

BORDER REGIONS: A CRITIQUE OF SPATIAL THEORY AND A EUROPEAN CASE STUDY

Niles Hansen*

Abstract

In Europe and North America increasing attention is being devoted to the special problems of border regions. This paper critically summarizes the nature and significance of location theory and the growth pole literature with respect to border region issues and policies. It is argued that neither of these approaches has succeeded in formulating a satisfactory theory of border regions. The tri-national Alsace-Baden-Basel area is examined in some detail for insights that should be instructive in developing such a theory. A number of implications for border region analysis are suggested. In contrast to the prevailing view in the relevant literature, the advantages of border regions are stressed over the disadvantages.

I. Introduction

In Europe and North America increasing attention is being devoted to the special problems of border regions, which may be defined as subnational areas whose social and economic life is directly and significantly affected by proximity to an international frontier. This paper critically summarizes the nature and significance of location theory and the growth pole literature with respect to border region issues and policies. The tri-national Alsace-Baden-Basel area is considered in some detail because it has become a focal point for several trends or tendencies toward change which are being experienced in varying degree by border regions throughout Western Europe and elsewhere. These include increasing international economic integration, the revival of regional ethnic and linguistic communities, and pressures to decentralize political and economic decision-making processes within countries. The concluding section suggests a number of working hypotheses that could prove useful in further research on border region economies.

II. Location Theory

A. Border Region Disadvantages

Neither Christaller nor Lössch developed a systematic theory of border regions. Nevertheless, both scholars tended to regard them as disadvantaged

*The author is with the International Institute for Applied Systems Analysis, Austria.

areas because of international barriers to trade and the threat of military invasion.

In terms of Christaller's analysis, central place systems may be organized according to either of two now-familiar economic rationales, the market principle or the traffic principle. But it is especially relevant in the context of border regions that Christaller [7, pp. 77-80] also recognized a third system of spatial organization based on the "sociopolitical separation principle." This system arises when there are strong notions of community and of defense and protection. The determination of its exact laws lies in the domain of theoretical political geography, but Christaller [7, p. 80] held that the separation principle "has neither the authority nor the rationality of the economic principles, but it has the authority of stately and sovereign might."

Border regions may be fragile in Christaller's scheme because national frontiers artificially cut up spatially complementary regions. Christaller [7, pp. 95-96] further maintained that capital costs have great importance in the development of central places because they primarily determine the lower range limit of central goods, and particularly those with a high proportion of capital costs to total costs. In unstable border areas capital costs would contain a high risk premium and consequently goods would have to be sold at higher prices. This in turn would lead to a transfer of consumption to other central places. Central places on unstable borders will thus have relatively small complementary areas and limited development. Of course, cities may grow on national borders for defensive purposes but they may have only fractional hinterlands. Or cities that once had a large complementary region (e.g., Vienna before the First World War) may lose most of their market areas when drastic political boundary revisions take place (e.g., Vienna after the First World War). Although Christaller [7, p. 79] illustrated a possible system of central places according to the separation principle, the only general conclusion to be drawn when this principle is operative is that many more central places will be required to supply a region with central goods than would have been the case if the economic principles had been followed.

Lösch [21, pp. 199-200; see also pp. 445-451] also realized that border regions may have special problems because of conflicts between political and economic goals. The goals of economic landscapes are, in order of priority: prosperity, Kultur, power, and continuance. However, the political goals of the nation-state have exactly the reverse order. In this context Lösch noted a number of specific difficulties that arise in border regions because of political boundaries. First, tariffs separate economically complementary market areas; second, differences in language, customs and national character have the same effect as customs duties; third, public contracts and "official traffic" do not cross the border; and fourth, border areas are the most threatened in military terms.

