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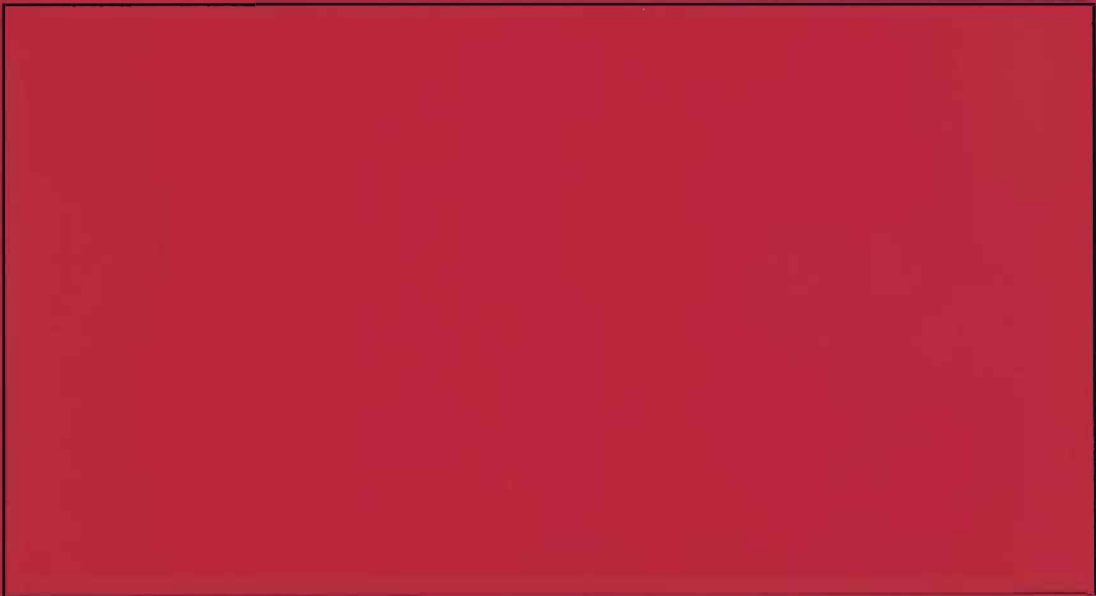
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DECENTRALIZATION AS AN INCENTIVE SCHEME

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I. INTRODUCTION

Recent changes have introduced more decentralization in a number of traditionally centralized countries.¹ In the case of France, it is sometimes claimed that the 1982-1983 reform of subcentral government is of historical importance. Although the principles of that reform are not contested any more by the new majority elected in 1986, opinions still differ on a number of policy issues. Some of the issues are presented in this introductory section. But the main purpose of this paper is not to expose or discuss in detail the problems of decentralization in France. As argued in the second part of the introductory section, the theoretical framework in which the policy issues of decentralization are usually discussed by economists is somewhat unsatisfactory, in particular when applied to unitary states such as Britain or France. The bulk of the paper is devoted to the exploration of a different approach to decentralization. It is not purported however that this approach could completely replace the more traditional one. Consequently, when, in the concluding section, we return briefly to the policy issues identified here, this is to be read as a preliminary attempt to evaluate the relevance of the reasoning developed in the paper.

An overview of the debate over decentralization in France

What was the situation before the 1982-83 reform? As is probably well known, the basic organization of subcentral government in France was set up by Napoleon at the beginning of the last century. In each département (similar to a county), the main powers which were not exercised by the bureaus in Paris were concentrated in the hands of a civil servant, the prefect, appointed by the central government, or in the hands of other civil servants appointed by various departments within central government (such as the recteur in the area of education). An elected body, the conseil

général, had little power beyond the approval of the budget of the département. Towards the end of the last century, the communes (more than 36,000 of them now) and their elected mayors were given more powers, although the control of the prefects over their decisions remained tight. In fact, it is mainly over the last twenty years that they gradually became more autonomous. The regions, encompassing on average four or five départements, made their appearance in the sixties (after a first attempt during the war), and strengthened somewhat in the seventies, but without becoming real jurisdictions.

Although centralization looked rather extreme on paper, it was less so in practice. Traditionally, most politicians in Paris had (and still have) important functions in subcentral government (a striking example is the one of a prime minister who is also the mayor of Paris). In any case, even when the mayor of a large city is not a member of parliament or government in Paris, his influence on voters on the occasion of national elections is usually substantial. Consequently, even before the recent reform, the bargaining power of politicians in power in subcentral government vis-à-vis the bureaucracy of the central government was much more important than suggested by the formal assignments of functions. It remains that all important decisions either were taken or, at least, had to be approved of in Paris, and in many areas, such as education, centralization was almost total.²

Glossing over the modest decentralization that took place in the sixties and the seventies, we now turn to the reform of 1982-83. The laws passed in 1982 and 1983 do three things. Firstly, they change the organization of subcentral government. Regions become full-scale subcentral jurisdictions and the three levels are endowed with a system of government that existed only on the lower level (that of the communes). This system is essentially the parliamentary system. On each level, there is now a council whose members are elected directly by citizens and an

executive branch elected by that council. These executive branches can develop bureaucracies of their own, or (in the case of the départements and the regions) can use, under some conditions, the bureaucracy of the central government. The three levels of subcentral government are completely independent one from the other. Secondly, the a priori control exerted by the prefects is abolished or very much reduced and most of the a posteriori control is transferred to existing or newly-created courts. Finally, new powers are given to each of the subcentral levels, either by the transfer of functions that were fulfilled by the central government or by the recognition of concurrent authority. Accompanying these new functions, some financial resources and powers are also transferred to subcentral government. It would be fastidious to give here the details of the transfers. In some cases, functions are transferred or assigned with precision to a given level (e.g. vocational training to the regions) while, as a matter of principle, it is expected that the lower level will be mainly concerned with urban affairs and housing, the département level with social affairs, and the regional level with economic affairs and planning. But governments on each level are now allowed to intervene in the economy, within limits, if it is for the sake of enhancing employment (a rather wide opening in present circumstances). In addition, all of them are competent in such areas as cultural or touristic affairs. In practice, départements and communes have relatively large budgets (respectively more than a fourth and more than two thirds of the total for subcentral government), authority on many employees, but also many rigid commitments. Regional authorities are much more lightly staffed, have more limited budgets (still only about 5% of the total for subcentral government), but grow rapidly and enjoy more degrees of freedom.

Altogether, the decentralisation of functions remains rather limited. For instance, the responsibility for building and maintaining schools is now shared between the three levels of subcentral government according to the

nature or level of the schools, but the central government remains responsible for recruiting and monitoring the teaching staff and for taking all the decisions as to what should be taught (and how it should be done). In other words, education (with the exception of higher education) remains fully centralized. The same applies to most other areas. If, as widely felt, the reform of 1982-83 is important, it is mainly because it creates potentially powerful political authorities on two levels where they did not exist (they existed already on the lower level, and were particularly powerful in the case of large cities). This may start a dynamic process leading to much stronger subcentral government in the future.

Whether such an evolution should be wished and encouraged was the main policy issue before the reform of 1982-83. It probably still is, although (for purely political reasons which are not worth explaining) it is not addressed too openly right now. This is mainly a normative issue. For the observer, a related, intriguing, question is more positive: why did decentralization occur at all, given the forces in favour of centralization in a country in which it had been entrenched over such a long period of time? A third question has often been raised recently: should not the functions assigned to the various levels of government be defined more precisely? The most frequently discussed problem here concerns the départements and the regions, which have already started a kind of competition.

But it is a fourth issue that appears particularly pressing and is likely to give rapidly some prominence again to the debate over decentralization. Whether subcentral government is allowed to expand or not, how should it be financed? In particular, should the share of taxes in total financing be allowed to increase regularly (as it tends to do), or are grants better? Let us note in passing that an important consideration here is that taxes raised by subcentral government appear to many as distorting, regressive, or inequitable across jurisdictions;³ consequently, if taxes raised by subcentral government were allowed to grow much further, the transfer or

the sharing of taxes currently raised only by the central government (such as the income tax or VAT) should probably be considered.⁴

After this condensed exposition of the current problématique of decentralization in France, let us turn to the main reasons why the existing economic literature cannot offer a completely reliable framework for reflecting on the questions identified above, or on the issues of a similar kind that are raised in other countries.

Why another approach to decentralization?

