

# Space, employment and development

## Some thoughts on the regional dimension of employment policy

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### Introduction

We take as our starting-point two particularly striking features of the economic and social scene. The first is the uneven spread of growth and employment in many countries. Instead of being uniformly distributed they are concentrated in privileged areas variously described as poles, centres or cores, while the periphery stagnates into poverty or retarded growth. Capital cities looking down with disdain on the rural hinterland from which they nevertheless draw their sustenance, metropolitan regions exploiting or neglecting the rest of the country and in particular frontier zones of real potential—these are the well-known signs of serious imbalance due to what one writer has called a “domination mechanism”.<sup>2</sup>

The second feature is less negative. A long period of observation of these regional differentials, whether in respect of growth, employment or income, has shown that, however wide the initial gap, it closes significantly whenever the country in question undertakes specific regional planning measures to control the spontaneous evolution of the relevant structures and to correct the spatial imbalances to which they give rise.<sup>3</sup>

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<sup>1</sup> International Labour Office.

<sup>2</sup> With regard to the effects of economic domination see François Perroux: *L'économie du XX<sup>e</sup> siècle* (Paris, Presses universitaires de France, 2nd enlarged edition, 1964), pp. 30 ff. For the purposes of the present article a “region” may be defined as a part of the national territory characterised by a network of complementary socio-economic relations organised around an urban centre, usually of the second order.

<sup>3</sup> See J. G. Williamson: “Regional inequality and the process of national development: a description of the patterns”, in L. Needleman (ed.): *Regional analysis*, Selected readings (Harmondsworth, Penguin Books, 1968), pp. 99-158. The author uses a coefficient of variation to measure the dispersion of regional per capita income levels relative to the national average, the deviation of each region being weighted by its share in the national population. This coefficient seems to have declined perceptibly between 1945 and 1960 in the countries where regional policy was applied, namely Brazil, Canada, Finland, the Federal Republic of Germany, the Netherlands, Norway, Spain, Sweden and the United States.

There are two possible and indeed complementary approaches to imbalances of this kind. One is for the retarded regions to exert enough pressure to get the central government to redress the balance somewhat in their favour. There are cases where peripheral backward or depressed regions have been industrialised or industrially reconverted with the primary aim of reducing unemployment, underemployment and out-migration. The other approach is to regard the backward region not as a localised sore that needs to be healed but as an organ whose function is vital to the health of the national body as a whole, in other words to accept that the nation is weakened by the failure to establish with the region the links which would ensure its integration. In other words, while it is sometimes necessary to bring employment into an unemployment area, it is also possible to give it the means to exploit its existing resources before somebody else does so.

It is hoped that the present article will stimulate thinking which could be of practical use to persons in positions of authority who are concerned about the development of employment at the regional level. The first part reviews some of the existing theories and concepts—such as polarisation, the economic base, resources and central places—with a view to bringing out the arguments supporting the creation of regional activities. The second part, which deals with means of implementation, will not attempt a detailed description of the analytical and planning techniques used in the regional employment field but will seek to highlight the importance of regional administrations and institutions in the application of employment policy.

### **Theoretical approaches**

#### **Growth poles and employment**

Enormous interest has of course been aroused in both the theory and the practice of concentrating development in and around growth poles, and there is consequently no need to go into details of this approach here, except to point out its strengths and weaknesses.<sup>1</sup>

When first advanced, this theory contained the seed of many social transformations by emphasising the role of men and institutions as agents of change. The growth pole was seen as the driving force of economic and social development from which the necessary stimuli would radiate. The importance of individual qualities such as competence, enterprise and the capacity to innovate was recognised and human resources acquired more weight both in the production process and in the dissemination of technology. These personal and group characteristics, it was argued, also explained the ability of the growth pole to attract and control the flow not only of capital and goods but

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<sup>1</sup> See in particular Perroux, op. cit.; A. Kuklinski and R. Petrella (eds.): *Growth poles and regional policies* (The Hague and Paris, Mouton, 1972); and A. Kuklinski et al.: *Pôles de développement et centres de croissance dans le développement régional* (Paris, Dunod, 1970).

also of labour and information, and in the long run facilitated the emergence in the economic hinterland of new poles that could gradually come to compete with the first. As regards employment, the growth pole was by its very nature supposed to allow the establishment of a fairly dense network of forward and backward linkages with new or existing enterprises, leading to the direct creation of wage employment or the expansion of subcontracting through the supply of raw materials for the poles, or the transformation, marketing or transport of their output.