In contrast to Christaller and Lösch, Giersch [13] developed a theory of location that was primarily intended to explain the consequences of political boundaries. Giersch argued that the lower the costs of transportation of a product and the greater the internal economies of large-scale production, the larger will be the market areas and the fewer the firms that will emerge. What is

particularly significant is that the larger the market areas the fewer will be the entrepreneurs who choose a location near the frontier. There is a network of markets for every commodity but the whole system of networks tends to become denser in the center than at the extremities. When capital growth, internal and external economies (due to indivisibilities), and rent-lag are introduced into the model, the advantages of the favored location cumulate, an agglomeration center necessarily appears, and the spatial distribution of economic activities acquires a cone-like shape. Thus, in Europe, for example, political boundaries and national agglomeration have produced a form of international deglomeration. The European distribution of industries is broader than that of the United States, with its unitary market, but the resulting pattern has been unfavorable for European border regions.

B. Border Region Advantages

Despite the generally unfavorable picture, location theorists have recognized that border regions may have some advantages. Christaller [7, p. 46] noted that central places on stable political boundaries may benefit from the development of trading activity at the border, the storage of goods, and earnings derived from the collection of duties, even though they may have no, or almost no, complementary region. For some central goods, e.g., concerts and dining, the border may not be an impediment, in which case the complementary region has the ideal form of a circle that may extend far into the neighboring country.

Lösch [21, pp. 382-388] pointed out that border regions may benefit from trans-frontier investments made in order to avoid customs duties. Thus, Swiss entrepreneurs had long established branches in German border regions for this reason, although lower wages may also have been a motive. Headquarters were maintained in Switzerland to save on taxes but branches could be readily managed from the home office, Swiss key personnel employed, and contact with Swiss financial backers maintained. Similarly, Lösch argued that many branch plants of U.S. firms would never have been established in Canadian border areas in the absence of a political frontier.

In terms of Giersch's analysis, international economic integration would weaken the international deglomeration effects of national agglomeration. Within a European Common Market, for example, particular regions would tend to gain economically because of their location near the industrial center. But it is difficult to speak here of border region advantages because the areas in question would in fact no longer be border regions.

III. Growth Pole Theory

Growth pole theory emphasizes that international and interregional inequalities are an inevitable part of the development process. It maintains that analysis of sustained growth of total production should concentrate on the process by which various activities appear, grow in importance, and in some cases disappear, and it emphasizes that growth rates vary considerably from sector to sector. Entrepreneurial innovation is given a prominent place in explaining the

origins of the growth process, which takes the form of a succession of dynamic sectors, or poles, through time. A particularly regional flavor has been given to the pole concept by emphasizing that growth is concentrated in various spatial loci as well as in certain leading industrial branches. A great deal of attention is given in this context to the importance of economies of scale and to larger considerations of external economies of agglomeration. In the past two decades a large theoretical literature has evolved around these notions and growth center policies (usually intended to induce growth in lagging regions) have been adopted by planning authorities all over the world, although the extent to which they have been influenced by growth pole theory has varied considerably (see, for example, Hansen [15], Kuklinski [20] and Moseley [23]).

An influential French literature maintains that the growth pole approach is instructive in the study of border regions. Much of this literature is concerned with the Franco-German-Swiss border area, and particularly with the French region of Alsace in relation to the contiguous German region of Baden and the neighboring Swiss metropole of Basel. The dominant theme is that Alsace is in a more or less threatened economic position vis-à-vis Baden and Basel.

Gendarme [12] argues that the main consequence of a political frontier is to check the spread effects (effets de diffusion) of a development pole. The latter will not have the same strength in inducing other activities that they would have had inside a national space. He calls particular attention to situations where "zones of underdevelopment" on one side of the border co-exist with "zones of overdevelopment" on the other. This phenomenon, which he describes as an "incomplete development pole," is a result of such factors as customs barriers, failure to take advantage of complementary natural resources, a tendency for transportation routes to run parallel with borders rather than across them, and supply and demand problems with respect to labor market integration.

