LOCAL PUBLIC FINANCE AND ECONOMIC GEOGRAPHY

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Foreword

The special issue of *Annales d'Economie et Statistique* presented here comes out of an international conference which was held in Marseilles (GREQAM) in June 1994 in connection with a programme of Commissariat Général au Plan and with the support of ADRES. Sixty scholars, specialists in economic geography and local public finance have participated to the conference which was part of the programme of Commissariat Général au Plan on "Issues and mechanisms in decentralized public action". The objective was to discuss recent work in economics related to the geography of trade and power. There is a spatial dimension of the organisation of power, there are also transport costs, spatial competition... Nevertheless, the integration of the geographical dimension of economic activities remains the matter of several open questions. The papers presented during the conference and the contributions to the special issue have suggested some lines of thought that we discuss in the foreword. We hope to throw some light on a few major topics in the field.

Introduction

Questions related to the allocation of power and the organisation of trade touch upon the very foundations of our societies. The importance afforded, over the course of time, to debate concerning the modalities of economic and political structure attests to this fact.

The idea that economic activity might be a suitable substitute for destructive human passions arose upon the failure of the Christian Church's efforts to reduce the use of violence as a means of resolving conflicts, and to a

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certain extent, controlling trade. As a guide to individual behaviour, thinkers like Hume, Montesquieu, Steuart or Locke, saw self-interest as a valid alternative to the commandments of a failing morality. In an insufficiently noticed study, HIRSCHMAN [1977] aptly describes the strong points of this line of thought when he notes that certain philosophers were driven to see capitalism as a force that:

> *"would activate some benign human proclivities at the expense of some malignant ones – because of the expectations that, in this way, it would repress and perhaps a trophy the more destructive and dissastrous components of human nature" (p. 66).*

This idea culminates in recent works which see the end of History in the crumbling of the communist system and the spreading of capitalism all over the world.

A similar line of thought is found in the explanation given by Léon Walras for his decision to allow his candidature for the Nobel Peace Prize of 1905:

> *"An idea had dawned on me, to enter competition for the Nobel Peace Prize. For quite some time, I had been struck by the fact that the suppression of all taxes, direct and indirect, was the absolute condition for free trade, and free trade itself the absolute condition for peace. I explained in a* note *how the system of state take-over of lands alone permitted the former a subsistence without taxes, and I passed along this* note *to three of my colleagues and friends at the Université de Lausanne who submitted a letter to the Nobel Commission recommending me for the Prize, having merited it if not through practical efforts, at least through theoretical ones". (*Notice autobiographique, *published by William JAFFÉ [1965, p. 13]).*

Thus, according to Walras, by increasing interdependencies throughout the world, the development of commerce should lead *in fine* to peace among nations, and consequently to the elimination of war. A similar concern drives the founding fathers of the European Community: once the European economies are sufficiently integrated, common interests should prevail over nationalistic egos; and in due course, peace and political integration will naturally ensue.

One branch of the American liberal school has carried this approach to the extreme, proposing a method of social and political control almost exclusively market-centred. Hence, the State is seen as an agent whose functions must be reduced to a strict minimum. As a result, for certain authors the list of public goods is very short, reflecting the limited number of tasks best accomplished, in their opinion, by the State. The nation and its parts play no fundamental role otherwise in this view of society where the individual is the only reference entity. We are reminded of Milton Friedman's reply [1962] to the American President Kennedy's request that his compatriots ask not what your country can do for you but what you can do for your country:

> *"For the free man, the nation does not offer any specific goal in itself, other than that which results from the addition of the goals that each of its citizens attempts to achieve on his own; and he acknowledges no national pursuit other than the sum of individual pursuits".*

Ultra-liberalism in political and economic matters has encountered a smaller audience in Europe, where the State is generally accorded an essential role in political and economic life. The State remains present in Montesquieu's doctrine of "doux-commerce", and for many political philosophers, it has a major role to play in social affairs. It is true that we refuse to let the State do as it pleases. We limit, more or less according to the era, its influence in the economic sphere, and we regulate it in the political sphere. In this respect, the doctrine of "separation of powers" serves as a constitutional foundation of all European democracies. The fact remains that since the Second World War, the role of the State in economic affairs has been especially reinforced by the addition of the various redistributive functions of the Welfare-state to its traditional mission as provider of public goods. Above all, these various functions have always been thought of in reference to the Nation, considered as a most basic collective entity.

