Horizontal competition among governments

by

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Abstract
Governments situated on the same level of a multi-level governmental system compete with each other as well as with those placed higher or lower. This paper is concerned with horizontal competition only. It discusses both competition based on the mobility of agents (individuals, business firms, or factors) and competition related to the circulation of information. With regard to the first kind, it focuses on the capacity that governments keep to decide their policies and compete in spite of the mobility of agents. Some attention is also given to the implications of some non-standard assumptions about the underlying political set-up. The discussion of information-based competition includes that of "laboratory federalism" (whether decentralization favours innovation) and of "yardstick competition" (what are the effects of comparisons of governments' comparative performance across jurisdictions). Some questions pertaining to the relationship between the different forms of horizontal competition and to their normative and empirical dimensions are addressed briefly.

I. Introduction

Governments situated on the same level of a multi-level governmental system compete with each other as well as with those higher or lower in the hierarchy. Except for a few remarks toward the end, this paper is concerned with horizontal competition only. The proposition that governments on the same tier compete among themselves - horizontal competition - is now widely accepted. This was not always the case. In many models or discussions of local government and finance, as well as of decentralization and federalism, competition had no place or, more often, played only an implicit role.

An obstacle to perceiving competition is that it can take many forms. The rivalry between Airbus and Boeing is intense. It would be difficult to deny its existence, which is ascertainable from the competitors' awareness of it and from their revealed behaviour. To visualize competition in an equilibrium situation in which decision-makers are price-takers, though, one must raise hypothetical questions such as what would happen if a supplier were to price its product above the market price. Another intellectual obstacle is the presence and necessity of coordination. It must be stressed that competition among governments as well as among business firms does not preclude coordination (Breton 1996). Two automobile firms may coordinate their actions on various dimensions, and even cooperate on some well-defined projects, without the overall competition between them ceasing to be intense. The same is true of governments. Yardstick competition, which will play an important role in the analysis below, raises a particular problem. Because it does not take place on markets in the usual sense, to become conscious of its existence one must look directly at the behaviour of the competitors and of the principals (the voters, most often) who induce them to compete.

Different variables may be the objects of horizontal competition. The most studied is taxation. The literature on tax competition is very large. Within that literature, many discussions concede that governments compete also with regard to the services they provide, or, even better from a logical point of view, in terms of the combinations of taxes and services they offer. Closely related to that, there is a lively discussion on the effects of competition on welfare benefits, and then on regulations associated with welfare, in the domain of labour in particular. Law and Law and Economics scholars are mostly concerned with regulatory competition as applied to corporations, banks, insurance companies, financial markets, competition (anti-trust), and the environment - many economists being also involved, of course, in these subjects. These differences, however, are often, in a sense, superficial. Competition in terms of the same variable, say taxation, may be based on different processes, each of them being in turn quite general, that is, the basis of competition over different variables. In other words, there is a typology of processes or mechanisms that is largely independent of the typology of the variables considered. Thus tax competition can be based on the mobility of individuals, goods, factors, or firms, but it can also happen without any kind of mobility, being founded instead, for instance, on the fact that the performance of policy-makers is assessed comparatively - tax competition taking then the form of yardstick competition.[1] Conversely, mobility-based or yardstick competition may be relevant in different contexts (taxation, regulation, etc.), in fact most of those mentioned above.

The typology of mechanisms must be further specified. Both mobility-based and yardstick competition can be assumed to operate in a world of perfect competition, in which

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[1] Brueckner (2003) treats yardstick competition on taxation as an externality and does not include it in tax competition. For a particularly clear typology see Kerber and Budzinski (2004).

governments are price-takers, utility-takers, or yardstick-takers. Alternatively, they can be modelled as a case of oligopolistic competition, in which governments interact strategically. And there are other possibilities - that is, other ways to conceive competition - that may sometimes be better able than the previous two to account for salient observations.

What are the motives that underlie the behaviour of governments? In the case of yardstick competition, although there are, as we will see, at least two different possibilities, the answer remains fairly straightforward. In the case of mobility-based competition, it is less clear. In local public finance, it has been often assumed that jurisdictions maximize the profits or rents of developers, land-owners or home-owners. In more general settings, the often implicit assumption is that governments maximize tax bases, some net resource flow, some net gain, or something of the kind - discretionary spending power, e.g. It seems natural for economists to think of intergovernmental competition as quite similar to the market competition they are familiar with. Still, governments do not always display the kind of behaviour that similarity would require. Thus, some allowance must be made for less standard assumptions about policy-makers' objectives or about the setting in which they have to work.

The paper is organized around underlying mechanisms and political assumptions rather than around the variables over which competition takes place. The larger part of the literature concerned, explicitly or not, with horizontal competition among governments assumes that it is based on mobility and, furthermore, as noted, that it is governed by mechanisms similar to those ascribed to competition on ordinary markets. Section 2 is devoted to this central strand. Because the literature is so large, the section will eschew the usual questions about spillovers and efficiency and focus instead on the degree of policy discretion that mobility leaves to governments. In Section 3, we turn to non-standard assumptions, also based on mobility but leading to outcomes at odds with those usually considered as compelling. In Section 4, we discuss the forms that competition among governments may take when based on information. Some of these forms -- including the one defended by the neo-Austrian school -- are related to what is sometimes called "laboratory" federalism, which does not necessarily involve yardstick competition. In turn, the latter can be divided into different mechanisms. We focus on the one that gives a major role to comparisons across jurisdictions made by voters or by other potential sources of support to incumbents. In the real world, the various processes or mechanisms generally operate simultaneously. Section 5 explores the ways mobility-based and yardstick competition may interact.

Several forms of horizontal competition are not mentioned in the paper. Junior governments compete to get grants from government(s) at a higher tier or from other sources. They use loopholes in their regulated environment to engage in mercantilist if not outright protectionist policies. They promote the adoption in a wider setting of their own regulations and standards. In Section 6, however, we discuss some aspects of horizontal competition not addressed before in the paper but too central to be completely overlooked. These aspects are spillovers, empirical studies, normative assessments and institutional implications. The reason for this macedoine is not mainly one of convenience. Very little can be said from a normative or prescriptive perspective that does not rely on relatively precise empirical evaluations but, in the domain, empirical analysis encounters many obstacles, which suggests that normative positions are fragile. Section 7 concludes the paper.

