

Regional Development Policies: Past Problems and Future Possibilities

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Regional Policy and Regional Equity

National economies may be regarded as bundles of more or less integrated regional economies. Government policies with respect to such sectors as transportation and communications, agriculture, energy, research and development, and education all have varying regional consequences, which in many instances may be more significant than those resulting from regional policies. Nevertheless, strictly speaking, government regional policies should be understood as those policies that have an intentional and formal geographic focus, though they will no doubt use sectoral means in attempting to realize their objectives.

The objectives of regional policies have varied, but typically they have been motivated by such equity considerations as reducing unemployment, increasing incomes, promoting structural adjustments, or realizing development potentials. Neoclassical economists have tended to view such efforts as distortions of efficient resource allocation from a national perspective because resources are shifted from more efficient places to less efficient places. They have also typically argued that labour migration from lagging regions and capital flows to such areas will eventually reduce regional disparities.

A relatively high degree of labour mobility has been viewed as an American strength with respect to adjustment to regional economic imbalances, though it did not reduce regional income inequality in the 1980s. Moreover, the process involves numerous social costs borne by workers who are compelled to move. In addition to moving costs there are also psychic

costs of leaving family and friends and a familiar community. A house often represents the major part of a workers assets, and migration from a depressed to a relatively prosperous region may entail selling a house at a price that would not buy housing of similar quality in the area of destination.

Sala-i-Martin and Sachs (1991) have estimated the extent to which the U.S. Federal Government in effect insures the states against regional income shocks. They found that a one dollar reduction in a regions per capita personal income triggers a decrease in federal taxes of 34 cents and an increase in federal transfers of 6 cents. Thus there is an automatic stabilization mechanism that primarily reflects the nature of the progressive federal income tax. While this mechanism is certainly a benefit to regions whose incomes have been adversely affected by external shocks, the fact remains that most of the costs of adjustment to regional fluctuations must be borne at the regional and local levels. It would not be surprising to find that residents of economically disadvantaged regions favour regional policies, but there also is evidence that, at least in some countries, they have received more general support. For example, in the 1960s the French Government undertook a number of measures to decentralize economic activity from the Paris region in favour of less-developed regions. There was virtually no dissent to this policy; and public opinion polls even indicated that it had more support from Parisian residents than from those in the provinces (Hansen 1968). In the late 1970s, when the European Community consisted of nine countries, a public opinion survey sponsored by the EC found that 79 percent of all respondents would agree to be taxed to support the development of the most disadvantaged regions in their own respective countries, and a third were similarly disposed to contribute to the development of lagging EC regions even if they were in other countries (Uhrich 1985). In the Canadian context, Savoie points out that, from the perspective of economic efficiency, critics of special regional development measures can point to a variety of reasons to justify their elimination. "However, an unrelenting pursuit of national efficiency is simply not acceptable in Canada. The cost in adjustment and in personal hardship would be prohibitive. Canada's interregional tensions could well become unmanageable" (Savoie 1986: 137). In many respects, regional development policies have been as much a condition of Canada's social contract as building a railroad west was a condition for British Columbia to join the Confederation. In other words, "the sharing of prosperity among Canadians wherever they live has been part of the bargain of Confederation" (Savoie 1986: 139).

Baumol concludes his major analysis of fairness with the observation that fairness theory very often supports the equity judgments of non-economists. And in cases "where they have exhibited suspicion of the fairness of policy measures recommended by microeconomists such

as myself, on grounds of economic efficiency, the fairness analysis often seems to confirm that there is something that does really merit suspicion" (Baumol 1986: 254).

Of course, even if equity or fairness objectives are the main concern of regional policies, public resources should be used in such a way that the objectives are achieved efficiently. In other words, the social costs of realizing a given set of regional goals should be minimized. This was the rationale for the growth centre approach that was widely adopted when regional policies received unprecedented attention in the 1960s and early 1970s.