These modalities concerning the organisation of the public service are today undermined from several angles. We only consider here two trends in ideas which capture the Nation-state in a pincer movement, even though the two handles of the pincer are not held by the same actor. First of all, the pursuit of Europe's unification process focussed around the construction of the Common Market leads to a certain dilution of the Nation-state powers. At the same time, the priority given to decentralised mechanisms in the management of the public sector, leads to the transfer of a growing number of functions from the central to the local goverments (cities, departments, regions). Consequently, the Nation-state has seen itself trimmed down as much from above as from below.

The economic implications of this dual movement are still unknown, so much had the Nation-state and its territory seemed to constitute infallible units of reference. Thus, the theory of international trade appears less and less pertinent in a world where trade concerns vast regional blocs, within which national boundaries tend to vanish. Public economics, which provides guidelines to be followed by the State to correct market failures within a national economy, runs up against similar difficulties, arising from the consequences of an increased mobility of both the (labor) force and (commodities) surpassing the national space. The dismantling of the central State poses other questions related to the balance of power between economic agents. More than twenty years ago, DUVERGER [1976, p. 96] warned of what he saw were the risks of excessively weakening the central authority:

> *"Federalism and decentralisation favour the domination of public authorities by capitalist feudal powers. as can be seen*

in the American States, and in most European and American municipalities".

In short, new paradigms are called for, which integrate these new features of the public service into the analysis.

The importance of territory as a foundation for the transfer of power suggests granting space a more important role than it currently has in the standard paradigms. The key problem is in fact the definition of a *reference space*. The Nation has for a long time been the undisputed basis for trade and power. We must now also consider the region. The principle of subsidiarity suggests going to even smaller spatial units, perhaps because with smaller units, the supply of public goods would be more appropriate to the specific needs of local communities. At the other extreme, the European space seems more and more often to be competing with national spaces. The spatial reorganisation of economic activities is an unexpected consequence of a larger integration of national markets. What's more, the globalisation of trade demands a greater coordination of macroeconomic policy at the international level, if not at the level of large regional blocs. In this respect, current European political and economic structures are clearly inadequate.

The choice of a reference space cannot be guided only by efficiency considerations, but should also take into account the inherent mechanisms of solidarity among individuals. In addition, it is through the choice of a reference space that one can best mitigate the effects of transaction costs associated with the geographic separation of economic activities. Still, new operational tools are necessary to provide an analysis of spatial competition and of the territorial organisation of power. A brief description of some of these tools is the aim of the remainder of these notes on the relationships between space and both the State and economic markets.

1 Markets and the Spatial Distribution of Activities

1.1. Space in Economic Theory

All power has a territorial base; the same is true for trade. This quite trivial observation had for a long time been neglected in economic theory. According to the dominant stream of economic thought, the activities of agents were pictured taking place in what Walter Isard calls a "wonderful world without dimension". Moreover, it is astonishing to note that this absence of space has not held the attention of historians of economic thought; BLAUG [1985, ch. 14] being the exception which proves the rule. Without claiming to do a pioneering work, we can nonetheless outline two possible explanations for this somewhat surprising omission.

The first explanation is based upon the Anglo-Saxon origins of economic thought. As part of a colonial economic empire covering several continents, the English economy relied heavily on sea trade, which was, all other things equal, relatively inexpensive. English economists were therefore inclined to conceive a theory of international trade without transport costs, which reduced countries to points on a map. Conversely, we can easily understand how the roots of spatial economic theory were able to take hold principally in Germany. The expansion of the internal market which accompanied the formation of the German nation in the 19th century, and the high costs of transportation associated with trade conducted primarily over land, both naturally led the economists of that country to ponder the impact that space could have upon economic activity. Incidentally, this explanation could be one solution to what Marc Blaug saw as the puzzle of economic geography, namely the predominance of German authors among the founders of this field of research [1].

The second explanation is rooted in economics itself. Over the past few decades, the scientific standards in the profession have evolved considerably. Space, a source of non-convexities as much in production as in consumption, had to be put aside by the promoters of the neo-classical paradigm who, for the purpose of a rigorous construction, held onto a convex world. The von Thünen model, compatible with the hypothesis of constant returns to scale, constitutes an exception to this omission in economic theory; as a matter of fact, it has been the basis for many works concerning the spatial distribution of economic activities, assumed perfectly divisible (cf. the recent survey by HURIOT [1994] of the von Thünen model and its applications). Von Thünen's contribution is noteworthy in many respects, as much for its originality as for its precedence, both of which were pointed out convincingly by SAMUELSON [1983] not so long ago.

