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Information and mobility as two ways of horizontal competition among governments

by

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I. Introduction

The world economy and society are integrating rapidly. As a consequence, what happens outside a country has an increasing influence on what a government can do within. In this sense, all governments work under competitive constraints. This is true also of subcentral governments within individual countries - that is, the governments of states, provinces, Laënder, regions, cantons, communes, and so on.. The view that governments at levels are working in a competitive environment, stressed by Albert Breton (1996), is increasingly accepted..

There are two important ways in - or channels through - which the influence of what happens outside a jurisdiction is felt within. The one most stressed in the literature involves the mobility of goods, services, firms, factors and individuals. The other consists of information. That variable is typically discussed not in itself but as a necessary condition for mobility to take place. Thus, if the mobility of labour tends to equalize wages across neighbouring areas, a necessary condition is that at least some workers are informed about the labour conditions and remunerations that prevail abroad. If, in an integrated exchange market, the activity of arbitragists ensures that a net profit cannot be made by buying pounds against dollars in London and selling them in New York, this obviously implies that some economic agents are well informed about what obtains in the two places. 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 is not reducible to this important but nonetheless auxiliary function. As the second channel alluded to above, it is more central to integration or globalisation than implied when made instrumental to mobility. In fact, economics has made use for a long time of the assumption that what happens in a country depends on the state of knowledge,

scientific or otherwise, available, in any point in time, at the world level. Many illustrations of that assumption come to mind. The population explosion in the third world reflects the effect on mortality - especially on infant mortality - of imported medical and sanitary contemporaneous knowledge. In some widely used models of international trade, such as the Heckscher-Ohlin model, the production function of each good is assumed to be the same everywhere. This might be deemed unrealistic in the short and medium term but not in the very long run. If we share Gary Becker's well-known view that goods an services are inputs for the satisfaction of wants that are universal, we can expect increased informational integration to make cultures, way-of-life ideals, and pure preferences for goods and services increasingly similar across countries.

Since two papers both published in 1987 (Salmon 1987a,b), I have worked on a particular aspect of the transborder transmission of information which is still relatively unheeded in economics. This aspect is the use by the citizens or voters of a country - or, more generally, jurisdiction - of observations on what obtains in other countries or jurisdictions to gauge the performance of their own country or jurisdiction. This is the basis of a form of competition among governments, placed at the same level of the governmental systems (hence the expression "horizontal competition"), which is now usually referred to as yardstick (horizontal) intergovernmental competition. When horizontal competition among governments is mentioned, however, the competition which is usually considered is exclusively the one based on the mobility of factors, firms and individuals mentioned above. I will refer to the two types of horizontal intergovernmental competition as mobility-based and information-based.

The information-based form of competition is generally ignored or disregarded. The purpose of this paper is thus to try to convince the reader that it is important and that there are two forms of horizontal competition among governments, not only one as usually thought.

When I first addressed the issue in a systematic way (Salmon 1987b), I used the then recent theory of tournaments (Lazear and Rosen, 1981). In a nutshell, the idea is as follows. Suppose that A is a country, province or city and B another jurisdiction at the same level. Some voters of A, concerned with some policy output, decide that the two jurisdictions are comparable and compare the policy output in A and B. If they perceive this output to be better in B than it is in A, they become dissatisfied. This increases the probability that, at the next election, they will vote against the incumbents. The voters of B reason in the same way. Consequently, the two governments are induced to compete for the first rank, that is, to engage in a tournament. Since then, the work done on the subject, and in particular the very influential paper by Besley and Case (1995), has adopted the framework of yardstick competition. The difference can be neglected for our purpose and I will use the expression "yardstick competition" in the remainder of the paper (even though I think that there is something specific in the tournament framework which should not be lost)..

The relationship between citizens and governments in a world which is informationally integrated and in which there are many governments is more complex than I thought initially.[1] In the absence of mobility, however, the basic message is not that complicated. What happens to governments and their policies in a world in which there is a lot of mobility (or potential mobility) but in which information is implicit and limited to the arbitrage-facilitating kind referred to above is a subject extensively discussed and studied in the literature, both in an international context and in a domestic (interjurisdictional) one. What is both lacking in the literature and certainly difficult to analyse is the combined effect of more extensive informational integration and mobility.

The ambition of this paper, however, is very limited. For the main, I summarise and complement a line of argument developed in previous work. Very valuable empirical work

[1] See some theoretical arguments in Bordignon et al. (2002) and Besley and Smart (2003), and a more casual discussion in Salmon (2003), of why the possibility to compare the performance of different governments may not always be favourable to voters.

has been done on yardstick intergovernmental competition.[2] I think, however, that some support to the idea can come also from purely counterfactual exercises. What would happen if no comparisons across jurisdictions were possible? This is the subject of Section II. In Section III, the effect of comparisons on the behaviour of office-holders is decomposed into an effect on the degree of discontent and an effect of discontent on policy-making by office-holders. Section IV considers two differences between mobility-based competition and information-based competition that may explain the reluctance to recognise the latter. The question of how the two forms of competition may combine is addressed in a preliminary way in Section V. Concluding remarks are formulated in Section VI.

II. A counterfactual argument

2.1. Historical change and retrospective assessments

The case for retrospective voting - or, more generally, retrospective assessment - rests on the idea that voters can gauge the past performance of incumbent office-holders more reliably than they can assess platforms or promises. To what extent is past performance assessable? Voters are in a situation of asymmetric information. To get round the information obstacle, voters can engage in comparisons in time - that is, compare policy outcomes with what obtained before the present incumbents came into power. The main problem here is that the world we live in goes through a historical process of transformation which is in many respects unique. For that reason, comparisons in time, in the real world, lose much of their relevance - that is, if not combined with comparisons across jurisdictions. There is some evidence that voters do understand that feature of the information set-up.