II. Mobility-based competition: markets with some politics

2.1. Perfect competition-cum-mobility

Many contributions to the theoretical literature on local finance, decentralization and federalism are based on the assumptions of perfect competition among subcentral governments or jurisdictions and costless mobility of agents. The literature started with the assumption of jurisdictions as clubs. However, as was eventually realized, once the concept of territoriality, space, or land is made central to the reasoning, as it should be, the theory of clubs may be misleading and intricate problems arise. One source of complication is that, in this setting, price affects quality, contrary to what is usually assumed about ordinary markets. I will not summarize the problems nor the solutions offered (see, e.g., Epple and Nechyba 2004). I simply note that the two assumptions, in a less strict form, have escaped the world of scientific models and found their way to that of policy-oriented discussions. This provides a reason to adopt a more relaxed interpretation of perfect competition. Among the arguments exchanged in the media or among politicians on issues such as decentralization, federalism, European integration, and globalisation, some are based on the image of a world in which the two assumptions of perfect competition and zero mobility costs conspire to deprive governments, on the level concerned, of all capacity to act autonomously. Because the public debate often focuses on the question of autonomy or freedom to act rather than on the problems, central to the theory, raised by externalities, distortions, and other departures from optimality, and also for convenience, I also, as indicated, will concentrate on the capacity to act.

In the field of taxation, the assumptions of perfect competition among governments and on all markets on the one hand, and of the mobility of agents, on the other, yield the proposition that, at equilibrium, taxes paid by mobile individuals, factors, and firms will all be benefit taxes. The result seems arresting but it is not. It allows much diversity across jurisdictions with considerable policy discretion in each. Taxes are definitely not equalized across jurisdictions because individuals and firms have heterogeneous wants. So there will be much variation in the combinations of taxes and benefits that are offered (Tiebout 1956). In addition, taxes paid by mobile agents will not be fully dissipated through the cost incurred by the public sector to produce goods and services. There will be a surplus that the government and/or voters will be able to spend as they wish. In Epple and Zelenitz (1981), the surplus is the consequence of fixed interjurisdictional boundaries, the presence of heterogeneous amenities being also acknowledged.

This last reality is important. Space is heterogeneous, not only because of the artificial boundaries of jurisdictions. Differences in natural endowments are an obvious cause or manifestation of that fact. But, more importantly, at any point in time heterogeneity also follows from differences in the stocks of collective capital (including social capital) that inhabitants have built up in the course of time. As a consequence, some of the benefits provided to individuals and firms, and even to capital, are largely independent of the current output of the public sector. They are situational rents which do not have to accrue only to the owners of the land; they may be shared with the jurisdictions themselves, as represented by their governments. This creates, in most if not all jurisdictions, a tax base that can be tapped, among other possibilities, to finance the goods and services that mobile agents are not willing to pay for.

Let me introduce here an additional consideration -- reflecting still more liberty with the usual specification of the competitive framework. In practice, competition among jurisdictions tends to be of the monopolistic competition variety. The specific character of the services provided by each jurisdiction and the heterogeneity of the preferences of the mobile agents cannot be fully dealt with by the Tiebout sorting process or taken into account by the tax system even when the latter tends toward benefit taxation. As a consequence, in a given jurisdiction some mobile agents will benefit from a consumer or producer surplus related to their presence or establishment in that jurisdiction. Even, if there are no mobility costs, a tax increase will then not necessarily make them leave the jurisdiction.

The capacity to regulate may be treated more or less in the same way as the capacity to finance. The notion of benefits must be widened once more so as to include the utility (or disutility) provided to mobile agents by the laws and regulations in force in the various jurisdictions - also a part of the collective capital of these jurisdictions, albeit not to be interpreted now as fully exogenous and, in particular, as independent of what the current incumbents decide. Under perfect competition and no mobility costs, at equilibrium, mobile agents must find in any jurisdiction a level of utility at least equal to what they could obtain elsewhere. Utility here must be seen as a function of goods and bads of all kinds, including public output, taxes, situational rents, law and regulations, and so on. Focussing on an individual variable, like a tax, or a regulation of pollution, or the school system, though often unavoidable in practice, may be quite misleading because competition does not take place over single variables but over very complex and idiosyncratic packages. There is substantial fungibility in the components of these packages. Compensations are the rule. This is another factor of diversity across jurisdictions. For instance, the implementation of rules (concerning work conditions, lay-offs, the environment, and so on) that impose a burden on mobile firms heavier than the one imposed in other jurisdictions may raise no problem if it is compensated, say, by a lower direct cost of labour or by less taxation. In spite of the high level of competition-cum-mobility, jurisdictions remain in this way capable of deciding important aspects of their social arrangements.

Does this capacity, in the same competitive environment, extend to income redistribution or some of its aspects (helping the poor, taxing the rich, etc.)? The foregoing discussion provides part of the answer. First, as argued, most if not all jurisdictions keep some discretionary financing capacity -- that is, a tax base they can use for redistribution as for other purposes. Second, a large part of what is usually considered as income redistribution is, for various reasons (insurance, peace-seeking, altruism, etc.), voluntary on the part of those who pay for it. In this sense, it is Pareto-improving (Hochman and Rodgers 1969). In the context of competition among jurisdictions, income redistribution of this type can be simply included in the idiosyncratic packages already mentioned and submitted, as other components of these packages, to compensations of all kinds (see Breton 1996).

A problem, however, remains. Taken together the two reasons just offered suggest that resources may well be found to redistribute income, including by taxing the mobile rich. What seems more problematic, under the perfect competition-cum-mobility assumptions, is subsidizing the mobile agents and, in particular, helping the poor. The assumption of costless mobility, particularly plausible in the case of the poor or relatively large subsets thereof, implies, in the pure competition framework, that the demand curve for the assistance offered by a particular jurisdiction is infinitely elastic. Should we conclude, as is sometimes done in the literature on fiscal federalism, that no policy of assistance to the poor is sustainable at the subcentral level of government? Formulated as a proposition concerning the real world, such

an inference would be quite unacceptable since helping the poor is exactly what lower-level governments in many countries do. What we should conclude instead is that with this difficulty we reach the limits of the compatibility between perfect competition-cum-mobility and autonomous decentralized policy-making. To deal with the particular problem of subsidies to mobile agents -- in any case to the poor -- at least one of the two assumptions must be given up as we will see in the next subsection.