Past Regional Policies

Growth centre strategies received their original impetus from an article on polarized development by Perroux (1955), where he coined the term growth pole. Perroux argued that analyses of economic development should concentrate on the processes by which various economic activities appear, grow in importance, and, in some cases, decline or disappear. Like Schumpeter, Perroux maintained that entrepreneurial innovation is primarily responsible for the development process, which involves a succession of dynamic sectors, or poles, over time. Although Perroux's article did discuss advantages to be obtained from the geographic clustering of economic activity, he was mainly concerned with relations among industrial branches. The spatial aspects of polarized development were elaborated in France primarily by Boudeville (1972), though the formulation of growth centre policies -- that is, those with a geographic focus -- was also highly influenced by earlier works of Myrdal (1957) and Hirschman (1958). Growth centre strategies were eventually adopted, at least nominally, in a host of newly-developing countries as well as in such industrial nations as France, Canada, and the United States, where two major regional development programs both specified that relevant investments should be concentrated in places with significant growth potential.

Growth centre theory embraced the concept that productivity can be increased by realizing external economies of agglomeration that could be gained by clustering infrastructure and directly productive activities in promising locations rather than dispersing them thinly over wide areas. Regional policy, it was held, could induce growth centre development in target regions, which in turn would generate several interrelated benefits. First, the centre's own growth would directly promote regional development. Second, the growth centre would be a migration countermagnet, attracting persons from surrounding areas who might otherwise go to large cities, which were often deemed to be already overly congested. Finally, it was held that beneficial "spread effects" from the growth centres would eventually induce development in remaining peripheral areas, and that the growth centres would have a significant relay

function in the process of innovation diffusion through the urban hierarchy. During the 1970s growth centre strategies come to be universally regarded as failures. It should be acknowledged that the concepts of positive spread effects to areas surrounding growth centres and of hierarchical innovation diffusion were both rather naive in view of the more complex spatial interdependencies that characterize actual economic activity. However, in retrospect it is clear that growth centre strategies were rarely if ever implemented in accordance with their theoretical rationale, and some never actually left the planning stage. The principal difficulty was that implementation would necessarily leave out more places and people than would be included, which meant that majority political support could not be obtained. What typically happened was that the growth centre approach was nominally pursued, but a large number of (often unpromising) places were designated as growth centres for political ends. In other words, regional development outlays were widely dispersed rather than concentrated. In France and Italy some major projects were concentrated in the name of regional policy, but they were capital intensive and created relatively little employment in themselves, and they had few linkages with local economic activities (Dunford 1988). Although interest in the growth centre strategy waned because of these difficulties, its central insight concerning agglomeration economies and increasing returns was independently rediscovered with much enthusiasm in the 1990s.

Regional policies also waned in the 1970s because of the widespread economic and demographic revival -- unrelated to regional policies -- of many North American and European nonmetropolitan areas. At the same time, many old industrial areas experienced crises and net population loss. Academic opinion, which had tended to attribute an observed positive association between per capita income and city size to the productivity advantages of large cities, now attributed this relationship to a need to bribe workers with "disamenity premiums" in order to get them to remain among proliferating external diseconomies of urban agglomeration. Political attention was now being drawn toward the plight of the "mature metropolis" (Hansen 1988). Although many such areas have since revived, others remain a cause for concern.

Widespread declines in regional disparities during the 1970s, usually a continuation of longer term trends, suggested that market forces would reduce interregional per capita income differences without the need to resort to regional policies. However, developments during the 1980s, when governments tended to have a relatively favourable view of market resource allocation, indicated that reduction in regional disparities was not necessarily an automatic phenomenon. For example, regional disparities increased in the United States (Amos 1989) and Australia (Maxwell and Hite 1992), and they stabilized within the EC, with a slight increase

between 1983 and 1987 (Suarez-Villa and Cuadrado Roura 1993). As a result there has been increased interest in the role that regional policies might have in addressing regional disparity issues. However, if they are to be efficacious, regional policies must take account of the forces that impinge on the economic destinies of the regions concerned.

