# HOW CAN WE HALT THE DEMISE OF CANADA'S PERIPHERAL REGIONS?

POLICY OPTIONS POLITIQUES

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Over the past few decades, Canada's peripheral regions have suffered a significant decline, losing jobs and population because of a combination of factors including increased world competition and increased productivity in the resource-based sector. Despite hopes to the contrary, the knowledge-based economy and the Internet have not reversed this trend. Location remains a decisive factor for those activities, and proximity to a metropolitan area is still key to competitiveness for most economic activities. The regions, the authors argue, are presently in a period of disequilibrium, and to help them find a new equilibrium a fundamental shift in the policy approach will be necessary. Rather than clinging to the mirage of employment and population growth, policy should focus on managing the population decline in these regions and ensuring that the population that does remain has adequate access to public services.

Depuis quelques décennies déjà, les régions périphériques du Canada connaissent un déclin considérable, perdant emplois et population à cause notamment de l'intensification de la concurrence internationale et de l'amélioration de la productivité dans l'industrie primaire. Une tendance que n'ont pu renverser l'économie du savoir et l'Internet, malgré les espoirs qu'ils avaient suscités. La localisation est un facteur clés même dans ces secteurs d'activités et, d'une manière générale, la proximité d'une grande ville demeure un avantage compétitif déterminant pour la plupart des activités économiques. Les régions, soutiennent les auteurs, traversent une période de déséquilibre dont elles ne pourront sortir sans un changement fondamental dans la manière d'aborder le problème. Plutôt que de se cramponner au mirage d'une hausse de l'emploi et de la population, les autorités devraient centrer leurs efforts sur la gestion du déclin et le maintien de services publics de qualité aux citoyens qui continuent de vivre en région.

The results of the 2001 census highlight a trend that will come as no surprise to most Canadians, particularly those residing in communities located some distance from a major metropolitan centre. Populations in these "peripheral" regions, which had already stopped growing during the 1980s, are now, in most cases, in a state of accelerating decline.

This general statement can, of course, be modulated: each regional economy across Canada is different. Thus, population may well be growing in a wider radius around Toronto than around Quebec City. Some oil-rich peripheral areas in Alberta are temporarily bucking the trend. Certain small, remote cities may still be growing as their hinterlands decline — stepping stones to larger urban areas. But this trend, which we have analyzed in detail for the 1971 to 1996 period, is symptomatic of fundamental structural changes that are occurring in Canada's periphery, its metropolitan areas and, more generally, all similar economies in the developed world.

Indeed, the two paragraphs above could just as easily have been written about Sweden, Finland, Norway or Australia. They could also have been written about France, although in less clear-cut terms: cities there are closer together and population densities higher, so it is more difficult to clearly identify a "periphery."

Given these trends, the purpose of this article is twofold. First, we will attempt to explain the reasons behind this decline: in essence, we will argue that in the knowledge economy, belying predictions of its imminent "death," distance is in fact alive and well and proximity to a metropolitan area is becoming a key to competitiveness for most economic activities. Second, we will argue that a

fundamental shift is necessary in the policy approach to outlying regions: rather than clinging to the mirage of employment and population growth (or even stability), policy should focus on managing the population decline in these regions and ensuring that the population that does remain (for we do not expect these regions to close) has adequate access to public services.

*Periphery* is a relative term: a region can only be peripheral if it is remote from regions deemed central. In this paper — and in all of the analysis that underlies it — the periphery consists of all parts of Canada located beyond a one to one-and-a-half hours' drive from a major metropolitan area (MMA). By extension, a *central* area is an area located within easy access (at most a one-and-a-half hours' drive) of an MMA. An MMA is an urban agglomeration of over 500,000 people: this threshold corresponds with a natural break in the size distribution of Canadian urban areas, but to some extent slightly smaller isolated urban areas (such as Halifax) display the characteristics of larger urban areas.

We have not yet introduced the concept of *rurality*: rural areas (areas possessing no urban agglomerations of over 10,000 people) can be central or they can be peripheral. And while central rural areas were among the fastest growing regions in Canada between 1971 and 1996, peripheral rural areas have suffered the fastest decline: care should be taken in interpreting analyses of rural areas that do not distinguish between the centre and the periphery.

