expected from such a devolution, commonly called decentralization, stem from two improvements: (i) an improvement in allocative efficiency, and (ii) an improvement in productive efficiency. Allocative efficiency, it is argued, will be improved by decentralization because locally elected councils will have a better understanding of the local demand for public goods and services, and will allocate scarce public resources to better match this demand, thereby increasing satisfaction and welfare. Productive efficiency, it is argued, will also be improved in many cases, because local bodies will be able to deliver goods at a lower cost than national bodies. Decentralization should therefore be the rule.

Of course, theory has recognized that this rule has many exceptions. Some public goods and services, such as defense, are national in scope, and cannot be decentralized. Other services, such as the design of curricula in education, are subject to economies of scale, and their decentralization would imply a loss in productive efficiency. For yet other services, there are "spillovers", that is the benefits of their provision accrue to people or enterprises located outside the boundaries of each local government; local governments will not be induced to produce such goods in sufficient quantities. Some taxes -indeed many taxes- such
as import duties are national by nature and cannot be decentralized. In addition, decentralization can and does conflict with macro-economic management, and with redistributive objectives. In practice, these exceptions tend to be more important than the rule, and to limit seriously the desirable scope of decentralization. Nevertheless, the standard theory places the burden of the proof on those who favor centralization.

This theory, however, has been developed without any reference to income levels. It is supposed to be valid and useful for all countries, irrespective of their levels of development. Yet, it can be shown that income levels matter, and that a low income country, like Madagascar, should not be decentralized the way a high income country should.

A key element of the argument is the notion of overheads, or indirect expenditures, in the provision of public goods and services. For analytic purposes, it is useful to distinguish between (i) expenditures which contribute directly to the provision of specific services to people or enterprises, such as expenditures for the construction of a school building, or for road maintenance, or for the salary of a rural midwife, and (ii) expenditures which contribute indirectly to this provision. Examples of indirect expenditures include the salaries of tax collectors or public accountants, and expenditures on administrative buildings. One can therefore define an "overhead ratio", which is the ratio of indirect expenditures to total expenditures.

This distinction is not meant to suggest that indirect expenditures are a waste of money. They are, on the contrary, absolutely necessary. No government could operate without tax collectors, accountants and public buildings. Similarly, no private enterprise could operate without non-revenue producing departments and expenditures, that is without overheads. Overheads contribute to the productivity of an institution. But they do so only up to a certain point, as illustrated in Figure 1. Beyond this point, the efficiency of an institution, or of a government, be it national or local, declines. At the extreme, if the overhead ratio were to be 100%, the output of the institution would be zero. An analogy could be made with the relative importance of government in an economy; a complete lack of government would be associated with a low output, but so would too much government.

It can be argued that the overhead ratio is a function of income levels. More precisely, it is a function of (i) the per capita amount of public expenditure, which is itself a function of (ii) income levels, and also of (iii) the number of levels of government.
It is easy to see the logic of the first relationship, which is represented in Figure 2. Overheads consist of fixed costs and variable costs. The costs of a tax collector, for instance, are largely independent of the amount of taxes he/she collects. If the per capita public expenditures (and taxes) are very low, they will mostly cover the fixed costs, and the overhead ratio will be close to 1. As per capita expenditures and taxes increase, the overhead ratio will decline. Beyond a certain level of per capita expenditures, this ratio will tend to be constant.

**Figure 1 : Productivity as a Function of the Overhead Ratio**

![Productivity graph]

**Figure 2 - Overhead Ratio as a Function of Per Capita Expenditures**

![Overhead ratio graph]
This rule is neatly illustrated by the data collected on overhead ratios by type of government in Madagascar, and shown in table 1.

The second relationship, between per capita public expenditures (and taxes) on the one hand, and income levels, or output per capita, on the other hand, is well know. The income elasticity of public expenditures and taxes is higher than 1. As income levels increase, the share of taxes to GDP increases (this is the Wagner law), at least up to a certain level of income. In low income countries, per capita taxes are therefore a lower share of a lower income: in dollars, and even in purchasing power parity dollars, they are much lower. If per capita income in country A is 10 times higher than in country B, per capita taxes in country A will be 25 times higher than in in country B. This obvious relationship is also illustrated by the figures given in table 1. In a very low income country like Madagascar, total per capita public expenditures are below 50 US$ -including about 20 US$ provided by foreign assistance in the form of loans and grants.

The combination of these two relationships means that overhead ratios are a declining function of income levels, or to put it otherwise, that the efficiency or productivity of government is an increasing function of income levels, as represented in Figure 3.

