

## REVIEWS/COMPTE RENDUS

**Disparities and Interregional Adjustment.** Kenneth Norrie, Research Director. Volume 64 of the research studies prepared for the Royal Commission on the Economic Union and Development Prospects for Canada. Toronto: University of Toronto Press, 1986; xiv + 223 pages.

The first article in this volume is Mansell and Copithorne's survey of the literature on Canadian regional economic disparities. They assess an array of data on regional disparities, noting especially the trends over the business cycle. This is followed by a largely descriptive section that briefly summarizes the empirical work with respect to a number of economic disparities and their correlation (or lack of it) with popular explanatory variables such as industry mix and agglomeration economies. The authors conclude that the major determinants of the variations in per worker output and earnings are labour quality (20 percent), capital intensity (50 percent) (p. 17), scale economies, and technological change, although the latter two are admittedly "risky" generalizations (p. 19). Differences in participation rates are cited as an effect, not a cause, of regional disparities (p. 21). The empirical results are presented with a limited critique of the approaches used.

The next section presents some of the theories of regional disparities, roughly classified into structural (e.g., resources and institutions) and market adjustment approaches. These are applied to cyclical and secular disparities and to disparities in market incomes. Again, the approach is to cite the literature without extensive analysis. It becomes obvious in this section that the theories that are critical of the functioning of the market have gone relatively untested (pp. 27, 30). In the case of market-oriented tests, the results are often weak or merely "suggestive" (p. 17). Despite this, Mansell and Copithorne take a conventional position, dismissing the critical theories as lacking empirical verification, and cite the "constancy of market income disparities over the long run" as evidence (p. 41). They fail to note, however, that this persistence of disparities contradicts market theories as well.

There are a number of inconsistencies in this article. The policy section and much of the earlier analysis reflect the underlying neoclassical position that the market will operate efficiently because it is com-

petitive. This is contradicted, however, by explanations of disparities based on economies of scale (p. 41) that are incompatible with competitive markets, or on barriers to capital, entrepreneurship, technology, and labour (p. 38) that impede the efficiency of the market place. The authors also reach conclusions inconsistent with the literature they cite. For instance, capital/labour ratios cannot be used to explain regional wage differentials (p. 38) but they are cited as the major explanatory variable (p. 17). Similarly, agglomeration economies are often cited, yet evidence that they have little effect is noted (p. 18). Mansell and Copithorne note the lack of a clear theoretical framework or of unequivocal evidence, yet their policy conclusions are unrelentingly neoclassical—they blame government policies interfering with market adjustment processes and advocate greater reliance on migration and other market mechanisms to deal with regional disparities.

There are other weaknesses in the article. Centre-periphery theories are given little attention and tend to be down-played as the work of sociologists and Marxists. Critiques of the agglomeration literature are ignored. Some of the literature cited is misinterpreted. Williamson is presented as a counter to Myrdal and to "partially explain the Canadian experience" (p. 41), yet Williamson explicitly notes Canada as a glaring exception to his theory. Similarly, other authors are presented with elaborations that do not reflect their work (p. 38). Nonetheless, Mansell and Copithorne present a useful survey of the conventional literature and an interesting framework for handling a variety of issues and approaches to them.

Vanderkamp's article, "The Efficiency of the Interregional Adjustment Process," is a well-written summary of the extensive literature dealing with the range of factors affecting migration. It begins with a clear presentation of migration studies. The issue around each variable (e.g., unemployment, income levels, education, net fiscal benefits) is presented, the literature summarized, and the results assessed. While concise, it is not so cryptic as to serve as merely an outline of conclusions rather than a summary of the issues.

Vanderkamp then develops the theoretical background to migration, beginning with a standard (Borts and Stein [1]) neoclassical model and gradually elaborating on it to incorporate alternative assumptions about supply and demand, such as wage rigidities. Despite the expressed intent to make the subject accessible to the non-expert, this section is made difficult by inadequate explanation of the geometric analysis, which relates wage levels to changes in employment rather than to employment levels. It is assumed that there is a negative relation between employment change and wage levels (p. 66) despite theoretical arguments (Bradfield [2]) and empirical evidence (Borts and Stein [1]) to the contrary.

Efficiency is the primary focus of the article, and this leads to a discussion of the efficiency impact of increased resource revenues to a provincial government. The analysis implicitly assumes that this arises from a jump in resource prices rather than a discovery of new resources, as it does not include a change in the demand for labour concomitant with the increase in resource revenues. Nonetheless, it is an accurate reflection of the literature, which is heavily influenced by the political debates following the rise in energy prices in the mid-1970s. It is shown that wage rigidity need not lead to inefficiency.

The "Empirical Implications" section includes data organized by the current "have" and "have-not" provinces. These data are by decade, 1931 to 1971, and cover a variety of disparities, fiscal information, and demand and supply indicators. Strong conclusions cannot be drawn by comparing the time trend of the variables, as they would be influenced by Alberta's shift from a "have-not" to a "have" province over the period covered. However, it is interesting that an "equalization scheme whereby differences in resource revenues across provinces are automatically eliminated . . . would not conflict with the goal of efficiency" (p. 93). Vanderkamp's data show that for 1971-80, federal transfers to the provinces as a proportion of provincial revenues just offset the difference in resource revenues between the two groups (p. 88).