The last important aspect of the perfect competition-cum mobility setting I want to mention is its implications for the well-known Leviathan view of government developed in particular in Brennan and Buchanan (1980) and, in somewhat different terms, in Weingast (1995).[2] The literature often assumes that the objective of governments, at all levels, is the welfare of the people. According to the Leviathan view, on the contrary, governments will use any discretionary power that they may be left with in a way which, as a rule, is unfavourable to the people. Under that perspective, one of the main advantages of federalism, if organized so as to produce the environment we referred to as perfect competition-cum-mobility, is to deprive government in general of its discretionary power. The foregoing discussion suggests that, even in an environment as favourable to that goal as the perfect competition-cum-mobility one, discretionary tax bases would not in general be eliminated. This is bad news for supporters of the extreme Leviathan view, good news for those who trust democratic mechanisms to align governments' and citizens' objectives, and in any case are particularly attached to government intervention in some domains. In-between, where probably most economists stand, the result would generate mixed feelings -- both disciplining effects and the capacity to act being legitimate concerns (see Edwards and Keen 1996).

2.2. Oligopolistic competition[3]

The analysis of horizontal relations among governments is increasingly formulated nowadays, as in other domains of economics, in terms of strategic interaction among a limited number of players - only two in many models. The analytical instrument used is non-cooperative game theory. I will again eschew the technicalities involved and speculate only about how the change in the assumed setting modifies the foregoing discussion. I continue to assume that mobility is costless.

If policy discretion could not be completely eliminated in the very constraining setting of perfect competition-cum-mobility, it will not either under oligopolistic competition; it will even, in general, be greater. The equivalence between the outcomes of Bertrand (price) competition under oligopoly and pure competition does not usually apply when the competitors are governments or jurisdictions because, again, of the different incidence of territorial constraints (being the only one to undercut price cannot entail taking all the market as is the case under Bertrand competition). These territorial effects are sometimes absent or negligible, as is the case with business firm registration or incorporation. Then, in principle something like Bertrand competition could apply, with the price (or the price/quality ratio) tending to what it would be under perfect competition. To some extent, the role played by Delaware in matters of incorporation provides an illustration. In general, however, even if there is no coordination or cooperation of any kind, a departure from equilibrium on the part of one government would entail a less dramatic response from outside the jurisdiction in the case of oligopoly than it would in the case of perfect competition.

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[2] See also Sinn (1992).

[3] In the context, "small-number competition" might be a better expression than "oligopolistic competition". I employ both.

It is unlikely though that interaction between a small number of governments will not lead them to cooperate or to coordinate their actions in some areas or on some points (which, as noted in the Introduction, does not imply that they will not compete actively, at the same time, in other respects or in general). Of course, the number of participants is an important determinant. We have seen that many models assume the number to be small (two participants, often). In the real world, it is also often the case that the number of jurisdictions on the same tier is small (three regions in the case of Belgium, ten provinces in the case of Canada). Then coordination costs are likely to be manageable. The situation is different when the numbers are larger (fifty states in the case of the United States, twenty-eight states in the case of India). What can be done in Belgium or Canada may thus be impossible in the United States or India and this certainly explains some of the differences in their federal arrangements or practices.

Inequality of size may also affect the possibility of cooperation. Two mechanisms, at least, may be at work. One, favourable to coordination and cooperation, is based on the willingness of the larger jurisdictions to finance by themselves a service that has the dimension of a collective good benefiting all. A large province or a large city (or a group of two or three of them) assumes all the cost of coordination and accepts that other provinces or cities shirk. The other mechanism, this time unfavourable to cooperation if not also to coordination , operates when a small jurisdiction (for instance a tax haven) draws a large profit, relative to its size, from not cooperating.

With a few exceptions (see Cardarelli, Taugourdeau and Vidal 2002), however, the literature has not devoted enough attention to the possibilities opened by repeat business. As is well known, with a sufficiently long time horizon and a sufficiently low rate of discount, the prospect of repeat business may make cooperation emerge where it would not if only the short run counted. What is, to my knowledge, even more underestimated is the potential of combinations of repeat business and issue-linkage, as that latter phenomenon is known in political science. When numbers are relatively small or when a large jurisdiction assumes the costs of leadership, the reluctance of a government to cooperate in one domain (say, tax competition) can often be overcome by side-payments in other policy areas. In the relationship among the member countries of the European Union, deals of that kind are not only important but in fact institutionalised (Salmon 2002). They cannot but also be present in small-number or asymmetric federations like Canada and Belgium.

In some set-ups and on some issues, coordination can also be achieved by relatively large numbers. Assume, as argued in the preceding subsection, that, up to a certain amount, assistance to the poor can be financed by decentralized governments without problem, either because it can be included in the packages of benefits that at least some mobile agents (other than the poor) find valuable and are willing to pay, or because it can be one of the uses of the discretionary tax base discussed earlier. In many jurisdictions, the democratic pressure on policy-makers makes them willing to implement a policy of assistance provided that this does not generate an excessive inflow of recipients. Clearly, if a large number of jurisdictions implement the policy, no excessive inflow in any of them may occur. Because the set-up here is that not of the prisoners' dilemma but of a game of coordination or assurance, a happy outcome is quite possible. Provided many other jurisdictions go on helping the poor, and so long as the said pressure from voters remains the same, the incentive for the policy-makers of any jurisdiction is to pursue the assistance policy.

In spite of this particular case, one might be tempted to argue that the blend of coordination, or even cooperation, and competition will bend more toward competition when the level considered includes many jurisdictions, none of which of a size much larger than the others. However, the example, cited in the introduction, of intense competition between two areoplane-makers should dissuade us to attempt such generalization. The combination of tough small-number competition along most dimensions and coordination -- and even cooperation -- on some matters is as much a characteristic of federalism and decentralization as it is of the modern economy.

2.3. Mobility costs

In the real world, most agents, whether households, firms, or factors of production, cannot move without incurring significant costs, in terms of money or sometimes only utility. Even within a single metropolitan area, house ownership and contractual obligations may make the costs significant whereas they may be very high when the jurisdictions concerned are regions or, in the European Union, member countries.

This fact is often considered as a decisive objection to models - like the Tiebout model or the Oates and Schwab model (1988) - that are dependent on the assumption of mobility. One might argue that the objection need not be taken too seriously as long as one respects two defining characteristics of the main approach, namely concentration on equilibrium and no explicit role for politics. Mobility costs are likely to be large only in the short and medium term. In the long run, thanks to depreciation , obsolescence or the renewal of generations, real capital, whether tangible or intangible, moves much more easily across jurisdictional boundaries. In the said models, however, what counts is that adjustment takes place (that mobility costs eventually cease to count), *when* -- that is at what point in time -- does not matter. In practice, the way to combine these models and the existence of costs of mobility is to divide agents or factors among those who are mobile and those who are not. In the European context, it is usual to assume that labour is not mobile across member-countries.