[2] See in particular Besley and Case (1995), Ashworth and Heyndels (1997), Revelli (2002), Bordignon, Cerniglia and Revelli (2002).

One important aspect of the said historical process is the existence of a long-run trend of improved living conditions associated with many variations across countries and over time. As a consequence, when the inhabitants of a country are encouraged to observe that the living conditions in that country are better than in the past, they may wonder whether this improvement could not have been larger still. If some information can trickle in about what obtains abroad, the inhabitants of the country will use that information to form a more secure opinion about what to think of the growth boasted by their government. In the 1980s, comparisons of that kind generated among the populations of Eastern Europe the widespread conviction that their countries had fallen behind, which in the end contributed very much to forcing political and even regime change. If comparisons had been unavailable, people would still have observed positive growth in their own country but they would have felt quite uncertain as to whether this reflected a good or a bad performance. As a consequence, in their assessment of government or regime performance, they would not have assigned to growth or living conditions the same weight than the one they did use in reality.

2.2. Assessments by members of organised groups

A second conceivable way for voters to assess performance consists in relying on the information that they receive from the interest groups they are members of. The leadership of well-organized interest groups can certainly overcome many of the information obstacles met by voters. Because of free-riding incentives, however, only some interest categories succeed, somehow, in forming efficiently organized groups. As a consequence, some voters are systematically better informed than other voters on some policies. This tends to generate a bias in the attention devoted by the government to the different policy areas. An interest category - say, "music lovers" - gets organized, while a much broader interest category (to which music lovers belong also) - say, "citizens interested in economic growth" - is not. In the absence of

comparisons with what obtains abroad, we can expect government to pay serious attention (*toutes proportions gardées*) to the former and little attention to the latter.. This will result in subsidies to music and less concern with growth. Inasmuch (as is likely) as music loving citizens are also interested in economic growth, they may or may not be better off than they would be under perfect information.

Are we sure at least that voters, although badly informed in general, get reliable information from the mobilized groups they are members of? Thus, if producers of food succeed in getting organized while consumers of food do not, the foregoing discussion implies that the former are well-informed about agricultural policy while the consumers are not. But if we take the free-riding obstacle seriously, why, or how, can a large category succeed in overcoming that obstacle and get organized? I have argued (Salmon 1987a) that very often large interest categories succeed in becoming mobilized groups because they are funded from outside, and in particular from public resources, tapped in the context of intimate exchange relations between politicians (or departments within government) and the leadership of these groups. Among the items supplied by the leadership of the groups in the context of these exchanges with politicians, a major category concerns the content, presentation or interpretation of the information about governmental policies that they diffuse within the group. This implies, *in an informationally closed society,* that members of organized or mobilized large groups should not be assumed to receive from their leadership a fully "objective" information about the government policies these groups focus on. Again, comparisons with what obtains abroad may allow the members to form a more accurate opinion about the government's performance in the specific policy areas concerned. We can expect, however, the improvement to be more modest than is the case with regard to macroeconomic performance.

To sum up, when we move conceptually from an *informationally closed society* to one in which governmental policies can be compared by voters or citizens to what obtains abroad:

- assessments by voters of macroeconomic performance may improve a lot;

- assessments by voters who are members of organised groups of the performance of the government in the policy areas corresponding to the concerns of these groups may improve somewhat.

The effect of these differences on the behaviour of office-holders is best analysed with the help of a little model derived from the one presented in Salmon (1991).

2.3. A model

The government is constrained by its access to a fixed resource R_T. It divides it into three different uses:

- promoting a macroeconomic goal such as economic growth (R_Y)

- giving subsidies to interest groups (R_G)

- discretionary use (foreign policy, perks, rent, slack, etc.) (R_U)

Thus, $R_T = R_Y + R_G + R_U$. In association with the exogenous employment of unspecified specific factors, the use of R_Y produces a macroeconomic outcome Y, that is: $Y = Y(R_Y)$.

Similarly, G is the level of support to interest groups achieved by the use of R_G. That is: $G = G(R_G)$. Y and G increase electoral support S. In other words: $S = S(Y, G)$. Office-holders are not interested in Y or G *per se* but they want to remain in power. Let us assume that this requires a level of electoral support S^*. R_U is the only use of the resource from which the government derives utility, other than remaining in power.[3] The objective of the government, thus, is to maximise R_U under the constraint that S is at least equal to S^*.

[3] The use to which R_U is put may be quite important and useful for citizens even though it is not support-enhancing. In Salmon (1992), it is argued that leadership by one country (in a form beneficial to all countries) relies on the possibility for the government of that country, submitted to intense horizontal competition, to

[Figure 1 about here]

In Figure 1, the budgetary constraint appears in the SW quadrant in the form of triangle *OMM'*. The relation between R_Y and *Y* and that between R_G and *G* are represented, respectively, by curve *OF* in the NW quadrant and by curve *OV* in the SE quadrant. If the government kept no part of the resource for other uses than these two, any distribution between the two would be represented by a point along *MM'* and would yield a combination of *G* and of *Y* along the production-possibilities frontier *TT'* in the NE quadrant. However, as noted, the government maximises R_U and needs only a level of support *S** - represented by curve *S** in the same quadrant. This level of support can also be expressed in terms of inputs, that is, by curve *s** (graphically derived from *S**) in the SW quadrant. The distribution of *R* that maximizes R_U under the constraint of s* is point *a*, from which on can in turn derive point *A*.

