

capital and human resources. The Industry and Labour Adjustment Program and the Canadian Industrial Renewal Board are two major recent initiatives designed to help Canadians to adjust to industrial renewal in the 1980s.

The capacity of domestic producers in different regions to compete at home and abroad is significantly influenced by the extent to which innovative technology is applied. *Industrial innovation*, i.e., the process of commercial application of fundamental R&D, new materials, production processes, products and systems, is fundamental to improved productivity, efficiency and international competitiveness. Various studies have demonstrated that companies that spend relatively large amounts on R&D (and the application of R&D) have significantly higher growth rates, greater improvements in productivity, export more, and have a better record in controlling inflation and in creating employment. While innovation is most often thought of in terms of advanced technology (e.g., aerospace and electronics), innovation in fact permeates both advanced- and standard-technology industrial activities. Innovation in production process through numeric control, robotics and other elements of computer-aided design and computer-aided manufacturing (CAD/CAM) will thus be vital across a wide range of Canadian industrial activities.

To date, Canada's innovation performance and the industry's response to the technological challenges have not made the best use of Canada's human, capital and natural resources. The end of a recession may not seem a propitious time to consider industrial renewal and innovation. Yet it is in fact the best time. It is in the earliest stages of recovery that greatest progress can be made. Canadian firms, with some notable exceptions, have tended to be technological followers with limited indigenous R&D capabilities, relying on foreign sources for new technology. Over the longer term, strengthening the manufacturing sectors' performance will require more indigenous R&D, greater use of the most advanced technology available, and more aggressive commercial application of R&D by the private sector. Furthermore, it will be essential to ensure that the necessary investments are forthcoming to keep Canada at the forefront of product and production technology. Finally, it may require more government support and incentives for R&D performed and applied by the private sector.

The nature and magnitude of the challenges posed by industrial adjustment and innovation will require the pursuit of mutually supportive domestic and international policies. Exports need to become an increasingly significant dimension in corporate decisions in order to achieve economies of scale, etc., stimulated by a large market. Liberal and secure access to foreign markets will be more important than ever for the attainment of industrial development objectives, particularly if firms are to make the necessary and substantial investments in products and production processes in areas of Canadian comparative advantage. Similarly, imports of technology, either through industrial purchases, licensing arrangements, or in the form of capital equipment not competitively available in Canada, will continue to foster industrial innovation and increase the productivity of Canadian industry.

Conclusions:

- The pursuit of Canada's trade objectives will require a full appreciation of domestic and international concerns and of the interrelationship of domestic