Given these definitions, why do we argue that trends apparent in Canada's peripheral regions are fundamental and structural, rather than temporary and amenable to policy intervention? The argument is based upon a wide array of different (but often connected) factors, of which five will be highlighted below: productivity and natural resource limits, the Internet and the knowledge economy, structural changes in the economy, globalization and social changes.

Canada's peripheral regions have traditionally been settled in order to gain access to resources. These resources are either renewable (such as wood, fish and agricultural produce) or nonrenewable (such as minerals, oil and coal). Until the 1970s (and over the hundred years before), the story of most peripheral regions was one of expansion: new mines, new fish banks and new forests were exploited; new land was made arable. Employment grew because, even as productivity per worker increased, the quantity of resources extracted grew.

The opening up of many remote regions to the Internet and the knowledge economy has been perceived as an opportunity for economic diversification. Surely, in an economy where knowledge is the key factor of production, and in a world where peripheral regions have easy access to this factor, then development opportunities will ensue. Unfortunately this reasoning does not stand up to scrutiny.

Since the 1970s two things have happened. First, productivity in most resource-based industries has continued to grow, and even accelerated. Thus, in order to maintain employment, it has been necessary to extract ever increasing amounts of resources. Second, it has not been possible to increase resource extraction at the same rate as labour productivity.

There are two reasons for this. The one that makes most headlines has to do with resource depletion, in other words, with resource supply conditions. Nonrenewable resources have been overexploited, particularly in forestry and fishing, and it has been necessary to limit — or even stop — resource extraction. In mining, as seams run out or as they can be mined with fewer and fewer jobs, so too does employment. The second, less publicized, reason is that demand is falling for many Canadian resources: this does not mean that there is no world demand, only that as new producers enter the globalized market Canadian resources are not always the most competitively priced or of the best quality. Finally, ecological concerns are affecting both supply and demand, most notably in the forestry and hydroelectric sectors: environmental standards and expanding natural reserves constrain supply, while the trend toward recycling negatively affects demand.

When these factors are put together — increased productivity, limits to resource extraction, increased world competition and a more parsimonious use of resources — employment decline in most of Canada's resource industries is inevitable, even if production is maintained or somewhat increased. Since most jobs in this sector are in peripheral regions, this becomes an important structural factor explaining their decline.

Given the trends in resource industries, the opening up of many remote regions to the Internet and the knowledge economy has been perceived as an opportunity for economic diversification. Surely, in an economy where knowledge is the key factor of production, and in a world where peripheral regions have easy access to this factor, then development opportunities will ensue.

Unfortunately this reasoning does not stand up to scrutiny, notwithstanding the numerous examples of individual entrepreneurs who have been able to identify and seize opportunities from a peripheral location. Indeed, the nature of knowledge and the Internet is such that, in the aggregate, neither provides much benefit to peripheral economies.

It has increasingly been recognized that knowledge is not a simple factor of production. In particular, it can be divided into two broad categories: codified

knowledge (knowledge that can be written down, put in manuals or books) and noncodified, or tacit, knowledge (the kind that is exchanged during meetings, site visits, apprenticeships, etc.). The Internet is an excellent vector for disseminating codified knowledge: for example, it is an excellent way for a widget maker in a peripheral region to find out who in North America is the key researcher who can help him/her solve a particular production problem. But it is no good at disseminating noncodified information: in order for our widget producer to gain the researcher's confidence and to fully explain the nature of the problem in widget production, a face-to-face meeting is necessary.

In or near a metropolitan area, our widget producer would have two advantages. First, it is likely that *within* the metropolitan area he/she will have access to a good researcher in the field of widget production. So, within an hour's drive or so, he/she can have face-to-face access. If the researcher is located in another metropolitan area, then the widget producer will have access to a large airport with frequent (and cheap) flights to other metropolitan destinations: again, face-to-face access, even with a distant researcher, will be easier and cheaper from a metropolitan location.

Finally, once the widget producer has solved the widget production problems, the widgets will need to be exported: here, too, physical transport is *not* made any easier by the Internet. It will still be necessary to gain physical access to markets: the time and cost involved in transporting goods from peripheral regions (and therefore along low-volume transport routes) is another distance-related cost that the Internet has no effect upon.

Thus, in all likelihood, a widget producer in a metropolitan location will have distinct competitive advantages over a widget producer in a peripheral area. Furthermore, the centrally located widget producer can — via the Internet — market his/her product in the peripheral region itself, and undermine the local producer's market. The final blow dealt by the Internet to peripheral regions is the opening up of these smaller markets to the more competitive, centrally located producers.