In the absence of information about what obtains abroad, and given the nature of historical change, curve S* is almost vertical and the government devotes very little resource to *Y* (that is, R_Y is very small). . Voters are uncertain about governmental efforts and competence both with regard to *Y* and to *G* but they are more uncertain with regard to *Y*. Thus variations in *Y* have less impact on support than variations in *G*. For a marginal variation in the resource to have the same effect in terms of support whether the resource is spent on *Y* or on *G* (condition of interior equilibrium) one must be very close to the horizontal axis in the NE quadrant, or to the vertical axis in the SW quadrant - that is, the government must have devoted almost no resources to *Y*. In other words, as discussed in the context of multi-tasking by Holmstrom and Milgrom (1991), the less measurable task is sacrificed.[4]

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abstract enough resources of that kind to finance the international public good required by that kind of leadership.

4 See below.

At the limit, *S** is perfectly vertical and *s** horizontal, reflecting a complete absence of effect on support of variations in macroeconomic performance and, consequently, in the resource devoted to that objective. In that case, equilibrium will correspond to point *A* being situated somewhere on *OT'* and point *a* being situated on *OM*. Except at the limit, this will leave some resource R_U to be employed discretionarily by the office-holders. *This is the universe which underlies a large part of traditional public choice thinking, in particular that which focuses on rent-seeking. Office-holders transact with interest groups, which constitute a subset of interest categories, and keep some resources for their own discretionary uses. As a consequence, worthy general interest objectives such as economic growth are sacrificed. This view justifies distrust in government and all the usual normative or prescriptive implications of this distrust.*

However, I have insisted at the outset on the counterfactual nature of the foregoing exercise. A major reason why it is counterfactual, is that there is, in fact, a lot of information coming out from abroad. Even under the maintained assumption of no information about what happens elsewhere, however, I do not think that the world depicted by Figure 1 - a fortiori the one corresponding to a modified Figure 1 with S* vertical - would remain unchecked forever.

2.4. The relation with Holmstrom and Milgrom's solution to multi-tasking.

I did not know Holmstrom and Milgrom's analysis (1991) when I first developed the model from which the exposition in the text is derived.[5] With some changes in the interpretation of the variables, Figure 1 could serve nonetheless as a geometrical demonstration of the main point made by Holmstrom and Milgrom. For instance, a schoolteacher's job could include two tasks, one (noted *G*) consisting of teaching basic skills (reading, spelling, counting), the other (noted *Y*) of "socialising" children. It is much easier to measure what has been achieved with

[5] Earlier versions of Salmon (1991) were presented in various seminars and conferences in 1988-89.

regard to the first task than it is regarding the second. Alternatively, an academic, assumed to teach and to do research, might be promoted or paid according to his or her performance in terms of research publications (*G*) with much less uncertainty than in terms of what can be known of his or her teaching (*Y*). Because the principals can more easily measure and thus reward *G*, there is a tendency on the part of the agent to sacrifice *Y* , that is to devote to it little effort or resource (little R_Y).

Hence, the idea - if complementarities allow - of separating the two tasks, that is, of assigning each to a different job (and thus person). This is one of the solutions suggested by Holmstrom and Milgrom. In fact, in Salmon (1991), the introduction of checks and balances corresponded also to that idea. In that context, it implied rather heroic assumptions on the relationship between meta-constitutional and infra-constitutional decision-making but this is a general problem met by any theory of constitutional design inspired by the economic theory of incentives. In the organisational or labour-economics context in which Holmstrom and Milgrom place themselves, it is natural that a principal, at some meta-level, redesigns jobs and reassigns tasks. In terms of Figure 1, discussing that issue requires the introduction of a set of "constitutional" curves - different from the set of S curves of Figure 1 (of which only S* is drawn) - which reflect the preferences of the principal regarding the trade-offs between G and Y. The search for an optimal job design is governed by the maximisation under constraints of the function expressed by these "constitutional" curves. The implementation of the design found optimal given that function is not really problematic.

Contrary to Holmstrom and Milgrom's setting, however, a political setting such as ours makes immediately plausible or straightforward neither the introduction of such curves, nor the assertion that the system which is best according to them - so to say - will be easily implemented. Because of the fundamental nature of that type of problems, which cannot be addressed here, something like the following will have to be considered enough.

Citizens could not forever remain unaware of the bias depicted in Figure 1. In a democratic setting, sooner or later some candidates or parties would have an incentive to put the issue at the centre of the electoral debate and, as a consequence, eventually, something would be done to mitigate the harmful effects. What, at this constitutional or quasi-constitutional level, might be done? In Salmon (1991), it is argued that all or some of the following economic and political checks and balances would be found helpful: separation of powers, with effective legislative and judiciary branches, meta-rules limiting government intervention in the economy, independent central bank, and, last but not least, federalism or decentralisation, that is, the transfer to subcentral governments of some of the powers originally given to the central government. Consequently, "government" would have to be reinterpreted as "the executive branch of the central government". Even if it were doing nothing, some levels of macroeconomic performance and of transactions with interest categories would still obtain (the latter involving the sub-central governments and the legislative branch).

In geometrical terms, this means that both curves *OV* and *OF* would start from above the origin and be flatter. The production possibilities function *TT'* would be closer to the origin than in Figure 1, reflecting the cost of checks and balances, but government would get less rent or discretionary resources, and, possibly, be induced to devote more effort to macroeconomic performance compared to transactions with interest categories.