It must however be admitted that the application of this theory, generally by the setting up of key industries, has done little to increase local employment. Broadly speaking, it can be said (a) that expansion and diversification of certain industrial activities within an "abstract" economic space<sup>1</sup> have not necessarily brought any direct benefit to the regions concerned (indeed, the examples of mining and petroleum enterprises lend considerable support to the view that the hoped-for effects on income distribution, technological dissemination and social mobility rarely occur in practice); and (b) that these enclaves, usually in the hands of foreign monopolies or of the central government which has nationalised them, display the characteristics of the capital-intensive rather than the labour-intensive enterprise, for example by their reliance on advanced technology, sophisticated management, imported production factors and highly qualified personnel from outside the region, all of which are regarded as indispensable to the competitiveness of the enterprise's products on external markets. The result is that subcontracting and recourse to the local labour force are reduced to a minimum in terms of both quantity and quality.<sup>2</sup>

While these remarks are true of the backward regions in industrialised countries, they apply with even greater force to the developing countries. There are two main reasons for this. In the first place, the notion of a firm acting as a driving force presupposes the existence or the possibility of creating an industrial complex in the region, or at least a number of supply and intermediate consumption units. As a rule, however, the amount of capital mobilised by the establishment of a single industrial pole is insufficient for this purpose even where the government controls the use of public and private capital, both domestic and foreign. Second, and this is the more important reason, in so far as the growth poles are based on modern sector monopolies they completely overshadow the informal sector or "lower circuit". Consisting of small businesses using rudimentary techniques, the informal sector or lower

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<sup>1</sup> Perroux draws a major distinction between "abstract" space, consisting of a series of economic relations between firms without reference to their geographical location—such as might appear, for example, in an input-output table—and the "banal" or physical space within which they operate. See F. Perroux: "Les espaces économiques", in *Economie appliquée* (Geneva), Jan.-Mar. 1950, pp. 225-244.

<sup>2</sup> See in particular Luigi Frey: "Growth poles and employment policy", in Kuklinski and Petrella, op. cit., pp. 45-60; and Barbara Stuckey: "Spatial analysis and economic development", in *Development and Change* (London and Beverly Hills (California)), Jan. 1975, pp. 89-106.

circuit nevertheless provides a living for indigent populations who then find themselves excluded from a space which is no longer theirs but is occupied by firms with which they have no contact at all. The "spatial productivity" of such firms is limited or even nil, because both the geographical spread of resources and the distribution of profits are inappropriate.<sup>1</sup>

The fact of the matter is that in the case of developing countries the real solution would be to bring about a better correspondence between abstract and physical space by diversifying the economic and social links within a geographically coherent network of poles rather than by raising the purely external and profit-oriented productivity of a single macrocephalic pole.

### **The economic base theory**

The second concept which can be fruitfully applied to regional planning is derived from the theory of international trade, according to which the growth of a country depends on the volume of its trade with the rest of the world.<sup>2</sup> Transposed to the regional level, this concept—i.e. that of the economic base whose strength determines the rate of regional growth—implies drawing a distinction between "exporting" activities and those aimed merely at the local market. Since the former by definition extend beyond regional boundaries and also generate local activities, two mathematical operations will suffice to estimate (a) the degree to which the region in question specialises in the production and exchange of "export" goods, and (b) the multiplier effects creating employment in local ancillary activities.

A region's degree of specialisation is expressed by the *location quotient*, which indicates the relation between the importance of a given industry or sector in the region concerned and its importance in the country as a whole, measured in terms of wage-earning or non-wage-earning employment.<sup>3</sup> If the quotient is over 1, the part exceeding unity—called the index of surplus workers—represents the proportion of regional activities (and the corresponding employment) that may be regarded as pertaining to exports, the remaining activities being regarded as domestic, local or ancillary.<sup>4</sup>

<sup>1</sup> The terms "lower circuit" and "spatial productivity" were coined by Milton Santos in "Sous-développement et pôles de croissance économique et sociale", in *Revue Tiers-monde* (Paris, Institut d'étude du développement économique et social), Apr.-June 1974, pp. 271-286.

<sup>2</sup> Regarding the principles and applications of the economic base theory see Charles M. Tiebout: "Exports and regional economic growth", in John Friedmann and William Alonso: *Regional development and planning*, A reader (Cambridge (Massachusetts), MIT Press, 1964), pp. 256-265; Avrom Bendavid: *Regional economic analysis for practitioners* (New York, Praeger, 1972), pp. 103-126; Charles M. Tiebout: *The community economic base study*, Committee for Economic Development, Supplementary Paper No. 16 (New York, CED, 1962); and Harry W. Richardson: *Elements of regional economics* (Harmondsworth, Penguin Books, 1969), pp. 27-31.

<sup>3</sup> The location quotient (see Bendavid, op. cit., pp. 94-95) is given by the following equation:

$$LQ = \frac{\text{regional employment in industry } X / \text{national employment in industry } X}{\text{total regional employment} / \text{total national employment}}$$

<sup>4</sup> "Thus, if an industry within a region requires 25,000 workers to have a location quotient equal to unity but, in fact, has a labour force of 33,000, then we assume that the extra

Failing a survey among firms in order to ascertain what proportion of their products is exported from the region, this relatively simple method of measurement has the merit of quickly bringing out the strong points that can serve to underpin a coherent inter-regional policy based on diversification of production and the stimulation of trade. By carrying the analysis a bit further it is possible to determine the number of jobs that can be created for a given regional population, and thus, by an iterative process combining the multiplier effects of export activities and the population's need for local services, to estimate the impact of a proposed planning measure and the distance that still has to be travelled in order to achieve an adequate level of direct or indirect modern employment.<sup>1</sup>

It will, however, be as well to point out the limitations of such an exercise and to ask whether a region really behaves in the same way as a nation. In other words, does the analogy with international trade, whereby profits are equitably distributed among the partners according to the comparative advantage enjoyed by each in producing and trading, remain valid at the regional level?