The major fallacy in the "death of distance" argument is the confusion between ubiquitous access to codified information (which is, indeed, enabled by the Internet) and ubiquitous access to noncodified information, to other people and to markets for physical goods (none of which are enabled by the Internet). Although there is no reason to believe that some imaginative entrepreneurs in niche markets will not thrive in peripheral areas (and, of course, they will use the Internet to access clients, codified information, and so on), neither is there any reason to believe that, in the aggregate, the Internet and the knowledge economy will provide sufficient opportunities to reverse the current, downward population and employment trends.

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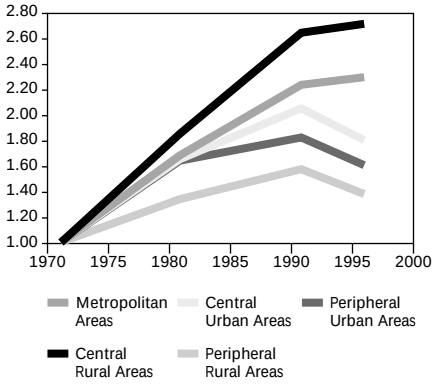
It is a well documented fact that, throughout the twentieth century, there has been a shift in employment away from the primary (resource-based) sectors toward the secondary (manufacturing) and tertiary (service) sectors. In a context of overall employment growth this has *not* necessarily meant a decline in any of these sectors, but rather faster growth in jobs in the secondary and tertiary sectors. Since the early 1980s, in most of the developed world, the shift away from the primary sector has continued, but it has been augmented by a shift away from the secondary sector. In other words, the fastest growing sector of the economy (and, indeed, the *only* broad sector to be growing) is the service sector.

These structural changes are in keeping with the wider (and often ill-defined) perception that we are entering a "knowledge economy." From the perspective of peripheral regions these changes are important, not because they affect employment already located there, but because they have a major effect on where the *new* jobs in the *new* economy are locating and growing.

Some eighty years ago the German geographer Walter Christaller put forward a theory that explained the location of employment in service sectors. The lowest-order service industries (such as food retailing and hairdressing) are spread out across the territory and reproduce the location patterns of population. The higher-order service industries (such as management consulting, financial analysis, computer services and multimedia entertainment) will tend to locate at points of maximum accessibility, of which there will only be a few within any given economic system. Since the clientele for these services will only require them infrequently and will be prepared to travel far to access them, they do not need to be present across the whole of the territory. These knowledge- intensive, high-order services will locate in or near metropolitan areas.

It is these high-order service industries that are driving growth in the knowledge economy: notwithstanding

EMPLOYMENT GROWTH IN ENTERTAINMENT AND MULTI-MEDIA CONTENT PROVIDERS




Source: Calculations by authors from 1971-1981-1991-1996 census.

the bursting of the high-tech bubble (which principally affected Internet-based establishments and manufacturers of certain types of hardware, such as Nortel), the fastest growing industries today are those linked to high-order business advice (financial, accounting, legal, management and computing) and to entertainment (film production and distribution, music and television programs, etc.). These industries tend to locate in large metropolitan areas. Furthermore, as they grow, they and their employees require a series of lower-order services (retailers, hairdressers, photocopiers, cleaners, etc.). At the same time, as employment declines in peripheral areas, the demand for lower-order services also declines there.

In other words, the traditional and well-documented location preferences of service industries are such that broad structural shifts in the economy are benefiting large metropolitan areas. These metropolitan areas are not taking jobs away from peripheral areas: rather, they are continuing to perform the function they have performed for a long time. This function is one of central place, market access, and rapid exchange of codified and noncodified information. Since this function is required by the fastest growing sectors of the new economy, most of the new economic activity is concentrating in the areas in and around metropolitan regions.

The Gazette, Montreal

**The Quebec government, Noranda and the city of Murdochville have just reached an agreement to create an industrial park in this small Gaspésie town, which was hard-hit by the closure of its smelting plant, the principal employer, in spring 2002.**

As we mentioned in the introduction, the factors that explain the decline of peripheral regions — although distinct — are also related. In each of the previous three sections we have alluded to access to markets, particularly international markets.

In practice, globalization means that suppliers and clients of almost any primary producer, manufacturer or high-order service provider are increasingly dispersed: across the nation, but also across North America and the world.