Von Thünen nevertheless skips over one fundamental difficulty, namely the existence of cities, which provide a means of distributing agricultural surpluses. The urban phenomenon can be explained by the presence of increasing returns to scale in the manufacturing sector, or alternatively by the provision of local public goods which facilitate the conduct of trade, such as public safety or the supply of infrastructure.

After several years of more or less confusing debate, it is now accepted that *space is the source of specific non-convexities* in both the consumption and production sectors, essentially because of the fact that neither households nor businesses can be everywhere at once. Consequently, the otherwise ingenious attempt by Arrow and Debreu to incorporate space into the general equilibrium model by differentiating goods as a function of their area of availability, and by restoring the analysis of location choice to the modelling of other economic decisions, leads to a dead-end. Such a model effectively calls for hypotheses of convexity which are precisely not satisfied in a spatial economy. The consideration of space thus brings into

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1. In France, research in economic geography was for a long time concentrated at Ecole des Ponts (EKELAND and SHIEH [1986]). However, this research was spurred more by specific questions arising from infrastructure construction than by the expression of a true interest in the problems associated with space.

question the joint assumptions of constant returns and perfect competition [2]. Such an assertion had already been made by KOOPMANS and BECKMANN [1957]. Unfortunately, rather than favour the exploration of alternative paths of research, the article only helped to further obscure the debate and to convince a great many economists that space brings up questions which are more easily neglected than investigated [3].

Furthermore, as a result of the existence of increasing returns in production, *markets are spatially incomplete*; firms can only operate in a limited number of locations, and when present at the same location, their number is most often too small for the hypothesis of perfect competition to apply. Given that production is spread out geographically, firms are able to acquire a certain amount of monopoly power over the consumers in the immediate vicinity, who have a tendency to frequent the nearest of neighbouring firms. But this fact does not imply that a spatial market be formed by a group of local monopolists, as some authors have been quick to conclude. The market power of any one firm is limited by that of neighbouring firms who are in direct competition. Spatial competition is thus oligopolistic in nature, as Hotelling, Kaldor and Lösch had pointed out quite some time ago. Such a message had however fallen on deaf ears, and remained unnoticed, at least until economists recognised the power of non-cooperative game theory in explaining oligopoly market structures.

Further analysis reveals that the concept of a pure public good must itself be re-examined. Indeed, public goods have a territorial basis: beyond a certain threshold, they may lose their characteristic properties. This is the case of national defence, confined by definition to the territory of a country. More fundamentally, most public services are only available in the form of localised facilities and travelling costs are born by each consumer wishing to benefit from their corresponding services. The social cost associated with a greater number of users, generally brings about an increase in the distance, and thus in the costs of this move. In other words, an increase in consumption of the public good generates a rise in its marginal social cost.

Buchanan's club theory was a serious attempt to question the Samuelsonian paradigm. Nevertheless, the theory relies upon the hypothesis of congestion, which falls short of providing a pertinent framework for the development of a real spatial theory of public goods. Club goods imply a partial rivalry of use; they are also goods for which consumption is voluntary and access may be limited, but these particular characteristics are of lesser importance. In addition to the condition that marginal production

2. We find a similar critique in recent theories in economic growth and international trade.

3. Such an attitude is not exceptional in scientific research. For instance, KRUGMAN [1995, ch. 1] reveals that cartographers chose for quite some time to omit all information relative to the interior of the African continent, even though the coastal outline was being refined with more and more precision. Yet the very first maps contained certain details which, despite doubts about their reliability, later proved themselves to be exact.

costs equal the sum of marginal disponibility to pay, collective efficiency requires an optimality condition on the size of the club, imposing that the number of people who have access to the club minimise the average service cost. Provided that each individual is confronted with an admission fee to the club as a function of the amount of the good produced and the number of users, competition between clubs should lead to collective efficiency, just as it does for firms supplying private goods.