Thus, a single-country universe would have little chance to remain a single-government one. The yardstick competition between governments which would by assumption be impossible at the level of the central government would then take place at subcentral (*i.e.*, regional and local) levels.

III. Two determinants of the strength or weakness of information-based competition

In a given country two sets of factors will determine whether the incumbents feel very constrained by the comparisons in which citizens may engage with what obtains abroad. The first set is related to the availability of information and the weight given to it by the population. The second is the nature of the political, and at the limit the electoral, system. The strength of the constraint introduced by comparisons will depend on how much discontent a performance gap generates in the population and to what degree that discontent translates into genuine pressure on incumbents. In this section, which borrows a lot from Salmon (1997), the argument is detailed with the help (again) of a diagram.[6]

3.1. From negative relative performance to discontent

Assume that experts, using comparisons across countries, can say when the relative performance of a country with regard to economic growth is negative and can measure the corresponding gap (see, e.g., Dowrick and Nguyen, 1989). This "objective" growth performance gap is measured on the horizontal axis of Figure 2. Objective gaps eventually cause discontent in public opinion. For a given country, the larger the gap, the higher the level of discontent. This relation is the sum of two relationships. The first, pertaining to information, concerns the way objective gaps translate into perceived gaps. The obstacles to widespread perception, and a fortiori to a consensus about the perception are considerable.[7] We do not have to specify how it works, however, to predict the average outcome: the larger the objective gap, the more (in a given country) it is perceived by voters and/or public opinion. The second relationship, more political (the first is also in part political but less so), relates to the effect of a perceived gap on aggregate discontent. Many people do not care

[6] See Figure 2. This figure, or a very similar one, was presented for the first time in 1993 on the occasion of a seminar at the Department of Economics of the University of Siena.

[7] The fact that there is disagreement along party lines about what should be deducted from interjurisdictional comparisons, as documented in a very interesting way by Heyndels and Ashworth (2003), is an additional factor of noise.

about growth. Still, at an aggregate level, for a given country, the larger the perceived gap, the larger the level of discontent.

In Figure 2, the two variables "objective growth gap" and "discontent" are measured along the horizontal and vertical axes, respectively. For a given country (and at a given date) the aggregate relation between the objective gap and discontent (itself the sum of two relations, as just noted) can be assumed to have an S-shape, as illustrated in Figure 2 by curves V_1 and V_2. In the case of V_1, the two underlying mechanisms operate with maximum vigour. Some sectors of opinion would perceive the performance gap as soon as it appears and even a small perceived gap would create some discontent. Then, one-unit increases in the performance gap would have an increasing effect on the amount of discontent (the curve becomes steeper). Other people, less perceptive, discover the gap when it is bigger, conversations and the media focus on it to an increasing degree, etc. When discontent caused by underperformance is very widespread, however, one-unit increases in underperformance would have a decreasing effect on discontent. The reasons for this are that most people who could be informed about the existence of a gap have already been informed, that the discontent of informed people is already so high that the gap becoming even more serious does not increase their level of discontent very much, and that a fraction of the population are left more or less unconcerned by the performance gap whatever its level.

[Figure 2 about here]

Curve V_2 corresponds to a situation or country in which the mechanisms underlying the overall relation between performance gap and discontent are weaker than is the case with curve V_1. This difference may stem from obstacles to assessing the growth performance of the country by comparisons with what obtains in other countries. The situation of the country is

felt to be special in one way or the other, for instance the economy to be more subject to risks of the kind called idiosyncratic in the tournament literature than to risks common with comparable countries. The difference can also be the result of geographical, linguistic or other obstacles to information flows from abroad. It can arise from the population being relatively unwilling, for instance for cultural or historical reasons, to engage in comparisons. Finally the population may not be as concerned with growth as is the case elsewhere. These various factors can interact. Anyhow, at some level of the performance gap, discontent will appear and, if the gap becomes bigger, it will spread to a large part of the population. Thus curve V_2 has the same general shape as curve V_1.

At this stage, it should be stressed that a given level of discontent can be reached in the two cases, albeit as a consequence of a relatively small performance gap in the case of the first curve, of a much larger one in the case of the second.

3.2. Tolerable discontent as an indicator of the nature of the political regime.

Let us now introduce political regimes. A given level of discontent will not have the same effect under a system of majority rule allowing rapid alternation in office of competing political parties and in which, thus, office-holding is highly "contestable", and under systems in which voters cannot but with great difficulty get rid of rulers whom they do not like. The effect of discontent on the likelihood of political or policy change may thus serve as an indicator of the nature of the political regime. In Figure 2, horizontal lines such as R_1 and R_2 can be interpreted as indicating the levels of discontent that would create a political crisis and endanger the incumbent politicians or political parties, or even the existing political regimes or systems. Thus each line reflects the nature of the political system, or of a state of the political system, or at least of an important aspect of the system. As soon as the level of discontent reaches the line corresponding to the system, it is assumed that this is a sufficient

condition for a change in the political personnel - or for a drastic policy change with the same politicians - to take place. Incumbents will do their best for that not to happen. I draw only two such lines. Line R_1 corresponds to "maximum" democracy - according, say, to the Popperian definition of democracy as the system in which we can get rid of bad rulers without bloodshed ("for example by the way of elections") (Popper, 1945). Line R_2 corresponds to an undemocratic or significantly less democratic regime in the same sense. It needs substantial discontent for the Popperian criterion to apply (if bloodshed can be avoided).