In his policy section, Vanderkamp presents a conventional analysis of subsidies to labour and capital, of transfer payments, and of interference in market wage setting. He concludes that national wage standards are likely to have small efficiency effects (p. 102) and that provincial minimum wages "probably contribute little to regional disparities in wages and unemployment directly" (p. 103). In fact, both his hypothetical and empirical examples provide very mixed and ambiguous estimates of efficiency losses from a variety of sources.

As a review of a predominantly neoclassical literature, this article is good. Its weaknesses are those of the literature; its conclusions are dependent on the assumption of perfectly competitive markets (p. 90). Vanderkamp notes this with occasional references to the theory of second-best. However, his conclusions are not as tentative as this limitation would require, and more caveats throughout would have been useful. Also, in this and other articles, there is the use of loaded language, such as reference to "free" markets (pp. 36, 90), as if markets were the efficient perfectly competitive abstracts of the models, and to the "generosity" of unemployment insurance (pp. 29, 59, 101), as if this were some form of charity to the incompetents rather than a safety net for a society whose institutions cannot guarantee an adequate standard of living.

Lithwick's "evaluative survey" of federal regional policies is as much concerned with the policy (that is, political) context as with the

content of regional policy. He divides the period since 1947 into six phases and relates the changes in federal personalities to policy shifts. Perhaps because of this political economy approach, there is no development of theory, simply an implicit neoclassical framework. Alternative explanations are dismissed for their lack of empirical support and the claim that the evidence supports market adjustment predictions, at least in other countries (p. 111). Nonetheless, Lithwick's own data suggest otherwise.

The policy phases identified are an emphasis on national growth (1947-57), on agriculture and resource development (1957-63), on compensatory social policies (1963-68), on rational integration of components of the economy and of policy and theory (1968-73), on price shocks and provincial involvement (1973-81), and on national growth and particular sectors rather than regional development (since 1981). The general impression left is that the government was consistently doing the wrong thing. Diefenbaker needed macro, not development policies, with industrialization; Pearson needed development policies, not short term transfers; Trudeau applied the wrong theories, first with growth centres, later with resource megaprojects, and a "lack of appreciation of the need to deal with regions as integrated spatial components of the national economy" (p. 140). This should not be surprising, given Lithwick's basic assumptions that the market should be the principal mechanism for regional adjustment and that the major role of the federal government should be to use macro policies to achieve a strong and growing national economy to pull the regions along.

There are a number of inconsistencies in this analysis. While he claims that the post-war (and Korean war) boom brought prosperity to the "peripheral" regions, Lithwick's data show that these regions were in a worse position, relatively and absolutely, in 1957 than they were in 1947 in terms of unemployment rates and personal income per capita (p. 146). Similarly, while the national economy needed stimulation during the Diefenbaker years, it is also true that regional development begged attention; forty years of economic growth still leave many regions underdeveloped by Lithwick's own definition.

Lithwick's conclusion is totally consistent with his basic assumptions. Since the policy mix has failed, he proposes not radical policies but a radical change in approach (p. 143) with an emphasis on macro policies and market adjustments. He calls for an integration of the regions with the "mainstream of the nation's economy" (p. 143), by which he apparently means Central Canada. Some of the measures to achieve this recall Diefenbaker's "Roads to Resources"; all of them are intended to build the private market, not provinces.

The volume ends with two shorter articles on regional grievances. Ethier analyzes the Quebec case, examining structural policies and the question of net federal drain or gain, the "battle of the balance sheets". This is done by reviewing the literature on specific grievances—the St. Lawrence Seaway, the Borden Line oil policy, and the Auto Pact as structural policies. She begins by presenting three criteria for judging cost-benefits and shows that these criteria may lead to contradictory conclusions. For instance, a region may have greater benefits than costs from a policy but if the ratio is lower than that for another region it may still feel aggrieved.

The debate around the Seaway is extensively developed, with the arguments presented and critiqued. Ethier concludes that there is no clear support for a Quebec grievance using any of the criteria and there is evidence of a net gain on two of the three criteria.

The discussion of the Borden Line two-price oil policy brings out the contradictory nature of the arguments for a grievance: the price of oil was too high in Quebec, burdening the consumer; the price of oil was too low, preventing a switch to natural gas. Ethier also shows that there were other factors that might be responsible for the trends that fuelled the grievances over the two-price policy. She concludes that Quebec may have suffered under the job-loss criterion but generally does not have a strong grievance.

The section on tariffs and the Auto Pact is relatively short and the results mixed. It would appear that the Pact gave a net benefit to Quebec but it was smaller than that achieved by Ontario, although her data suggest that relative to its level of production in autos Quebec generally did better than Ontario. The balance sheet discussion is even briefer, and Ethier cites general agreement in the literature that the period of net drain from Quebec ended sometime before 1975.