However, the theory neglects the competition that pertains to land use, and therefore ignores the fundamental role that differential rent can play in the financing of local public services. The spatial dimension, with its associated transport costs, is in fact sufficient to create an element of usage rivalry, and the marginal cost of rivalry (measured by the marginal cost of transportation) must, at least partially, be reflected in a marginal premium on land use (the land rent). One possible line of argument for the financing of public goods on this basis is given by Henry George's theorem (WILDASIN, [1986]), inspired by Walras' thoughts on the tax system that were alluded to in the citation given in our introduction.

As in the case of transport costs in general equilibrium theory, club theory incorporates space in an indirect manner, by forcing it, more or less successfully, into a more general context. But in both cases, the bias is the same: space is reduced to a sub-category, which does not really contribute to economic knowledge.

An identical *trade-off between increasing returns to scale and transport costs* governs both the production and the distribution of goods in the space. LÖSCH [1940] introduced us to this trade-off which affects both public and private goods and which, for reasons which are hard to understand, periodically is "rediscovered" in economic theory. For instance, in a pre-industrial economy where the costs linked to distance are steep, there is a large number of supply points in the space, in general, each with little economic weight. On the other hand, as transport costs diminish, the effects of economies of scale become more pronounced. Upon a large decrease in transport costs, the economic landscape is characterised by a small number of large scale productive units. A wide range of factors affect the terms of this trade-off and, consequently, determine the spatial distribution of production. In this respect, economic history and economic geography are inextricably linked.

In short, space is the source of imperfections in competition and of impurities in public goods. Imperfections, impurities: this leads one to believe that space, the "original sin" of economic theory, should be neglected. Space, in fact, throws traditional economic analysis out of plumb, and leads economists to question the widely accepted ideas concerning the role imparted as much to the market as to the State in the functioning of society (SCOTCHMER and THISSE [1993]). It is therefore not surprising that the renewed interest in economic geography coincides with the development of new theories in industrial economics and in local public finance. Both result from the dissatisfaction felt when confronted with the perfect markets and pure public goods of the neo-classical paradigm. It is also true that the new work in economic geography, as opposed to traditional spatial economics, translates an asserted effort to establish a strong connection with general economic theory.

1.2. The Contribution of Economic Geography

We know, from Adam Smith, that the division of labour is limited by market size. As ALLYN YOUNG [1983] points out, the converse is equally true. The division of labour and market size are actually two facets of the same phenomenon – development – and must be thought of jointly, by examining the mechanism which determines the equilibrium level of labour division of the basis of worker behaviour and specialisation. This interdependence is at the origin of recent work in economic geography. As a result, it is not clear how to go about choosing a reference market (the French market!). The fact that different goods have different market areas renders the concept of reference market not very operational in practice and not very satisfying in theory. Even so, this market once determined, if only but in an arbitrary fashion, will constitute the reference space, within which trade is assumed to develop without constraints, enabling the refinement of the division of labour, as much by diversification as by the specialisation of tasks. Labour migration, postulated free and costless (!), further accentuates this increased division of labour. Furthermore, we must not forget that the reference space also acts as a "solidarity space" and in the background, we find compensatory transfers aimed at reducing regional disparities.

The national market is often perceived as too narrow a reference in modern economies. Even so, the globalisation of the economy does not necessarily follow a monotone trajectory over time. As Fernand Braudel, an observer of the very long run, pointed out in *Civilisation matérielle*, periods of contraction in international trade have followed expansionary phases. The contemporary phenomenon of globalisation is associated with an abrupt and unprecedented drop in transport costs, and a progressive erasing of customs borders. Such a phenomenon is capable of having substantial repercussions on the economic organisation of the territories concerned. The topic is not a new one: it was already brought forth in the years leading up to the creation of the CECA (European Coal & Steel Community), and it is likely the cause of the keen interest shown recently in economic geography. As a result, numerous contributions from a range of authors such as R. Lucas, P. Krugman, and V. Henderson, have shed a new light on the impact of globalisation: while a summary economic analysis would lead us to think that a decrease in transport costs renders agents indifferent in regards to their location, it is shown instead that this decrease *tends to favour a greater polarisation of space.* The formation of economic agglomerations, cities or metropolitan areas, can have several explanations. As different as they may seem in appearance, these explanations all boil down to the existence of indivisibilities in the production of goods (public or private) or to the presence of externalities (among consumers and/or firms).