Regional Development Patterns: A Complex Mosaic

Neoclassical economic theory suggests that increasing economic integration should reduce interregional income differences through the liberalized movements of labour and capital. On the other hand, the recent economics literature on endogenous growth theory indicates that growth tends to be more rapid in countries and regions that have a relatively large stock of capital, a highly educated population, and an economic environment favourable to the accumulation of knowledge (Romer 1986, Gould and Ruffin 1993). Regional economists have recognized for some time that increasing returns due to scale economies, agglomeration economies, and knowledge spillovers can, through a process of cumulative causation, reinforce the growth of regions that are already relatively prosperous. The endogenous growth literature has also recently rediscovered this cumulative process, though there are differences in emphasis on whether regional specialization (Krugman 1991) or knowledge spillovers among industries (Glaeser et al. 1992) are the main sources of growth. It may be that intrasectoral externalities are more pronounced during the earlier phases of growth, but that later there is an increasingly complex division of labour characterized by increased interfirm relations both within and between sectors.

If there are elements of truth in both the neoclassical theory and in the increasing returns argument, then one would expect that economic geography at a large scale would be characterized by a complex mosaic of patterns and processes that cannot be sufficiently explained by any general theory. Evidence from Europe and the United States suggests that this is the case. In Europe, such large metropolitan areas as London, Paris, Milan and Frankfurt have experienced major reconsolidations owing to the importance of their finance, management, innovation, producer services and infrastructure capabilities. Various regional capitals have enjoyed a resurgence that is more dynamic than that in some capital cities. These secondary cities typically offer new combinations of industry and services and are well developed in terms of labour markets, educational choice and cultural life (Illeris 1992). Beginning in the 1970s, a considerable number of old industrial areas experienced shocks related to the energy crisis, labour rigidities, a lack of innovation, and competition from newly-industrializing countries. Examples include the Saarland and Ruhr in Germany, the Walloon portion of Belgium, Wales and the West Midlands in the United Kingdom, the Turin-Milan-

Genoa triangle in northwestern Italy, Lorraine in France, and the Basque province in Spain. Some old industrial areas have continued to decline, some have stabilized, and some have been successfully restructuring on the basis of skilled labour and rapid adoption of programmable automation. Malecki (1991) points out that the spatial decentralization of manufacturing that was common in the 1970s is no longer the norm. In many instances production is being pulled back to the central locations where research and development, engineering, and interactions with suppliers and customers can best be accomplished. Meanwhile, if some peripheral and relatively rural regions have stagnated, many others have shown considerable vitality based on local entrepreneurship and innovative networks of small and medium-size enterprises that have adopted flexible production practices and have been able to respond rapidly to changing patterns of demand in the international marketplace. Examples include southern Germany, western Jutland in Denmark, southern Sweden, the cantons of Fribourg and Ticino in Switzerland, Emilia-Romagna and surrounding regions in Italy, and Mediterranean areas of France and Spain.

Regional development patterns in the United States have also been diverse and difficult to forecast. For example, in the mid-1980s the industrial Midwest was regarded as a "rustbelt", while California and New England were prospering, in part because their high-technology industries benefited from a large defense build-up. However, by the end of the decade, the Midwest was entering a strong recovery phase and California and New England were in recession. As in Europe, some traditionally peripheral U.S. regions continue to be chronically depressed while others have recently exhibited remarkable growth. The former category includes native American reservations, central Appalachia, south Texas, and parts of the rural South. Meanwhile, the intermountain West, formerly known as the Great American Desert, has become a zone of attraction, with population growth at twice the national average. In 1992, Utah ranked first among all states and Boise, Idaho ranked first among all metropolitan areas in terms of rate of employment increase. The Salt Lake City-Provo corridor in Utah has become the world's second largest centre of independent software companies.

The evolution of California's Silicon Valley and Boston's Route 128, which were both leading world centres of electronics innovation in the 1980s, illustrates that even in high-technology activities acquired capital, skills and knowledge may or may not ensure future regional development. In the early 1980s, Silicon Valley chip makers lost much of their semiconductor market to Japanese producers, while Route 128 minicomputer companies saw their customers shift to work stations and personal computers. In the late 1980s, a new generation of successful semiconductor and computer companies emerged in Silicon Valley, and such older firms as Intel and Hewlett-Packard experienced dynamic growth. In contrast, Route 128