This means that metropolitan areas, which Christaller identified as points of high-accessibility for high-order services, are also becoming key locations for producers in other sectors. An example can be given to illustrate the growing importance of central location in the context of globalization.

To manufacture doors, wood is required. Surely door manufacturers would benefit from locating in Canada's periphery, close to forests. This is not the case, for a variety of reasons. To begin with, doors often require a variety of inputs, for instance softwood filling, hardwood exterior, plus, increasingly, a range of nonwood material (plastics, synthetics, etc). The softwood is available in Canada's peripheral regions. But the hardwood may have to be imported from the USA or further afield, while most of the fabricated inputs will be produced in or near metropolitan areas. A metropolitan area, where it is easy to access Canadian softwood *and* foreign hardwood, is a better location than a peripheral region, where one input can be found but not the others.

Let us assume that a door manufacturer requires only one input, softwood. It is not at all clear that location close to a source of softwood is beneficial. In such a location, the manufacturer is dependent on continued local supply of the required grade of softwood. This is far from assured in any particular location: in a central area, even if shipping costs add slightly to the price, the manufacturer can diversify his/her sources of supply, ensuring continuous supply (and, incidentally, avoiding any local monopoly).

Let us further assume that a door manufacturer requires only one input, and has chosen to locate in a peripheral area. The local market for doors is small (and is getting smaller, if our analysis is correct). New building (and refurbishment) is occurring in and

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around metropolitan areas. To have access to clients, to discuss specifications and to have a feel for the door market, presence in or around a large metropolitan market is an advantage. Furthermore, a large local market may enable the manufacturer to grow fast without, at first, needing to deal with exports. The metropolitan manufacturer will be able to enter wider international markets after having achieved certain economies of scale within his/her local market. Our single-input, peripherally located door manufacturer is at a distinct disadvantage, far from suppliers (except the one or two local ones), clients and wider markets.

While the advantages of metropolitan location for high-order services are clear, one solution has been put forward to arrest the decline of peripheral areas — diversification toward second- or third-stage *transformation* of resources. However, diversification is not happening. Our results show that across Canada the relative specialization of peripheral regions remained virtually unchanged between 1971 and 1996. The most favoured locations for the transformation of raw materials into end-products are, and for the last 25 years have been, central ones.

As regional economists, we are not best qualified to delve too deeply into the social changes that often (but not always) fuel the negative trends in most peripheral areas. We will therefore point to a few of them, but leave their detailed analysis to others.

In 1971, the workforce in peripheral areas was substantially less feminized than in central urban areas. Thus, despite population loss from the 1980s onwards, employment continued to grow in the periphery as a greater proportion of women entered the workforce. Feminization had a far lower impact in metropolitan and central areas, since by 1980 the participation of women had come close to that of men and only changed marginally over the ensuing decades. By the 1990s female participation was similar in central and peripheral areas; thus, employment trends in peripheral regions have become more comparable with those in central areas and reflect more closely population trends. These changes have not fuelled the negative trends in peripheral areas; rather, they have served to mask the underlying employment trend. Now that female participation in peripheral areas has reached the national level, the structural economic trends described above are more evident.

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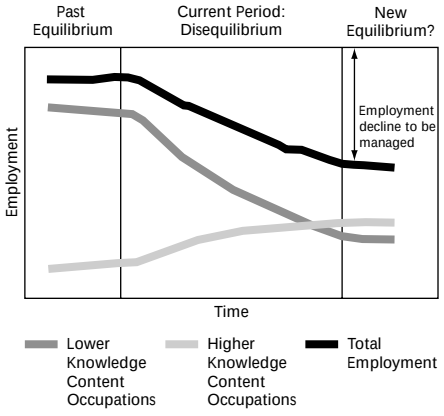
At the beginning of our period of study, birth rates in many peripheral regions were substantially higher than those in central urban areas. By 1996, they had nearly equalized (at low levels) across central and peripheral, urban and rural areas. Peripheral regions have for a long time been regions of out-migration, particularly in Eastern Canada, but this out-migration was compensated for by high natural growth. Even if out-migration trends had not changed over the decades, the declining birth rate over the last thirty years means that the population in peripheral areas would now be declining.

The increasingly short-term nature of employer/employee relationships is also affecting peripheral regions. As short-term contracts become the norm in a flexible economy, it becomes riskier for an employee to take up employment in a region with few alternative opportunities. Since an employee can expect to change jobs often, moving to a larger city with a greater variety of employers makes sense. This reasoning also applies to employers: market conditions and new ways organizing production (just-in-time, increased subcontracting) require the hiring and firing of employees. Location close to a large pool of labour — qualified and less-qualified — enables such flexibility.