When transport costs are high, the dispersion of productive facilities results in a trade-off between fixed costs of production and transport costs. For centuries, geographic distance was in itself enough to close off local markets and to avoid all forms of interregional competition. Since the beginning of the Industrial Revolution, large decreases in freight charges have led to more intense competition and hence, reduced profits. Firms have therefore looked to re-establish their profit margins by adopting strategies of product differentiation which offer refuge from the effects of competition. No longer fearing their competitors' proximity, they have been able to exploit the advantages linked to their own "geographic proximity". The standard structural model in the corresponding regional analysis is the "core-periphery" model brought back into fashion by KRUGMAN [1991], and which serves as equilibrium in numerous recent contributions.

Apart from transport costs *per se*, geographic separation imposes additional expenses, often associated with institutional factors: for example, customs duties or non-tariff barriers. But they also correspond to losses of information caused by distance, analogous to "transmission loss" in the case of radio and telecommunications. We agree to regroup these different costs under the term *trading costs*, including in them actual transport costs. We might conclude from this that the formation of economic unions grouping together several countries can only strengthen the trends which we have just highlighted, to the extent that trading costs within the union might be bound to decrease, and eventually disappear, at least in their institutional component. Consequently, it is a surprising result that sharp, new decreases in trading costs may lead to the disappearance of core-periphery structures, in favour of more egalitarian regional configurations. In fact, high labour costs in major cities combined with sufficiently low trading costs favour the decentralisation of certain activities, as current economic developments amply demonstrate. Thus, intense interregional trade replaces the geographic concentration of activities, illustrating the absence of monotonicity in the relationship between geographic concentration of activities and the level of trading costs. KRUGMAN and VENABLES [1995, p. 476] sum up well these different trends, in noting:

> *"The world economy must achieve a certain critical level of integration before the forces that cause differentiation into core and periphery take hold; and when differentiation occurs, the rise in core income is partly at peripheral expense. As integration proceeds further, however, the advantages of the core are eroded, and the resulting rise in peripheral income may be partly at the core's expense".*

These results are important for, among other things, the construction of the European community, insofar that they suggest that "a bit" of Europe might lead to a greater polarisation of the European space, and consequently exacerbate regional tensions and threaten the stability of the unification process; while "a bit more" of Europe might promote a greater reduction in regional disparities. The fact remains that certain activities, in particular those of management and of research, will likely remain grouped in a small number of large metropolitan centres, to the extent that direct contact between individuals seems to be an essential ingredient for them (SAXENIAN [1994]). Hence, we may witness a dual evolution, comprised of the dispersion of banal activities, and the agglomeration of creative activities. However, while it might alleviate the effects of geographic segmentation, this dual evolution runs the risk of introducing its counterpart, social segmentation [4]. In light of this prospect, it is advisable to re-examine the questions concerning the spatial organisation of power.

2 The Geographic Dimension of the Organisation of Power

2.1. A Revision of Fiscal Federalism: Taking Service Area into Account

In response to Samuelson,who brought forth the difficulty of obtaining a sufficient supply of public goods in a market economy, Tiebout had pointed out that the competition between regional authorities is capable, by thwarting the effects of the free-rider problem, of assuring collective efficiency in the supply of local public goods, at least in the presence of household mobility. The intuition of the "Tiebout mechanism" is attractive, and subsequently, an abundant literature has developed, principally in North America, in the aim of analysing the modalities of the public service in the framework of an open economy and in the case of mobile factors.

Supposing that, in the spirit of a club, a local authority is able to control the access of non-residents to public goods (and services). Then the taxes that a resident pays are equivalent to the price he pays to obtain the public goods which are provided in that community. Given that individuals can choose, free of cost, to reside in any particular community, and that all communities offer a complex composed of public goods and uniform lump-sum taxes, each person is confronted with a set of goods and services to which he may have access at given prices. In this way, each individual reveals his preference for public goods by his choice of location. Different individuals, each having access to the public goods and services that he prefers, will maximise their welfare in light of their budget constraints under current prices by organising themselves into more or less homogenous groups.

Nevertheless, the fact remains that this "vote with your feet" mechanism is only valid under very specific conditions. Its efficiency is, all things considered, of the sort we might expect of competitive markets, once the public good has been stripped of its characteristic features. At the root of the matter is a simple analogy: just as competition between firms attains a first-class optimum in an economy with private goods, competition between

4. We should perhaps qualify this remark. The analysis of the specialisation of American regions undertaken by KIM [1995] suggests another pattern, in which externalities are given less importance, while factor endowments and returns to scale of production at the firm level are the fundamental determinants. In light of the current diversity of empirical results, it is still too early to decide.

local authorities should likewise attain such an optimum in the case of local public goods, once consumers are free to choose the community in which they would like to live.