In reality, costs of mobility vary continuously across agents and in time.[4] To take this into account, one must introduce in the analysis, in an explicit way, politics and something like dynamics and path dependency. Let us start from equilibrium, with a perfect correspondence between what is offered by a jurisdiction and what is demanded from it, and assume the occurrence of a shock, creating a difference between the two. Some inhabitants or firms will instantly leave the jurisdiction, others will be prevented from leaving quickly by the costs of mobility they would have to assume. The first consequence of their delaying their departure is that they will bear a utility loss. Thus it cannot be argued anymore that only land-owners are vulnerable to ill-effects of government policies. The second, related, consequence, then, is that losers, constrained by mobility costs to stay for some time will have an incentive to turn to policy-makers and press them to change policies. Their demands will not be fully satisfied, most likely, but some change of policy will take place if the political system is responsive - an additional reason why mobility-based competition does not dispense from politics. The third, also related, consequence, is path dependency. Even if ultimately a new equilibrium is reached, the situation in the jurisdiction will have been constantly different (including at that new equilibrium) from what would have obtained both with no mobility at

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[4] Mobility costs, discussed in this subsection, should not be confused with the consumer surplus mentioned in the previous one. In both cases, an increase in tax will not make all mobile agents leave the jurisdiction. But the effect of the consumer surplus is valid in static terms, independently of time, whereas the effect of mobility costs normally diminishes over time.

all and with costless mobility. Soon after the shock, some agents will have left, others will have already induced some policy changes, not sufficient however to prevent other agents from leaving, and so on until a new equilibrium is reached (possibly). On the path to this new equilibrium, assuming that it exists, the two processes of *exit* and *voice* (Hirschman 1970) will interact in a highly idiosyncratic fashion, and this will also shape the final outcome.

III. Mobility-based competition: politics without markets

It seems natural to assume, as I have done so far, that the office-holders and the inhabitants of a jurisdiction assess in a positive way the resources available in that jurisdiction or flowing into it. This applies in particular to the abundance of land, the level of activity, the speed of economic development and the magnitude of the tax base. Conversely, it may seem strange that the politicians and voters in a jurisdiction prefer that it remains poor, that its economic development and the part of its territory used for human activities be as limited as possible, and that, as a consequence of the out-migration of many of its taxable agents, its tax base be made to shrink. Observation does confirm the manifestation, in some cases, of apparently perverse preferences such as these. To understand them, one must focus on politics, even at the cost of neglecting some market mechanisms. There has not been much research undertaken in that direction, at least in economics. I will mention three instances, devoting more space to the first, which I happen to know more in depth.

In Mingat and Salmon (1988), the analysis is specific to circumstances particular to France in the 1960s and 1970s but its relevance is more general. Assume two political parties, Left and Right, that operate at the national and at the local levels, and assume that voters are loyal to one of the two parties depending on their relative income position (weighed up at the national level). To simplify, assume that the "poor" vote for the Left and the "rich" for the Right at both the national and local levels.[5] All elected office-holders belong either to Right or to Left. Communes whose inhabitants are mostly poor tend to be governed by a Left mayor and communes inhabited mostly by the rich tend to be governed by a Right mayor. But this is only a statistical regularity, in particular (but not only) because the underlying relationship is submitted to exogenous shocks, for instance oscillations in public opinion at the national level. Thus incumbents are not certain to be re-elected even if the composition of their electorate does not change.

Now assume that mayors have at their disposal policy instruments that they can use to affect the inflows and outflows of poor and rich, and thus the rich/poor ratio among the voters of their jurisdictions. The hypothesis formulated in the model is that they will use these instruments to increase their probability of being reelected. Thus mayors belonging to Right will want to increase this ratio and mayors belonging to Left will want to reduce it. If mayors can for instance foster or hinder the construction of rent-controlled and other types of "social" dwellings, a relatively direct way to manipulate the ratio is, on the part of a Left municipality, to support such construction and, on the part of a Right one, to prevent it.[6] Less directly, if, in an inner city whose boundaries are fixed, the ratio is positively correlated with the price of dwellings and of land useable for the construction of dwellings (as was the case in France), and if these prices are increased by scarcity, indirect ways to increase the ratio are, for example, limiting the permissible height of new buildings, encouraging the construction of

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[5] The assumption mimicked reality fairly well over the period studied, 1953-1983. It would not at present, mainly because many "poor" vote for the extreme right.

[6] According to *The Economist* (cited in Mingat and Salmon 1988), the former policy was followed by the Labour Party, in power at the time in London, with the objective of countering an exogenous trend of "gentrification".

offices, or freezing as public parks a part of the city's territory. These policies are likely to be followed by mayors belonging to Right. Economic development in the whole metropolitan area puts pressure on the land available in the central city, makes its price rise, and, if the underlying mechanisms work as they did in France, increases the rich/poor ratio. This favours Right. A Left mayor of the central city may thus try to counter or slow down the economic development of the metropolitan area. He or she may, for instance, attempt to block the extension of the airport.

At any point in time the total number of poor and rich, and thus of voters voting for Left and Right, is fixed, both at the level of the country and at that of the metropolitan areas if we assume migrations to stop at the confines of the latter. Thus, with regard to the induced movements of population, competition takes place between incumbents of the same party. Less poor in the central city, which is good for its Right mayor, means more poor in the suburbs, which improves the electoral prospects of Left in those areas. There is a convergence of interest between the Right mayor of the central city and the Left suburban mayors taken as a group (including the Left challengers to Right incumbents, for that matter). There is a rivalry among these suburban mayors for a share of the windfall. Conversely, the reelection prospects of those mayors of suburban communes who belong to Right are worsened. Thus there is a conflict of interest and, potentially at least, some rivalry or competition between them and the mayor of the central city.

The foregoing suggests that once they get into power in a jurisdiction, parties will seek to strengthen their electoral support in that jurisdiction, but it leaves implicit the idea that, if incumbents are particularly successful or lucky, they will make that jurisdiction into an electoral stronghold for their party. The idea that competition between two parties could end up in providing them with "safe districts" is developed by Caplan (2001) who, however, uses a mechanism different from that specified in Mingat and Salmon. Assume that there are two parties, the Democrats and the Republicans, each active at the two levels of jurisdiction. Voters are loyal to one of the two parties but have a different preferred policy along one single dimension. Office-holders in a subcentral jurisdiction adopt the policy favoured by the median voter in that jurisdiction. Suppose that, in the two cases by a very small margin, the Democrats come to power in one jurisdiction and the Republicans in another. They implement the policy preferred by the respective median voters, which are more or less the same -- moderate. However, in the first jurisdiction the most extreme voters among those who support the Republicans are so unhappy to be governed by Democrats that they move to the second jurisdiction. Similarly, the most militant Democrat voters move from the second jurisdiction to the first so as to be governed by Democrats. As consequence, the two median voter positions become more apart and incumbents adopt, in opposite directions, less moderate policies. This makes new subsets of Democrat and Republican voters unhappy in the jurisdictions governed by Republicans and Democrats respectively, and thus induces more migrations, etc. As a result, the policies followed in the two jurisdictions become very different and each party benefits from a safe district. Elections are not competitive any more, which justifies the author to consider the process as perverse.[7] There is no explicit intergovernmental competition in the model, but it would be easy to make it emerge by assuming a larger number of jurisdictions. Then, as in the previous story, there would be competition among incumbents of the same party, again for a share in a fixed total of sympathisers.