Finally, another social change that is affecting peripheral areas is the fast growth of the Aboriginal population. This can be a very positive trend — one that may confound some of the negative trends outlined above — but the barriers to growth will persist and still need to be acknowledged if viable economic activity is to take place in these regions.

THE COMPONENTS OF EMPLOYMENT TREND IN PERIPHERAL REGIONS




Source: Polèse and Shearmur, 2002.

We have painted a very black picture of peripheral regions and their prospects. However, this does not mean that they are destined to die. Rather, an unstable equilibrium based upon expansion and growth (which lasted until the late 1970s) has been perturbed: it is no longer possible to expand resource extraction and the employment linked to it. Peripheral regions are today in disequilibrium, and they are adjusting by losing employment and population.

But we are confident that a new equilibrium will be found, even if this does not mean that all individual communities will survive in their current

forms. This new equilibrium will be based on the continued exploitation of Canada's natural resources and on the many small niche entrepreneurial markets that *can* be exploited in peripheral areas. The exploitation of natural resources requires fewer, more highly capitalized and knowledge intensive jobs. Even if the ratio of "old" to "new" resource jobs is, say, 5 to 1, there will still be a significant number of highly paid jobs in outlying regions.

We have argued that for most types of products (goods and services) central locations are more competitive; however, the manufacture of organic farm products, the exploitation of niche tourist markets and the development of new fishing or peat-based technologies all benefit from location in the periphery, close to pesticide-free land, close to the sea, or close to peat-extractors. Again, we do not think that these — and other — niche markets or technologies will create sufficient jobs to replace all those currently being lost as the periphery goes through the painful shift from one equilibrium to another. But high-paying, knowledge-intensive jobs *will* be created in outlying regions.

And some formerly peripheral regions — such as many parts of Atlantic Canada — now find themselves relatively well located, not because they have moved, but because free trade has shifted their markets from distant Montreal and Toronto to closer New England.

Thus, the outlook is not uniformly bleak, but neither are the trends we have described about to be reversed. At best there will come a time — not yet, in our opinion — when a new equilibrium will be found and the economies of peripheral regions will be very different from what they are now, but stable once again.

The principal policy implication of our work is to stop focusing solely on employment growth objectives for peripheral regions. These regions, with perhaps some minor exceptions, are not about to start growing again, and any promise or policy objective to the effect that they are will only lead to disappointment.

We understand that it is difficult to win votes with such realism. We also venture to suggest that it is difficult to win votes by claiming that the trends described above can easily be reversed: most people in peripheral regions are well aware of the trends and of their structural nature. We have not really discovered anything new, we have simply specifically identified peripheral regions as units of analysis, documented and synthesized information found there, in the literature and in Statistics Canada data.

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If the trends are recognized, and if the discussion can progress beyond attempts to pretend that easy fixes can be found, then a more meaningful dialogue can take place. This dialogue ought to be about ways of managing the current and coming population decline and how a new equilibrium can be reached — sooner rather than later.

Policies will be needed to ensure successful structural change in the periphery: niche entrepreneurs with viable projects, even if the jobs created are not going to reverse the trends, are key to ensuring the future of these regions. The resource extraction industry is changing and the nature of jobs is changing: productivity is increasing and industrial consolidation is doing away with many of the more traditional jobs. These processes can be helped or hindered by policy, but the first step is to recognize the nature of these processes.

Wider policies should also be considered: in a context where access to health care is a matter of intense debate in Canada, innovative ways of ensuring access for increasingly low-density populations should be considered. This may involve encouraging the development of population service centres, the delivery of certain services by Internet or an increased recourse to mobile medical care. Access to other public services such as education should also be reconsidered.

Finally, despite the importance of metropolitan areas, peripheral areas cannot be ignored: in 1996 about 20 percent of Canada's population lived in these areas. This percentage may be declining, but it will remain significant. As someone is reputed to have once said: Canada is a land with too much geography; this may be even more true in the future, and nowhere will the weight of geography be felt more than in Canada's peripheral regions. This raises the eternal question: what weight should we attach to regional/territorial policy objectives as opposed to sectoral, individual, enterprise-oriented or national objectives?

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