As far as assessing the behaviour of local public agents is concerned, it is true that objective functions must be specified, something that Tiebout does not do. To accomplish this task, we could refer to a political decision-making mechanism (for example the median voter). Alternatively, HENDERSON [1985] suggests introducing *land developers* who, while maximising their profits, take on some of the functions allocated to the public authorities. The *land developers* assume, in fact, responsibilities that are not usually those of real-estate promoters in European countries, namely the construction of numerous infrastructure items reserved for use by members of the community occupying the zone in question (roads, schools, sports equipment, etc.). In France, these tasks often fall under the jurisdiction of the public authorities (municipal, regional, national), hence the empirical pertinence of such a mechanism might be suspect. However, it may come as a surprise to some people to learn that in a growing number of countries – the United States and Japan for example – urban development is more and more frequently delegated to private developers, which suggests that the hypothesis is not as unrealistic as it might seem at first glance (cf. HENDERSON and MITRA [1996] for concrete examples in the United States). Furthermore, nothing is stopping public authorities from acting as land developers themselves, as the example of 19th century Paris illustrates. In fact, the idea of financing the improvements of a city by means of the capital gains (on the real estate) that are associated with those improvements might be accredited to Hausmann, who put it into practice to carry out the transformations that Paris underwent during the Second Empire (MARCHAND [1993, ch. 2]).

The ideas of Tiebout and of Buchanan served as foundations for the development of the theory of fiscal federalism, for which the central argument (stretching the characteristic a bit) is the efficiency of fragmenting government into a multitude of smaller authorities, each in competition with the others on the political market. This argument is voiced very well by OATES [1972, p. 42] when he states:

> *"the optimal structure of the public sector was found to be one in which there was a level of government (or a collective decision-making mechanism) for each jurisdiction over which the consumption of a public good could be defined".*

Nevertheless, the existence of several collective goods with different-sized service areas, constitutes an additional difficulty in determining this optimal structure. Although the recourse to property taxes to provide the financing for local public goods is ingenious, it runs up against a major difficulty once the geographic dimension is fully integrated into the analysis, that is to say, when transport costs introduce elements of differentiation to the interior of the space. The rent that prevails at any place depends in fact on its position with respect to public amenities, which are often situated at various locations throughout the space. Decentralisation at the level of each public good, as fiscal federalism suggests, is thereby a possible source of inefficiencies insofar as for each place, the part of the prevailing rent due to each public good must be determined. Notwithstanding the use of incentive contracts, which run the risk of being difficult to implement (a separate contract is required for each good and each place), a solution resides in the consolidation within a *metropolitan government* the various specific management authorities of local public goods. By grouping together the service areas of public goods within the same region, it is possible to form *regional authorities providing the entire range of these goods, assuring their financing by means of a property tax on the differential land rent.* Fiscal federalism therefore assumes a territorial rather than functional basis, which leads us back to some very familiar questions regarding the optimal spatial organisation of administrative districts. For example, such questions were extremely relevant at the time of the French Revolution [5], in the debates governing the delimitation of communal boundaries and the creation of departments.

The formation of metropolitan governments, by internalising in a single space the entire range of benefits generated by public goods while guaranteeing their financing in full, provides a credible alternative to doctrines which favour a holistic approach to the organisation of power. We are not talking about notions of corporatism that overcome individuals who are grouped together on the basis of their socio-economic interests, but rather of regionalist aims, which emphasise the affiliation to a common territory. It must be stressed that regionalism often rejects all more refined levels of decentralisation: thus regions do nothing more than take the place of nations. However, this would be overlooking *the relative nature of the concept of region*, the intrinsic reality of which is often difficult to define. All regional systems boil down to the definition of an equivalence relation within the territory of reference. Thus, each region is composed of geographic areas considered equivalent as far as this single relation is concerned. But what relation should we use to define the regions? We are aware of the dangers associated with using history as a criterion for the drawing of national borders; the same goes for regional borders. Furthermore, the example of Belgium shows that the delimitation of regions is often the source of controversy that undermines national identity.