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[7] In Mingat and Salmon, in spite of "strongholds", competition never vanishes -- that is, incumbents are never sure to be re-elected - because of exogenous shocks taking place at the central level.

Whereas the essential decision-makers are the incumbent office-holders in Mingat and Salmon (1988), and the mobile extremist voters in Caplan (2001), they are the immobile median voters in the third model, that of Brosio and Revelli (2003). In their framework, which is one of overlapping generations, there is no explicit government. The median voters are the sole policy-makers. Their concern is that, when they retire in the next period, the median voters in power then will decide on a level of redistribution insufficient for providing them (the current median voters) with the pensions they will need. There is no way of binding the median voters of next period. The only solution is to change them. This can be achieved by deciding now to have an inflow in the next period of low-income immigrants. During that next period, these immigrants will work and vote, and by their sole presence will change the income distributions. The median voters will occupy a lower position in the respective income distributions and thus will decide more redistribution than would have decided median voters next period if no immigrants had come in. At the same time, however, the presence of the low-income immigrants will reduce the mean incomes, which by itself will have a negative effect on recipients of redistribution. Thus there is a trade-off. The median voters will favour immigration of low-skilled workers only if the negative effect of the entailed reduction of the mean income is less than the positive effect of the reduction of the median income. Calculations of this kind will yield different outcomes across jurisdictions. Only some of these jurisdictions will adopt the policy. There is no explicit interjurisdictional competition in the model because low-income workers are assumed to come from abroad, not from the other jurisdictions. Their supply is also implicitly assumed to be infinitely elastic. But if they were in limited supply, or if induced migrations took place only among the subcentral jurisdictions concerned, there would certainly be a competition among jurisdictions seeking inflows (and some of the others).

IV. Information-based competition

In the previous sections, the existence of information flows across jurisdictional barriers was of course a necessary condition for mobility to take place. People who decide to move to another jurisdiction must know something about what is waiting for them there. We can refer to this kind of information as "mobility-facilitating" or "arbitrage-facilitating" information. Its imperfections are part of the transaction costs that constrain mobility. But information about what obtains in other jurisdictions is not reducible to this important but nonetheless auxiliary function. In this section, I will consider three types of analyses that give information a larger role. Again, I will linger on the one I happen to know best, this time the third.

4.1 Laboratory federalism

The idea that social experimentation is a good way to introduce new policies and that decentralization is a good way to practice social experimentation is widely considered as making sense. In a decentralized system, each jurisdiction can experiment, and successful innovations can be adopted by other jurisdictions on the same level or by the central government (a possibility that I will neglect). There have been many empirical studies -- though seldom by economists -- of policy experimentation and innovation diffusion at the subcentral level of government.[8] Among economists, two main views emerge, one that considers the phenomenon as very important and the other that doubts its significance. The nature of the assumptions about intergovernmental competition may explain the difference between the two.

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[8] See the references in Rose-Ackerman (1980), Breton (1996), and Strumpf (2002).

The first view is a major feature of the neo-Austrian analysis of decentralization. It is related to the neo-Austrian perspective in general, which stresses ignorance and its mitigation. Given generalized ignorance, market competition is an evolutionary process whose main output is discovery. New methods of doing things, new modes of organization, etc. are tried, and only some survive the selection process, which, in a capitalist economy, is based on competition among firms. In a sense, thus, this competition is instrumental. In the background of market competition among firms, there is a competition, perhaps more important for society (because it generates new knowledge) which is competition among more abstract items.

When the idea is transposed to the relations among jurisdictions, the duality remains. Interjurisdictional competition is a vector for competition among institutional features. The two, taken together, form a discovery procedure (Vihanto 1992, Vanberg and Kerber 1994, Gerken 1995). The underlying mechanism is based on the mobility of agents (households, firms, capital, etc.).[9] A new institutional feature is tried in a jurisdiction. Eventually it proves its worth. Thanks to it, the jurisdiction is successful in the competition with other jurisdictions to attract or retain mobile resources. Because these processes take time, the traditional institutional features in the other jurisdictions are not dismantled right away. Eventually, however, to avoid losing ground as a consequence of resource mobility, all jurisdictions will have adopted the new institutional feature, which can be said thus to have won the institutional competition.

A theoretical formulation of the pessimistic view about laboratory federalism was developed first (as far as I know) by Rose-Ackerman (1980). It is elaborated with more modern analytical tools by Strumpf (2002). The main idea is a kind of transposition to the context of policy experimentation by decentralized jurisdictions of an argument often made against spending resources on basic research in a small country. This argument points to the advantage of free riding or, if one prefers that formulation, to the existence of positive externalities. If a discovery is made, even those who have assumed no cost to seek it can freely benefit from it.[10] In the decentralization context, the jurisdiction which experiments a new policy incurs costs and runs risks, whereas its benefit if the experiment succeeds is only the increase in the welfare of the inhabitants of the jurisdiction. The usually larger benefits provided to the other jurisdictions, which will have simply to copy the innovation if successful, are not internalized. This creates at the subcentral level a disincentive to experiment.

In Rose-Ackerman, success of the innovation increases the probability of reelection of the incumbents and failure decreases it. In Strumpf, the political mechanism remains largely implicit but can be more or less the same; policy-makers, in a set-up of strategic interaction, maximize a pay-off presumably related both to the welfare of inhabitants and to support by voters. In both papers, the decision is the outcome of a comparison between the benefit of the "sure solution", which consists in doing nothing now and copying in the future the result of experimentation pursued elsewhere when it is successful, and the benefit and cost of the risky

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[9] However there is nothing in the basic neo-Austrian perspective that prevents reliance also (or instead) on the mechanism of yardstick competition (see Kerber and Budzinski, 2004).