Ethier concludes that the "most logical criterion for assessing the validity of a regional grievance is a regional cost-benefit ratio [that is, benefit/cost] greater than one" (p. 181). On this basis, there is little evidence of grounds for a Quebec grievance for the policies examined.

The final article is on the economic alienation of the Atlantic and Western (prairie) provinces, by Anderson and Bonsor. As with Ethier, the focus is entirely on federal policies. There is no attempt to examine grievances about the operation of the market system, such as the banks. The policies considered are tariff, transportation, and resource policy, each examined in the context of the theoretical and empirical literature.

Regional tariff burdens are examined via the Hecksher-Ohlin-Samuelson and Eastman-Stykolt models, which are contrasted to show the regional effects of tariff removal. The models are well deve-

loped, so that the range of empirical estimates can be put in the proper framework and evaluated. The effect of tariffs for the peripheral regions is finally placed in the range of 4 to 6 percent, "speculative" but "not unreasonable" estimates (p. 196). It is pointed out that these estimates are ten to twenty years out of date, and the recent GATT reductions in tariff levels will mean that these estimates can probably be cut in half (p. 197). In this context, it is noted that non-tariff barriers (NTBs) have now become much more significant. Given the random, even capricious, ways these are introduced, it is not surprising that no effort is made to assess their implications for regional incomes or efficiency.

The section on transportation shows that even a competitive transportation system would lead to price variations because of joint and common costs. Given that the system is not competitive, Anderson and Bonsor demonstrate that we can expect price discrimination, which will lead to justified regional grievances (p. 200). This impact will also vary with the nature of the products (for example, bulk vs. manufactured goods), which may add a further burden on the peripheral regions because of their economic base. The authors conclude that proposals for new pricing policies are "inherently flawed" from an efficiency point of view, in part because they would entail subsidies (p. 204). However, their subsequent discussion shows that subsidies are not automatically an indication of inefficiency. The section concludes with a discussion of the grain and maritime freight rate subsidies. They show that the removal of the Crow rate should have a small effect on the grain economy (p. 206) and that the highway and rail carriers have been the prime beneficiaries of the regulation and subsidization of transport in the Maritimes (p. 208).

The natural resource question raises issues of federal vs. provincial revenues and of property rights vs. interregional income distribution. There is a discussion of the resource revenues and equalization payments covered by Vanderkamp, but Anderson and Bonsor conclude that the case is not proven that migration can lead to inefficiency (p. 213).

This is an interesting presentation of the literature, with some useful critiquing of it. Anderson and Bonsor ultimately conclude that in all three policy areas there are reasons for regional grievances. In the case of tariffs and transportation the burden has been declining over time. Resource policy seems to have affected all the peripheral regions, including Quebec.

This volume of the Macdonald Royal Commission is useful if it does nothing more than present the conventional wisdom in a cogent fashion. Its weaknesses reflect the weaknesses of the neoclassical

model in those articles where no substantive consideration is given to the implications of non-competitive markets.

## References

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**Communities on the Way: Rebuilding Local Economies in the United States and Canada.** Stewart E. Perry. Albany, New York: State University of New York Press, 1987; 254 pages; \$14.95 (paper), \$44.50 (cloth).

Local or community economic development has existed, both in theory and in practice, for many years; its formal roots can perhaps be traced to the Antigonish Movement on and around Cape Breton Island during the Great Depression. Stewart Perry (the president of the Institute for New Enterprise Development in Cambridge, Massachusetts, a former health care professional and federal bureaucrat) picks up the story in the mid 1960s, with the simultaneous invention of the community development corporation (CDC) concept in a number of different black ghettos. He presents the story of how forgotten communities in Canada and the United States have taken up the struggle to reverse their economic problems. A wide variety of localities are considered by way of example: metropolitan inner city areas such as Hunts Point in New York City and Point St. Charles in Montreal; rural areas composed of small towns and villages such as northern Vermont and New Hampshire and parts of Cape Breton Island; and individual villages.

The principal message of the book is that community economic development (CED) is not fundamentally an economic phenomenon; rather, it is an institution-building process involving social, psychological, cultural and political components. Arguing that the field of CED has not yet been examined systematically and has not yet developed the well-rounded literature or detailed conceptualization of a "well-researched discipline", the author aims to present an introduction to the field in the hope that students of urban and rural planning and

development will critically examine this new community-based economic development strategy. This community-based approach is particularly important in that it is the missing element in current national economic policy concerns. Although not mentioned in the book, it is interesting to note that our own (and lamented) Department of Regional Economic Expansion gave serious consideration to adopting this approach in 1981-82, as did one of DREE's successive mutations—the Office of the Federal Economic Development Coordinator (a small element of the Department of Regional Industrial Expansion)—in the spring of 1987, just at the time at which the Prime Minister decided to dismantle it and its parent organization.