At first sight the strongest objection to this analogy appears to be that the immobility of production factors—a necessary condition for the type of distribution envisaged<sup>2</sup>—should not exist *within* a nation because there is no frontier or customs barrier to maintain the status quo.

In practice, however, we find that production factors are not really mobile, especially in the non-industrialised countries. In the case of labour this is due to faulty communications despite the undeniable flow of rural labour towards the cities. As for capital, it is rare to find it being invested in backward regions other than by the State unless inducements are offered. Moreover, productivity differentials between regions will militate against the equalisation of wages for a long time to come; if investors are to be attracted, state subsidies will have to compensate employers for the difference between the level of wages actually paid—often the legal minimum—and the real (i.e. lower) value of the labour provided by the additional workers taken on. Finally, the assets of poorer regions will continue for a long time yet to lie in their mineral resources and agricultural land, immobile by their very nature, rather than in their capacity to produce manufactured goods.

### **Resources and the location of the firm**

The theory of the economic base naturally leads to an investigation of the resources available to a region for the production of goods in which it could

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8,000 serve export markets" (Richardson, *op. cit.*, p. 29). However, account must be taken of the fact that the location quotient presupposes a closed national economy, inasmuch as  $LQ = 1$  only indicates a regional balance of trade if the entire country is self-sufficient, any national exportation necessarily entailing underestimation of the various regional economic bases.

<sup>1</sup> Methods of calculating the number of jobs created by the economic base are described in Colin Lee: *Models in planning*, An introduction to the use of quantitative models in planning (Oxford, Pergamon Press, 1973), pp. 91-94.

<sup>2</sup> A condition that is coming to be satisfied less and less at the international level, however, if only because of the growth of multinational enterprises.

specialise advantageously. By "resources" we mean here not capital, plant, labour, technology or management, but purely and simply the raw materials needed for the production process. Some, which are called fixed or natural resources, come from the land itself or from underground, and are thus essentially untransportable even though their transformation may take place elsewhere: these are the products of mines and quarries, oil and hydro-electricity, to which we would add landscape, which is the raw material of tourism. By "mobile resources" we mean those whose supply is not dependent on a particular place, for example the raw materials used in the electronics industry. There are also mixed cases such as farming, forestry, horticulture and fishing.

In reality the difference between the three situations described above can be reduced to the cost of transport (before and after production) per unit of output marketed. In the case of mineral, agricultural and aquatic resources, the advantage constituted by their presence in the region is at the same time a spatial constraint on the location of the firm set up to exploit them, whereas the choice of outlets, whether regional, national or international, remains entirely free. If the aim is to meet regional demand and nothing more, the creation or expansion of production facilities—however justifiable with a view to the satisfaction of basic needs, especially for food—makes no contribution to the export of regional surpluses; in this case the reduction of transport costs will probably be offset by the disadvantages of a smaller market. By contrast, activities producing regional surpluses will benefit from economies of scale even if the cost of exporting them to other regions or countries is higher.

Success in the early stages of regional development has been attributed to the exploitation of fixed resources.<sup>1</sup> From an employment point of view, however, planners must refine their analysis and in particular investigate (a) whether a substantial proportion of the profits earned from the exchange of regional surpluses reverts to the region in the form of wages and investments; (b) whether the time factor has been taken into account in calculating the profitability of projects, for example maturation in the case of plantations or exhaustion of deposits in the case of mining, since it naturally affects the training and utilisation of any additional labour recruited; (c) whether the State has taken steps to see that individual farmers are encouraged to produce more than they consume by ensuring that they have access to the necessary land and guaranteed outlets and stable prices for their products; and (d) whether the best way to organise work newly introduced into the region is by permanent or seasonal wage employment in fairly large enterprises, a co-operative system, or simply an extension of family holdings.

As for mobile resources, the feasibility of importing them and expanding their production in backward regions will depend on the progress of development itself. The physical infrastructure (including the transport of energy) must be already sufficiently well established to bring down transport costs, products

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<sup>1</sup> See Friedmann and Alonso, *op. cit.*, pp. 10 and 100-105.

must be complex enough to require less in the way of bulky raw materials and more in the way of know-how and technique, and markets must be large enough to ensure the viability of the enterprises producing them. In this connection it might be appropriate for industries using mainly mobile resources, with a high location quotient (e.g. over 1.5) and mainly producing for the national market, to be given the financial incentives to set up production facilities in regions where the quotients in their fields are a long way below unity.

It does not follow that any form of activity can be introduced anywhere. In spite of differences in transport costs, the urban centre acts as a magnet to enterprises wishing to take advantage of the better commercial, banking or professional facilities it has to offer, or of a better intellectual climate. In these circumstances traditional methods of choosing between alternative industrial locations by the detailed comparison of costs and benefits seem less helpful to planners in essentially rural regions of developing countries than the economic base theory.