[10] Except if risky projects are «structured so that it is difficult for others to copy the results » (Rose-Ackerman 1980, p. 594). Kamar (1998, p. 1954) shows that one reason for Delaware's preeminence in the market for corporate chartering is « the indeterminate nature of its law, which makes it impractical to copy.»

solution, which consists in experimenting.[11] Implicitly in Rose-Ackerman and explicitly, albeit briefly, in Strumpf, a potential alternative to the main reasoning assumes a process which Strumpf refers to as yardstick competition. The process fully deserves to be referred to in this way, even though in the context of competition among governments or office-holders it is not the process usually discussed under that name. I consider both variants of yardstick competition, starting with the one considered in Strumpf.

4.2 Yardstick competition to be promoted

As noted by both Rose-Ackerman and Strumpf, a successful office-holder in a subcentral jurisdiction may seek a reward in the form of an office higher-up in the governmental system.[12] Examples supporting this point come to mind immediately. Thus it is not unusual for presidents of the United States, federal chancellors of Germany, or presidents of the EU Commission to have proved their worth earlier as state governors, minister-presidents of Länder, or prime ministers in member countries. The relative evaluation can be made by all or some of those who have the power to promote to the new office. In the brief discussion devoted to the mechanism by Strumpf, the voters of the higher tier evaluate and promote. Depending on the political system, evaluation and promotion could be done by parliament, representatives of the subcentral governments, political parties, and so on. The criterion used for these assessments will vary accordingly, as will the exact incentives provided to the promotion seekers.

In the framework assumed by Rose-Ackerman and Strumpf, the decision to experiment entails costs, risks and possible benefits with net effects that can be positive or negative both in terms of the probability of being reelected and in terms of promotion. Office-holders who decide not to experiment have an unchanged probability of being reelected to the office they already hold if no innovation proves successful elsewhere. One may also suppose that they have an increased probability of being reelected if an innovation does succeed elsewhere and they immediately copy it. In addition, they have a chance to do better than innovators in the yardstick competition for promotion. Altogether these assumptions tend to favour the decision not to experiment.[13]

4.3. Yardstick competition to be reelected

In this second form of yardstick competition, the main role is assigned to the voters of the jurisdiction whose officials are gauged. They make the comparative assessments of performance. For the incumbents, comparative performance has an impact no more on promotions but on the probability of being reelected. Contrary to the assumptions made in the previous subsection, losing the comparative performance race does reduce that probability. There is no "sure solution", it is impossible not to participate in the race and take risks.[14]

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[11] The « sure solution » may not be the surer one if, in the case of a decision not to experiment, the probability of being reelected is low.

[12] See also Bodenstein and Ursprung (2001).

[13] This type of yardstick competition makes one think of the incentives generated in the market for managers as analysed by Fama (1980). In Fama, however, the risk of losing one's present position cannot be avoided. Everybody may be moved downwards as well as upwards. For a closer analogy with Fama's world, see Eichenberger (2003).

[14] Whether this difference affects the main conclusions of the preceding analysis and not only its formulation remains to be verified. But there are other ways to modify the assumptions made by Rose-Ackerman and Strumpf and account for the fact that innovative policies in the context of yardstick competition typically yield electoral benefits. One way is suggested by Strumpf himself. I provide another below in the text.

The mechanism is exposed in some detail, in an informal way, in Salmon (1987).[15] A more formal treatment and a test are offered in Besley and Case (1995). The main problem encountered by voters, in a world in which there are many changes and much uncertainty, is assumed to be information asymmetry. Given circumstances that they do not know, or whose impact they cannot assess, the voters of one jurisdiction, say J, cannot say whether the performance of their government is good or bad. If disturbances are not wholly idiosyncratic to J but, to a sufficient degree, correlated across different jurisdictions, the observation of what obtains in some other jurisdictions may help voters in J to form an opinion on that performance. If the said jurisdictions are on the same level as J, yardstick competition is horizontal, if they are not, yardstick competition is vertical.[16]

I will consider only horizontal competition. In some versions of the reasoning, voters have very different interests. If a voter of J, in a domain of interest to her, considers the services delivered by the government of J to be insufficient, compared to those in the same domain offered in some other jurisdictions that the said voter considers as comparable, this may decrease the probability that she will vote for the incumbent on the next occasion. Incumbents do not know exactly the domains that count most to that voter or others, nor with what other jurisdictions she or others will compare what obtains in J. They know that exerting themselves as much and in as many areas as possible enhances the chance that their performance will be judged comparatively good by the voters of their own jurisdiction, and thus increases the probability that they will win the next election. If this is their main concern, this may produce in incumbents an incentive toward good performance, and moreover performance of a kind that tends to be aligned with the way voters themselves perceive their interests. In some cases, however, the mechanism may either not work or have perverse effects. It is impossible here to explain why, nor to mention all the problems, issues and applications that the mechanism raises or suggests (see e.g. Bordignon, Cerniglia and Revelli 2004, Salmon 2003, and the references therein). I will make only four remarks.

First, even though all voters have idiosyncratic interests, in some circumstances some variables are a concern common to many. Thus, rather than the very general formulation above, it is often both more convenient and productive for certain purposes (to explain the support enjoyed at some points in time by Thatcher or Blair, for instance) to assume that yardstick competition takes place over one or a few salient variables (taxes, crime, inflation, unemployment, economic growth, etc.).

Second, a probabilistic view of voting makes the mechanism much more plausible than it is under the median voter assumption. Making the median voter respond to information from outside the jurisdiction can be a tall order. Under the probabilistic view, candidates consider all voters as having a positive endogenous probability of voting for them. Thus the opinion of even relatively small groups might count, and consequently deserves some attention. If electoral competition is sufficiently tight, politicians will be attentive to interjurisdictional comparisons even if they know that only a minority of voters make them. This has some bearing on the foregoing discussion on decentralized policy innovations. Even

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[15] In the literature on information, monitoring and incentives, yardstick competition is usually associated with Shleifer (1985) even though it was modelled earlier. In Salmon (1987), whose topic was decentralization in a governmental system, the analysis was inspired by the then recent literature on tournaments, in particular Lazear and Rosen (1981). Differences between tournaments and yardstick competition can be disregarded for our purpose.

[16] On vertical yardstick competition, see Breton (1996) and Breton and Fraschini (2003).

if most voters consider only the costs and/or outputs of policies, under the probabilistic perspective it may be enough for motivating the decision to experiment in a single jurisdiction that a subset of its voters rewards incumbents for having introduced policies whose innovative character is proved by their diffusion to other jurisdictions.