One of the main characteristics of the economic theory of subcentral government is that, as a rule, it lacks a theory of politics. Since it is based on an idealized conception of democracy and government, its explanation of the existence of subcentral government has to rely heavily on the assumption of geographical differences in tastes for public services and taxes (in their turn reflecting, to some extent, geographical differences in income or wealth). These geographical differences in taste are assumed directly or result from an assumed "voting with the feet" mechanism, *i.e.* from citizens responding to public policies by sorting themselves into spatially distinct, more homogeneous, groups (Tiebout, 1956): in what follows, we refer to differences of the first kind as exogenous and to differences of the second kind as endogenous.⁵ On the basis of the assumption of (exogenous and endogenous) geographical differences in the tastes – or needs, or capacities – of citizens, the theoretical literature has developed a powerful set of welfare economics or equity analyses of the main features of decentralization (see King, 1984). However, if it occurred that we were in a world without endogenous migrations (*i.e.* a world in which migrations, whatever their quantitative importance, would not be influenced by the policies of the subcentral authorities) and without other sources of geographical differences in taste, it is not unfair to say that, in

its present state, the economic theory of decentralization would be almost bound to predict complete centralization. Given the various sorts of externalities, spillovers and apparent wastes that arise as a result of decentralization, complete centralization would always appear as the most rational solution. If, in such a world, subcentral government continued to be observed, its existence would then be unexplained.

This state of affairs points to a very serious weakness in the economic theory of subcentral government. For it seems most likely that, even if the population of the country were spatially homogeneous and if households were never influenced by public policies in the choice of their location, we would hesitate very much, as citizens, to accept complete centralization. The reason for this hesitation would obviously have something to do with our reluctance to assume a perfect functioning of democracy or of government. In other words, the imperfections of democratic processes should have some role to play in accounting for the existence of subcentral government. Political scientists and public opinion in general are aware of this. However, in political science as well as in ordinary discourse, decentralization is assumed to enhance democracy through more involvement of citizens in decision-making, increased participation in the political process, easier signalling of preferences, and similar considerations which do not enter easily into economic modes of reasoning.⁶ Fortunately, economics can build on a mechanism that is easier than these to handle. It has at its disposal an analytical tool that has proved illuminating in the most varied circumstances: competition. It is argued in this paper that acknowledging the role played by competition is essential for understanding the rationale of decentralization not only in countries in which differences in taste can hardly constitute, by themselves, a sufficiently convincing foundation, but also in countries in which they apparently can.

Admittedly, competition is not a novelty within the economic theory of

subcentral government. It is usually introduced in three forms. One can transpose to local government the analysis of democracy that has been developed mainly with reference to central government: competition takes place between politicians or political parties for electoral support (within a jurisdiction); this leads for instance to the median voter hypothesis. Alternatively, one can start from endogenous mobility of residents and firms and model relations between authorities as competition for residents, firms, tax revenues. Finally, competition can be conceived as rivalry for power or responsibilities. In the first case, nothing is added to what is said about government in general, and thus competition cannot provide an independent reason for subcentral government. In the second case, it cannot either since it constitutes only an implication of the assumption of endogenous migrations, which constitutes the crucial assumption. The problem with the third case, on which we shall return, is that it usually leads one to think of competition as harmful; hence, it tends to be used as an argument against decentralization.

The purpose of this paper is to explore subcentral government in the absence of spatial differences in taste, whether exogenous or endogenous. There are two reasons for attempting this. One is practical. In a unitary country such as France, exogenous spatial differences are not a very relevant consideration in the state of the discussion on decentralization, as summarized above. They may be important in some special cases such as the Paris area, Corsica, or overseas territories, but these cases are, or could be, handled by special arrangements. Differences in taste between citizens located in, say, Burgundy and citizens located in most other regions are not very considerable. To some extent this spatial homogeneity may well be the product of secular centralization, as argued by many authors.⁷ Nonetheless, it is a fact that cannot be substantially changed except in the long term. Similarly, although "voting with the feet" may be important within metropolitan areas that are divided into separate local jurisdictions,⁸ this

mechanism is not likely to be powerful outside this context. In the case of France, only if decentralization were to be pushed much further than is currently contemplated by any political party, could endogenous migrations become really significant. In other words, in the context of the present discussion of decentralization in France, it seems that one should try to avoid presenting arguments that rely too heavily on the assumption that endogenous or exogenous geographical differences in tastes or conditions are essential. I suspect that this state of affairs is not to be found in France only. More or less the same analysis can be applied to the case of many other unitary states, and it may even be relevant for at least a subset of the issues discussed in federal countries.

Anyhow, there is a second, more analytical, reason for assuming spatial homogeneity. Even when spatial differences are actually important, they constitute only part of the story that we ultimately seek. Thus, it seems useful to explore the features of a situation in which it is assumed that they do not exist. The price to pay for this is accepting that the present analysis can be interpreted as only complementary to the impressive literature built on the assumption that they are decisive. The drastic assumption that we make -i.e. no geographical differences- will help us to highlight an aspect of decentralization which should be taken into account, in addition to other, better-known, aspects, as a pre-condition for the derivation of operational conclusions on the subject.

Among the economists who have stressed the importance of competition between governments for understanding subcentral government, a special reference should be made to Albert Breton, from the University of Toronto. His theory of "competitive federalism" is formulated, in particular, in a 40 pages supplementary statement to the report of the McDonald Commission, published recently in Canada (see Breton [1985], and also [1984]). According to this author, competition takes place both between governments on the same level of jurisdiction (e.g. between the governments

of the provinces) and between governments on different levels (e.g. between the provincial governments and the federal government). Competition of the first kind, he calls "horizontal", and of the second kind, "vertical". The way this competition develops and whether it is beneficial or not depends very much on the way it is organized and monitored. In this respect, constitutional arrangements are essential. Hence, federal states such as the United States, Canada, or Switzerland differ in kind from unitary states such as Britain, France or Italy. The analysis proposed by Breton is very important and will be used in a number of places in this paper. In particular, we shall adopt his distinction between horizontal and vertical competition. We shall also follow him in interpreting competition broadly, along the lines recommended by the Neo-Austrian school, stressing entrepreneurship and innovation. Finally, up to a point, we shall agree with his argument that constitutions are important and imply a stronger distinction between federal and unitary states than is usually the case within the economic literature (on this, see also Dafflon [1986]).

However, the view that is developed in the present paper, to some extent based on earlier work,⁹ differs from Albert Breton's on a number of important points. To mention a few, the aforementioned desire to disentangle competition between subcentral governments from the assumption of endogenous and exogenous geographical differences in taste is not shared by Albert Breton, nor by other authors whose analysis is focussed on competition such as Scott [1984], Wintrobe [1984] or Tulkens [1986]¹⁰. Another difference originates in the fact that we keep the traditional assumption that the main competitive (constraining, or disciplining) mechanism in our democratic societies is competition between politicians (or political parties) on the occasion of elections. It is true that considerable scepticism has been expressed by market-oriented economists as to the reliability of this mechanism. One of the main problems that it encounters is an information asymmetry problem (it is difficult or costly

for citizens to judge the performance of their government), implying in its turn an incentive problem (for politicians in power). In other words, the mechanism seems likely to allow substantial "managerial slack" or too many degrees of freedom to politicians. We shall argue that horizontal competition between governments can be interpreted as a means for the solution of both problems. This is our main point, developed in Section II. Vertical competition will be discussed in Section III. Although, within the limits of this paper, the focus will necessarily be on horizontal competition between subcentral authorities, horizontal competition between central governments in an international context cannot be glossed over completely. We shall see, also in Section III, that its possible impact is to weaken the difference between federal and unitary states and the a priori case for decentralization or federalism in general. The concluding section will include a brief exploration of some applications of the foregoing analysis, with special reference to the debate in France.

II. HORIZONTAL COMPETITION BETWEEN SUBCENTRAL GOVERNMENTS

In this section, horizontal competition between subcentral authorities is considered in the light of the literature on contests or tournaments that has been developed recently in labour economics. The nature of the problem faced by citizens is discussed first; then, the main idea developed in labour economics is presented briefly; finally, some obvious objections to the transposition of this idea in the context of decentralization are presented and discussed.

The information asymmetry and incentive problems of democracy

In the context of political science, a number of authors have stressed the importance of retrospective voting (see in particular Fiorina [1981]). Voters do not consider only platforms or promises, as is too often assumed.