Moreover, the existence of pockets of unemployment, underemployment and poverty in regions often totally lacking in industry may incite state planners to take over from (or to support) private investors so as to ensure that the choice of products and techniques takes even greater account of human resources than of the other production factors mentioned above. This may lead to a choice of location that is, at least apparently and temporarily, irrational in strictly economic terms.<sup>1</sup>

### **The central place theory**

It is possible, for planning purposes, to establish a hierarchy of growth poles in so far as their radius of influence depends on single or multiple, simple or complex functions, in accordance with one of the principles of central place theory. The various functions (most often tertiary, for example commerce, banking, education and health services) performed by an urban centre can be arranged along a scale the bottom end of which is the demand threshold, i.e. the minimum size of market that could make such a service viable, and the top the maximum possible demand, or the largest market that could be effectively covered. These lower and upper limits determine the number and size of "central places" supplying each service, whence the hierarchy: the ones further down the scale, i.e. those covering a smaller area and providing less important goods or services, fall within the area of those next higher up the scale, and so on.<sup>2</sup>

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<sup>1</sup> In particular, the employment expert must investigate whether there is a sufficient labour potential, both in quantity and quality, to exploit the various resources; whether the wages and prices prevailing in a given industry threaten to distort the employment market to the detriment of other industries; and whether adequate support is being given to the development of ancillary jobs generated by an increase in private consumer demand.

<sup>2</sup> A practical example will make this clearer. Supposing a general practitioner needed a practice of at least 500 potential patients in order to earn his living, but could not cope

This theory can be criticised on two grounds which limit its utility for regional planning purposes. In the first place, it is based on the least-cost approach to the selection of markets, whereas the State may have to override financial considerations in order to introduce new, non-commercial functions such as administration, socio-cultural activities or communications, if necessary subsidising them.<sup>1</sup> Second, it represents a static description of the influences at work as they appear at a given moment, without fully allowing for urban growth, whereas the role of planning is precisely to dismantle existing structures wherever necessary.

In spite of this latter defect, however, the theory can be of use to the planner of social services.<sup>2</sup> The procedure is as follows. A zone of influence is established for each function (e.g. education, health, transport, postal services, credit), together with the minimum and maximum population which is to have access to it. An inventory of the services actually available in the zone is then drawn up so that, by comparing it with the situation in the capital, which is taken as the norm, it is possible to determine the level—regional, provincial, local or communal—at which it may be necessary to strengthen some particular element of social infrastructure or distribute it better and facilitate access to it.

Another and quite different application of the central place hierarchy will be of interest to regional planners concerned with improving the spatial distribution of populations. This is the rank-size rule, which states that, in order to obtain an "ideal" distribution of population within a given area, the size of each urban community should correspond to its rank (so that, for example, the populations of the second and third most important cities should be respectively around half and a third of that of the biggest). However, while there does seem to be a clear world-wide trend towards this sort of distribution, there appears to be little correlation between such ranking and a country's level of development.<sup>3</sup> The difference between this type of urban distribution and a "primate" one, i.e. where there is a markedly dominant capital and a large number of smaller towns and villages of approximately equal size, can probably be explained by political and functional factors: the rank-size rule holds true where there is diversification of functions and decentralisation of powers, the balanced distribution of urban populations depending on the scale and strength of the economic and administrative forces

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successfully with more than 1,500, the corresponding figures for a general surgeon might for the sake of argument be 5,000 and 20,000, and for a neurosurgeon 40,000 and 100,000. Thus their "market" areas could be depicted in the form of concentric circles.

<sup>1</sup> For further details see Peter Haggett: *Locational analysis in human geography* (London, Edward Arnold, 4th ed., 1968).

<sup>2</sup> See in particular Sudhir Wanmali: *Regional planning for social facilities: an examination of central places concepts and their application* (Hyderabad, National Institute of Community Development, 1970); and Pierre Merlin: *Méthodes quantitatives et espace urbain* (Paris, Masson, 1973), pp. 23-44.

<sup>3</sup> See Haggett, *op. cit.*; and Brian Berry: "City size distributions and economic development", in Friedmann and Alonso, *op. cit.*, pp. 138-152.



at each level.<sup>1</sup> This is a vitally important point for the regional employment expert because, broadly speaking and within tolerable limits of labour mobility, it is the location of industry which improves population distribution, and not the reverse.

### **Means of implementation**

#### **The application of spatial analysis to employment markets**

The question arises whether the spatial analysis techniques used by regional economists and geographers are of any help to employment planners and labour administrators. Or, more specifically, whether statistical and graphic methods of portraying the static and dynamic aspects of relations between regional working populations help to shed light on the strengths and weaknesses of the employment situation. Provided that this descriptive phase is distinguished from later stages of planning devoted to the actual changes that need to be made, the answer is certainly yes.

The object of the first purely descriptive technique, *homogeneity analysis*, is to discover which parts of a given space or territory have one or more characteristics—such as climate, soil or resources—in common.<sup>2</sup> While homogeneity can exist in non-contiguous as well as in contiguous zones, it is only in the latter case that this type of analysis enables the planner to establish the uniformity of a geographical space, in all the zones it comprises, with respect to a given characteristic.