Third, as stressed by Breton (1996), voting is only one of the ways for the population or segments thereof to award or withdraw support. This explains that yardstick competition can also be very powerful in a non-democratic context, as the fall of the Iron Curtain demonstrated. In such case, however, the performance gap must be particularly pronounced and enduring. Even in democratic settings, incumbents may be attentive to public opinion independently of elections, or, in specialized domains, to the judgement of groups such as the military and artists which have no significant electoral power (and do not threaten to move out). It should also be noted that yardstick competition may generate conflicting assessments, depending on the party, group or category making the comparisons, and this may have a destabilizing effect (Heyndels and Ashworth 2003).

Fourth, two important distinctions structure the existing literature on yardstick competition. One concerns the nature of the accountability problem raised by information asymmetry. Many discussions of yardstick competition, following Besley and Case (1995), are mainly focussed on the adverse selection problem met by voters. The central question is whether yardstick competition offers voters a way to reelect politicians whose "type" is "good" rather than those whose type is "bad". In other contributions (e.g., Salmon 1987), however, the problem is more one of moral hazard. Office-holders are more or less alike and the focus is on the impact of yardstick competition on their incentives. The moral hazard problem is perhaps more central than the selection problem to democratic governance and decentralization, but both are certainly important and worth studying.

The second distinction extends to yardstick competition the distinction which structured Section 2, that is between perfect competition, allowing parametric assumptions, on the one hand, and small-number competition, requiring in principle a framework of strategic interaction, on the other. Contrary to what is supposed in a large part of the literature, the way information may reach the voters of a jurisdiction does not necessarily dictate the assumption that the office-holders of that jurisdiction are exclusively influenced by what happens in a small number of other jurisdiction, in general the neighbouring ones, which implies in principle recourse to a strategic interaction framework.[17] Voters can evaluate the performance of their government by comparing it to an index or a ranking calculated over or including a large number of jurisdictions. There is a growing supply of statistics, from both public and private sources, that enable voters to do exactly that. The counterpart to the price-taker or utility-taker assumption made in the case of mobility-based perfect competition will then be (in the index case at least) something like a yardstick- or benchmark-taker assumption.

V. Some remarks on how the two forms of competition might interact

The strength of mobility-based horizontal competition among governments is overestimated. Many people, academics as well as journalists and politicians, too easily accept the view that the actual or potential mobility of firms, factors, and individuals will constrain governments to

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[17] However, the justification for assuming that comparisons are made with neighbouring jurisdictions may be not that information circulates more easily with them than with more distant ones, but that the correlation between exogenous shocks or disturbances is likely to be higher.

the point of depriving them of all real powers to design and implement policies. The tendency is particularly apparent in discussions of globalisation and of integration in the EU context. In Section 3, we have seen some of the reasons why mobility is likely to leave considerable discretion to the governments and/or citizens of subcentral jurisdictions. A more direct way to arrive at that conclusion is simply to take the measure of what states, provinces, regions, and cantons can achieve in fully integrated federations.[18] In fact, the most important limitations to the freedom to decide of subcentral governments should often be sought not in the constraints entailed by mobility-based competition but in those imposed by the centralized assignment of powers in the overall system and/or by the de facto extension of the activities of the central government (or of "Brussels" in the EU context). I will return to this in the next section.

By contrast, the acceptance of even a minimal influence of information-based or yardstick competition encounters serious intellectual obstacles, some of them ideological.[19] Consequently, the strength of that second form of horizontal competition is seriously underestimated. Yet, information of a comparative kind is increasingly made available by various organizations (a recent example being CESifo in Munich) or by the media and is used or referred to in public debates. In some of the member countries of the EU - and, on the occasion of municipal elections, in some cities - comparative notions like "falling behind", "winning the race" or "catching up" play an increasing role. These facts may explain why somewhat more attention is given to the phenomenon in the economic literature.

How do the two main mechanisms that underlie horizontal competition interact? In general, they should be mutually reinforcing (Breton 1996). Yet, we know from Hirschman (1970) that *exit* may undermine *voice*. The potential of the latter can be weakened if the agents most likely to use it leave the jurisdiction. Some of the models discussed in Section 3 illustrate this possibility. But the interaction between the mechanisms is typically more complex.

In some cases, it seems clear that only one of the two counts. I have already mentioned the case of incorporation in the United Sates. For large American firms the cost of incorporating in one state rather than in another is negligible (the situation is different in Europe). As a consequence, with regard to incorporation, mobility-based competition pre-empts yardstick competition. Sometimes, it is yardstick competition which seems relevant and mobility-based competition insignificant. Some categories of voters will compare the way their government addresses some environmental or ecological global issues (biodiversity, global warming, etc) with policies that deal with them in other jurisdictions. The outcome of such comparisons may be quite significant in electoral terms whereas it is unlikely to induce significant mobility.

But let us examine that example more closely. Voters, even when particularly interested in environmental matters, are unlikely to respond to differences in environmental policies of that global type by moving from one jurisdiction to another. But the said policies typically have consequences outside the domain of the environment. For instance, they impose financial or regulatory burdens on industrial firms. Interjurisdictional differences in these burdens may have significant effects in terms of mobility-based competition. In this

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[18] For the particularly interesting case of Switzerland, see Kirchgässner and Pommerehne (1996) and Feld (2000).

[19] To my surprise, I have discovered that, in some subsets of the profession, a typical objection to yardstick competition in an electoral context is based on an interpretation of voters' "rational ignorance" so extensive that it renders democracy pointless.

example, the complexity of the interaction between the two forms of competition stems from the fact that the agents concerned by them are not the same and are involved differently. This proposition is applicable more generally. Some categories of agents, often firms and capital, will respond to policy differences across jurisdictions largely by mobility, actual or potential, whereas other categories, typically labour and consumers, will react mainly by voting. The incentives given to office-holders by the two forms of competition may converge because voters take into account the consequences of mobility, actual or potential. But convergence may be incomplete, and, in some circumstances, the two forms of competition will provide completely contradictory incentives.