They also take into account past performance. This can be interpreted in various ways. For Key [1966], voters reward or punish politicians for their past perceived performance. For Downs [1957], they use past performance as an indicator of future performance. In fact, as is not too clear from the political science literature, the two interpretations are closely related: in a short term perspective, the indicator aspect is probably essential, but, in the long run, adopting a reward-punishment strategy may constitute a powerful incentive scheme. The question that is not sufficiently studied by the political science literature, however, is on what basis voters can, if they wish, assess past performance.

As a starting point, let us assume that we are in a world in which there is only one government. In such a world, the information asymmetry problem met by citizens would be severe in some cases but certainly not in all cases. Of course, voters could never get any direct information as to the efforts made by the government. They could not rely for this information on politicians since it would usually be the case that those in power would say that they are doing their best and those in the opposition that they would do better if they were in charge. The only means available to voters for assessing the performance of their representatives would be indirect. It would consist in comparing governmental outputs over time. Now, if we assume that the world is more or less stationary and untroubled by serious shocks of various origins, such a restricted basis for assessing the merits of government could be sufficient (it seems that this is what is assumed as a rule by Fiorina [1981]). Voters would be able to decide whether one government has done better or worse than its predecessor or than some average. In such a situation, individual, comparatively short-lived politicians would tend to form comparatively long-lived political parties which would invest in the building-up of a reputation for good government. Competition between these political parties would make sure that each of them is induced to save its reputation. If we assume for instance that the

conditions for the median voter model to apply are met, the platforms of these parties would be very similar, being tailored to the wishes of this median voter; their reliability would be more or less the same also, and sufficient as a rule. Since the bureaucrats are monitored by the politicians (who would be judged on the outputs of the entire public sector), they would also be forced to do their best.

The assumptions for this state of affairs to obtain are unnecessarily restrictive. For democracy to work reasonably well, the assumption of a stationary world is not indispensable. It could be replaced, for instance, by the assumption of a world with steady-state economic growth; voters would learn to correct for the economic growth trend in comparing their situations under succeeding governments (in that case, a party in power would be sanctioned for under-average growth, rewarded for above-average growth). It is even possible that voters would learn, in the long-run, to extract information from historical data in such a way that they could correct for any equilibrium path of growth (a diminishing rate for instance).

However, if we allow for substantial exogenous disturbances, comparisons of outcomes in time could hardly be translated into comparisons of performance, ability or effort. No voter would be able to say if things could have been significantly better than they are if governments had put in more effort or had been more able. Of course, voters could adopt a simple strategy consisting in sanctioning or rewarding politicians on the sole basis of comparisons of outcomes in time - whatever the limitations (or unfairness) of these comparisons. Such a strategy would succeed in providing some (limited) inducements whenever the characteristics of the disturbance would be such that the government could feel that it had the power to decide whether things could be made worse or better than before. It would fail whenever disturbances would be such that the government could feel unable in any case to prevent things from becoming worse or better: in that case government, being sure of its fate, could relax

completely. Although such a strategy would perhaps be the least bad among those that voters could adopt, it is clear that it would leave on average a lot of discretion to politicians. Thus, in a world with one single government, and considering the occurrence of large disturbances as likely, the democratic mechanism would generally be weak and uncertain. It is surely not purely coincidental that the pessimistic views formulated by a number of free-market economists as to the reliability of democratic mechanisms are usually developed within an analytical framework in which one single government is implicitly assumed, and it is to some extent puzzling that the importance of such a crucial hidden assumption has not been noted more often.

Rank-order competition

The problem that we face in such a situation is very similar to one that has attracted recently a lot of attention within theoretical labour economics. Within firms, it is often the case that superiors have no direct information on the absolute level of effort of their subordinates (or that the owners of the firms have no information on the level of effort of managers). A number of authors have suggested that the setting-up of tournaments or contests is often the instrument used by firms to deal with this problem.¹¹ As a rule, tournaments may be the appropriate solution when, although the absolute level of effort or performance of individual agents within the organization cannot be observed by their superiors, their relative performance can be assessed (in terms of rank-order). In other words, the performance of agent A can be said to be inferior or superior to the performances of agents B or C, or to an index of average performance. In that case, the reward system (e.g. promotions) can be set in such a way that agents compete for rank-order. Hence, it constitutes an incentive system leading to increased efforts on the part of all participating agents.

Let us note some features of tournaments as compensation schemes. Setting up the reward system in the form of a tournament is particularly interesting if the outputs of the agents are random variables, if the efforts (inputs) of agents cannot be measured except at prohibitive cost, and if the measurement of relative output is cheaper or more reliable than the measurement of absolute output. There are several ways of modelling the situation. A simple one is the following (see Nalebuff and Stiglitz, 1983-a). Q_i , the realized output of agent i is explained by the level of his effort, E_i , by a random variable, R , that is common to all agents and that nobody can control, and by a random factor, N_i , which affects only that agent (an individualistic or idiosyncratic "noise"): $Q_i = Q(E_i, R, N_i)$. The employer can observe the outputs of all agents but none of the explanatory variables. At the time when the contract is signed, the agent does not know R and N_i . As soon as it is signed, the agent observes R and decides on E_i . In this situation, the employer does not know to which extent the output of an agent is explained by the level of effort of the agent or by chance. If the compensation of the agent is dependent on Q_i alone, the agent might bear considerable risk. If he is risk-averse, it is likely that he will insist on having part of his compensation made independent of output. In that case, it becomes possible that, as soon as he knows R , he decides on a level of effort that is insufficient. When a tournament is organized, each participant increases his probability of winning the higher prize by investing in effort. This is true whether risks are mostly correlated (across agents) or are mostly independent. However, the tournament system is more likely to be satisfactory if disturbances or risks are of a general kind rather than idiosyncratic, that is, if they tend to affect all agents engaged in the tournament rather than some of the participants only. Up to this point, we have implicitly assumed that the abilities of the contestants are identical.

If they are not, we are in a situation of uneven contests. In that case, there might be an adverse selection problem: less able agents may have an incentive to enter tournaments in which other participants are more able. However, if employers know the abilities of agents, they can organize "efficient competitive handicapping schemes". There are many other interesting points that have been made in this rapidly growing literature. Let us note only one more. Imprecise measurement of comparative performance is not necessarily a bad thing; it may be useful in maintaining incentives.

Transposing this analysis to our subject, we discover that the existence of a tournament between subcentral authorities offers an attractive solution to the problems that we identified in the case of a world with one single government. However, a very important difference between the respective problematiques should be noted from the outset. The literature on tournaments offers an elegant solution, in appropriate circumstances, to the so-called principal-agent or agency problem.¹² But, so far, the departure from traditional thinking on competition is not as radical as it looks. The authors cited have noted themselves that contests are a pervasive phenomenon indeed, not to be observed only within organisations. Competition between suppliers, or between buyers, takes the form of tournaments or contests on many markets (for instance when these involve tenders, bids, or auctions). Now, the difference between relations within an organization and relations on a market should not be exaggerated. A number of authors (e.g. Breton and Wintrobe [1982]) have analyzed a firm, or a bureau, as a locus of exchange. Among other things, their analyses involve the buying by superiors of effort supplied by subordinates. The fact that exchange is structured in the form of a tournament does not affect the basic relationship (supply and demand) and rank-order competition is still competition between suppliers for the patronage of one or several buyers. Now, does this remain true in the case of horizontal competition between

subcentral governments? More precisely, are governments competing between themselves for the patronage of one or several buyers ? In the absence of residential mobility, and neglecting the competition that takes place between subcentral governments for the favours of the central government, the answer is negative. Politicians in power in different jurisdictions do not interact on a market. They interact with other politicians (in the opposition) and with voters on markets that are to be found within jurisdictions. On each of these political markets, local politicians compete for the support of the voters of the jurisdiction. In other words, although there is competition between the mayor of city A and the mayor of city B for rank-order on some ordinal scale, they are not on the same market. The mayor of A is competing on the political market of A with other politicians in A who are currently in the opposition, and the same applies to the mayor of B with respect to other politicians in B. Thus, in trying to transpose tournament competition in the context of a plurality of governments, we discover a rather strange situation: the possibility of competition without a market on which it could take place.