It may be asked if it is possible to apply this technique to employment, for example to draw up a map of the areas where serious unemployment exists. Particularly in non-industrialised countries, regional employment and unemployment rates are deceptive, since they refer to wage employment, which is heavily concentrated in urban areas and is anyway more fully recorded by way of the official registration of work permits issued and workers laid off, the periodic statements required of employers, social security records and the like. In rural areas it is more appropriate to adopt an index of household (rather than individual) income, including non-monetary income, or other indicators such as literacy, migration balances or land tenure. Nevertheless, up to a point it is possible to show how employment is distributed in space provided the case is not limited to wage earners. A considerable proportion of the active population, including self-employed persons and family workers, cannot be considered parties to an employment contract even though they are subject to over-all economic demand. The independent occupations of these workers are

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<sup>1</sup> Jos Hilhorst: *Regional planning, A systems approach* (Rotterdam, University Press, 1971), pp. 30-36.

<sup>2</sup> J.-R. Boudeville: *Problems of regional economic planning* (Edinburgh, University Press, 1966), pp. 2-9; and idem: *Les espaces économiques*, collection "Que sais-je?" (Paris, Presses universitaires de France, 2nd ed., 1964), pp. 22-23: "... the frontiers of homogeneous economic regions are determined by the uniformity of the greatest possible number of characteristics".

generally stable over time and immobile in space, to some element of which they are attached, for example farmland, workshops, warehouses, shops and hotels. In such cases homogeneity analysis makes it possible to represent zones of non-wage employment visually and to calculate the thresholds of congestion and saturation, especially for agricultural activities.

*Nodal analysis* differs from the foregoing in being designed to cast light on the interaction between the component parts of a given space. The principle on which it is founded may be defined as the attraction of one or several units by another, the dominant pole, the force of which is greater and towards which goods, labour, capital, information, etc., are drawn. Direct applications of this principle can be found in gravity models, so called by analogy with Newtonian theory.<sup>1</sup> In the employment field, mass may be represented by the population of the towns being studied, with or without their suburbs, or more accurately by the population of working age or by wage employment. Distance is better expressed by the time or money spent in travelling than by mileage.<sup>2</sup> Applied to the employment market in the strict sense of the term, nodal analysis indicates not only the daily, weekly or seasonal geographical mobility of employees in the modern, chiefly industrial sector, but also the mobility of employers. By this latter expression is meant the extent to which enterprises either provide transport for their employees or disperse their activities, notably by subcontracting, so as to be nearer to the labour reservoirs. The maximum range of these two types of movement delimits the manpower catchment area.

*Functional analysis* brings in the element of decision-making. The use which the dominant pole makes of its power has certain very definite repercussions on spatial organisation: it means, for instance, that those in positions of responsibility, in both the public and the private sector, tend to group themselves where they can best control the lower ranks. They have found that a centre offers them fuller access to the capital, labour, technology, business information and so on that they need in order to perform their increasingly diverse functions.

As applied to employment, functional analysis attempts to identify the practices, whether legal or not, by which dominant groups such as landowners foreign corporations, the party or racial group in power, fee-paying employment agencies, middlemen and money-lenders distort the supposedly direct link between labour supply and demand. This kind of analysis lends itself particularly well to salaried posts offering prestige, job security or generous remuneration both in government service—whether in the administration or in

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<sup>1</sup> Two bodies are attracted to one another in proportion to the product of their masses and in inverse proportion to the square of the distance between them. Regarding gravity models see Lee, *op. cit.*, pp. 57 ff.; and Hilhorst, *op. cit.*, p. 58.

<sup>2</sup> Another type of model, which combines the gravity and economic base approaches, is the residential model; this is designed to predict the geographical distribution of urban employment. However, models of this kind are of less interest to regional than to city and physical planners seeking the optimum spatial equilibrium between industrial and residential land and drawing conclusions about the transport facilities needed to link the two. See Lee, *op. cit.*, pp. 71-78 (the Hansen model) and 89-112 (the Lowry model).

specialised fields (education, health, the police, leisure activities)—and in those parts of the private sector susceptible to state intervention (banking, transport, distribution). In either case the influence of those in positions of power, at whatever level, is a far from negligible factor for anyone seeking to obtain or keep a job, and especially at the regional level.

From what has been said above it will be seen that the analysis of socio-economic space can be carried out in three stages. For each function, once the characteristics of the place where it is performed have been ascertained, the attraction exercised on the place by the higher-ranking pole is evaluated, after which comes investigation of the socio-political mechanisms and arrangements institutionalising the domination of the higher pole. For example, the distribution and transport function will be defined by the production zones of a given good, then by the size of the market where it is exchanged, and finally by various kinds of control (e.g. credit, price-fixing, storage, transportation, wholesaling and retailing) exercised by middlemen at every link in the chain between the (mainly rural) producer and the urban consumer.