Gendarme recognizes that investments are made across a border in order to penetrate a foreign market and still maintain control of operations from a position of proximity in the country of origin. However, he regards such investments as exceptional in the total scheme of things; more significant is the tendency of countries to react negatively, for narrowly nationalist reasons, to foreign investments. Moreover, within nations capital mobility has worsened the economic situation in border regions. A "fortress mentality" has led to stagnation because industrialists refuse to invest in threatened areas, with the exception of activities related to national defense or when essential resources (iron ore, coal) are found there. For such reasons a region such as Alsace could be regarded as having experienced World War Two already in 1933. (Similarly, Lorraine's lack of investments in manufacturing activities related to the steel produced there can be attributed to the region's proximity to Germany. In fact, in the 1930s some plants originally located between the Maginot Line and the Siegfried Line were dismantled and reassembled in central France.)

Urban [29] also has examined the evolution of the Alsace-Baden-Basel area in terms of growth pole theory but, in contrast to Gendarme, stresses that the spread effects of growth poles override political boundaries, in this case allegedly to the detriment of Alsace. Boudeville [3] takes an intermediate position concerning the impact of a border on spread effects, but he [4, p. 232]

argues nonetheless that a multi-nodal growth pole should be developed in southern Alsace "in order to balance Basel's dangerous polarization at the junction of the Rhine and the Swiss plateau."

IV. A Summary Critique of the Location and Growth Pole Theories in a Border Region Context

Although many of the peculiarities of border regions have been clearly recognized by location theorists, it is difficult to derive policy implications from their models because they neglect the development process. Problems common to border regions--disparities in growth rates, commuting and migration of workers across frontiers, lack of coherence in social and economic infrastructure, differing planning contexts, etc.--are not amenable to solutions flowing directly from location theory because it has not been concerned with policy paths that could be followed in order to realize economically rational market structures.

Growth pole theory developed in part as a reaction against static location theory. However, because it provides few insights into border region problems that are not found already--at least implicitly--in the older literature, it is difficult to see what is to be gained by adopting its often imprecise jargon. Berry [2, p. 108] has argued that since the growth pole approach is "sadly deficient" in terms of theory it should be subsumed under the more general hierarchical diffusion model of regional development. According to this model, growth-inducing innovations are transmitted simultaneously from higher to lower order centers in the urban hierarchy and outward from urban centers into their surrounding hinterland areas in the form of radiating spread effects. But Pred [25] has convincingly demonstrated that these assumptions are mistaken; moreover, the disappointing record of growth center policies that have been implemented in many countries reinforces this position.

Although Alsace-Baden-Basel has been the principal border area examined in the growth pole literature and although it also has attracted the attention of location theorists, notably Lösch [21, pp. 383, 449], neither of these approaches has succeeded in formulating a satisfactory theory of border regions. It will be argued in the remainder of this paper that this tri-national area nevertheless provides insights that should be instructive in developing such a theory.

V. Alsace-Baden-Basel

A. The Importance of Basel

The economy of Basel is characterized by an internationally important tertiary sector (banks, insurance companies, trade, transportation) and by an industrial sector oriented toward rapidly-growing, high-technology activities (chemistry; machine construction, graphic arts). Hoffmann-La Roche, Ciba-Geigy and Sandoz, the giants of Basel's chemical industry, ranked second, fifth, and seventh among the world's leading pharmaceutical companies in 1974. The three groups together have well over 200 production and processing plants

outside Switzerland and nearly three times as many persons employed abroad as at headquarters [18, p. 13]. The dynamism of the local economy is supported by close collaboration between the University and industry, sustained scientific research efforts, and a marked capacity for technical and commercial innovation (see Urban [29]). Using 1965 data (still the most recent relevant data available at this writing), Gaudard [11, p. 657] remarks that "Basel had a per capita social product of Fr. 11,610 compared with the Swiss average of Fr. 8430, which placed it at the first rank in the Confederation. Geneva, with Fr. 10,165, came next. These two border cantons thus preceded Zurich (Fr. 9755), whose reputation for wealth is generally recognized."