We must insist on this point because its neglect is probably the main cause of a natural tendency to associate competition between governments with residential mobility. The tendency is natural or understandable because the association between competition and a market on which it would take place usually works very well as a heuristic device. More precisely, the heuristic device consists in inferring the existence of a market, and identifying that market, from the observation of competition. A market is usually a rather sophisticated theoretical construct, while competition is often felt to be easily detectable on the basis of very simple observations. One can almost "see" people interacting competitively. From this observation, it is natural to infer that the competitors must buy or sell something to some (same) person(s). Hence the identification of a "market", with a supply and a demand. For instance, children compete for the love or

approval of their parents or of their schoolmistress; girls and boys compete on a market for dates, politicians on the market for power, and so forth. Many markets "discovered" by economists and sociologists have probably been identified with the help of this kind of reasoning. Nonetheless, in the case we are interested in, the reasoning is misleading. Competition between the governments of main cities or of regions is, in our opinion, clearly detectable, but this does not imply that they compete for the patronage of the same constituency of buyers.¹³

Still, we do have tournaments or contests in the sense that competition is for rank-order on some ordinal scale, or on a number of ordinal scales. Each government has an incentive to do better than governments in other jurisdictions in terms of levels and qualities of services, of levels of taxes or of more general economic and social indicators. The strength of this incentive depends on the possibility and willingness of citizens to make assessments of comparative performance -and to the impact these assessments have on the well-being of politicians (in some cases they may not mind being perceived as inefficient). If these conditions are fulfilled, comparisons will serve as a basis for rewarding politicians in power (re-electing them) or sanctioning them (voting for their competitors). Thus, politicians in power will feel that a good relative performance will increase their probability of being re-elected while a poor one will diminish it. The relationship between effort and reward, although always stochastic, will be stronger if risks are to a large extent "environmental" ones, affecting all participants in the contest. The willingness of citizens can be assumed but the possibility of making comparisons (at low cost, since citizens never have an incentive to invest much in getting informed before voting) is the main problem, to which we shall turn presently. If all the conditions are fulfilled to a reasonable degree, we see that both the information asymmetry and the incentive problems that constitute obstacles to a reliable functioning of democracy are likely to be much less

severe in a world in which there is a plurality of governments (on the same level of jurisdiction) than in one in which there is a single one, especially if there are, in both cases, large disturbances.

Before attempting to be more precise on horizontal competition between authorities, it should be emphasized that, seen from outside, this horizontal competition will look as one taking place between jurisdictions rather than between governments. One will observe competition between Bordeaux and Toulouse, Québec and Ontario, or Britain and France. This explains the puzzling observation that jurisdictions (e.g. countries) seem to be engaged in zero-sum games while economic theory teaches us that they are not. Both the theory of international trade and macroeconomics tell us that an exogenous increase in income per head in jurisdiction A should be welcome in jurisdiction B, but we can observe that it is not always considered in such a favourable light. Politicians are prone to invoke "economic war". Of course, such behaviour can be partly explained by some of the qualifications that can be found in economic theory, or by the persistence of mercantilist fallacies of various kinds, or by a "quest for status" mechanism such as the one recently analyzed by Robert Frank [1985]. However, it is simpler to explain it by the situation of rivalry in which governing politicians (subject to competition within their constituencies) rather than ordinary citizens are placed.

Some objections

Some objections to the foregoing transposition seem obvious. A first one is that we have reasoned as if a government could always be said to do better or worse than another in all respects, while, in reality, comparative performance is likely to be ambiguous. For instance a government is doing better in terms of education but worse in terms of health care. There are several answers to that. The role played by the employer or superior in the

labour economics analysis is not played by the collective of voters when transposed to horizontal competition between governments. It is played by each voter. Comparative performance is assessed by each voter in terms of the policies he is interested in. If he is not interested in education (not even from an altruistic point of view), but only in health care, he will conclude, in the above example, that his government has performed worse than its competitor. We have assumed that there are no geographical differences in taste, but not that there are no differences in taste within each jurisdiction. Consequently, our analysis contributes nothing to the subject of the aggregation of the preferences of different voters (in particular to the problems related to Arrow's impossibility theorem): the necessity for politicians to get a majority of votes, implying a median voter hypothesis, or some vote-trading, or the formation of coalitions, remains untouched. To a large extent, the same applies to the aggregation of the objectives of each voter, whether in the form of a multi-criteria decision or in the form of a covering utility function. The assessment of comparative performance is not only necessarily individual but also, in general, subjective. However, the uncertainty that ensues for politicians does not break the link between their general level of effort and the probability of their re-election; the incentive for them to exert themselves remains; thus, horizontal competition should still diminish "managerial slack".

A second objection is concerned with the possibility for voters to make comparisons at low cost. In its turn, this objection raises two different issues. Firstly, are voters informed enough on policy-outputs (including taxes) in their own jurisdiction and in others?¹⁴ The requirement implied in our analysis might look rather demanding. However, it should be noted that the same applies to most of the traditional economic literature on subcentral government. In particular, the "voting with the feet mechanism" implies that voters know what is happening in other jurisdictions, in terms of taxes and other policy-outputs. More importantly, we have noted the idea

that imprecise knowledge of outputs is not necessarily a bad thing for the workability of tournaments. Imprecise measurement of output adds to "idiosyncratic noise". But insufficient idiosyncratic "noise" may lead some participants in the contest to underinvest in effort (once they have observed the common disturbance), either because they decide to opt out (choose the lower prize, implying here a high probability of not being re-elected) or because, being sure of winning the race (since they have a natural advantage of some sort), they decide to relax ¹⁵. Again, the fact that voters make mistakes in their comparative assessment does not break the link between effort and rewards.

Secondly, assuming that voters are well informed about policy outputs, they may encounter some difficulty in making comparisons because potential contestants are not completely comparable. We have assumed in this paper that there are no geographical differences in tastes; but this does not imply that there are no other sources of differences between jurisdictions. There are differences in size, which may in their turn imply differences in costs. There are differences produced by past idiosyncratic disturbances (e.g. an earthquake) or by past levels of comparative performance (e.g. a city has been comparatively well-managed for many years before the present incumbents came into power). The difficulties raised by these differences seem very serious if one compares the messy state of affairs that they apparently imply with the neat assumptions that are found in the tournament literature.

But are they really so serious? Although the jurisdictions with which comparisons are made are not precisely identified, voters, at one point of time, have a rough idea of what is and what is not reasonable. No music lover in Dijon infers from a comparison of what is offered by the municipality in this town with what is offered in Paris a judgment on the comparative performance of the two municipalities. But comparisons with what is offered in Besançon would seem reasonable to him and he might

extend comparisons to cities such as Montpellier or Bordeaux. Let us be more precise by assuming that citizen X, living in Dijon, knows roughly what is offered, in the area of music, in these five cities and only in these, and that he ranks them in the following order: Paris first, Bordeaux second, Besançon third, Dijon fourth, Montpellier fifth. This is at time t . In itself, this order may involve no resentment against the municipality of Dijon since Paris and Bordeaux are bigger cities. Now, let us assume that, at time $t+1$ (just before an election), Dijon is considered by the same citizen X as having been overtaken by Montpellier. In itself, this increases somewhat the likelihood that he could vote against the incumbent mayor at the next election. In any case, this is how the incumbent mayor would perceive the situation, if he knew the ranking formulated in his mind by citizen X. He cannot observe that ranking; he does not even know whether comparisons are extended to Montpellier. However, he knows that, doing his best in this area as in others (including taxes) increases the probability that comparative assessments made by (possibly) unknown citizens, with (possibly) unknown cities and with (possibly) unknown outcomes, will prove to be favourable to his re-election. This cannot help him in deciding whether some funds should be diverted from sports to music, or whether spending and taxes should be increased (for that, he would have to replace the "possibly" in the previous sentence with some speculations about what is likely to be), but it induces him to reduce "managerial slack" (or X-inefficiency, to use the now famous term coined by Harvey Leibenstein).

To conclude this section, there are certainly many differences between tournaments within firms and horizontal competition between governments of the kind analyzed here (we have noted an important one above). Some of these differences, however, are more apparent than real: they come from the fact that tournaments within firms have been analyzed with the help of very precise theoretical models in which many simplifying assumptions have been made while we have remained content to present the main message in

literary form. Within real firms, tournaments are usually much more messy than the ones depicted in the models. In particular, the literature on tournaments has not integrated yet phenomena such as entrepreneurship and innovation, although they are probably essential within efficient bureaucracies (see the fascinating paper of Breton and Wintrobe [1986] on the Nazi bureaucracy). Does this mean that a serious problem is involved here? Within the context of pure horizontal competition, it does not seem so (it may be otherwise in the context of vertical competition, as argued in the next section): competition for rank-order can be such that a successful innovator wins the race. Returning to our subject, the city which introduces new forms of public transportation, banishes cars from the historical centre, or replaces public production of services by purchases to private firms, may as a result, rank better on some of the scales, and the cities that imitate it may recover, after a lag, their previous ranks, or gain some. In other words tournament schemes are flexible enough for them to be relevant in various settings. Thus, although the world of unprecise tournaments between governments is necessarily complex, the main result seems robust: tournaments, whatever their imperfections, constitute a powerful incentive mechanism against "managerial slack" and in favour of more reliable democracy.