I have already discussed the degree to which mobility-based competition, by eroding the autonomy and capacity to act of subcentral governments, has a negative effect on the relevance of information-based competition. The two mechanisms interact in many other ways. I will note one more. Mobility may increase diversity, that is spatial heterogeneity. The Tiebout mechanism leads to similar citizen preferences within, and different preferences across, jurisdictions. In the theory of international and interregional trade, under some plausible assumptions about transaction and transportation costs, more integration in the form of less obstacles to mobility will lead to increased specialization of production (as a consequence of a difference in factor endowments or, even in its absence, of economies of scale, internal or external). Should the diversity that may ensue not constitute an obstacle to the comparisons that play an essential role in yardstick competition? One should note, however, that interjurisdictional specialization of production does not extend to consumption, nor to the production of many categories of non-exchangeable goods and services, both of which can remain quite homogeneous over the whole integrated area. Thus mobility-induced economic integration may not cause, via production specialization, much increase in the diversity, across jurisdictions, of citizen preferences, whereas the said diversity may tend to diminish as a consequence of informational integration. On the aggregate, interjurisdictional diversity with regard to consumption is probably diminishing with increasing integration (as travellers may verify for themselves). This should have a positive effect on the potential of yardstick competition.[20]

VI. Spillovers, empirical studies, normative assessments, and institutional implications

Several categories of questions about horizontal competition usually considered essential have been overlooked in the foregoing. One is policy spillovers; another is empirical analysis; a third is normative assessments; and a fourth is institutional or constitutional implications. Let me stress that, on several dimensions, all four are closely related. The controversies that they raise - especially in the domain of regulation - make that clear.

Interjurisdictional externalities of private activities and spillovers of subcentral governments' policies are probably, together with "race to the bottom", the main concerns raised by horizontal competition. Their claimed existence and importance often serve as highly persuasive reasons to eliminate or reduce competition by the way of centralization and harmonization of policy-making. This tendency is particularly notable in the EU context but it is detectable in most countries, whether federal or not. The recommendations typically generate controversies that involve the four elements mentioned.

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[20] That potential may be affected negatively, however, if the increased specialization in production leads to randome shocks being less correlated.

There is first the question, in a given domain or set-up, of what exactly should be considered as an externality or a spillover. Answering the question is not always straightforward from the moment competition among governments or jurisdictions is deemed legitimate in principle. The fact that one jurisdiction or its inhabitants succeed in something most often harms some people or governments in other jurisdictions. On markets it is generally agreed that externalities do not include damages caused only by competition (driving another firm to close down, in particular, is not considered as an externality in spite of all the social consequences involved). A similar limitation of the concept of policy externality must be found in the case of intergovernmental competition but, because the legitimacy of competition among governments is much less secured than that of market competition, its precise identification is more difficult. This explains why, even when the facts are well known, their interpretation as an externality remains often highly controversial (see the contributions in Esty and Geradin 2001).

There is then the difficulty of establishing facts. This applies to spillovers but even more clearly to the mechanisms that may lead to a "race to the bottom" - or, for that matter, to "to the top". Empirical studies on horizontal competition encounters many difficulties in general.[21] On the particular issue of the "race to the bottom" effect, most of them yield answers that are ambiguous, do not converge or lack general significance - among other reasons, because, as stressed by Revesz (2001), the mechanisms held responsible for the said race are in fact different in important respects. A large part of the empirical or applied debate is about what might happen rather than about what has happened (see Sinn 2003). If we stick to the latter criterion, casual observation is often reassuring. Thus, in the European Union, over the last twenty years, although the rates of taxes on corporate income have declined - possibly eroded by mobility-based competition among governments - the revenues from these taxes have *increased* both as a share of GDP and of total tax revenue (Bond et al, 2000). According to a recent book (Thakur, Keen, Horvath and Cerra 2003), the welfare state of Sweden is a "bumblebee" which, so far, has "kept flying"; and so have the welfare states of most other "old Europe" EU countries.

Normative issues are already implicit in the problem of definition of spillovers just mentioned. A large part of the theoretical literature is more openly normative. On a less theoretical level, there is also a tendency, in particular in some of the ways the Leviathan thesis is presented, to be a bit ideological. Even in well defined issue-areas, general presuppositions on the role of the public sector and of markets often inspire the arguments exchanged about decentralization and horizontal competition. In the EU, in particular, there is a tension between the goal of completing the single market in all its dimensions, eliminating all impediments to trade and all sources of fragmentation of the market, as well as all possible distortions of competition among private producers (the "level-playing field" objective) on the one hand, and fostering competition among governments at all levels on the other hand - innovative governments necessarily contributing, by their actions, to the fragmentation of the market (Breton and Salmon 2002). In some comments, it seems clear that concerns for market competition dominate by and large the sympathy for intergovernmental competition that remains from the moment this competition is not confined to discipline Leviathan.

It can hardly be doubted that intergovernmental competition must be monitored and/or stabilized. The central government has clearly a major role to play for that purpose (Breton,

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[21] See Brueckner (2003).

1996). It can employ all of the many instruments, financial and regulatory, that it has in its possession. The mere fact, in some domains, that the central government can always intervene is often sufficient to compel junior governments to coordinate some aspects of their policies or to take into account - that is, to internalise - some of the benefits and costs that each of them exports outside its jurisdiction (Breton and Salmon 2002, Roe 2003). To trust the central government in its role of monitor or stabilizer of horizontal competition among subcentral governments, a serious problem, however, must be met because the central government is itself in (vertical) competition with the subcentral governments. Institutional solutions have been proposed to mitigate the problem (Breton 1996; Vaubel 1999). Another difficulty is that competition among subcentral jurisdictions may take place also within central government itself, in particular when members of parliament are induced by the electoral system to defend the interests of the districts in which they are elected (see Besley and Coate 2003).

VII. Conclusion

Governmental systems, whether federations, unitary states, or a *sui generis* entity such as the European Union, always include many governments, which always compete with each other. Thus competition among governments is first of all a fact - a feature of existing arrangements whose importance varies in time and space but is never completely absent and is seldom negligible. But it is also a perspective. As such its adoption could easily lead to addressing under a different angle practically all the questions and topics discussed in the vast literature devoted to federalism and decentralization. Being limited to competition among governments situated on a same tier - horizontal competition - makes the task less daunting. Still, if only to avoid duplication with the others, this paper has largely glossed over aspects of the subject that are often considered essential, in particular the more normative aspects (including considerations of efficiency). Conversely, much space - with the objective of convincing readers that they deserve more attention - has been devoted to forms of intergovernmental competition that have remained relatively unheeded.

The literature on forms of competition among governments that are based on mobility is particularly rich. Their treatment in this paper has been unusual in two ways. One is a focus on the capacity of governments to compete. The other has been the attention devoted to analyses in which the prevalence of political considerations yields highly unconventional results. The work done so far on forms of competition among governments that are not based on the mobility of agents but on information flows, in particular yardstick competition, is still comparatively limited. Yardstick competition is slowly gaining some recognition but much remains to be done to elucidate the numerous questions that it raises. With regard to it, the ambition of the paper has been limited to making a case for its relevance and to explaining some of the major processes it may involve. As noted, the paper as a whole has almost completely overlooked some major issues. Brief remarks on them, in particular on the way they may be more connected than is usually assumed, are formulated toward the end of the paper.

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