3.3. Tolerable limits of performance gaps

At a point of time, each country has two structural attributes, which can be called, for convenience, "growth gap sensitivity" and "nature of political regime". Each country can thus be located at the intersection point of a V_i curve (the first attribute) and a R_j horizontal line (the second). This gives us the maximum objective growth performance gap which can be tolerated in the country.

Consider the following four points. Point *A* reflects a situation in which office-holding is highly contestable and in which objective gaps cause discontent swiftly. A small objective performance gap (G_A) would cause an amount of discontent D_1 which, although very small, would be sufficient to provoke political change. Thus, the government is highly constrained by performance competition. Point *B* reflects a situation in which office-holding is not very contestable whereas objective gaps cause discontent swiftly. As a result of the first characteristic, only a relatively high level of discontent (D_2) would provoke political change, but, as a result of the second characteristic, this high level of discontent could be brought about by an objective performance gap (G_B) still relatively small (although higher, of course, than in the previous case). Point *C* corresponds to a situation in which office-holding is extremely contestable but in which the sensitivity of the population to growth comparisons is

mediocre. A very small amount of discontent (D_1) would provoke political change but the performance gap (G_C) would have to be relatively important to cause that amount of discontent. In the case of point *D*, the two considerations converge toward the tolerance of a large gap.

3.4. Implications on the size of government

There is no reference in Salmon (1997) to possible implications of that analysis regarding the role or size of government, but they are relatively easy to derive. If the situation of the country corresponds to point *A*, citizens will trust their government with regard to growth. This will not be the case if the situation correspond to point *C*. Consequently, citizens will prefer government to have a large role in the first case and a small role in the second. Given the high contestability of incumbents, we may assume that citizens' preferences ultimately shape institutional arrangements. Thus, disregarding any possible consequences of mobility, we can expect government to be large in the case corresponding to *A* and small in the case corresponding to *C*. With regard to points *B* and *D*, it is more difficult to assume that citizens' preferences shape institutional arrangements. Politicians have some discretion in this regard as in others, and if we assume that they use that discretion to increase the size of government, we must expect the size of government to be large in the two cases, albeit with the acquiescence of citizens in the case of *B*, against their wishes in the case of *D*.

Disregarding mobility, our main empirical prediction is thus that among highly democratic countries, we should expect governments to be relatively small in countries which are the less informationally open and to be large in countries which are the relatively most informationally open.

Related predictions were derived in Salmon (1991) from a different model (the one which in part inspired the preceding section). In particular, the following predictions were made:

- there will be many institutional limits to government in an informationally closed democratic society;
- there will be more transactions with interest categories in an informationally open society;
- as a society becomes more informationally open, institutional limits to its government lose their importance.

Some evidence is presented in the 1991 paper that shows that, among OECD countries, there is a positive rank correlation between international openness and public transfers, and between international openness and various indexes of "corporatism" (that is, intimacy of the relations between groups and governments). These empirical regularities, of course, are generally acknowledged in the literature but they are accounted for by analyses focused on different mechanisms than the one discussed in the article.

IV. Objections to information-based competition

Two objections, based on a comparison between mobility-based and information-based competition, have proved particularly effective against the latter form of horizontal competition.

4.1. Competition on no market

Mobility-based competition among governments is competition for tangible beings: individuals, capital, firms, etc. It is associated with markets in the usual sense. By contrast, information-based competition is not as clearly a form of competition for something.

Inasmuch as it takes the form of a tournament (as in Salmon 1987), one can say that governments compete for rank. In an indirect way this is also implicit in yardstick competition when there are not too many players involved - competition is for not being relegated to the second division, so to say. But where are the markets? The governments participating in information-based competition remain on different political markets. The only market competition associated with information-based competition is the one that takes place, on each separate "domestic" market, between the incumbents and their opponents for the support of the voters of their own jurisdiction. The peculiar character of performance competition between governments whose constituencies are completely separated is certainly, compared to intergovernmental competition based on mobility, a main intellectual obstacle to its treatment on par with the latter (as argued already in Salmon, 1987).

4.2. Voters' ignorance

Belief in the mechanism of rational ignorance (Downs, 1956) may lead to the view that mobility-based competition is more plausible than information-based competition. Individuals and, even more obviously, firms contemplating moving out of a jurisdiction have a clear-cut incentive to get informed about the state of affairs in the jurisdictions into which they might move. In addition, the information they need can be focused on the relatively narrow policy dimensions they are mostly concerned with. By contrast, individuals for which the sole utility of information is to improve the subjective quality of their vote have no such obvious incentive, whereas, depending on what motivates them to vote (a difficult question anyhow, as we know), the information from abroad that they should consider relevant may be quite encompassing. From a traditional public choice perspective, this argument seems persuasive. Nonetheless, I am not convinced by it.

First, what seems clearly true in the notion of rational ignorance is that, as a rule, voters will not pay very much to get informed. Thus, if some knowledge can be obtained only at a significant cost, most voters will rationally abstain to seek it. But this argument is not as decisive as many scholars think. We know that, willingly or not, actively or not, we gather a lot of information about matters in which we have no direct stake. Information is, so to say, flowing for free. Far from being the result of a positive and costly decision, it is much more realistic to say that we cannot avoid getting it. It is in the "air we breeze", so to say. In addition, we can rely on many shortcuts or indirect channels - it is seldom the case that we got directly the information that changed our opinion on some matter. There is ample empirical evidence that debates, reports, positions about some issue have an immediate and very sizeable impact on the views of many citizens on that issue. Comparisons with what obtains abroad feed naturally into these debates, reports and positions, as well, in some cases, as in the "air we breeze", to continue with the same worn-out metaphor. That is sufficient to justify the minimal assumption that what obtains abroad has *some* impact on the support that *some* voters are inclined to give to their representatives.[8]