showed few signs of reversing its decline; newly-created firms failed to compensate for employment declines in the older companies. Saxenian (1994) argues that despite similar origins and technologies, the two regions have evolved different forms of industrial organization. Silicon Valley has an industrial system based on regional networks that promote entrepreneurship, collective learning, flexible adjustment, and experimentation. In contrast, the Route 128 region is dominated by a small number of relatively vertically-integrated corporations that keep largely to themselves. These experiences indicate that local economies with industrial systems built on regional networks are more flexible and technologically dynamic than those in which learning is confined to individual firms. To survive and flourish, these networks need a region's institutions and culture to ensure the repeated interaction that builds mutual trust while also maintaining competition. The clustering of firms in a given area does not by itself create decentralized processes of collective learning and continual innovation.

Innovation Transmission

A great deal of research has been undertaken in recent years to evaluate the relative importance for growth of knowledge spillovers within an industry in a region (localization economies) and of spillovers among diverse regional industries. The results have been mixed, but in any event the relevance of these studies for regional development policy is not clear. In particular, regional economies are embedded in much larger national and even international networks of transactions and information flows that have significant consequences for regional development. This has been the case even in the industrial districts of Denmark and the Third Italy, where localization economies are especially strong. In Denmark, 98 percent of total private sector employees work in small and medium-size enterprises (SMEs), by far the highest proportion in Europe (Hansen 1991). Moreover, Denmark has one of the most export-oriented economies in the western world. Nevertheless, there is hardly any district in the country where manufacturers are able to organize an entire value-added chain for a product that is eventually exported. Instead each individual firm in a location relates to a complex network of regional, national and international firms. Even if the producer for the final market subcontracts to other regional firms, they in turn obtain their inputs from regional, national and international sources. By using its specialized assets flexibly for different customers, the individual SME participates through indirect linkages in a wide network of value-added chains (Kristensen 1994).

In the Third Italy, SMEs are heavily engaged in exporting, and in the most successful Italian export sectors, such as consumable durables, they are at the leading edge (Bonaccorsi 1992).

The function of coordinating the overall production and marketing process has been fulfilled by agents (the prototype being the *impannatori* of Prato) who actively link local groups of SMEs with fluctuating international demand patterns. These agents, heirs to the mercantilist traditions of the medieval Italian cities, are also involved in the design and redesign of products in response to specialized demands. By continuously interfacing the short-run situations in external markets with the internal situations of industrial districts, they "extract from the local cultural stock (which includes technologies, but much more besides) all the new ideas it contains. By doing so, they guide and stimulate the combinatorial instinct of all the other agents in the district" (Becattini 1991: 112).

Studies of U.S. networks of firms have found that cooperation often takes place over wide areas rather than locally. For example, members of networks of SMEs in the petroleum products distribution sector have gained competitive advantages as a result of collaboration sustained by trust, understanding, and continuity (Upton 1995). However, these groups are composed of company presidents who are located in widely separated cities. Angel (1995) found that about one-third of a random sample of 495 manufacturers in the chemical, instruments, and electronics industries participate in some form of collaborative technology development activity with customers, suppliers or other firms. Enterprises thus engaged are on average the more innovative firms within an industry. Interfirm collaboration is more prevalent among large firms than small firms, and among establishments serving international markets. However, only a small proportion of collaborative partnerships are with local firms; most are national and international in scope. The local benefits from collaboration therefore come mainly from the strengthened performance of participating local firms, rather than from the emergence of a localized network among manufacturers, customers and suppliers. Using a national random sample of almost 1000 U.S. metalworking plants, Appold (1995) found that collaborative manufacturing enhanced establishment performance, but firms located in agglomerations gained no competitive advantages as a result.

To ignore such extra-regional interactions is comparable to the erroneous emphasis on local spread effects in growth centre theory. Nevertheless, if regional policies are supposed to promote long-run development this implies that they should somehow contribute to the innovative capacity of regional firms. How might this best be done?