The book's thirteen chapters are divided into three sections. Part One begins with a chapter outlining the author's personal involvement in the field and tracing the emergence of CDCs as a direct reaction to inner city problems and the subsequent diffusion to rural areas. Here, too, we find the definition of a CDC: "A coalition organization of neighborhood residents to carry out their own comprehensive program of local renewal activities, especially including business development". In Canada, the formal concern with CDCs is said to commence with a conference at Dalhousie University in 1975. In neither the U.S. nor Canada has the CDC concept been readily accepted by government, due to its implicit view of poverty as a problem of communities rather than of individuals (a question of place prosperity rather than of people prosperity, to use the terminology of the Macdonald Royal Commission). Chapter 2 provides brief case studies of two early CDCs: the Hough Area Development Corporation in inner city Cleveland, and New Dawn Enterprises Limited of Sydney, Nova Scotia.

Chapter 3, "Rethinking the Basic Problem", presents the real conceptual base of the volume. In order to initiate a CED approach it is necessary to reject certain misconceptions (otherwise known as neoclassical economics) and to adopt an approach that emphasizes social, psychological, cultural and political factors. A poor community is maintained in its impoverished form by a "net of self-reinforcing processes and practices, both internal and external", and initiatives to break the cycle must address these at both levels. This chapter also contains a perceptive, if brief, analysis on the role of the banking system in CED—the notion that local savings are often deposited in institutions that do not make local investments. The centralization of the Canadian banking system is identified as being particularly non-conducive to CED.

Chapter 4, "Some Mistaken Strategies", is a useful analysis of some unsuccessful attempts to stimulate local economic development. Among the litany of poorly conceived attempts we find: the economic triage approach, and its specific manifestation in growth centre policies;

the notion that economic development is based primarily upon the development of business, manifested in the "beggar your neighbor", "boosterism", and "big bang" approaches; and the high tech gamble (or, in its more general form, the strategy of picking winners). All of these misplaced interventions are founded upon an ignorance of the importance and the reality of the concept of community. Chapter 5, "Compass Points for Action", stresses the social, psychological, cultural, political and institutional dimensions of CED, and provides some basic guidelines for more appropriate development strategies.

Part Two contains six chapters heavily laden with anecdotes, which describe various aspects of the design and implementation of CED strategies. Key topics reviewed include: relations with external organizations, including government; the internal organization of the CDC; the role of business development ("not the centerpiece but an essential element"); the role of infrastructure, both social and physical; sources of financial capital; and a nuts and bolts discussion of operational challenges. Of particular note in this section is one piece of wisdom on how to deal with the local bankers: "It is helpful to consider the banking community as if it were some kind of exotic South Sea culture—that is, its rules of behaviour are sometimes very hard to understand, rather odd, sometimes funny to those outside the culture, but worth knowing about if you want to get along with the natives" (p. 154).

Part Three provides the basis for policy options. Chapter Twelve presents a useful discussion of the problems involved in attempting to evaluate the performance of CDCs. After reviewing a number of CDC evaluations, the author concludes that: 1) there is evidence of a positive correlation between performance and the degree of community control; and 2) the CDC approach is "effective, but efficiency in the use of this strategy is threatened by inadequate attention to management skills." The final chapter examines the defects of national public policy in the area of CED, and stresses the need for "transcommunity" institutions to coordinate local coalitions.

On a stylistic level, there are several irritating features to this volume. First, chapters are rarely broken into sections or sub-sections; thus, the arguments become difficult to follow and give the (sometimes justifiable) impression that the author is rambling. Second, there is no bibliography; the authors and works referred to in the text are buried in "Notes and Sources" to each chapter, which are collected at the back of the book. Third, while the author's anecdotal approach serves to reinforce the general points being made, it often becomes difficult to follow the flow of the arguments.

Overall, this book will serve as a useful introduction to the topic of community economic development, although it is not the comprehen-

sive treatment that it promises to be. While the author is correct about the lack of a well-established literature in this field, he overlooks much of that which is available. The argumentation is often vague and simplistic, or based upon "motherhood statements", and it too readily dismisses economic approaches (which, admittedly, often deserve to be ignored). There are also certain errors of fact, such as the "relocation of Nova Scotia's steel industry to Halifax". Finally, it is curious and, in my view, incongruous that the author often downplays the information acquisition and the education, training, and human resource aspects of community economic development, placing his emphasis on physical infrastructure; this is an approach that is generally regarded as outmoded. In spite of these reservations, however, there is much useful information presented on a relatively undocumented topic.

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**Spatial Pricing and Differentiated Markets.** G. Norman, (ed.). London Papers in Regional Science 16. London: Pion, 1986; 190 pages.

The impetus for this collection of interesting papers rests on the recognized relationship between Hotelling's [1] work on spatial competition and Lancaster's [2] work on consumption theory under product differentiation. The two are related in that the spatial economy of Hotelling and the product differentiation of Lancaster both call for economic analysis focusing on monopolistic rather than perfect competition. According to the volume's editor, G. Norman, spatial economics is a fruitful avenue of approach to many problems of current interest in the new industrial economics of imperfect competition (p. 2). Most of the papers in this volume support its editor's assertion. At the same time this volume provides the less venturesome with a useful collection of recent work by a number of leading scholars in location theory.