Second, in turn, that assumption (some impact on some votes) is sufficient for yardstick competition to *exist*, which some scholars deny altogether. Its quantitative importance is another matter. In spite of the minimalist character of the assumption, yardstick competition can be a powerful force if the political system allows, that is, if this system is very competitive, in the sense either of probabilistic voting (every voter counts) or of the Popperian criterion mentioned in the last section. When the political system is sufficiently competitive, a very small amount of discontent, as we saw - or even of potential discontent - will be enough for office-holders to feel constrained. When, simultaneously, the political system is not very

[8] Arye Hillman (2003, p. 573) does offer an argument fully based on private interest in favour of yardstick competition. Because differences in the quality of government tend to be reflected in the prices of housing, "prospects for personal improvements are better by using comparative observations on government to identify and replace bad government rather than seeking to escape government by choosing to relocate" (p. 573). This seems certainly correct under some conditions or in some settings (at the local level, for instance) .

competitive and the opinion of voters tends not to be affected very much by what happens abroad, yardstick competition will become important only when the discrepancy with what happens abroad becomes very substantial (as was the case in Eastern Europe in the 1980s). In actual terms, such a level of discrepancy may not be very plausible but the potential role of the yardstick competition mechanism remains relevant nonetheless. Setting a kind of lower limit to relative performance is important as such, and it may also have an actual effect on economic actors (within the European Union it is not unimportant that economic actors can rely on the existence of a limit to the extent a member country can fall behind the others).

Third, what counts is the thinking of office-holders, who act under uncertainty (this is a major attraction of the probabilistic theory of voting). It is clear that in the real world assessments by voters are highly imprecise, ambiguous and uncertain. Voters are concerned in a different way with all kinds of policy outcomes and give them different subjective weights. On many issues, comparisons may be objectively difficult, and it is unclear what other jurisdictions are comparable to one's own. All this does not matter very much because, fortunately in a sense, the situation of uncertainty in which politicians are situated regarding voters' views leads these politicians, inasmuch as they want to adopt a safe strategy, to do their best in all dimensions.

V. Interactions between the two forms of horizontal competition

How do the two mechanisms that underlie horizontal competition interact? It is tempting to consider them as mutually reinforcing (this is the position adopted in Breton, 1996). On average, this is probably true. Yet, we know from Albert Hirschman (1970) that *exit* and *voice* are not always, or perhaps typically, mutually reinforcing. Exit may undermine voice. In fact, this depends also, to some extent, on the standpoint that we adopt. The interaction is certainly

very complicated. There are at least three ways in which mobility may affect the yardstick competition mechanism.

5.1. Exit-voice

If citizens in a jurisdiction are dissatisfied with the performance of their government and emigration costs are low, while dismissal of that government appears to be uncertain, some citizens will emigrate. If dissatisfaction with the government is not equally shared by individuals, it is likely that the ones who emigrate are more dissatisfied on average than the ones who decide to stay. Inasmuch as, consequently, emigration makes life easier for the (badly performing) government, it is not clear why that emigration would induce political change or improvement in policy-making.[9] If the process of exit goes on, disparities in performance can thus increase without check over long periods of time, even under the assumption of a high level of information. This may happen to independent countries. But subnational jurisdictions are more easily subject than whole countries to this process. Moving out of a province or city is much less costly as a rule than moving out of a whole country, information about what obtains in other jurisdictions at the same level is less costly or is easier to come by, while there is no reason for the dismissal mechanism (in the absence of mobility) to work differently on average in the two cases. Thus we can expect regional or city decline to be a much more widespread and significant phenomenon and to extend over longer periods of time than the decline of countries as a whole.

This, however, does not imply that increased decentralisation, defined as the assignment of more powers to junior or local governments, would reduce the relative performance of the

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9 In fact, there are many instances of a government encouraging dissatisfied citizens - or, more generally, voters likely to vote for the opposition - to leave the jurisdiction. In the case of France, Mingat and Salmon (1986, 1988) have found some empirical evidence supporting the hypothesis that, when controlled by the right, the municipal governments of the centre-cities in large metropolitan areas have deliberately induced low-income voters, likely to vote for the left, to move to the suburbs. Conversely, municipal governments of the left have tried to induce low-income voters to move to the center-city, or at least, they have attempted to prevent "gentrification" by inducing them not to move to the suburbs.

country as a whole, or would reduce on average the welfare of citizens. Let us assume that moving out of the country is costly while moving across sub-central jurisdictions within the country is not. There will be some performance competition between the sub-central governments. As a result of voters moving out of the jurisdictions, some of these governments may become permanent under-performers. But this will mean that, progressively, the corresponding jurisdictions will lose population and that their importance in the country as a whole will decrease, while the jurisdictions whose performance is above average will gain population and become relatively more important. From the standpoint of jurisdictions in the first category, mobility undermines the performance competition mechanism. From the standpoint of the country as a whole, whose government is itself engaged in performance competition with the governments of other countries, it is not clear that it does.

5.2. Erosion of governmental autonomy caused by mobility-based competition

The interaction between the two forms of competition which come to mind the most readily, perhaps, is the erosion of governments' real powers or autonomy brought about by the mobility of goods and services, factors of production, people, and firms - a set of issues extensively discussed today both in the scientific literature and in more mundane surroundings. A major effect of mobility is that it renders some kinds of redistributive policies unsustainable. Mobile factors (extended to persons in general and to business firms) cannot be taxed or subsidised at variance with the benefits they receive from the jurisdiction (see, *e.g.*, Oates and Schwab, 1988; Sinn, 1992).