Table 1: Overhead Ratios and Per Capita Expenditures, by Type of Government, Madagascar, 1990-93

<table>
<thead>
<tr>
<th>Expenditures/capita</th>
<th>Overhead ratio&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>(FMG)</td>
<td>(US$)</td>
</tr>
<tr>
<td>Central government</td>
<td>74,900</td>
</tr>
<tr>
<td>Urban communes</td>
<td>8,200</td>
</tr>
<tr>
<td>Fartany (regions)</td>
<td>1,700</td>
</tr>
<tr>
<td>Rural firaisans (districts)</td>
<td>200</td>
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<tr>
<td>Rural fivondrom</td>
<td>160</td>
</tr>
</tbody>
</table>

Sources & notes: <sup>a</sup>Indirect expenditures divided by total expenditures; <sup>b</sup>Counted as direct expenditures: all investment expenditures included in the public investment programme, salaries and current expenditures outside the Antatanirivo fartany (province) plus what this fartan would get if it got as much as the rest of the country on a per capita basis; all other expenditures, including debt associated expenditures, were classified as indirect expenditures; <sup>c</sup>Average based on a detailed analysis of three urban communes; <sup>d</sup>Fragile estimate; <sup>e</sup>Estimate based on an examination of the accounts of seven rural firaisam.

This analysis is useful to understand the impact of decentralization in low or
very low income countries. Introducing more than one level of government will decrease the amount of public expenditures undertaken by each level of government. In a high income country, this will not affect overhead ratios. Per capita expenditures are high, and remain high even when divided by 2 or 3. In other words, we can decentralize, and remain on the flat part of the curve represented in Figure 2. In a low income country, on the contrary, decentralization will increase overhead ratios. The higher the number of government levels, the greater the overhead ratio, and therefore the lower the efficiency of government(s).

This is depicted in Figure 3. The plain line indicates the efficiency of a one-tier government (a centralized government) as a function of income levels. The dotted line indicates the efficiency of a multiple-tier government (a decentralized government) as a function of income levels. In a high income country, efficiency is not affected by decentralization, at least by means of changes in the overhead ratios. Indeed, if decentralization increases allocative efficiency or productive efficiency, as suggested by theory, it will be beneficiary. But in a low income country, efficiency will be affected by decentralization.

Figure 3 : Efficiency of Government as a Function of Income Levels

The standard economic arguments in favour of decentralization cannot therefore be readily applied to low income countries. In terms of productive efficiency, one has to weight the traditional potential gains associated with decentralization against the certain loss resulting from increased overhead ratios. In terms of allocative efficiency, the picture is not much brighter. The allocation that is supposed to be improved by decentralization is the allocation of direct
expenditures only. If the relative and absolute importance of direct expenditures is significantly reduced by decentralization, as argued above, the scope for improvement will be seriously curtailed.

In practice, the choice is rarely between a one-tier type of government and a multiple-tier type of government. There are usually, in most countries, several levels of government in place, with the central government much more important than lower levels of government. The issue is whether some taxes and expenditures should be transferred from the central government to lower levels of governments. The overhead ratio of these lower levels of government is usually much higher than the overhead ratio of the central government. As shown in table 1, this is exactly what happens in Madagascar.

Transferring taxes and expenditures from the central government - decentralizing- to lower level governments, in a country like Madagascar, means transferring resources from a (relatively) low overhead ratio government to high overhead ratios governments, and will increase total overhead expenditures at the expense of direct useful expenditures.

Such a transfer will cut the direct expenditures of the central government, because its indirect expenditures are unlikely to be affected. This will increase the overhead ratio of central government. Will it decrease the overhead ratio of lower governments? This is most unlikely to happen. In many cases, and in spite of their high overhead ratios, local governments in low income countries are so poorly equipped and administered that most of the additional income they will obtain is likely to be spend on indirect expenditures, rather than on direct expenditures. In other words, the marginal overhead ratio of local governments in a very low income country like Madagascar is probably nearly as high as their average overhead ratio. The loss in direct expenditures at the center will not be compensated by a gain in direct expenditures at the periphery. As a result, direct expenditures, that is expenditures providing services to people and enterprises - which are already at a dramatically low level - will be curtailed.

In Madagascar, decentralization can be politically desirable, but it will be economically and socially damaging. The benefits from increased allocative efficiency and productive efficiency associated with decentralization will remain virtual, and will not outweigh the real decline in direct expenditures that decentralization will bring.