The first paper, following the editor's introduction, is D. Neven's "Address' Models of Differentiation". This paper is well placed, because it provides a clear exposition of the analogy between product market differentiation and spatial economic problems. Neven describes two types of differentiation (p. 9). Vertical differentiation entails a consensus among consumers on the ranking of products, while horizontal differentiation denotes a lack of agreement on relative product quality among consumers. As drawn by Neven, the analogy between a horizontally differentiated market and Hotelling's spatial system is clear, with the variety of consumer preferences (characteristic space) simply translated into a variety of consumer locations (geometric space) in the

latter case. The product differentiation-spatial economy analogy also is well drawn by D. R. Capozza and R. Van Order in their analysis of "Spatial Competition with Cross-hauling". In addition, this paper shows the utility of location theoretic principles for the study of contestable markets, which currently is a primary area of interest among many American financial economists.

As might be assumed, much of this volume directly addresses the common problem of equilibrium in both product-differentiated and spatial markets. In "The Circle Model of Product Differentiation", S. P. Anderson relies heavily on an extended spatial market framework to show the difficulty of achieving market equilibrium under a number of pricing assumptions. In turn, the price equilibrium (or non-equilibrium) problem is considered by A. De Palma, and others, in "On the Existence of Price Equilibria under Mill and Uniform Delivered Price Policies." This paper raised a question in my mind concerning the full validity of the product differentiation-spatial economy analogy. That is, if products are very differentiated, is there a good analogy to a unified (that is, potentially competitive) spatial market?

This question is addressed, albeit implicitly, in two papers. The first is M. J. Beckmann's "Competitive Mill and Uniform Pricing", which discusses the optimum pricing rule of a firm in isolation and, in its treatment of social welfare, is comparable to at least one type of utility analysis in the product differentiation literature. The second paper, M. L. Greenhut's "On Demand Curves and Spatial Pricing", compares the effects of alternative demand functions on firm pricing rules in both spatial and non-spatial contexts. However, the question of the limits to the spatial economy-product differentiation analogy is best answered in G. Norman's "Market Strategy with Variable Entry Threats", which in my opinion is the best piece of the volume. Norman models the market strategy of a firm facing a punctiform rather than spatially continuous market. The separated submarkets are akin to vertical product differentiation rather than to the horizontal differentiation that is analogous to Hotelling's spatial market. Using this approach, Norman describes a world in which prices are not necessarily related to distance, but rather to the competitive conditions of industrial structure. This intriguing paper draws out the common ground that lies under much of location theory, aspatial differentiated market theory, contemporary international trade theory, and the theory of foreign direct investment.

The coupling of the spatial and industrial organization effects on firm pricing strategy over differentiated markets is examined in four additional papers. R. Rothschild uses a game theoretic approach to the analysis of credible determents to price cheating in "The Stability of Cartels in Spatial Markets". The competitive pricing conjectures of the

Hotelling and Lösch economies are applied by M. Waterson to the manufacturer-retailer relation in "Vertical Restraints on Retailers". The volume ends with two empirical analyses in this vein. Haining employs autocorrelation analysis in the examination of the pricing policies of British petrol outlets. In doing so, he defines both corporate and local competition factors that affect intraurban petrol price variation over space and time. Finally, C. M. Price, in "Regional Price Discrimination in the United Kingdom Gas Industry", describes the monopolistic British Gas Corporation's use of spatial price discrimination among the U.K.'s regional markets for natural gas. Both the Haining and Price contributions effectively illustrate the "real world" relevance of much of the theoretical work presented in this volume.

In summary, this collection of papers fulfils its purpose of demonstrating the efficacy of spatial contexts for the analysis of many types of imperfect competition; therefore, the volume should be of interest to mainstream economists, as well as spatial economists and regional scientists. In the past, most mainstream economists seem to have been put off by the imperfect competition—especially the monopolistic competition—of spatial economics. This attitude appears to be changing, and volumes such as *Spatial Pricing and Differentiated Markets* can go a long way towards convincing many economists of the utility of spatial models both within and without the spatial context.

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2. Lancaster, K. *Variety, Equity, and Efficiency*, New York: Columbia University Press, 1979.

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**Fuzzy Economics and Spatial Analysis.** Claude Ponsard and Bernard Fustier (eds.). Dijon: Institut de Mathématiques Economiques, 1986; 202 pages.

To begin with, it should be made clear that the volume under discussion is neither a "published" book nor a collection of published (and thus refereed) papers. Rather, it consists of several working papers from the Institut de Mathématiques Economiques in Dijon, of which a photo-reduced collection is periodically distributed by the Dijon university bookstore. The volume has been compiled by two of the con-

tributors, each of whom has two papers in this volume. This is the complete table of contents:

- A Theory of Spatial General Equilibrium in a Fuzzy Economy, by Claude Ponsard, 27 p.
- The Fuzzy Demand, by Bernard Fustier, 17 p.
- Contribution to a Mathematical Theory of Fuzzy Games, by Antoine-Bertrand Billot, 10 p.
- Spatial Oligopoly as Fuzzy Game, by Claude Ponsard, 11 p.
- Fuzzy Geographical Systems, by Christiane Rolland-May, 20 p.
- Regional Multicriteria Analysis and Influence Relation, by Louis de Mesnard, 38 p.
- An Algorithm for Fuzzy Classification: Application to Fuzzy Regionalization, by Christiane Rolland-May, 26 p.
- Fuzzy Centrality: An Empirical Approach, by Bernard Rouget, 24 p.
- Valuation of Transportation Durations with Fuzzy Numbers, by Bernard Fustier, 8 p.
- A Determination of Fuzzy Subjective Price, by J.-P. Delgado, 16 p.