Physical geography has limited Basel's territorial spheres of influence within Switzerland but its economic influence extends well into southern Alsace and Baden. However, it is noteworthy that along the entire Swiss frontier, Swiss cities exert influence on foreign territory whereas the converse situation is practically non-existent. This suggests that the reasons for Basel's regional pre-eminence are to be found in large part in the more general context of Swiss development, and here the border has played a significant and positive role. In the sixteenth and seventeenth centuries Basel and Geneva welcomed thousands of religious and political refugees from France; their knowledge, initiative, and capital played an important part in local economic development. Down to the present day the Swiss border has provided security for people and, together with the stability of the Swiss franc and the discretion of Swiss bankers, security for capital. Moreover, Switzerland is crossed by a number of major international trade routes. Border cities have benefited from the development of service activities oriented toward international transit, as well as from the intensity of Swiss foreign trade, which accounts for about 2 percent of all global exports (see Gaudard [11]).

In view of these considerations Basel's importance cannot simply be explained by the city's position in a regional, national, or even international urban hierarchy. Rather, it is a result of complex historical, geographic, political and economic factors, both internal and external, which have operated in the context of a stable border situation. Moreover, the significance of this stability has been enhanced during periods of international instability elsewhere in Europe.

B. Alsace as a Border Region

Within the French national context Alsace is generally regarded as one of the more developed regions. The data presented in Table 1 support this view. For most of the economic indicators shown Alsace fares better than France as a whole. Alsace's somewhat lower values for per capita gross disposable income and residential and tertiary energy consumption reflect the great weight of the Paris region. In the general setting of France's 21 program regions, the rank of Alsace is relatively high for every variable.

However, as the growth pole literature illustrates, Alsace is regarded as a weak region when compared with neighboring German and Swiss regions. One manifestation of this position is the flow of daily commuters who take advantage

TABLE 1

SELECTED ECONOMIC INDICATORS FOR FRANCE AND ALSACE

	France	Alsace	Rank of Alsace ¹
Gross Domestic Product			
Per Capita, 1970	15,400 F.	15,600 F.	4
Gross Disposable Income			
Per Capita, 1970	11,100 F.	10,600 F.	4
Percent of Population Residing in			
Urban-Industrial Zones, 1968	79.0	90.7	5
Residential and Tertiary Energy			
Consumption (KWH) Per Capita, 1973	1060	1005	7
Percent of Households with			
Refrigerator, 1974	88.5	92.6	1
Percent of Households with Washing			
Machine, 1974	68.7	75.8	3
Percent of Households with			
Television, 1974	82.4	85.1	3
Percent of Households with			
Automobile, 1974	62.7	67.0	5

Note: ¹Rank refers to the place of Alsace in the array of France's twenty-one planning program regions.

Source: Institut National de la Statistique et des Etudes Economiques, "Statistiques et indicateurs des régions françaises," Les collections de l'INSEE, série R, No. 19-20, November, 1975, pp. 20, 53, 264, 270.

of higher wage levels across the Rhine. Their number increased from 8800 in 1952 to 14,500 in 1968 to 31,200 in 1974; the corresponding figures for international commuters as a proportion of employed Alsatian residents were 1.6 percent, 2.6 percent, and 5.4 percent, respectively. The census of 1975 indicated that Alsace had more international out-commuters than any other French region. In southern Alsace, these frontaliers, who nearly all worked in Switzerland, accounted for 6.4 percent of the employed residents. In more populous northern Alsace the comparable figure was 3.2 percent, though in fifteen communes the proportion working in the Federal Republic of Germany (FRG) was greater than 30 percent (see INSEE [17]). This fluidity, which is virtually a one-way street, is not without its problems. For example, early in 1966 wages on the German side of the border were 21 percent higher than on the French side; many Alsatian firms felt that as a result they were losing needed skilled workers to German firms. In contrast, during the 1966-67 recession many Alsatian workers in Germany were affected by lay-offs (see Gendarme [12, p. 897]). The recession of the mid-1970s had a similar effect. The number of frontaliers going to both the FRG and Switzerland declined to 29,300 in 1975 and to 27,200 in March of

1976. However, it was expected that international commuting would resume its long-run upward movement when the cyclical situation improved, especially in view of the age structure of commuters. In 1975, 64 percent of the frontaliers were in the relatively mobile 20-35 age-group, whereas only 40 percent of the Alsatians working in Alsace were in this age-group (see INSEE [17, p. 33]).