If one thinks, as I am inclined to do, that anyhow (even in the absence of mobility) true redistributions (excluding what the Americans call " pork", that is, benefits to pressure groups) are mostly 'paretian' (see, *e.g.*, Hochman, 1996) and/or play a relatively minor role compared to the production of (other) public goods in the activities of governments, the

limitation is not very serious (Salmon 2002). The example of the degree of autonomy enjoyed by governments embedded in very open and competitive surroundings, as are the Swiss cantons for example, is illuminating in that respect (see Kirchgässner and Pommerehne 1996, Feld 2000). Paradoxically, the limitation may even have an important positive effect on the role and size of governments. Inasmuch as redistributive policies of a non-paretian kind (including retribution to interest groups) are precluded, governments may become more trustworthy in the eyes of many voters and the willingness to give them an important role may increase.

5.3. Mobility-induced diversity

Mobility may increase diversity, that is, spatial heterogeneity. The Tiebout mechanism (Tiebout 1956) leads to citizen preferences being similar within, and different 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 an increased specialization of production (as a consequence of a difference in factor endowments or, even in its absence, of economies of scale). In both cases, the diversity that could ensue could constitute an obstacle to the comparisons that play an essential role in our performance competition story. However, interjurisdictional specialization of production does not extend to consumption, nor to the production of non-exchangeable goods and services, both of which can remain quite homogeneous over the whole integrated area (see Krugman 1991, Cohen 1994). Thus the interjurisdictional diversity of citizen preferences may remain quite limited in spite of mobility-caused integration, while it is likely to be negatively affected by informational integration. On the aggregate, diversity is probably diminishing with increased integration (as any traveller can observe by herself or himself). This means that its effect on yardstick competition is unlikely to be serious.

VI. Concluding remarks

The strength of mobility-based horizontal competition among governments tends to be overestimated. Many people, academics as well as journalists or politicians, jump too easily to the view that that mobility of firms, factors and individuals will constrain governments to the point of depriving them of all powers to design and implement policies. This tendency is particularly apparent in discussions about globalisation. It is enough to consider what states, provinces, regions and cantons can achieve in some fully integrated federations to realize that this view is excessive.

By contrast, the acceptance of even a minimal influence of information-based or yardstick competition meets with very serious intellectual obstacles. Thus the strength of that second form of horizontal competition is seriously underestimated. This is slowly changing, however, thanks in part to the small but growing number of scholars who do give a role to yardstick competition in their analyses, but mainly, perhaps, because information of a comparative kind is increasingly imposed to all sectors of public opinion and to voters. The political debate in many countries is now often focused on comparative notions such as "falling behind", "decadence", "winning the race", "catching up", "keeping one's rank", and so on. This does not mean that one would want to argue that information-based competition is in any sense more important than mobility-based competition. I have stressed the former mainly because it is much less studied and known than the latter. Anyway, the main task ahead is to go much deeper than it has been done here into the question of how the two forms combine.

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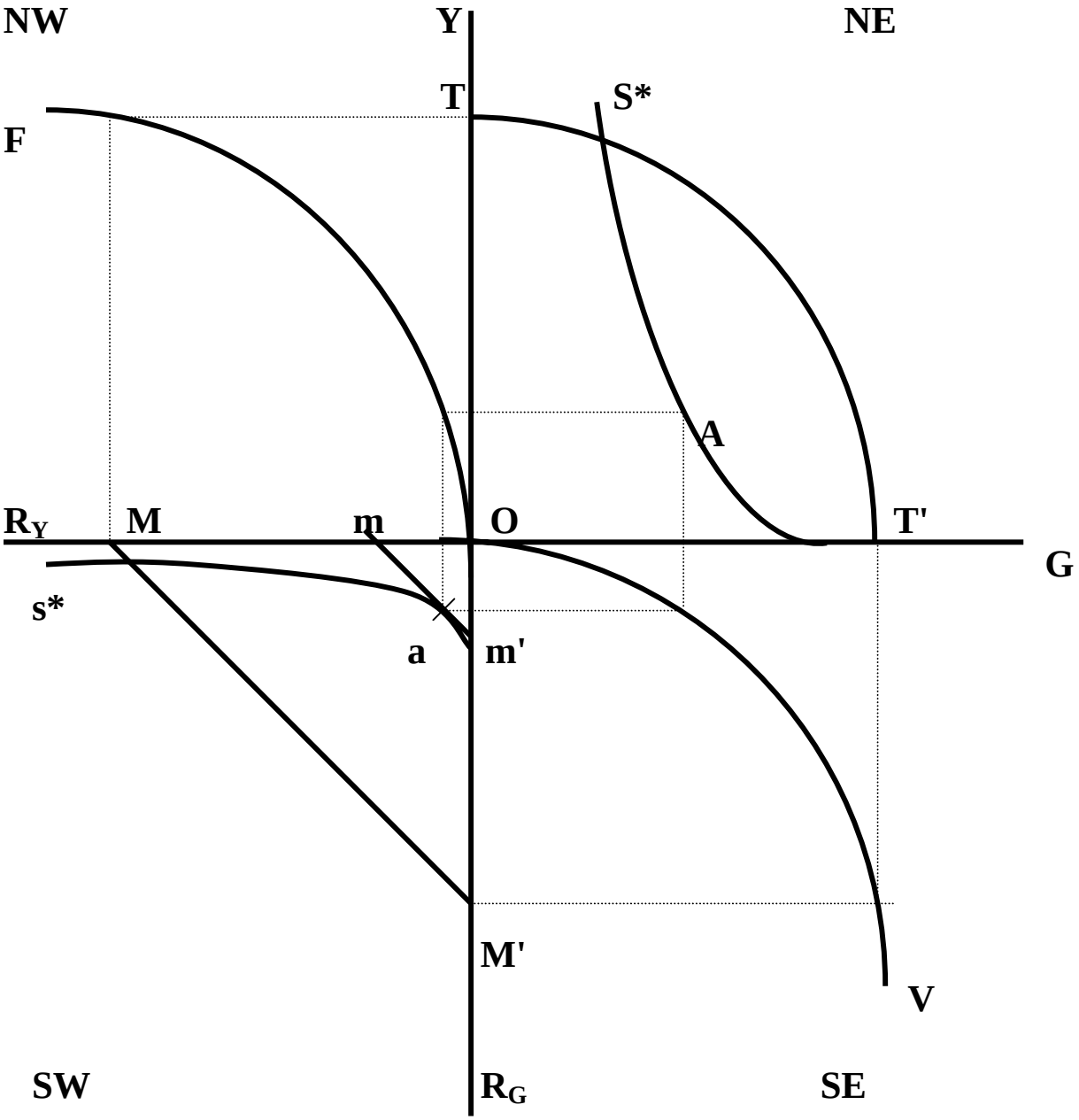