Six of the ten papers have been presented at the first international Fuzzy Systems Association Congress at Palma de Mallorca in July 1985.

This reviewer is a mathematical economist; he is only vaguely acquainted with fuzzy sets. Sad to say, the papers did not help at all to gain access to that subject matter. Most of the papers are, of necessity, transmogrifications of standard mathematico-economic treatments; for example, Ponsard's paper on fuzzy general equilibria in space follows Debreu's tracks. But even familiarity with the underlying non-fuzzy theory is of little help. Why? All papers are written in the worst pseudo-English this reviewer has seen in a long time. Apart from the terrible syntax, English equivalents (or so the authors believe) of French fuzzy set notions have been chosen haphazardly, without care or accuracy. On top of that, typos abound. The resulting "fuzziness" is enough to prevent (at least for this reviewer) any judgement as to whether the underlying French papers contain pearls of wisdom, or whether the notion of fuzzy sets is not worth bothering with.

In summary, I think that decently written papers in French would be more understandable and useful. I also think that peer review should get its hooks into such collections earlier, not at the late date

when they arrive at a prestigious journal under a somewhat deceptive flag.

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**Comprendre et maîtriser l'espace : la science régionale et l'aménagement du territoire.** A. S. Bailly, B. Guesnier, J. H. P. Paelinck et A. Sallez. Montpellier, GIP Reclus, 1987; 176 pages.

La géographie économique d'un pays est en permanente évolution. L'histoire témoigne de ces multiples déplacements des localisations de population et d'activités. Tous les mouvements démographiques ou économiques de forte amplitude à la hausse ou à la baisse accélèrent ces processus. Ainsi, la forte croissance de trente années d'après la Seconde Guerre mondiale et la crise actuelle ont modifié et modifient en profondeur l'espace, donc le cadre de vie.

Appréhender ces changements qui touchent l'espace, en comprendre les causes et les conséquences, tel est l'objet de la science régionale, discipline souvent ignorée ou mal comprise. Ignorée, parce que « son influence est moins visible que celle des constructions architecturales ou des voies de circulation »; mal comprise parce que, par essence, pluridisciplinaire, et trop souvent confondue avec les actions volontaristes venant des pouvoirs politiques locaux ou nationaux.

Dans un petit livre d'une grande clarté, A. S. Bailly, B. Guesnier, J. H. P. Paelinck et A. Sallez se sont donné pour but d'éclairer un large public sur le rôle que jouent la science régionale et l'analyse spatiale. Le mérite de cet ouvrage n'est pas mince. À l'heure où les sciences économiques et sociales se plaisent exagérément à enfermer leurs travaux dans un hermétisme et une spécialisation à outrance qui empêchent toute communication en direction des « non-spécialistes », ils choisissent, eux, d'ouvrir les portes.

D'abord, dans leur intention de rompre avec la juxtaposition d'approches monodisciplinaires de l'espace, ils offrent un essai de lecture intégrée de l'espace. Le géographe, le sociologue, le politologue, l'économiste ont à dire sur l'espace, mais sont incapables isolément de donner des mouvements qui touchent l'espace une analyse cohérente. L'analyse que nos quatre auteurs font, parce qu'elle ne se contracte pas dans un champ disciplinaire précis, mais au contraire fait appel à l'ensemble des disciplines de référence, donne une vision plus juste de la science régionale et de sa pratique. Sans doute, les spécialistes pourront regretter telle ou telle approximation. Mais ce que l'on perd en précision parcellaire, on le gagne en compréhension générale.

Ensuite, ils ont la volonté de montrer le lien qui existe entre la science régionale et les grandes décisions politiques d'aménagement du territoire et d'urbanisme. Autant il est fâcheux de voir la science régionale confondue avec les politiques spatiales, autant il est heureux de bien mettre en évidence que celles-ci ne sont pas indépendantes de celle-là. L'analyse de l'espace, plus sans doute qu'aucune autre branche des sciences économiques et sociales, a fourni aux politiques des instruments pour aider à la décision, pour prévoir les effets et les conséquences de celle-ci, et pour contribuer à corriger « les inégalités historiques » incompatibles avec la recherche d'un équilibre social stable. À cet égard, les auteurs montrent bien sur quels fondements s'appuient les aménagements urbains et spatiaux. Ceci est particulièrement bien exposé dans le chapitre consacré à l'évolution des villes.