It is possible to take the analysis further and refine the measurement of the geographical distribution of employment by studying the mobility of those who are entering the market for the first time, for example young people from the country arriving in the city and school-leavers, whether they have passed their examinations or not; of workers who have lost their job, for whatever reason; and of workers holding a job but wishing to change it. Although not too much information is available on the subject, it seems that the analysis would show mobility to decline progressively from one group to the next. The first group, consisting of young people, to whom foreigners may be added, either have to go looking for work beyond the boundaries of their home labour catchment area because of their lower qualifications and lack of experience or are able to do so owing to their greater receptivity and adaptability.

### **The setting of regional employment goals**

The first task of the employment expert is to forecast the probable size of the region's active population.

On the labour supply side a lack of data usually precludes the use of any more specific birth and death rates than the national ones, although the true rates are very likely to be higher in the rural zones. Nevertheless, demographic forecasts should give a general idea of rural population densities and of trends towards further concentration in urban areas. It is still more difficult to obtain a regional picture of the active population, in particular because women's labour force participation is treated differently in urban and in rural economies. In practice, evaluations of the region's present and future manpower supply generally have to rely on national census figures, average rates and intelligent guesswork.

It is equally difficult to estimate regional labour demand without taking account of the over-all national picture. The fact is that choices between

regions can only be made in conjunction with the allocation of employment, since it is only in this way that the necessary inter-regional coherence between a development plan's aims, methods and financial resources can be ensured. Similarly, only investigation at the inter-regional level makes it possible to add spatial considerations—differences in operating, transport and labour costs between two possible sites—to the various coefficients affecting the projects concerned, and particularly the degree of employment elasticity and levels of investment and capital intensity.

If this exercise in relating national and sectoral aggregates on the one hand to the location of projects on the other is to be realistic, however, the analysis must be extended to the regional and local levels. A thorough knowledge of the various regions and districts is needed if the central authorities are to have the information they require about the scale of local unemployment, underemployment and poverty; the number of workers with the required skills and the possibilities of training others; the geographical, occupational and social mobility of the workers, especially the younger ones; the industrial climate, readiness to modernise, traditions of craftsmanship, entrepreneurship, habituation to wage employment, experience of labour relations, existing employers' and workers' organisations, etc.; and means of developing rural activities, whether in the formal sector or not, benefiting from the multiplier effects of new investment.

However, the calculation of these various parameters, as well as those mentioned earlier, should not lead planners invariably to site their projects in centres or zones offering the best index of regional potential (whatever the number and weighting of the variables used to determine such potential). If they did so, the unfavoured zones would never qualify for regional development aid. The central authorities should instead look at the lowest index values—and indeed the lowest location quotients as well—as so many warning lights signalling that remedial action is called for. In general, it would seem rational in the earlier stages of long-term planning to lay the foundation of regional development by means of social investments and improvement of the infrastructure, so that productive investments become possible later on.

The borderline between supply and demand, between the desirable and the feasible in the employment and incomes field may be blurred by internal migration. This term is used to cover both rural-urban drift within regions and movement between one region and another. The question is whether the growth of urban wage employment—and of the employment which it creates indirectly—will suffice to absorb the natural growth of the local population and, in some cases, the immigrants from poor or overpopulated rural areas as well. It must also be asked whether the latter will be in a position to retain and feed their populations.

The extent to which an area is saturated by the population living on its resources can be calculated by considering a number of variables, the principal ones being the area's natural resource endowment, the structure of demand, the level of technology used, and the minimum income employees are prepared

to accept.<sup>1</sup> When the saturation coefficient thus obtained is combined with the prospects for the growth of demand and of the economically active population, it becomes possible to forecast man/land ratios, the area to exploit and labour incomes. A high inter-regional coefficient would probably indicate a need to channel the inevitable growth of urban population in certain directions and to organise its flow, especially from the point of view of industrial and artisanal employment. Conversely, significant variations in the index from one region to another would show the unsaturated zones where it would be possible to develop agricultural production and employment—e.g. by recourse to in-migration—and also where deficient urban structures are in need of reinforcement.

### **The administration of regional planning**

The next question to be asked is who is to do the social programming, and whether regionalisation should lead to new forms of development administration. Everything depends on the government's attitude to delegating effective powers of decision and management to the regions. A positive approach results in a better equilibrium between centre and periphery, and a fuller acceptance of responsibility for their own problems by those directly concerned.

Such a result is desirable for a number of reasons. In the first place the domination theory explains the concentration of power in the hands of central groups who are able to control access to capital, information and labour, a polarisation that is accentuated by the cumulative effect of economies of agglomeration and scale. However, it has been shown that the imbalances caused in this way produce a compensating or distributive reaction whereby the periphery, whose productivity and bargaining power have been increased by the domination of the centre, begins to challenge the centre with its growing competitiveness and capacity for innovation, and to make ever greater demands upon it.<sup>2</sup> If the trend towards devolution is to be meaningful, appropriate powers of information, decision and execution must be delegated to the region, or in other words to the administrators, politicians, planners, employers' and workers' leaders, universities, etc., active at this level.