One particular notion of metropolitan government is based upon the collection of contiguous communities sharing a common social interest, much along the lines of the concept of "bassin de vie", put forward in recent French legislative texts. However, it is imperative that the structuring of the economy into metropolitan governments be endogenous. Any arbitrary determination of regional boundaries based on considerations of an historic or cultural nature, is likely to bring into question the benefits

5. The debate has remained topical and research into the scientific methods making it possible to determine the "optimal" delimitation of regions, in particular concerning the determination of electoral constituency, has motivated numerous works. The question is notoriously difficult since it is by nature combinatorial. (cf. the recent overview by WILLIAMS [1995], devoted to the case of the United States.)

to be expected of a regional organisation based on the creation of such governments [6].

2.2. Mobility, Social Redistribution, and Regional Development

The mobility of individuals is capable of assuring an interregional equality of welfare levels. In this case, the problem of regional development is irrelevant: individuals that are *a priori* identical will be treated in the same manner once all adjustments occur. We may question, however, the efficiency of such a mechanism in equalising per capita income. Certain labour markets still remain quite partitioned geographically, even within the interior of a country, or for that matter a region. For instance, for Great Britain, HARRIS [1989] finds regional variations reaching up to 30% in the earnings of the full-time working population with the same level of qualification, in 1970 as well as in 1982. The low mobility of workers that characterises European countries does not allow the economies of scale normally expected of integrated markets to fully come into play, even despite an increased mobility of capital. Limited labour mobility does not permit a full reduction of trading costs, and consequently, the possibility of such interregional convergence as stated above. This argument is all the more forceful when we consider the European situation relative to that of the United Sates. The comparison of the American and European spaces undertaken by certain authors appears, for the moment, to be premature: population mobility in the United States is approximately twice as large as in France.

Attachment to one's native soil seems to be a trait that characterises many French people, for that matter, most Europeans. This type of preference gives birth to a social demand for regional development, perceived as a regional facet of national solidarity [7]. To the extent that new models in economic geography clearly reveal the existence of several regional equilibria, there seems to be a role for public intervention aimed at favouring the emergence of a most desirable equilibrium. Supposing that the regional development policy is undertaken within the national space, or eventually European space, the selection of an equilibrium regional structure that is more just spatially, requires the existence of a strong central government. Note that this in fact goes against the spirit of decentralisation. Moreover, it is likely that such an action demands that massive compensatory transfers be put in place,

6. In France, the "commune", namely the smallest administrative district, has general jurisdiction. Moreover, the laws of decentralisation rely upon the allocation of different categories of jurisdiction to different levels of community and secondly, upon the absence of tutelage of one level of community over another. The recommendation of forming metropolitan governments thereby goes against the contemporary modalities of administrative organisation of the French space.

7. It is not merely coincidence that the American administration does not have a federal agency devoted to this task.

at least during the transition phase which may be quite long. We cannot, in fact, reasonably expect that a region in economic decline find sufficient resources in its fiscal base to ensure an autonomous financing of education and infrastructure, without which this decline would become irreversible. However, at the same time, such transfers are likely to provoke opportunistic behaviour on the part of the regions which in turn generates political costs. The latter are no doubt sensitive to the global economic situation: fiscal transfers are more easily accepted in periods of strong growth, as the Italian example attests to.

The central State in our societies has a double role as both "redistributor" and "insurance". Through redistributive regional policy, it acts to absorb the shocks provoked by business activities, which affect regions in a diverse manner because of the diversity in the structure of their production sectors. The aptitude of local authorities in implementing social redistribution over particular territories, through the confiscation of a portion of the resources in these same territories, is in fact limited. These resources, capital or labour, are in effect incited into a greater mobility. Thus, the widening of the modalities of decentralisation reduces the "insurance" role of the central State, as well as its function as developer, by exacerbating regional competition. What's more, despite the anticipation of growth in regional grants coming from the European authorities, it must be admitted that these remain small, less than one percent of the European Union's gross product, and this renders their efficiency problematic. The contrast between national and European actions in this respect is striking. The broadening of regional disparities in unemployment rates, which seems to accompany the integration process in its present phase, and the relative inaction of the Brussels Commission are perhaps the reflection of the absence of an intra-European solidarity, restricting the development of the automatic stabilisers which come into play within the member states (MacKay [1995]). On the other hand, if increased population mobility could address this dilemma, it surely could only do so at the cost of a greater imbalance in the population distribution, a result which goes against the goal of regional development policy. Still, by regulating the supply of public goods through the introduction of competition between distinct regional communities, decentralisation runs a high risk of favouring regions already advantaged in terms of private consumption, without the counter-action of Europe to fall back on. Clearly, there seems to be a contradiction between the different objectives sought. And so for Guéhenno [1993, p. 28], the breakup of the territories puts the Nations (or regions) in a "prisoners' dilemma" which may well end-up with the disappearance of the Welfare-state:

> *"Either the States that offer comparable benefits come to an agreement not to partake in "fiscal competition" with each other, and should this happen then to accept adjustment mechanisms, or else the States reduce the "free" collective benefits and replace them with payable benefits or individual insurance schemes".*

The voluntary pursuit of a policy aimed at the dispersion of production activities no longer seems to constitute a valid solution; it runs the risk of being much too costly, at a time when the opportunity cost of public funds is very high. Furthermore, fundamental arbitration must be undertaken before too hastily embarking upon a regional development policy guided only by equity considerations. Moreover, the recourse to administrative decision-making in regards to firm location goes against the current trend towards a greater liberalisation of the economy, as much in France as within the entire European Union. Finally, as a result of privatisation bids and the directives of the Brussels Commission, the State appears to have fewer means available, other than using public services as development tools, but at the risk of partially diverting them from their original purpose. Thus, it is not surprising to observe that the pursuit of a greater spatial equity in the supply of public services often occurs to the detriment of the global efficiency of the system. The findings of several extensive empirical works would indicate that these equity gains are largely counterbalanced by efficiency losses affecting the whole of the population concerned (RICHARD *et al.* [1990]) [8].

Conclusion

The development of trade and the new power structures that have been established in different regions of the world call for the definition of new spatial references. It is in fact difficult to treat the supply of private goods as entirely distinct from the supply of public goods in the long run. Actually, the collective actions must, in particular at the European level, include the implementation of common macroeconomic policies to combat unemployment (DRÈZE [1995]). There is a price to be paid in letting the Single Market coexist with conflicting economic and social policies, corresponding to national strategies that are much too non-cooperative. In addition, a space also serves as a reference for both distribution and solidarity mechanisms.

While the globalisation of the economy tends to privilege the construction of vast trading blocs, the national States are reluctant to further abdicate their sovereignty to the benefit of supranational or regional authorities. National identity or culture, which are among the primary public goods, often serve as a justification for a natural solidarity space. However, membership in a common culture is unlikely to be a sufficient criterion, since nations are not homogeneous to the point that this criterion would lead to well-defined solutions. The position in favour of decentralising the public sector has also served as a pretext, in most occidental countries, to a resurgence of "regional

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8. It is perhaps worthwhile to note that quite powerful operational models in location theory have been developed in Regional Analysis and Operational Research (cf. DREZNER [1995] for an overview of the recent literature). These models provide a framework for both the evaluation of the performance of public services in term of spatial accessibility and the determination of a set of socially optimal spatial configurations. They are therefore likely to be very useful in designing regional development policy.

cultures" which often enter into conflict with the "national culture". At the same time, the feeling of a common European identity has never been as strong as it is today.

With regards to Europe, an open question is what form of supranational institutions to retain for the future. In practice, the European Union works very much as a confederation. An alternative solution would be to construct a federation. Some mixture between a federation and confederation could perhaps provide a solution to the current disagreement between members of the European Union about the power allowed to supranational authorities. A certain number of countries may well form a federation, forming a confederation with the other member states.

In any case, any study of the type of organisation to put into place – governments, parliaments, electoral devices, etc. – should emphasise the role of secession rights. It has for a long time been a central issue in the process of forming transnational or transcultural coalitions; it is also fundamental for a large number of countries which are split by deep cultural and/or economic divisions.

One consequence concerns the number of participants in the federation (or in the single market). Any increase in the number of players raises the probability of blockage by new coalitions, thus reducing the chances of reaching a consensus. What's more, it is well known that parity in the number of participants can have some influence on the outcome of a vote. Free entry, a notion that economists like, may or may not be desirable in politics; the answer no doubt depends on how public decision-making is organised. Clearly, these problems are complex and multidimensional. Apart from more traditional approaches, it seems reasonable to suggest an approach based on cooperative game theory, to throw a new light upon questions which have until now been treated more with emotions than with thought.

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