Enfin, ils sont soucieux de ne pas se limiter à un pays et de s'attacher à une analyse comparative. Toutefois, c'est peut-être là que le livre présente quelques faiblesses. Si pour ce qui concerne l'urbain l'aspect comparatif est clair, il n'en est pas toujours de même pour ce qui concerne l'aménagement du territoire et la planification régionale. Dans ces deux domaines, on aurait aimé trouver plus d'exemples et de références extra-européennes, pour ne pas dire extra-françaises. L'absence totale ou quasi totale de l'analyse des procédures nord-américaines, japonaises ou à l'œuvre dans certains pays en développement rapide est, à cet égard, regrettable.

Ce défaut, dû certainement à l'obligation de se limiter dans un ouvrage destiné à un large public, ne doit pas occulter les mérites et la qualité de la présentation dont l'utilité est évidente.

Le livre est composé de quatre chapitres. Le premier est une présentation générale de la science régionale. Le second est consacré à l'évolution urbaine. Le troisième porte sur l'aménagement du territoire. Le quatrième tente de discerner ce qui relève ou non de la planification régionale.

Comme on le voit, ce livre sera très utile à tous ceux qui veulent s'initier à la science régionale sans se restreindre à un aspect particulier de cette discipline.

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**Innovation technologique et redéploiement industriel régional : un outil d'évaluation et d'analyse.** Michel Mignolet. Namur, Belgique, Presses universitaires de Namur-Éditions régionales européennes, 1986; 282 pages.

L'avènement des technologies nouvelles apparaît à beaucoup comme le moyen privilégié d'assurer la reconversion de tissus industriels vieillissants et le redéploiement industriel régional. Ce sentiment qui alimente le discours politique traduit une espérance, exprime parfois une intention et contribue à la mise en place d'actions volontaristes publiques ou privées. Mais à quelles conditions un tel redéploiement est-il possible ? C'est à cette question qu'a voulu répondre Michel Mignolet.

On comprend l'importance du sujet pour les économies industrielles vieillissantes, taraudées par le spectre du déclin et du chômage. L'objet du livre n'est pas de présenter le nième discours sur la nécessité de l'adaptation ou sur les possibilités fantasmées ou non de la reconversion. Il est « de présenter un outil d'évaluation et d'analyse du potentiel de reconversion que recèle un tissu industriel et d'en montrer la pertinence sur un ensemble de données » (p. 2). Autrement dit, le livre de Michel Mignolet décrit la construction d'un instrument permettant d'évaluer les possibilités qu'a une région ou en ensemble spatial d'amorcer et de réussir une reconversion industrielle.

L'approche qu'il propose est originale à plusieurs niveaux. En premier lieu, elle est globale au sens où il tente « de couvrir l'ensemble du processus de reconversion », sans privilégier tel ou tel élément comme il est généralement fait. Dans son analyse, chacun des éléments se nourrit de l'autre. Dès lors — et c'est la seconde originalité —, il décompose le processus de reconversion en segments caractéristiques qui constituent les chaînons du processus lui-même. Trois segments sont pris en compte : l'idée novatrice, l'investissement d'innovation et le choix de localisation de l'investissement; cela permet de saisir le cheminement qui va « du stade de l'idée novatrice à celui de son aboutissement dans un investissement localisé ». En troisième lieu, pour traduire ces caractéristiques de manière synthétique, l'auteur a bâti un modèle probabiliste qui identifie, pour chacun des segments (accès à l'idée, accès à l'investissement et accès à la région), « les déterminants objectifs (composant l'accessibilité) et comportementaux (composant la réceptivité) qui en conditionnent le succès », à l'aide d'indicateurs multiples. Il s'agit donc d'une approche probabiliste et inductive.

Le livre est composé de deux parties. Dans la première partie sont présentés les aspects théoriques sur lesquels est fondé l'outil d'évaluation. C'est une partie très intéressante, dans laquelle l'auteur fait un vaste tour d'horizon des théories sur les causes du renouvellement des structures industrielles et des disparités régionales, dont il sélectionne celles qui lui paraissent les plus pertinentes et qui relèvent en général de la théorie économique. À ce niveau, on peut toutefois regretter que, malgré un rappel des travaux de J. Schumpeter, il ne soit pas plus fait référence aux travaux récents des schumpétériens qui, sur des points très proches, ont présenté des analyses pertinentes. On pense en par-

ticulier à F. M. Scherer, qui reprend dans « Innovation and Growth » (1984) un certain nombre d'articles parus dans les années 1970.

Dans la deuxième partie, l'auteur applique la méthodologie à l'analyse de trois micro-bassins industriels belges. De cette application, il tire des considérations quant à l'action politique à conduire. La description de l'enquête menée auprès des dirigeants d'entreprises éclaire de manière pertinente le travail antérieur de formalisation. Mais on peut s'interroger sur la faisabilité d'une telle enquête et sur sa pertinence. Cela est sans doute dû au peu de précisions apportées quant à l'échantillon; mais l'auteur, avec à-propos, renvoie à des travaux complémentaires dont son ouvrage est tiré. Des résultats obtenus, on ne peut dire grand-chose compte tenu d'une méconnaissance de l'économie belge. Cet ouvrage semble toutefois fort cohérent avec l'objectif visé au départ et d'une grande utilité pour engager des politiques économiques efficaces.