III. VERTICAL AND INTERNATIONAL TIES

In this section, we turn to multi-level government. We consider first the notion of vertical competition and show that it tends to imply constitutional rules of the kind that is found in federal states. Then, we address the problem of the compatibility between vertical and horizontal competition. Finally, we turn to the possible impact of international competition, or more generally of horizontal competition "at the top".

Vertical competition

From a logical point of view, vertical competition is quite different from horizontal competition. When it is horizontal, we have seen that competition, interpreted as a tournament, and in the absence of endogenous residential mobility, is not to be interpreted as a characteristic of a supply or a demand that would be addressed to a unique constituency. On the contrary, vertical competition is for support from the same constituency: citizens in Québec vote both for the government of that province and for the federal government in Ottawa. Consequently, even if we assume that there is no endogenous residential mobility, vertical competition does seem to take place on a (political) market. However, a characteristic of this competition should be noted: it does not imply "rivalry in consumption", to use the notion that is normally referred to in the analysis of public goods. The fact that politicians in power on the federal level get more support from the voters in Ontario does not imply that politicians in power in Toronto will get less. This might happen, in particular if the two governments are widely perceived as fighting over an important issue and the voters play the role of arbitrators, or for other reasons (discussed below), but it does not have to. Indeed, in the case of France, there is usually a high correlation between the votes of citizens in national and in local elections. Again, this feature may well be itself a result of secular centralization: inasmuch as subcentral authorities do not have as much power as it is the case in federal countries, votes for local officials may tend to express feelings about the national government rather than preferences for local representatives.

But should we exclude completely the possibility that vertical competition would be used by citizens, like horizontal competition, as a device for assessing performances? In other words, is the idea of a tournament between the government of the province of Quebec and the

government of Canada, or between the municipality of Paris and the French government, unconceivable? On some matters, it is not. Thus, it is not uncommon to find, in the same geographical area, two similar facilities that are managed by two governments situated on different levels (e.g. a university managed by the state of New York and one managed by the city of New York, or municipal and national police forces). In that case, comparisons of relative performance could be made, especially in time. If the facility managed by the lower-level authority, initially ranked second by some voters (in terms of quality or perceived efficiency), becomes first, this should be a good point for the government of the lower-level authority. More generally, if employees of the first authority are widely perceived as being more responsive, efficient, polite, etc., than employees of the second authority, situated on a different level of jurisdiction, again, this is a good point for the first. Thus tournaments are not to be ruled out completely, provided that there are at least some policy-areas which fall within the powers assigned to several authorities. To this extent, there may be "rivalry in consumption": authorities compete for rank-order. However, policy areas in which authorities on different levels may intervene do not coincide completely. Areas in which complete specialization obtains are typically very large. For that reason, and also because resources at the disposal of authorities on various levels are often very unequal, citizens would usually be reluctant to push comparisons too far, even in the areas in which they could be made. Interpreted strictly, the tournament aspect of vertical competition cannot be the major one.

In fact, vertical competition, typically seen as bad, is generally interpreted as involving collective actors rather than individual ones as we have done so far. The analysis does not start from the assumed motivations of politicians but from some assumptions about the objectives of the governments on various levels. In particular, it is often assumed that governments tend to maximize their power or the size of their areas of

responsibilities. Apparently, this assumption does not seem to be quite in harmony with the assumptions made on the motivations of politicians: why should they be biased towards the conquest of functions whose exercise requires increased taxes? But "micro" foundations for this kind of "macro" behaviour can be found. For politicians in power, re-election can be seen as a constraint, but one which may leave some discretion or be compatible with a variety of objectives; among these, politicians may be able to pursue the objective of increasing their power (for whatever ultimate reason). Some allowance should also be made for the objectives of the bureaucrats, who are supposedly monitored by politicians, but who may actually apply some pressure in favour of increased responsibilities and funds. Altogether, these objectives of individuals may be such that governments on various levels, seen now as collectives, seek to expand their area of responsibilities. This brings us much closer to the traditional perception of vertical competition.

Typically, vertical competition is seen as rivalry over the formal or informal assignment or exercise of powers and the distribution of resources. Swiss cantons or Canadian provinces fight against unilateral initiatives taken by the respective federal governments. French regions and départements are engaged in a silent struggle for life, since it is likely that, in the long term, one of these two intermediate tiers will disappear into insignificance. Whether such rivalry for power, autonomy, or influence, should be called competition is not very important. The main issue, perhaps, is whether it serves the interests of individual citizens. The dominant opinion is that it does not: powers should be assigned neatly, once for all, encroachments should be avoided, inevitable conflicts should be resolved by the means of cooperation between levels (see Dafflon, 1986).

Following Albert Breton, however, vertical competition can be seen more favourably. We should perhaps distinguish two arguments for this. One is related to a conception of democracy (or liberty) in which the main

objective is to limit the power that can be accumulated by a single politician, political party, or, more generally (to account for the power of bureaucrats), authority. Vertical rivalry is one means among others (e.g. checks and balances within one government) for achieving this. Another argument is more related to efficiency in satisfying consumers: the opportunities for one government to increase its area of responsibilities or influence are not unsimilar to the opportunities seized by a firm or an entrepreneur on ordinary markets as depicted within Schumpeterian or Neo-Austrian competition; in both cases they enhance the welfare of the people. Of course, for this favourable result to obtain, advantages gained over competitors must remain contestable. Altogether, these two arguments can lead to strong reservations towards strict division of responsibilities and co-operative federalism, which tend, then, to be perceived as forms of segmentation of markets and collusion.

The importance of constitutional rules

Vertical competition seems conditional on the existence of constitutional rules assigning some powers to at least two tiers of government. If the legal powers to be found on one level are assigned to it unilaterally by government(s) on another level, that is if they can be given and taken away by this or these governments, how could there be genuine competition between these two levels? Are not governments whose powers are assigned to them by others merely their "creatures" (Breton [1984], Scott [1984])? Now, only in federal states do we find an assignment of powers that is not made unilaterally. According to this definition, Canada, the United States, Australia, West Germany and Switzerland are federal states while Britain, Italy or France are not (they are unitary states). The degree of decentralization and the nature of the political system (unitary or federal) should be distinguished. It is conceivable that a unitary state could

be very decentralized while a high level of centralization may be a feature of a federal state. However, if each government tends to fight for an increase in its responsibilities, the fight will apparently be very uneven in favour of the central government in the case of a unitary state, since, for that purpose, the central government will be able to use not only encroachments of powers or conquests of a larger proportion of shared responsibilities, but also re-assignment of legal powers in its favour. Consequently, there should be a high correlation between centralization and the fact that a state is unitary.

It must be noted that the constitutional rules that are relevant here do not coincide with the rules that are called constitutional in the various constitutions. For instance, even if the French constitution contained the assignment of important powers to lower-level authorities, this would not make France a federal state so long as the procedure for the revision of the constitution allowed the central government to change unilaterally this assignment, as is the case. The constitutional rules we are interested in here are rules of procedure that prevent unilateral action for changing the assignment of powers. Another important feature of vertical competition under this constitutional approach is that it should be monitored in one way or another. Three main institutions can do this job: the judiciary (see Dafflon[1986] for some examples in the case of Switzerland), the second house of parliament, when properly organized (see Breton [1985] for a discussion in the context of Canada), and the recourse to referenda or votations (as in Switzerland).

The logic of the constitutional approach seems convincing and goes far enough in explaining *de facto* differences between federal and unitary systems. The correlation between the degree of centralisation and the unitary character of the state is high in the contemporary world. However, as noted in the introduction, decentralization has increased in a number of unitary countries. This fact points to some limitations of the foregoing

analysis.