The same conclusion is ineluctable with regard to the definition of field of activity, using the word "field" in the same sense as in "magnetic field". Thus local activities include construction, retail trade and primary education; regional activities include secondary education, intraregional transport and the production of certain perishable goods; while national activities cover supra-regional public services, higher education, inter-regional transport, etc.<sup>3</sup> If

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<sup>1</sup> An interesting systematisation of these relations can be found in Estevam Strauss: *La evaluación de los recursos naturales y el desarrollo económico*, 2º Seminario interamericano del Comité de geografía regional, Instituto panamericano de geografía e historia, Santiago de Chile, 1969 (mimeographed working paper No. 12).

<sup>2</sup> Perroux, op. cit.; see also Hilhorst, op. cit., pp. 34-36.

<sup>3</sup> Other examples are cited in L. B. M. Mennes, Jan Tinbergen and J. George Waardenburg: *The element of space in development planning* (Amsterdam and London, North-Holland Publishing Company, 1969), p. 6.

decision-making centres are to correspond more closely with the coverage of each of these fields, a more balanced distribution of power is required; this can be achieved both by wider delegation of decision-making authority within the hierarchy and by fuller involvement of the countervailing forces in the periphery.

A further justification is to be found in the planning process itself, which as a rule passes through the following stages, though naturally this scheme is not always rigidly adhered to. First comes the macro stage, consisting of data gathering and analysis, the establishment of a preliminary plan based on macro forecasting, and its comparison with the over-all goals and the instruments with which it is proposed to achieve them. Next comes the sectoral stage, in which the general preliminary plan is disaggregated by the use of technical and behavioural coefficients such as capital and labour productivity, income elasticity and accepted standards for the social services. Third is the inter-regional stage, when the activities envisaged in the sectoral stage are allocated to the various regions. Fourth comes the regional stage proper; fifth the local stage, largely concerned with the problem of city planning; and sixth and last, the project stage.<sup>1</sup> If the required degree of efficiency and coherence is to be attained, the first three stages obviously have to take place at the national level, but it is equally clear that the next two should be carried out respectively at the regional and local levels, while the last will be divided among the various levels according to whether projects are of national, regional or local interest.

In the specific case of employment planning these same elements of power, space and time call for a balanced distribution of planning functions between the capital city and the regions. The design of population censuses and statistical surveys and the analysis of their results will naturally be the responsibility of central services such as the National Bureau of Statistics, the Home Office or the Ministry of Labour, while the actual enumeration may well be delegated to decentralised services of these same departments. The setting of regional employment goals is, however, a more complex matter. The result of the forward and backward communications that take place—and which it is essential should take place—between the six above-mentioned planning stages is that goals (and the instruments for achieving them) defined in the macro, sectoral and inter-regional stages remain provisional until they are disaggregated in the later stages. In other words, a regional employment plan is only valid if the sum of the projects allocated to the region (increased by the spontaneous growth of the regional economic base) corresponds both to national goals and resources on the one hand and on the other to regional needs for employment creation and the elimination of poverty. The best conditions for regional planning exist when a given situation becomes of such importance for a country (whether in a positive sense because of the exceptional development opportunities it offers, or negatively because of the threat

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<sup>1</sup> Jan Tinbergen: *Central planning* (New Haven and London, Yale University Press, 1964), pp. 88-89; and Hilhorst, *op. cit.*, pp. 128-132.

posed by extreme backwardness) that it becomes desirable to establish an independent public corporation on the spot.<sup>1</sup>

Finally, this approach makes it easy to establish the division of responsibility between central and regional authorities as regards policy and management on the one hand and adaptation to local situations on the other in matters pertaining to wages, social security, labour administration, placement, vocational training, and financial or fiscal aid.

In any case, whether as regards information, planning or means of action, each stage and each activity calls for two types of co-operation. Vertically, there is a need for an upward percolation of facts, opinions and analyses combined with a downward movement of funds, personnel, authority and decisions. Horizontally, there must be co-operation at every level between all sectoral departments and services sharing responsibility for the area's development. This co-operation may be institutionalised or organised on an ad hoc basis: what is important here—still more important than organigrams and high-speed communications—is the attitude of mind.

### **Social institutions**

It may be asked what this attitude of mind—this regional consciousness—is to be based on, and how the economic agents of a region can influence the decisions of planners and administrators in their favour in a matter as delicate as that of employment. If it is a good thing for power to be partially transferred or delegated to officials and experts inhabiting the region, can the same be said of the various social groups not initially invested with any of the authority of the State?

In view of the unequal distribution of power, regional institutions will at first have to be established or encouraged by the national authority. The latter will exercise its power in deciding where to invest or to influence the production of economic or social goods, especially by mobilising the masses (through such institutions as the single party or trade union, women's movements, youth organisations and co-operatives) to participate, as yet uncritically, in the work of national construction. As time goes on, however, the regional institutions will begin to call for the transfer of increasingly refined and complex functions without which they cannot fulfil their allotted role as mere executive instruments, and which the central power has more and more difficulty in carrying out itself. It will thus be obliged to surrender part of its sovereignty, but this will be a profitable exercise in so far as the benefits of expanding production at the periphery outweigh the political cost of such transfers.<sup>2</sup>

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<sup>1</sup> The Venezuelan Agency for the Guayana Region is an example. See John Friedmann: *Regional development policy: a case study of Venezuela* (Cambridge (Massachusetts) and London, MIT Press, 1966), pp. 176-179.