A survey carried out in 1965 indicated that the four principal causes for international commuting from Alsace were, in order of importance: (1) higher wages in the FRG and Switzerland; (2) the threat of unemployment in Alsace; (3) insufficient transportation facilities in Alsace; and (4) better working conditions across the Rhine (see Urban [29, p. 619]). It should be noted that the devaluation of the French franc in relation to the German mark and the Swiss franc in the early 1970s increased the economic incentive for Alsatians to commute to work across the Rhine. In view of these considerations it is not uncommon to find complaints in France that the rapid growth of Baden and Basel represents a brake on the expansion of Alsace, because their growth deprives Alsace of skilled workers. But then one must ask why employment-inducing investments are not greater in Alsace. Productive investments in Alsace certainly were hindered for a long period by the fact that it was a border region on an unstable frontier. As a result of the Franco-Prussian War (1870), Alsace became a part of Germany just when its linkages with the rest of France were beginning to bring significant economic benefits. By the turn of the century, when the Alsatian economy was finally becoming integrated with that of Germany, the events that culminated in the First World War put a check on German investments in the region. In 1918 Alsace returned to France, but the fortress mentality of the interwar years and the Second World War itself were highly detrimental to the region's development. Traband [28, pp. 401-402] points out that "each regime brought its wave of investments but none had sufficient time to realize development potentials. This progression in spurts explains why Alsace has so many small and medium-size firms but few with more than a thousand workers."

Private investment in Alsace is no doubt inhibited by deficiencies in public infrastructure. In contrast to neighboring cities such as Karlsruhe and Basel, which contain numerous specialized services and corporate decision centers, the development of the tertiary sector in Alsace suffers from a lack of telecommunications facilities. The road network in Alsace badly needs improvement, whereas the regions across the Rhine are closely linked to an express highway system serving the industrial heartland of Europe. Moreover, banking and financial facilities are more numerous and more powerful in Baden and Basel than in Alsace. Despite these and similar problems, a study by Prud'homme [26] indicates that Alsace has been "clearly disfavored" by central government regional policy (see also INSEE [16, p. 342]).

In the past two decades a high proportion of new industrial plant locations in Alsace has been generated by foreign investments. Between the beginning of 1955 and the end of 1973, 204 plants in Alsace were either newly located by or purchased by foreign investors (see Table 2). Foreign investment accounted for nearly one-half of the new firms in the region during this period.

Firms which were primarily controlled (over 50 percent ownership) by

TABLE 2

**NEW INDUSTRIAL FIRMS AND INDUSTRIAL EMPLOYMENT IN ALSACE
ATTRIBUTABLE TO FRENCH AND FOREIGN INVESTMENTS, 1955
THROUGH 1973**

Origin	Number of Firms	Percent of all New Firms	Number of Jobs	Percent of all New Jobs
1. FRENCH	214	51.2	37,877	57.6
2. FOREIGN				
F. R. G.	106	25.4	14,098	21.4
Switzerland	37	8.8	3,234	4.9
U. S. A.	16	3.8	5,016	7.6
Great Britain	3	0.7	886	1.4
Canada	2	0.5	730	1.1
Belgium	2	0.5	65	0.1
Other	3	0.7	357	0.5
Total	169	40.4	24,386	37.1
3. MIXED FRANCO- FOREIGN	31	7.4	3,359	5.1
4. MIXED FOREIGN	4	1.0	170	0.3
GRAND TOTAL	418	100.0	65,792	100.0

Source: Derived from Association de Développement et d'Industrialisation de la Région Alsace, *Les Investissements étrangers en Alsace*, Strasbourg: ADIRA, 1974, p. 2.

foreign investors accounted for about 28,000 new jobs during the 1955-73 period. These jobs represented 42 percent of newly-created employment and nearly 11 percent of total employment in the region in 1973. In terms of new jobs created, the most important sources of foreign investment were the FRG (21.4 percent), the United States (7.6 percent) and Switzerland (4.9 percent). Foreign investment was especially significant in southern Alsace, accounting for 61 percent of new employment. In northern Alsace the corresponding figure was 30 percent; in this area the weight of large French firms such as Peugeot, Citroën, and Rhône-Poulenc dampened the role of foreign investment.

