

We are ceaselessly reminded that business is now called on to operate in a global environment that is more competitive than it has ever been. If we are to rise to this challenge, we must understand Quebec's position, the form of the competition to which it is exposed, and what our available responses are—particularly in matters of innovation and research.

The situation in Québec

Quebec's manufacturing sector is undergoing a wrenching restructuring. The numbers speak for themselves. The textile and clothing sector is in freefall, shrinking by half between 2003 and 2007. Conversely, the sector of metals processing is expanding rapidly. Transportation equipment is also on an upswing, primarily thanks to exports of aeronautics.

Risk analysis provides an appropriate framework for understanding these changes to the economic environment as well as the threat of foreign competition. Clearly, the primary threats to Quebec are essentially economic in nature. Quebec is in danger of being marginalized in this area. Our economy, which is small and growing slowly, is highly consumption oriented. We are very dependent on a small number of commercial partners. On the other hand, there is a low level of social risk in Quebec. We benefit from highly developed social capital and must capitalize on this comparative advantage when attempting to attract research and development activities to our territory. Quebec also performs well in the area of environmental risk. One indicator that is frequently evoked is the level of greenhouse gas emissions. We observe that Quebec compares very well to its immediate neighbours, notably owing to its hydroelectricity generating capacity.

Economic risks

Competition is associated with risks of an economic nature. In light of this, it is of great interest to analyse competition from China. That country's share of exports in the global total is skyrocketing and its growth must be scrutinized carefully. If, at first blush, we are inclined to believe that China is now firmly entrenched in hi-tech sectors, a more thorough analysis of its import ledger debunks this apparent qualitative improvement. In fact, China is first and foremost a preferred site for assembly. Inputs from developed countries are imported into China to be assembled on behalf of firms that are, for the most part, based in developed countries.

Foreign competition is also felt in services. India, for instance, has become an important supplier of services, especially computer related. The offshoring of services adds a new element. In fact, this is the first time that service activities have been so directly and strongly subject to foreign competition. This offshoring can be beneficial, making Canadian firms more competitive by reducing their costs, but it can also pose a threat. If those of our firms that cater to international clients transfer a substantial share of their activities to emerging

countries, we all lose. Activities that can profitably be retained in Quebec must be identified and promoted.

The response: innovation, research and development

Expenditures on research and development contribute to economic growth. The vast output of public sector research and development in Canada should yield elements that are very attractive to the private sector. These constitute a key "natural resource" for the Canadian economy.

Quebec's situation appears unique. Though it receives a substantial share of research funding (over 30%), it only represents 17% of firms spun off from universities in Canada. This lag in the commercialization of research results is a concern. Research and development conducted in the university sector is important. Firms must make choices to maximize their investments in research and development and draw on the work performed in public institutions. Quebec cannot afford the luxury of investing in research and development if it fails to capitalize on these investments.

Coordination and vision

If we are to promote the expansion of Quebec's economy, it is essential that we have a thorough understanding of the issues. The decisions to be made, in the case of business as well as government, must be articulated around a long-term vision.

Governments are responsible for creating an environment within which economic risks can be better controlled. Henceforth, governments must create a framework that is conducive to long-term development and curbs Quebec's decline in competitiveness. This framework must support business, especially in the areas of research and development programs and incentives to adopt behaviour that is environmentally benign. Efficient taxation must be an integral part of this framework.

It is important to have a thorough understanding of the skills emerging markets will require. We must also play to our comparative advantage. Unlike a majority of organizations in emerging countries, organizations in the West operate in stable environments with strong healthcare systems, highly developed and standardized education systems, and predictable courts. These latter are particularly adept at protecting intellectual property rights. It will now be essential for us to identify the sectors in which these elements bestow an advantage. We must benefit from this development to invest in knowledge-intensive sectors. We must also innovate ceaselessly and ensure that scientific developments originating in our universities find their way onto the market.

Note: These issues are addressed exhaustively in the monograph titled *Le Québec à l'heure de la mondialisation* published by CIRANO this week. The monograph can be ordered at http://www.cirano.qc.ca/publications_detail.php?lang=fr&id=2008MO-01