<sup>2</sup> Concerning new forms of regional government see E. Kalk (ed.): *Regional planning and regional government in Europe*, Report of a symposium held in April 1969 in Prague, Czechoslovakia (The Hague, International Union of Local Authorities, '971), pp. 11-36.

Moreover, this process of domination followed by co-operation and competition between nation and region is far from being bipolar. The relatively simple relationship between the national authority and regional institutions, which as a rule it has itself formally established, is complicated by the spontaneous formation of groupings at both national and regional levels which are characterised by flexibility or even absence of structure, personalised leadership and the narrowness of their support base; they are at best "tolerated", sometimes banned. Shanty town squatters, landless peasants, farm workers who feel exploited, petty officials who are underpaid or lack the right to organise, discontented users of inadequate public transport, housewives demonstrating in the markets against price rises, all these are more or less obvious and strident, if not effective, manifestations of parallel or "horizontal" opposition to the institutions based in national, regional or local capitals. Besides, if regional authorities have had neither the imagination nor the strength to establish sufficiently vigorous institutions in the area for which they are responsible, the various interest groups which compete for power at the national level will seek to extend their sphere of influence and look for support in the regions. As a result of these vertical alliances regional conflicts may spread to the capital, where the big owners or managers of agricultural and industrial enterprises generally live and where politicians elected by the regions consider that they can exercise the most influence on behalf of their constituents.

As just noted, the national authority may be tempted to seek alliances with interest groups operating in the region, but the regional authority can counter such manoeuvres by trying to form a common front with these same groups against the capital. The success of this operation will depend on whether the regional administration has succeeded in becoming identified with the region or whether it still considers itself purely an executive agent of the central authorities and slavishly carries out their instructions.

The national authority may also apply the old adage "divide and rule" by favouring one group at the expense of another, whether in the distribution of benefits, by limiting access to information or decision-making, or again by allowing a plurality of forms of association (e.g. company unions, craft unions). Rivalries, internal struggles and the erosion of militancy all serve to weaken the solidarity of a region and will probably lead to a realignment of forces in which the above-mentioned informal groups take up the challenge to the authority of the national government.

As the functions of regional government become more varied and specialised, there is a danger that regional and national planners will take refuge in their ivory towers in a bid to dissociate themselves from the instability of the groups to which they in fact owe their position (an instability that is especially marked where the administration changes after each election) and to escape from the intellectual sterility of irreconcilably opposed opinions. When this happens planning becomes formalistic, with all that this implies in the way of secretiveness, bureaucratic omnipotence, and the rejection of open competition



for economic power.<sup>1</sup> This trend can in turn only be resisted by new social pressures for democratic participation.

At least three conditions need to be satisfied if such participation is to be possible at the institutional level. These are that participating groups should be truly representative (which presupposes the right to organise); that they should be able to co-opt their delegates; and that they should enjoy equality of treatment. This last condition is not fulfilled, for example, when backward rural regions are represented only by big landowners, or when the latter are accompanied by workers' delegates chosen from among their own employees and thus are scarcely independent. Though already established in some countries, the machinery for tripartite participation in regionalisation can only be made fully effective at the cost of an immense effort of education in local democracy.

### **Conclusions**

In this brief review of the theory and practice of regional employment planning, we have tried to bring out the importance—from a social and political, not merely a narrow economic point of view—of integrating spatial and temporal factors, and to show how this can promote growth and welfare and the better distribution of resources according to the basic needs of the population.

The proposal that space and time be integrated in this way is an ambitious one which if implemented would entail the reversal of a good many current development policies. In particular, it would imply that growth should be founded on a proper evaluation of the advantages possessed by each part of the national territory and that some of the benefits deriving from the exploitation of these advantages should be redistributed spatially. It would also mean that new activities should be located not only by reference to the fixed resource endowment but also with a view to remedying unacceptable social imbalances; that labour catchment areas and labour demand should be brought into closer relation; that a reasonable spatial equilibrium between man and economic activity should be established, with the mobility of capital becoming at least as great as that of labour; and finally that quantified targets should be set for employment and income growth in each region and zone, while the satisfaction of non-material needs should be sought in a more rational ranking of urban centres. To achieve all this would require a fairly radical adaptation both of the programming of physical and social infrastructure projects on the one hand and of production projects on the other, and of the role of administrations and institutions, which need to identify more closely with the public they are supposed to serve.

As we have seen, the principles are known and the instruments are available. What seems to be most lacking is the political will to apply them with the help of people and groups who often still have no invitation to the feast and no voice to call for one. ■

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<sup>1</sup> Cf. B. M. Gross as cited in Guy Caire: "Participation by employers' and workers' organisations in planning", in *International Labour Review*, Dec. 1967, pp. 574-575.