Foreign investments in Alsace have been largely responsible for the growth of the chemical and plastic materials sectors, and, more recently, the electrical equipment and electronics sectors. Their role has been fundamental in the diversification of regional industry. German investments have been made in a wide range of activities but their predominance is especially great in such traditional branches of Alsatian industry as textiles, leather products, and wood products. American and Swiss investments, on the other hand, have been highly concentrated in high-productivity plants in the electrical equipment, electronics, chemical and plastics sectors (see ADIRA [1]).

It is noteworthy that German and Swiss investors (as well as those in

Belgium and Luxemburg) tend to view investments in France as an extension of their enterprises beyond national frontiers. They usually acquire stock in existing firms or buy them outright; the extensions are traditional whether viewed from a sectoral or a regional perspective and they often are made because of labor shortages at home. This contrasts with the behavior of investors from non-contiguous countries such as the United States, Great Britain, and the Netherlands; they tend to consider the whole of France, but the specific decision concerning where to locate is made in the context of an European network of production and an attempt is made to minimize production costs in the individual plant. Essentially, what one is dealing with here is the large, innovative multinational corporation more concerned with setting up new establishments than with geographic extensions of traditional activities (see DATAR [8, pp. 25-28]).

When both international commuting and foreign investments are taken into account it is apparent that the Alsatian economy is closely linked to those of her contiguous foreign neighbors. On the other hand, a study by DATAR [8] indicates that investments in Alsace from other, non-contiguous foreign countries, while far from negligible, do not set the region apart from other French regions in any significant way. If the Alsatian economy is less strong than those of Baden and Basel, Alsations nonetheless benefit economically from their proximity to these areas. The notion that Alsace is threatened economically or politically by foreign neighbors is outdated. Indeed, the greatest economic threat appears to be neglect by Paris, which is reluctant to see Alsace become more thoroughly integrated into the Rhine axis extending from the North Sea to Switzerland. As many authorities point out, this space is the dynamic backbone of the European Community (see DATAR [10, p. 34], Juillard [19], Nonn [24, pp. 3-13], and Urban [29, pp. 623-629]).

As remarked earlier, Alsace has been disfavored by French regional policy; but there is an even more fundamental issue here, namely, that of national administrative structures and their impact on regional economic initiatives. In the FRG a great deal of autonomy is accorded the various states (Länder) and despite regional disparities there is a remarkable degree of geographic balance in the overall development of the country. (The relatively dispersed network of cities and industrial activities is a consequence of the fact that Germany was not a centralized state at the time of the first industrial revolution, but rather a loose confederation of autonomous states.) Income from taxation is divided among the central government, the states, and the municipalities. The last are free to dispose of their funds as they see fit; in addition, they benefit from easy access to financial markets. Management of local government is facilitated because their financial resources are known in advance. Decentralized decision-making also favors rapid adaptation to the requirements of social and economic development. The autonomy of local governments in Switzerland is even more pronounced (see DATAR [9, p. 126] and Urban [29, p. 623]). One of the principal obstacles to meaningful regional planning in France has been its vertical and hierarchical system of public administration; each ministry has its central administration in Paris and exterior services in the provinces. Despite recent reforms favoring decentralized decision-making, Maugué [22, p. 44] concludes that "it increasingly appears that a true

regionalization is needed if Alsace is to be able to exploit her advantages. The Alsatian economy will never be able to compete with bordering Rhine regions until she can exercise--as the German states and the Swiss cantons--a high degree of autonomy of action, which will permit her to deal directly with her own economic problems."

VI. Implications for Border Region Analysis

The foregoing discussions suggest a number of working hypotheses that could prove useful in further research on border region economies.

First, both location theorists and growth pole theorists have tended to emphasize the fragile and threatened nature of border regions. This may correspond to reality in some instances, e.g., along the increasingly porous Iron Curtain, but within Western Europe the international political climate has changed to such an extent that it seems more reasonable to study border regions in the context of economic integration. (In a more modest way this also pertains to the situation with respect to the United States and Mexico.)