Unilateral action to change the assignment of powers can be prevented by rules of procedures for changing the assignement of powers, but it can also be prevented in practice by normal democratic processes. There are several aspects to this. A general election can be, in some circumstances, a good substitute for a referendum. If voters want decentralization, political parties will have an incentive to put decentralization on their agenda (or will be rewarded for increasing decentralization). Another related factor is the political power (referred to in the introduction) of the politicians in charge of subcentral government. Taken together, these two factors imply that unilateral action consisting in reducing the powers assigned to sub-central government is not that easy for the central government. In that context, constitutional or quasi-constitutional rules, even when they do not formally protect the assignment of powers from unilateral revision, are more relevant than argued above. Changing the law on decentralization passed in 1982-83 would attract the attention of public opinion in France. It could become one of the main issues in the public debate. If a number of influential politicians, powerful on all levels of government, were hostile to the change, it might be politically very risky to do it. This does not mean that unilateral action is impossible in some circumstances (after a presidential election for instance, when the executive branch is particularly strong). But it may help to explain why substantial decentralization is possible in unitary states.

In a way, what we are arguing here, again, is that competition between political parties on the occasion of elections is the essential mechanism of democracy, a conception which is perhaps not completely rejected by authors on federalism, but which is at least very strongly qualified. As we have seen in the previous section, one major objection to this view is related to the information asymmetry problem. In the case of policies designed and implemented by subcentral governments, we argued that

horizontal competition, interpreted as tournaments, could afford a solution to this problem. How is this solution affected by the existence of vertical competition? But the same problem is to be found on the level of central government. In the context of the present discussion, this means that citizens could have some difficulties in assessing the merits of decentralization. Can the solution found for lower levels of jurisdiction be transposed to the higher one? We turn to these two issues now.

The compatibility between vertical and horizontal competition

Whatever its merits, it must be admitted that vertical competition makes responsibilities more difficult to ascertain. Voters are not well informed of the precise relations between various levels of government. For instance, the "flypaper" effect, which has been the object of much work recently, is widely explained by some sort of illusion on the part of voters: grants cause a decrease in the perceived price of the policies undertaken by the recipient governments (but, as argued recently by Logan [1986], they may also cause an increase in the perceived prize of the services offered by the grantor government). Our analysis must remain very tentative on this matter. If we stress flexibility and innovation, it may be the case that a system in which horizontal and vertical competition operate jointly will be rather attractive. But, if we focus on the disciplining aspect of competition and the information asymmetry problem, it may appear that such a system would prove to offer too many degrees of freedom to governments on various levels. On the whole, perhaps, the logic of our main argument should lead to a somewhat less favourable view of vertical competition, if not to a renewed commitment to traditional views on the merits of a clear division of responsibilities.

It must be added that horizontal competition needs some monitoring and, possibly, some equalization mechanism. It seems natural enough to

assign these tasks to the central government. But is this really possible when the central government is itself engaged in competition with the participants in the tournament? For instance, if the monitoring mechanism implies that some subcentral government, damaged by a centrally decided policy, should receive some compensation (e.g. the South-West of France after the decision to admit Spain in the European Community), can it be done without controversy in a context in which that central government is seen as engaged into competition with regions, taken together and separately? If the main mechanism is competition between parties, and if the same parties are to be found as competitors on all levels, another problem may arise. How will a central government in which party A is in power arbitrate between jurisdiction X, in which it is also in power, and jurisdiction Y, in which it is not? The problem may not be too severe in practice because party A should be careful to gain the support of as many voters as possible in both jurisdictions (for national elections at least), but it suggests that monitoring may be difficult in practice in any case. Thus, vertical competition might add problems to the exercise of monitoring functions which are already perilous enough.

International tournaments between central governments

Central governments are themselves in the situation of competitors in horizontal tournaments. The main idea can be formulated rather briefly, since the mechanisms are the same as those spelled out in the previous section. If voters make comparisons between their country and others, a central government in one country has an incentive to do better than governments in other countries. The cost involved in such comparisons is perhaps even higher than the cost involved in comparing outputs of authorities on a sub-central level. Travelling is usually more limited between countries than within (although this is less and less so). But this is

not necessarily true of the information conveyed by the media. Anyhow, again, information does not have to be precise to entail incentives for politicians in power to do their best in all areas of policies.

One of these areas is the distribution of powers between levels of jurisdiction. Should not this distribution be considered more as an intermediate good than as a final good? Some people care about the distribution of powers. In a way, the foregoing analysis, in particular the one presented in the previous section, suggests that they should. In the policy areas in which horizontal competition can develop, a means for assessing performance of public authorities and providing them with an incentive is created. If people understand this, decentralization as a system of government should be preferred. However, there are also many difficulties and imperfections inherent in decentralization which we have not dealt with (and which are analyzed at length by the literature, see for instance King [1984]). Moreover, as soon as we take into account the possibility of international comparisons, an alternative solution is potentially available for information asymmetry and incentives problems. Thus it may be reasonable for voters to consider the assignment and exercise of powers as exclusively instrumental and to concentrate their attention on "final" goods such as education, health, or disposable income. Having an incentive to do their best in these areas, politicians in power will consider what are the implications for centralization or decentralization. If education is decentralized and is generally judged as bad, compared to what obtains in a neighbouring country with which voters are prone to make comparisons, then there will be an incentive for the central government as well as for sub-central authorities in charge of education to do something about it. For the central government, there will be an incentive to re-examine decentralization in this area. If it seems that the better way to improve the level of education is to act unilaterally, or to recover formal powers, then there will be an incentive to do so. Actually, as

discussed in the previous section, it is mostly a combination of comparisons in time and in space that is likely to be effective. If education was considered by a French voter initially to be better in France than in some other country, it is his perception that this ordering has been reversed that would arouse his attention and make him less likely to vote for the incumbent government on the occasion of the next election.

This reasoning suggests that the discussion of decentralization should take place in a much more pragmatic perspective. Countries have very different arrangements. These arrangements are at least partly responsible for the outcomes that are of interest to the voters. When the outcomes seem to be good, in comparison with what obtains in other countries (and in terms of some time dimension), pressure on the part of voters in other countries develops for them to be imitated. When they seem to be comparatively bad, pressure arises for them to be changed. Of course, this result is very dependent on the existence of sufficient flows of information between countries. Whether these flows are significant or not is a matter of opinion. The present author thinks that, at least within continental Europe, they already are too important to be neglected and, also, that they are growing.

IV. CONCLUDING REMARKS ON APPLICATIONS

In this concluding section, very few applications of the foregoing discussion will be considered and none will be worked out in detail. The basic reason for this was formulated in the introduction. Under the drastic assumptions adopted in this paper, essential aspects of decentralization are glossed over. Obviously, they cannot be neglected when considering applications seriously. In the introduction, we identified four issues. Three of them involve the division of functions between various levels of government; the fourth is the financing of subcentral government.

The division of functions

Let us start with the first two issues noted in the introduction: why did decentralization occur (a positive question) and should there be more of it (a normative question)? Providing a full answer to the positive question would require a complete political and historical analysis (why did the Socialist Party give such prominence to this issue when it returned to power in 1981?)¹⁶. Could the foregoing analysis provide at least some indication? A decentralization process, when it occurs in a country such as France, is specially puzzling when theoretical reasoning precludes completely it in the case of unitary states. If our argument against this reasoning is correct, that is if decentralization may develop even in a unitary state as a consequence of the merits of horizontal tournaments between subcentral governments, of the forces of competition between political parties, and of the existence of tournaments between central governments in an international context, then the mystery is at least dissipated. However, this does not imply that we have at our disposal a full-fledged explanation of the occurrence of a decentralization process, endowed, as it should, with some predictive power. Decentralization may or may not occur, that is all that can be said.

As to the more normative question, the main message is that it should be viewed mainly in non-theoretical terms: at one point of time, decentralized arrangements in some other countries seem relatively successful while centralized arrangements in the domestic country are not. For instance, there seems to be a strong case for applying this kind of reasoning to educational matters: education in France remains highly centralized and is widely perceived as unsatisfactory, compared to what obtains in, say, West Germany, where it is decentralized. In addition, attempts at reforms have been more or less unsuccessful. Clearly, the fact that the central government is itself put in a horizontal tournament

situation with respect to education is not constraining enough: the international tournament does not work sufficiently well. In these conditions, why not transfer real powers in the area of education to subcentral government, for instance to regions? This would probably result in a number of innovations and it would set up a more efficiency-enhancing tournament situation. The central government could make this tournament more effective still by publishing comparative data on the achievements of regions. Thus, more generally, further decentralization (or centralization), seen in this social-engineering perspective, should be mainly contemplated wherever things are not going comparatively well, while stability would seem advisable where they are.