Scientific discoveries clearly broaden the possibilities for useful innovation, but Schmookler's classic study of nearly 1000 innovations in the railway, petroleum refining, paper making, and farming sectors indicated that in no instance was the stimulus for the invention a particularly scientific discovery. Rather, in nearly every case "the stimulus was the recognition of a costly

problem to be solved or a potentially profitable opportunity to be seized, in short, a technical problem or opportunity evaluated in economic terms" (Schmookler 1966: 199). Scott (1989) has similarly argued that inventions and investment are both motivated by their expected profitability. Moreover, evidence suggests that expected profitability is likely to be higher in industries other than that which originated the invention. Scherer (1982) observed that U.S. research and development outlays allocated to industries of use were generally a more important determinant of productivity growth than such expenditures allocated by industry of origin. Geroski's (1991) analysis of sectoral sources of innovations used in the United Kingdom similarly found that most of the innovations adopted in any particular sector were produced in some other sector. Thus productivity growth in any particular sector is likely to depend as much on flows of knowledge throughout the economy as it does on the generation of new knowledge in the particular sector alone. The policy implication he draws is that efforts to stimulate the diffusion of existing knowledge are more likely to enhance competitiveness than are efforts to stimulate the generation of new knowledge.

This conclusion has a potentially positive message for regions that lack the high-technology headquarters, research and development laboratories and sophisticated producer services found in more advanced regions. It is not necessary to replicate these activities on a large scale to enhance regional development -- an unlikely prospect in any event -- so long as relevant information flows can be established and maintained. It has often been urged that regional development authorities provide local firms with inward information concerning such matters as potential markets and new technologies. All well and good. But there is also a need for outward information flows that go beyond chamber of commerce publicity that attempts to "sell" a region on the basis of tax advantages, cheap labour, friendly people and plentiful recreation opportunities. A more meaningful approach from the perspective of innovation diffusion would be a national system of outward information flows communicating specific problems that firms need to have solved and specific profitable opportunities that outside firms could gain from innovation diffusion to firms within the region. This type of information system would in effect be a regional policy in the same sense as an efficient national labour market information system, which has frequently been advocated as a means to facilitate regional economic adaptation.

Concluding Observations

The equity rationale for regional development policies confronts many conceptual and practical difficulties. These include regional definitions that mask intraregional disparities; the choice of variable to measure disparities; the choice of inequality index to apply to the chosen variable;

different regional costs of living; different labour force participation rates; different regional economic structures; amenity considerations associated with location; the appropriate equivalence scales to apply to households; assuring that regional benefits in fact benefit the most needy persons; the equilibrating role of labour migration in relation to the social costs involved; and the difficulty of addressing regional unemployment when, in the United States at least, relative regional unemployment rates vary significantly over time. Of course, to question the use of regional policies from an equity perspective is not to deny that greater equity may be a legitimate socioeconomic objective. The evidence simply indicates that non-spatial policies directed at specific disadvantaged groups are likely to be more efficient and more effective in this regard.

Regional policy may also be considered in a more general development context. National governments have typically addressed national competitiveness issues in sectoral terms, yet it has become increasingly apparent that the conditions that underlie national competitiveness are often localized. If one wants to understand differences in national growth rates one should start by examining differences in regional growth (Porter 1990; Krugman 1991).

Regional policies for less-developed regions have typically provided infrastructure investments, grants, loans and other subsidies to support and encourage private business initiatives. Although basic education is usually a local responsibility, national standards for educational attainment would also indirectly promote the human capital base that is essential for sustained development. Such policies in effect attempt to provide a level playing field where local authorities and leaders can further develop an innovative milieu.

In Canada, for example, differences in provincial public services have been virtually eliminated. Many quality of life indicators in fact are relatively high in the Atlantic provinces, which nevertheless are lagging in terms of unemployment rates and per capita income. Savoie (1986: 28) maintains that policies for the Atlantic provinces should focus on "integrating their economies more successfully into the national economy and in supporting regional growth from within". As argued earlier, the national government can still promote regional development by enhancing interregional information flows. In the past this usually meant inward information flows to lagging regions, often in the form of business development assistance to SMEs. While these efforts are valuable, it is also necessary to provide outward information flow linkages so that regional firms can become networked with potential sources of development inducing innovations. This approach is consistent with evidence that the signalling of a problem to be solved is more significant for innovative activity than the generation of new knowledge.

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