In Giersch's theory of location, centrally-located border regions would gain economically by international economic integration. The growth of the Rhine axis appears to support this position. However, the picture is more complex than Giersch's theory implies. A study by Robert [27, pp. 353-354] of the recent economic and demographic evolution of North-West Europe (Belgium, The Netherlands, France, the FRG, and Great Britain) indicates that the attractiveness of coastal areas has increased because of European dependence on energy and raw materials from other continents, the evolution of transportation technology and the increasing importance of sea transportation for exports of manufactured products and for imports of raw materials, and the construction of advanced facilities in port areas for transforming primary materials. Also, if enterprises outside an economic union locate plants within the union for fear of losing a market, this may give yet another advantage to peripheral maritime areas, e.g., Belgium and The Netherlands. The growth of border regions along the southern Rhine may be due not only to their central location within Western Europe, but also to the fact that they are linked by waterway to the North Sea. It may thus be hypothesized that economic integration will promote growth in centrally-located border regions but the extent of this growth will be conditioned by the degree of accessibility to rapidly-growing peripheral areas.

Location theorists were correct in maintaining that a political boundary causes numerous inefficiencies with respect to duplication of administrative services and of facilities for providing many central goods. However, as Christaller noted, a stable frontier can have advantages. For some goods and services a central place on a border has a hinterland corresponding to the market principle; and the border creates functions related to trade, storage and customs activities. It may be added that the increased factor mobility that accompanies greater economic integration creates enhanced employment opportunities for workers in a region such as Alsace (see also Burtenshaw [6]). It also contributes to the importance of the border as a functioning institution. A border is a line that unites as well as separates. Gordon [14, p. 490] finds that

"the United States-Mexican border came first and then came the population. The population was not already there in the border cities from Brownsville to Tijuana." In view of these considerations, it may be hypothesized that a stable border, together with relatively unimpeded international labor and capital mobility will, on balance, be more advantageous than disadvantageous to a border region.

Finally, the "problems" of border regions often are more political than economic in nature. This was clearly recognized by the German location theorists, who held that rational spatial allocation is thwarted by nationalist political actions. On the other hand, some growth pole theorists have in effect promoted nationalism by their unsubstantiated assertions that "domination" from one side of a border, viz. Basel and Baden, is a "threat" to the other side, viz. Alsace. Alsace is in fact one of the economically stronger French regions. It would be still stronger were it not for central government neglect and the failure to integrate the Alsatian economy more closely with that of other regions of the Rhine axis. Curiously, nationalism also has been invoked to argue that the economically weaker side of a frontier is a threat to the stronger side, because workers from the former depress wages in the latter when they seek employment there legally or illegally. In this view, the United States border with Mexico should be closed tightly. Briggs [5, p. 482], an advocate of this stance, maintains that "Nominally there may be a world community, but the welfare of most people is dependent upon the decisions of their own government. . . . Consequently, the study of political economy--as has always been the case--begins with existence of political borders." In other words, the worker on the stronger side should not be rewarded according to his efficiency but according to his ability to differentiate labor markets artificially. It is the workers in Baden and Basel who should raise the cry of an Alsatian threat if this position is valid. Such arguments shed little light on border region problems and opportunities because they do not suggest how the nature of these regions can be better understood. By contributing to the persistence of nationalist rhetoric they may in fact inhibit the improvement of economic well-being in border regions.

REFERENCES

1. Association de Développement et d'Industrialisation de la Région Alsace. Les investissements étrangers en Alsace, Strasbourg: ADIRA, 1974.
2. Berry, B. J. L. "Hierarchical Diffusion: The Basis of Developmental Filtering and Spread in a System of Growth Centers," in N. M. Hansen (Ed.), Growth Centers in Regional Economic Development, New York: The Free Press, 1972.
3. Boudeville, J. "Analyse économique des régions frontalières," Economies et sociétés, 5 (1971), pp. 773-790.
4. _____. "Polarisation and Urbanisation," Economie appliquée, 38 (1975), pp. 215-241.
5. Briggs, V. "Illegal Aliens: The Need for a More Restrictive Border Policy," Social Science Quarterly, 56 (1975), pp. 477-484.
6. Burtenshaw, D. Saar-Lorraine, London: Oxford University Press, 1976.