Compte tenu de la situation difficile que connaissent les économies industrialisées, du bouleversement des situations régionales, ce livre constitue un apport essentiel. La méthode que Michel Mignolet a construite est générale. Elle peut être appliquée et adaptée à de nombreux terrains. À ce titre, c'est une importante contribution à l'approfondissement d'un sujet déterminant aujourd'hui et souvent analysé de manière ponctuelle ou superficielle.

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**L'Entreprise alternative : mirages et réalités.** Harold Bhérer et André Joyal. Montréal, Éditions coopératives Albert Saint-Martin, 1987; 134 pages; 10,95 \$.

Cet ouvrage porte sur « un objet presque insaisissable »; les auteurs le reconnaissent dès la première ligne de l'introduction. Et ils continueront d'avouer tout au long du volume que leur enquête auprès des entrepreneurs alternatifs québécois leur a donné du fil à retordre. Ils ont eu du mal à « identifier, classer, répertorier » l'entreprise alternative et à « déterminer son importance dans l'économie québécoise », mais leur effort fournit néanmoins d'intéressants résultats sur le plan des approches efficaces (et inefficaces) dans ce champ particulier de recherche.

Un tiers du texte (l'introduction et la première moitié du chapitre I) sert à présenter l'objet d'étude et les difficultés qu'on a à le cerner en raison de sa nature particulière. Le principal problème rencontré par les chercheurs est celui-là même qui pose difficulté au cheminement des entreprises étudiées. Il s'agit de l'imprécision du lieu théorique

alternatif : positionnement ambigu au sein de la société moderne d'un mouvement animé par des valeurs contradictoires. La seconde moitié du premier chapitre présente une vue d'ensemble de la situation des entreprises alternatives au Québec. La question du développement régional, même si elle n'est pas abordée comme telle dans cette étude, s'y trouve cependant alimentée. En effet, on note que les entreprises observées appartiennent surtout à deux secteurs : le secteur tertiaire (localisé surtout en milieu urbain) et le secteur primaire (qu'on retrouve principalement en milieu rural). Ce constat, qui peut paraître banal à première vue, révèle cependant la présence de deux « modèles » d'entreprises alternatives. En milieu urbain, la préoccupation pour le produit et l'instauration d'un nouveau rapport entre le producteur et son produit caractérisent l'idéologie alternative. En milieu rural, l'exploitation des ressources locales et la préoccupation pour les méthodes employées (retour aux méthodes traditionnelles ou exploration de méthodes douces) semblent être la « marque de commerce » du modèle. D'une façon plus générale, l'importance que l'entreprise alterante peut prendre dans certaines régions donne à ce livre son importance puisqu'il tente de cerner les forces et les faiblesses de ce type particulier d'organisation.

Le deuxième chapitre évalue plus spécifiquement l'aspect « entreprise » de l'alternative québécoise en cherchant notamment à identifier ce qui la caractérise en termes de taille des entreprises, de nombre d'emplois créés, d'échelle des salaires et d'âge moyen des partenaires. Ces paramètres généraux identifiés, les auteurs se penchent sur les champs d'activités dans lesquels les entrepreneurs alternatifs s'impliquent. Une répartition de l'échantillon par type d'activité en résulte et sert ensuite de trame à la description des autres éléments retenus pour caractériser le volet « entreprise » des organisations étudiées, tels les motifs qui ont suscité leur émergence, leur fidélité aux objectifs initiaux et, enfin, leur « santé » financière. Une attention particulière est donnée en deuxième partie de ce chapitre à la structure juridique adoptée par l'entreprise alternative québécoise. Les auteurs cherchent à identifier les facteurs qui font opter pour la forme corporative « à but lucratif », pour son parent « sans but lucratif » (OSBL) ou encore pour la formule coopérative.

C'est à la description de l'aspect alternatif des entreprises que le troisième et dernier chapitre du livre est consacré. Après avoir ciblé certains caractères de l'alternatif (motivations de départ, objectifs poursuivis, processus décisionnel, nature des biens et des services), les auteurs attribuent aux entreprises un score ou un « degré d'alternativité » pour chacun de ces critères. Les expériences observées sont ainsi mesurées selon leur « degré d'engagement social », puis classées en une « typologie des entreprises alternatives ».

En somme, les connaissances apportées au terme de cette étude ne surprendront ni les sociologues des mouvements sociaux ni les spécialistes de la petite et moyenne organisation. Peut-être même regretteront-ils que certains des résultats de l'enquête — dont l'une des principales forces réside dans ses aspects qualitatifs — ne soient divulgués qu'en toute fin de parcours dans une conclusion très riche en réflexions sur les particularités de l'esprit « alternatif » d'entreprise. Patience, les auteurs nous annoncent déjà un autre ouvrage dans lequel seront abordés les « facteurs réels de succès et d'échec de l'entreprise alternative ». Le chemin laborieux qu'ils ont tracé dans ce champ de recherche servira de piste aux suites qu'ils nous promettent... ainsi qu'à celles des autres chercheurs qui s'aventureront dans ce quasi-désert théorique où l'alternative se présente parfois comme un mirage aux mille promesses, et parfois comme une dure réalité à vivre.

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