Although our analysis cannot provide precise answers to the question of the optimal assignment of powers to subcentral government, it has a more clear-cut implication as far as the number of subcentral levels is concerned. From the point of view of the information of citizens, in the context of political competition between parties, horizontal tournaments are highly desirable. However, under our assumptions, there is no reason to multiply them on many levels of jurisdiction. If tournaments on the international level were working very well, it might even be the case that there would be no need at all, under our assumption of spatial homogeneity in tastes, for subcentral government or decentralization in any form. That would not mean that the public sector would not have to rely on tournaments between individuals or bureaus, as it already does to a large extent. Inasmuch as competition on the international level is insufficient, decentralization is necessary. But it is known to be costly in many respects. This leads us to something like a discussion of the optimal number of levels, but in a context that is different from the various ones in which this discussion has taken place (e.g. Breton and Scott [1978] and King [1984]). Under our assumptions, the optimal level is also the minimal one for solving the information asymmetry and incentive problems. This goes against a

tendency in certain sectors of opinion, particularly notable in France and in Italy, for wishing decentralization to be pushed as far down as possible (including the fragmentation of large cities). The logic behind this tendency is a conception of democracy, in terms of participation of citizens in day to day decision-making, or in terms of an objective of maximum expression of citizens, which is definitely not the one that has been developed in the present paper.

A distinction should be made between systems in which one subcentral level has some authority over a lower level and systems in which it does not. Canada falls in the first category, France in the second. In the case of Canada, one issue is whether the federal government should do something in defense of the local level (see McDonald Report [1985], Breton [1985], Bélanger [1984]). Provinces are free to organize as they wish their relations with local government, they are unitary states. For some Canadian authors, the result of this is that they have systematically reduced the autonomy of local government; according to the constitutional approach discussed above, this was to be expected. However, we have seen that this approach has limitations. If horizontal competition (conceived as tournaments) operates between provinces, there is not much reason for the federal government to monitor the relations between provinces and local government. If more decentralization within provinces is desirable, there will be incentives for provinces to take that into account.

In France, the question is often formulated in these terms: can France afford four levels of government (perhaps, we should really count five levels since the European level should be taken into account, at least for agricultural matters)? The situation is not completely without precedent, since between the level of départements and the level of communes, there used to be a rather active level, the one of arrondissements, which progressively became insignificant. But, with the system established by the laws of 1982 and 1983, the problem is becoming more serious since now

authorities on all levels are independent and potentially powerful. The local level, where one finds particularly powerful authorities (big cities), does not seem to raise substantial problems; on this level, tournaments seem to be relatively efficient. The main issue is whether one of the two intermediate levels, regions or départements, is redundant. Under our assumptions, and interpreting this question as normative, it seems that we can answer yes and, if asked which of the two should be dispensed with, that we can answer that it should be the level on which tournaments are likely to work less well. This brings us to the positive point of view, from which it seems also unlikely that both levels will survive in the long term (see Schmitt [1984], La décentralisation...[1985], Tenzer [1986]). As we saw in the introduction, for the time being, départements have more powers and resources than regions. If one tends to view democracy in terms of participation or involvement of citizens and groups in the political process, then départements appear much stronger than regions. But if one thinks of the reliability and efficiency of democratic disciplining mechanisms in terms of tournaments, along the lines developed in the first section, then regions have a good chance to win the fight. The reason for this is that comparisons are less costly to produce in terms of regions; actually, they are already predominantly produced on this level.

Our analysis has also some tentative bearing on the question of the optimal design of jurisdictions (which we did not mention yet). On a given level, should these all have the same size? This kind of issue has been important in some countries like Britain. To some extent, it has also in France, when the regions were created and also each time the reform of local government came up again in the forefront. An implication of our approach is that the problem is unimportant. As we saw, comparisons are probably made by voters with what is comparable and not with what is not; in any case, this is the assumption that politicians have to make. What is more important, is stability. Since contests are uneven, it is change in

rank-order rather than rank-order itself that counts (recall our example of five cities, in the first section). Thus, reforms consisting in changing the boundaries of jurisdictions would introduce unwelcome supplementary noise, they might even annihilate the possibility of tournaments for some time.

Financing subcentral government

The first issue here is whether jurisdictions should be funded mainly by taxes or by grants. This is a problem that is important in France right now. As we saw subcentral taxes have been growing at a time when the central government tried to reduce spending and taxes in general (see Klein [1986], Guengant [1986]). At the same time, subcentral government remains dependent on grants. The approach developed in this paper tends to imply that funding should come mostly from taxes decided as freely as possible by subcentral jurisdictions. Since accountability and incentives are so central to our analysis, while endogenous mobility is ruled out, most arguments lead to this result. However, it should be noted that independent taxation power is not a condition for horizontal competition, interpreted as a tournament. A system of grants that does not create distortions in comparative assessments of performances could be devised. It is when we turn to vertical competition that the arguments in favour of independent taxation power are strongest, since grants give too much power to central government in the same time as they, through the "flypaper" mechanism, favour public spending on the recipient level. Of course, a constitutionally protected system of tax-sharing or grants, as in West Germany (see King [1984]), would be also compatible with vertical competition. The difficulty in France, as elsewhere (see again King [1984]), is to find taxes that can be attributed to subcentral government.

A second issue is equalization. Two points will be noted. Firstly, as

argued convincingly by Breton [1985], transfers should be to help governments sustain the burden of horizontal competition. Under our assumptions, we interpret this a little differently from the way it is done by this author. We have seen that uneven contests are conceivable. In other words, the justification of a transfer is not the fact that a region is comparatively poor (or small). It is rather that it has become comparatively poorer, as a consequence of an exogenous event whose consequences are ill-perceived by voters. Conversely, there is a problem for the workability of tournaments when a region becomes richer in the same conditions. Hence, equalization should help governments to sustain the burden of exogenous shocks, or should prevent governments from being too favoured by exogenous shocks. Among these shocks, one should of course include the effects of central government policies.

The second point is that one cannot rely on the governments engaged in the tournament to realize transfers of this kind. The possibility that subcentral governments could accept to pay transfers is defended by Tulkens [1986] on the ground that the same voters accept equivalent burdens for the same purpose when they vote in national elections. This may be so, if transfers are ultimately from voters to other voters in the name of solidarity. Under our assumptions, such a justification for transfers is not precluded but governments will not choose willingly to diminish their chance of winning the tournament while they will use all the degrees of freedom available to them to resist the pressure, if any, of the voters to do so. But this does not imply that only a higher authority could impose such transfers. Governments who are participants in tournaments may accept a system providing for equalization, if the system is decided upon before the shocks have occurred. Such willingness is likely if they are risk-averse. In that case the equalization system would be in reality an insurance scheme, signed under a veil of ignorance.

As a general conclusion, it should be re-emphasized that only one

aspect of decentralization has been explored here, admittedly an aspect that the author thinks both important and somewhat neglected. In consequence, no hasty implications having some operational character should be drawn. However, it may be the case that implications derived within more conventional approaches, and quite operational in form, are also somewhat hazardous as a consequence of the neglect of the considerations developed here.

FOOTNOTES

¹ I am grateful to Alain Wolfelsperger and to members of the editorial board of the Oxford Review of Economic Policy for very helpful comments. Any remaining errors and shortcomings are my sole responsibility.

² Some figures should perhaps be given. Spending by central and subcentral government was respectively about 3-4% and 8-9% of GDP at the turn of the century, and about 8-9% and 24-25 % in recent years (excluding social security, amounting to about 16-20 % of GDP); the apparent stability of the ratio hides substantial fluctuations (see Delorme and André [1983] and Klein [1986]). These figures should be compared with what obtains in a federal country such as Switzerland: there, public spending is divided approximately equally between the federal government, the level of cantons and local government (see Dafflon [1986]). However, it must be added that in France, over the last twenty years, the responsibility of subcentral government in public investment has become dominant. In 1980, total debt of the central and subcentral government represented respectively about 15 % and 8% of GDP (in 1984, the first had grown to 20%, the second was the same). Over the last twenty years, according to Klein [1986], the contribution of local taxes in the financing of subcentral government spending has regularly increased, passing from around 30% to around 40%, the contribution of grants has oscillated around 25-30%, and the contribution of borrowing around 15-20%.

³ The main tax - i.e. the taxe professionnelle (paid by firms and professions, on the basis of capital used and wages paid) - is considered as distorting. It represents about 40% of the total of subcentral taxes. The taxe d'habitation, paid by practically all households, is considered as regressive. It represents about 20%, as does the property tax. There is a very complicated equalization scheme (in particular for the taxe professionnelle) that has been reformed many times, but the main equalization results from the general grants scheme (see Klein [1986]).