Figure 1

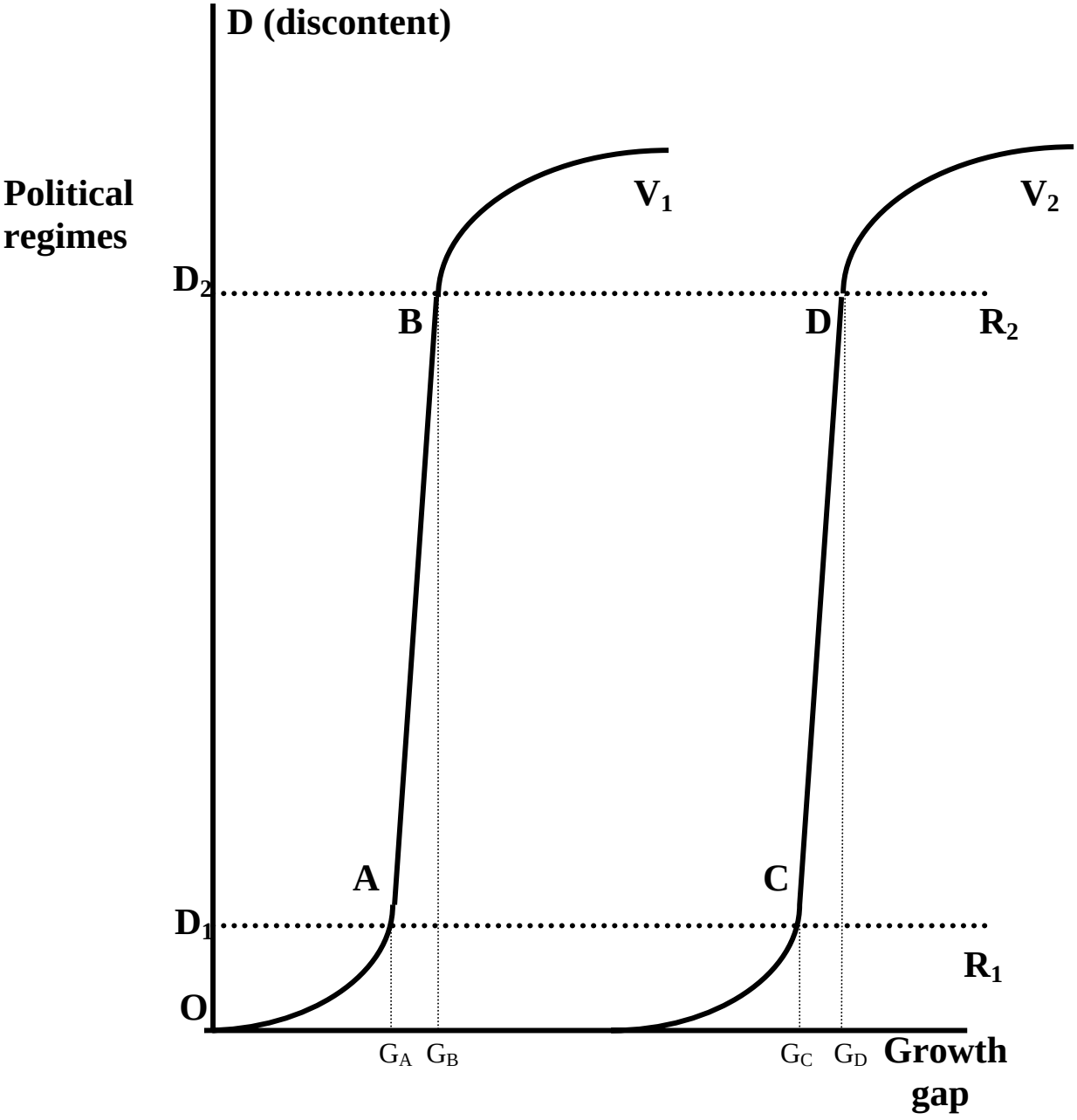
D (discontent)
Political regimes
V1
V2
D2
B
D
R2
A
C
D1
R1
O
GA GB
GC GD
Growth gap

Figure 2