7. Christaller, W. Die zentralen Orte in Süddeutschland, Jena: Gustav Fischer, 1933. Translated by C. W. Baskin as Central Places in Southern Germany, Englewood Cliffs, New Jersey: Prentice-Hall, 1966.
8. Délégation à l'Aménagement du Territoire et à l'Action Régionale. Investissement étrangers et aménagement du territoire, Paris: DATAR, 1974.
9. _____. Scénarios européens, Paris: DATAR, 1974.
10. _____. Dynamique urbaine et projet régional, Paris: DATAR, 1975.
11. Gaudard, G. "Le problème des régions frontalières suisses," Economies et sociétés, 5 (1971), pp. 649-670.
12. Gendarme, R. "Les problèmes économiques des régions frontalières européennes," Revue économique, 21 (1970), pp. 889-917.
13. Giersch, H. "Economic Union Between Nations and the Location of Industries," Review of Economic Studies, 17 (1949-50), pp. 87-97.
14. Gordon, W. "A Case for a Less Restrictive Border Policy," Social Science Quarterly, 56 (1975), pp. 485-491.
15. Hansen, N. M. "An Evaluation of Growth Centre Theory and Practice," Environment and Planning, 7 (1975), pp. 821-832.
16. Institut National de la Statistique et des Etudes Economiques. "Statistiques et indicateurs des régions françaises," Les Collections de l'INSEE, série R, No. 19-20, November, 1975.
17. _____. Direction Régionale de Strasbourg, "Les travailleurs frontaliers alsaciens en Allemagne ou en Suisse," Chiffres pour l'Alsace, 3 (1976), pp. 1-53.
18. International Herald-Tribune, May 10, 1976.
19. Juillard, E. "Esquisse de régions multinationales sur le Rhin entre Mannheim et Bâle," Economies et sociétés, 5 (1971), pp. 593-602.
20. Kuklinski, A. R. (Ed.). Growth Poles and Growth Centres in Regional Planning, Paris and The Hague: Mouton, 1972.
21. Lösch, A. Die räumliche Ordnung der Wirtschaft, Jena: Gustav Fischer, 1940. Translated by W. H. Woglom with the assistance of W. F. Stolper as The Economics of Location, New Haven: Yale University Press, 1954.
22. Mangué, P. "L'Alsace," in G. Héraud (Ed.), Contre les Etats: les régions d'Europe, Paris and Nice: Presses d'Europe, 1973.
23. Moseley, M. J. Growth Centers in Spatial Planning, Oxford: Pergamon Press, 1974.
24. Nonn, H. L'Alsace, Paris: Librairie Larousse, 1973.
25. Pred, A. The Interurban Transmission of Growth in Advanced Economies: Empirical Findings versus Regional Planning Assumptions, Laxenburg, Austria: International Institute for Applied Systems Analysis, RR-76-4, March 1976.
26. Prud'homme, R. "Regional Policy in France, 1962-1972," in N. M. Hansen (Ed.), Public Policy and Regional Development, Cambridge, Mass.: Ballinger, 1974.
27. Robert, J. "Prospective Study on Physical Planning and the Environment in the Megalopolis in Formation in North-West Europe," Urban Ecology, 1 (1976), pp. 331-411.

28. Traband, A. "De l'influence du Rhin-frontière sur l'organisation régionale," Bulletin de la Faculté des Lettres de Strasbourg, 47 (1969), pp. 389-402.
29. Urban, S. "L'intégration économique européenne et l'évolution régionale de part et d'autre du Rhin (Alsace, Bade, Bâle)," Economies et sociétés, 5 (1971), pp. 603-635.

Copyright of Annals of Regional Science is the property of Springer Science & Business Media B.V. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.