⁴ See for instance the controversy between Racine [1986] and Devedjian [1986].

⁵ As argued by Breton [1984], differences in taste between jurisdictions can also result from the fact that, in the long-term, "governments, whether willingly or not, have influence on preferences"; in that case we would have endogenous geographical differences in taste independently from the Tiebout mechanism; but we shall neglect this possibility in the remainder of the paper.

⁶ Although the analysis proposed by some economists follow this line; see Galeotti and Breton [1986] and the literature cited in King [1984].

⁷ See footnote 5.

⁸ For a particular hypothesis on endogenous mobility within metropolitan areas, and a test of that hypothesis on French data, see Mingat and Salmon [1986].

⁹ Cf. Salmon [1984]; in that paper, it is also argued that pressure groups do not help overcoming the obstacle to democracy resulting from the opacity of the public sector, what is called the information asymmetry problem below in the text.

¹⁰ See also Mintz and Tulkens [1986].

¹¹ See in particular Lazear and Rosen [1981], Green and Stokey [1983], Nalebuff and Stiglitz [1983-a] [1983-b], O'Keefe, Viscusi and Zeckhauser [1984].

¹² The literature on information asymmetry, incentives or agency problems, in labour, managerial, finance, contract or industrial economics, as well as in a game-theoretic context, has grown enormously. In this paper, we need refer only to the relatively small subset which focusses on tournaments and contests.

¹³ The use of the word competition outside the context of supply and demand may shock a number of readers. This is mainly an issue in semantics. Let us note that there are precedents to this. For instance "yardstick competition", as used by Shleifer [1985]. Or when it is referred to competition as an end in itself, providing pleasure to the participants. It is not clear why we should not allow ourselves the use of the word competition in any situation in which we directly observe competitive behaviour.

¹⁴ It is important, for a tournament to be efficiency-enhancing, that voters take into account burdens of taxation as well as public services. Otherwise, it might lead to excessive spending. There is some evidence that, currently, subcentral governments do act under the assumption that voters compare levels of taxation and borrowing.

¹⁵ To be correct, the recruitment of politicians of various capacities on wider labour markets should also be considered; insufficient "noise" could then, under some assumptions, also discourage individuals from engaging into a career in politics which would not be rewarding enough.

¹⁶ It might be argued that political parties in general would have an interest in increasing decentralization or in multiplying levels of jurisdiction (beyond what is "optimal"), as a means for providing jobs to their members. They could achieve this only if voters are uninformed about the merits and the costs of decentralization. Thus, again, the limit to this mechanism is to be sought in the competition between parties in a context of international comparisons of outcomes, as analyzed in Section III.

REFERENCES

Bélanger, G. [1984]. "Federalism and Local Government", paper presented at the Canadian-Italian Seminar on Selected Problems of Federal, Unitary and Community States, Perugia, September 1984, forthcoming in the Europäische Zeitschrift für Politische Ökonomie/European Journal of Political Economy.

Breton, A. [1984]. "Expenditure Harmonization in Unitary, Confederal and Federal States", paper

presented at the Canadian-Italian Seminar on Selected Problems of Federal, Unitary and Community States, Perugia, September 1984, forthcoming in the Europäische Zeitschrift für Politische Ökonomie/European Journal of Political Economy.

Breton, A. [1985]. "Supplementary Statement", in McDonald Report [1985], Volume 3, pp. 486-526.

Breton, A., and Scott, A. [1978]. The Economic Constitution of Federal States; Toronto: Toronto University Press.

Breton, A. and Wintrobe, R. [1982]. The Logic of Bureaucratic Conduct. New York: Cambridge University Press.

Breton, A. and Wintrobe, R. [1986]. "The Bureaucracy of Murder Revisited", Journal of Political Economy, October.

Dafflon, B. [1986]. "Fédéralisme, coordination et harmonisation fiscales. Etude du cas suisse", Recherches Economiques de Louvain, March.

Delorme, R. and André, C. [1983]. L'Etat et l'économie. Paris: Le Seuil.

Devedjian, P. [1986]. "La réforme de la fiscalité locale" (letter), Commentaire, Winter.

Downs, A. [1957]. An Economic Theory of Democracy. New York: Harper and Row.

Fiorina, M.P. [1981]. Retrospective Voting in American National Elections. New Haven and London: Yale University Press.

Frank, R.H. [1985]. Choosing the Right Pond: Human Behavior and the Quest for Status. New York and Oxford: Oxford University Press.

Galeotti, G. and Breton, A. [1986], "An Economic Theory of Political Parties", Kyklos, 1.

Green, J.R., and Stokey, N.L. [1983]. "A Comparison of Tournaments and Contracts", Journal of Political Economy, June.

Guengant, A. [1986]. "L'impact de la désinflation sur les budgets locaux", Chroniques d'Actualité de la SEDEIS, November.

Key, V.O. [1966]. The Responsible Electorate. New York: Vintage.

King, D. [1984]. Fiscal Tiers: The Economics of Multi-Level Government. London: George Allen and Unwin.

Klein, J.-S. [1986]. L'explosion des impôts locaux. Paris: La Documentation Française (Notes et Etudes documentaires, N°4802).

La décentralisation en marche [1985]. Paris, La Documentation Française (Cahiers français, N°220).

Lazear, E.P., and Rosen, S. [1981]. "Rank Order Tournaments as Optimal Labor Contracts", Journal of Political Economy, October.

Logan, R.R. [1986]. "Fiscal Illusion and the Grantor Government", Journal of Political Economy, December.

- McDonald Report [1985]: Report of the Royal Commission on the Economic Union and Development Prospects for Canada. Ottawa: Minister of Supply and Services.
- Mingat, A., and Salmon, P. [1986]. "Choisir sa population pour gagner les élections? Une étude sur les élections municipales de 1953 à 1983", Revue Française de Science Politique, April.
- Mintz, J., and Tulkens, H. [1986]. "Tax Competition Between Member States of a Federation: Equilibrium and Efficiency", Journal of Public Economics, March.
- Nalebuff, B.J., and Stiglitz, J.E. [1983-a]. "Prizes and Incentives: Toward a General Theory of Compensation and Competition", Bell Journal of Economics, Spring.
- Nalebuff, B.J., and Stiglitz, J.E. [1983-b]. "Information, Competition, and Markets", American Economic Review, May.
- O'Keefe, M., Viscusi, W.K., and Zeckhauser, R.J. [1984]. "Economic Contests: Comparative Reward Schemes", Journal of Labor Economics, January.
- Racine, P.F. [1986]. "Quelle fiscalité pour demain? Pour une réforme de la fiscalité locale.", Commentaire, Autumn.
- Salmon, P. [1984]. "The Logic of Pressure Groups and 'Federalism'", paper presented at the Canadian-Italian Seminar on Selected Problems of Federal, Unitary and Community States, Perugia, September 1984 (also IME-Université de Dijon, Document de Travail N°75, March 1985). Revised version under the title "The Logic of Pressure Groups and the Structure of the Public Sector", July 1986, forthcoming in the Europäische Zeitschrift für Politische Ökonomie/European Journal of Political Economy.
- Schmitt, D. (ed.) [1984]. La région à l'heure de la décentralisation. Paris: La Documentation Française (Notes et Etudes documentaires, N°4772).
- Scott, A. [1984]. "Tax Harmonization in the Comparison of Federal and other States", paper presented at the Canadian-Italian Seminar on Selected Problems of Federal, Unitary and Community States, Perugia, September 1984, forthcoming in the Europäische Zeitschrift für Politische Ökonomie/European Journal of Political Economy.
- Shleifer, A. [1985]. "A Theory of Yardstick Competition", The Rand Journal of Economics, Autumn.
- Tenzer, N. [1986]. La région en quête d'avenir: compétences et moyens. Paris: La Documentation Française (Notes et Etudes documentaires, N°4816).
- Tiebout, C.M. [1956]. "A Pure Theory of Local Expenditures", Journal of Political Economy, October.
- Tulkens, H. [1986]. "Analyse économique de la concurrence entre juridictions fiscalement souveraines", Bulletin de documentation, Ministère des Finances, Brussels, September (C.O.R.E. Reprint N° 676, Université Catholique de Louvain).
- Wintrobe, R. [1984]. "Bureaucracy and Federalism", paper presented at the Canadian-Italian Seminar on Selected Problems of Federal, Unitary and Community States, Perugia, September 1984, forthcoming in the Europäische Zeitschrift für Politische Ökonomie/European Journal of Political Economy.